

Reading Literary Texts in Hypermedial Applications.  
A Semiotic-Hermeneutic Approach  
to New Media for Literary Studies.

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Submitted to the  
Faculty of Communication Sciences  
University of Lugano

for the degree of  
Ph.D. in Communication Sciences

July 2003



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## **Abstract**

Ranging between humanities and technological studies, this dissertation aims at clarifying what happens when literary texts we are used to read in a printed form are transposed in a hypertextual form, namely which are the effects of this transposition on the act of reading the literary text.

### *Methodological approach*

The work is based on an interdisciplinary approach, comprising a semiotic-hermeneutic perspective and a technological one (particularly, referring to W2000 methodology). The leading research questions are “how does the reader interpret the signs composing them?” and “which contribution and which difficulties these new signs bring with as to the literary text’s comprehension?”

These issues are investigated by analyzing seventeen hypertextual transpositions, devoted to different classical literary texts (cf. the first part of the work), and by describing their two peculiar features, namely the logic of representation (in the second part) and the second order representation (in the third part).

All along the work, hypertextual transpositions have also been compared to printed annotated and/or illustrated editions, which (being the artefact in which we are accustomed to read literary texts) were considered to be their ancestors.

### *Object of study*

Hypertextual transpositions consist of the electronic version of the literary text and of a series of added materials (namely, other texts, images, video clips and audio files) that aim at casting light upon the literary text’s significance and at enriching the reading experience.

Their most interesting aspect consists in the fact that they imply the transposition in a new medium (which essentially is hypertext) of a text that was originally conceived for a different medium.

The typical hypertextual features (multilinearity and the usual absence of a preferential canonical reading order) can have an impact on the act of reading the literary text. Moreover, from the logic of representation and from the presence of a second order representation derive new conditions for the success of the act of reading the literary text.

### *The logic of representation*

“Logic of representation” describes the fact that in hypertextual transpositions the literary text’s significance is highlighted for a great part through visual representations. A remarkable amount of images is used in order to clarify different aspects of the literary

text, such as characters, places and elements of the historical context in which the literary text has been produced.

In other words, in this kind of artefacts the deictic modality of *monstrare ad oculos* (the “understanding by seeing” maxim) is used in order to bring the user to the knowledge of meaning through the knowledge of *denotata* (by letting her/him see the object s/he has to know in order to understand a given word or passage of the literary text), thus providing her/him with a more experiential knowledge and comprehension of the literary text.

However, because of the features of images as signs (mainly, high semantic richness and openness to different perceptive possibilities) and owing to the role played in the process of images’ interpretation by other factors (such as the reader’s prior knowledge and the information provided by the captions of the images), the comprehension of the function of the images in respect to the literary text is not always immediate. Occurrences of secondary meanings can go beyond the meaning of the passage of the literary text the image aims at clarifying and/or induce the reader to stop at the literal level of the literary text’s significance. Therefore, misunderstandings can arise between author/designer and reader as to the function of the image in respect to the literary text’s significance.

This is the first effect of the transposition of the literary text in hypermedial form. As a consequence, the avoidance of such misunderstandings constitutes the first essential condition for the success of the act of reading the literary text in hypertextual transpositions.

#### *The second order representation*

The second effect of the transposition of the literary text in hypermedial form is the prominence acquired by what we called second order representation.

Such an effect arises from the fact that the hypertextual transposition artefact comprises contents, devices and tools that are signs in respect to a given reading strategy. Hypertextual transpositions contain reading strategies representations, which are superposed to the first order representation of the literary text, thus creating a second order representation.

Because of multilinearity and because of the absence of a canonical reading order that generally characterize hypertexts, in hypertextual transpositions the second order representation plays a major role in respect to what happens in printed editions. It introduces a new condition for the success of the act of reading, which consists in the fact that the represented reading strategies have to be adequate in respect to the user’s goal and task.

The goal of the user is the comprehension of the literary text’s significance. Such a comprehension is reached in different ways, owing to the major task s/he has (or wants) to accomplish. Three different user’s task are possible: reading the literary text, studying the literary text or conducting some specific research on the literary text.

For each hypertextual transposition it is possible to identify the major intended user's task. Accordingly, it is possible to judge the adequacy of its second order representation, starting from the principle that a reading strategy representation is adequate when it allows the reader to reach the goal by accomplishing the major task.

Such a conclusion is drawn in the third part of this work on the basis of a classification of the elements that constitute the second order representations of the seventeen analyzed hypertextual transpositions according to the reading strategy they represent. This lead to individuate a picture of an ideally complete representation of reading strategies in hypertextual transpositions and to design patterns for assuring the possibility to perform those reading strategies. It also enhanced a model of the act of reading a literary text in hypertextual transpositions, that highlights the adequacy of the represented reading strategies.

The last chapter is devoted to the issue of hyperlinks interpretation, which constitutes a key-point of the second order representation and of its adequacy. The possibility to adequately perform a reading strategy strictly depends on the transparency of the semantic of hyperlinks and on the regularity the reader can observe in the hyperlinks made available by the author/designer. The description of the characteristics of hyperlinks as signs and of their process of interpretation revealed that the semiotic complexity of hyperlinks has to be taken into consideration for the implementation in the hypertextual transposition of the essential conditions for the success of the act of reading the literary text.



*I dedicate this work  
to my parents Carmen and Giacomo,  
to my husband Daniele,  
and to Davide or Vera,  
... whom we all are waiting for!*

### *Acknowledgments*

I am grateful to all the institutions that have supported me financially during these years. Here, I wish to thank the Fondazione Daccò, and particularly Ms Cele Daccò, for granting me the fellowship for studying during the last year, and the Division I of the Swiss National Science Foundation, for granting me a precious fellowship for prospective researcher. I also thank the Università della Svizzera italiana (USI). I am grateful to Dir. Albino Zraggen, my bygone high school teacher, who first introduced me to the USI Ph.D. study program and thus enabled me to begin this fascinating adventure. I wish also to thank the University of Toronto School of Continuing Studies (particularly Dr. Mary Cone Barrie, Director, Dr. Bruce Meyer, my supervisor in Toronto, and Eddy and Elise) for hosting me as visiting researcher, thus providing me an important opportunity to benefit from their knowledge and experience.

I express my gratitude to my supervisor, prof. Peter Schulz. I heartily thank him for all the work he did with me, for all the hours he dedicated to this research, for his constant guidance, for teaching me passion, perseverance and intellectual honesty in pursuing the discovery of reality.

I would also like to thank all the professors of the School of Communication Sciences, who provided me precious advice and suggestions all along my work and who made me discover new fascinating fields of knowledge. Particularly, I would like to heartily thank prof. Eddo Rigotti, prof. Paolo Paolini, prof. Lorenzo Cantoni and prof. Marco Colombetti. From each of them I could learn and become aware of the fascination and richness of human communication. Similarly, I would like to thank prof. Michael Groden of the University of Western Ontario and prof. Ian Lancashire of the University of Toronto, with whom I could discuss important aspects of my research topic during my stay in Toronto.

I am grateful to all the assistants and researchers of the Istituto linguistico-semiotico, of the Health Care Communication Laboratory and of the USI TECLab for their friendship, for sharing with me their knowledge and, moreover, the piles of work the assistance activity entails!

Thanks to all the Ph.D. students of the School of Communication Sciences, particularly to the Ph.D. students of the doctoral school “NEWMinE: New Media in Education”, with whom I shared important parts of my Ph.D. study program.

Thanks also to all the USI collaborators, to the secretaries, to the persons in charge of computer system and to the librarians.

I am grateful to my parents Carmen and Giacomo, to my brother Luca and to my sister Daniela, to all my family and to all my friends for their encouragement, patience and invaluable affection.

Finally, I heartily express my gratitude to my husband Daniele, who every day shared with me the fascination of this research, but also the moments of anxiety and stress this period involved. His comprehension, love and support provided me constant help, relief and precious companionship. A big thanks to Davide or Vera, who made this last months of work full of joy and expectation ...

Needless to say that none of my advicers and friends are to be held responsible for faults that remain.

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## 0 Introduction

### 0.1 The problem of hypertext and reading

#### 0.1.1 Hypertext and literature

At the beginning of the spreading out of hypertext (even before the spreading out of the Web) several professors and scholars underlined the advantage of the application of this new technology and textual form to the study of literature. Since then different kinds of hypertextual applications for literature can be found both on-line and off-line: archives, hyperfiction, presentations of authors, presentations of themes, presentation of literary works. As a matter of facts, these different kinds of use of hypertext are often mixed in concrete applications.<sup>1</sup> However, it is necessary to distinguish them, since each one of them has a peculiar goal and therefore it presents essential differences from the point of view of the structure and of the use.

Hyperfiction constitutes the most innovative use of the hypertextual technology in the field of literature (all the traits that we will describe later on as peculiar to hypertext appear in hyperfiction in the most evident way), but also the less widespread. It consists of a new form of literary creation. It can be considered a form of avant-garde literature. At least for the moment, its production and consumption has remained confined to a small community, which has been growing around the first professors and scholars who got interested in the innovations of hypertext.<sup>2</sup> The aim of these hypertexts is clearly artistic and experimental. Their users are supposed to go through a new experience of the pleasure of literary reading.

Archives and presentations of literary works partially have the same goal. In fact, on the opposite of what happens in hyperfiction (where a new text is created directly in hypertextual form), they present already existing texts in a new form. However, their aims are also partially different. In fact, the aim of archives is to make texts more widely accessible, while the aim of presentations of literary works is to sustain the understanding of the fundamental object of the application, that is, the literary text itself. Archives use hypertext only as structural or organizational device, while presentations of

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<sup>1</sup> Literary applications have very often a mixed nature. They can be, for instance, presentations of a given literary work, but also archives or presentations of the author and her/his whole work. It is for instance the case of the site ILTweb Digital Dante (<http://dante.ilt.columbia.edu/>). This mixed nature is both a value and a shortcoming. It is a value because many different materials are easily accessible to the user. It is a shortcoming because it weakens the aim of the site and imposes upon it a more generic structure (which is the result of the need to reconcile different user's interests).

<sup>2</sup> Their works are usually published or announced on the Eastgate site ([www.eastgate.com](http://www.eastgate.com)).

literary texts use the hypertextual form as a possibility to create semantic connections relevant for the knowledge of the literary text. The same do presentations of authors and presentations of themes.

Even at first glance, the creation of archives of texts appears to be a big advantage for the study of literary texts. But immediately it has been clear that the advantage of hypertext was the possibility to bring together many different kinds of information and materials. Therefore, besides the literary text, other materials are made available in the application. They can be other texts, images, videos, audio files. This constitutes a common trait among presentations of authors, of themes and of literary works. However, these three different kinds of use of hypertext in the field of literature are strongly differentiated by their object. Since they deal with different objects, each one of them has a precise function and therefore its study requires a different approach. In presentations of authors and themes the focus is set on the acquisition of declarative knowledge on a given topic, while presentations of literary texts entail the experience of reading a literary text. It is precisely upon this last kind of use of hypertext for literature (which we will call hypertextual transpositions) that we will focus in the present work.

### **0.1.2 The claimed appearance of a new way of reading**

At the beginning the use of hypertext in the field of literary studies was accompanied by a vivid enthusiasm. The fundamental reason of this enthusiasm was the belief that a technology had finally appeared that was able to allow the realization of the poststructuralist principles and the principles of deconstruction.<sup>3</sup> This was particularly evident in hyperfiction, but it was also related to new possibilities for literature teaching and learning and, thus, to the uses of hypertext for the educational presentations of different topics and subjects for literary studies (authors, themes, literary works). Different claims were made starting from the idea of this convergence between hypertext and post-structuralism and deconstruction, ranging from the claim that hypertext has an associative nature that reflects the way in which human mind works better than printed texts, to the claim that hypertext provided new possibilities for literature teaching and learning, bringing students to become more active (for instance, by allowing them to contribute to the creation of the hypertext itself by adding new connections to the ones established by the hypertext's author or by learning from the reasoning that led the teacher or the expert to create given connections) (cf. particularly Landow 1997).

Such claims have been argued against by scholars starting from different perspectives. Some theorists (cf., for instance, Andrew Dillon 1996: 27-29 and Miall

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<sup>3</sup> The first works on hypertext and literature make constant reference to theorists such as Roland Barthes, Jacques Derrida and Michel Foucault. Cf. Bolter 1991, 2001; Joyce 1995; Landow 1997.

1998b) pointed out the unsound character of these claims, arguing that the assumption of hypertext theories, according to which the new medium reproduces better than printed text the associative nature of human thought, is a misleading myth. Jonathan Smith – professor of English at the University of Michigan-Dearborn, who in 1996 used Landow’s *The Dickens Web* in undergraduate Victorian literature classes (Smith, [http://www.uoc.edu/in3/hermeneia/sala\\_de\\_lectura/j\\_smith\\_victorian\\_literature.htm](http://www.uoc.edu/in3/hermeneia/sala_de_lectura/j_smith_victorian_literature.htm), Smith 1996)<sup>4</sup> – observed some important limitations the use of hypertext has in teaching literature, particularly as to the pretended easiness with which students can learn a more mature way of reasoning from the available connections.

The central one of these claims had to do with the nature of the reading experience. The literary text calls for reading and, therefore, reading is at the core of literature and literary studies. In the enthusiasm for the innovation introduced by hypertext, it was claimed that this new textual form would bring a new way of reading that, in the case of hyperfiction, was called “hyperreading”. This new way of reading should derive from the particular features of the hypertextual form, especially from non-linearity. Non-linearity (or multilinearity as it has subsequently been defined) was seen as the main hypertext’s feature, the feature capable of breaking the unity, the stability and the canonical order of the literary text, thus allowing the reader to choose her/his own reading path through the text (Bolter 1991, Delany & Landow 1994, Joyce, 1995, Landow 1997,). In fact, even if reading cannot be but linear – the reading of a word after the other inevitably creates a linear sequence -, hypertext is, at least at the potential level, multilinear, since several different possible reading paths are made available (cf. Cantoni & Paolini 2001; Liestøl 1994; Miall 1998b; Rosenberg M. 1994).

This is made possible by the fact that hypertext essentially consists of blocks of texts – which were compared to the *lexias* described by Roland Barthes in *S/Z* (Landow 1997: 3) and which in the field of hypermedia design are called nodes (cf. already Conklin 1987) – among which different electronic connections (namely, hyperlinks) are provided. The physical fragmentation of the text in nodes and the multiple connections among the fragments make that there is no unique reading path. The reader can browse the different nodes in different orders and it is up to her/him to choose and create (during the act of reading) this order. This would establish a new relationship between reader and author. The reader is finally freed from a pre-established order and, as a consequence (since this pre-established reading order is the most evident sign of the presence of an authority), the author “dies”.<sup>5</sup> When reading hypertext, the reader has to be more active and to choose her/his own path and reading order.

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<sup>4</sup> Since the middle of the ‘80s Landow has been developing a series of hypermedia applications devoted to literary topics and he used them in his undergraduate courses (cf., for instance, those available at <<http://www.landow.com/>>).

<sup>5</sup> The problem of authorship is central to the recent theoretical approaches to literature, to which hypertext studies referred (namely, post-structuralism and deconstruction). The concept of authority

The pretended appearance of hyperreading has been argued against by scholars who, comparing hyperfiction to examples of printed novels or short stories, noticed that some characteristics that were claimed to be peculiar to hyperfiction were, as a matter of facts, present also in printed literary works (cf. Douglas 1992, 1994, 2000) and that structures that are characteristic of printed narrative texts are also present in hyperfictions (cf. Calvi 1999).

### 0.1.3 Actual problems in reading hypertexts

Indeed, hypertext gives rise to new challenges and problems as to the act of reading and comprehension. If they are not completely new, for sure they are more accentuated than it is in the media and technologies we are used to, particularly printed texts. Whether these problems are intrinsic to the hypertextual form or if they derive from the need of a “cultural adaptation” has to be verified in time.

However, as it has been underlined by studies of hypertext from the point of view of text linguistics (cf. Engebretsen 2000; Fritz 1999; Storrer 1999, Storrer 2002), it is true that the features hypertext presents introduce new situations in the act of reading, especially as regards the perception and building of text’s coherence. Hypertext (as all forms of electronic texts) is not directly accessible by human senses. Particularly, it is not accessible through touch. The access to the electronic text always requires the mediation of hardware and software (Cantoni & Di Blas 2002: 137-138). This constitutes an important difference in respect to printed texts, to which we are more accustomed. When reading a book, the tactile contact with it allows us to perceive it in a direct way and this helps us in getting oriented within it. For instance, we immediately perceive its size, we can easily move forward and backward by turning the pages, we can easily write on it or set bookmarks thus keeping trace of our position within it. This is not possible with hypertexts. Our access to them is much more mediated and this fact can easily create problems as to our orientation within the text. Indeed, the problem of “getting lost” immediately appeared as one of the main difficulties for hypertext’s users (cf. Conklin 1987).

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assumed a different meaning all over the centuries, depending on the writing technology to which it was bounded. For instance, it has a different importance in manuscripts (where it was “weakened” by the intermediation of the copyist and by the high importance glosses had, to the extent that they were perceived as part of the central text) and in printed books, where the higher stability of the text’s format presents the author’s words as “untouchable”. In recent approaches, this fact has been considered as a demonstration of the non-importance the author and her/his intentions have in the interpretation of their texts and, therefore, as a demonstration of the uselessness of the concept of authority itself. This argument has been particularly developed by Michel Foucault in his essay *What is an author?* (in Lodge 1988: 173-186) and by Roland Barthes in his essay *The Death of the Author* (in Lodge 1988: 145-150; cf. also Bolter 2001: 162-184).

To this problem contribute also the two characteristics of hypertext, on the base of which some hypertext theorists claimed the appearance of a radical change in the author-reader relationship, namely the physical fragmentation of contents (their division in nodes) and the absence of a pre-established reading order. As we already mentioned in the previous paragraph, these two features constitute the characteristic non-linearity of hypertext. The second one can be better described as following. In printed texts the author sets a “preferential” reading order. The reader is not prevented to read the contents in a different order and glosses and footnotes, as well as intratextual references can suggest alternative paths, but a canonical order is proposed. This has been clearly pointed out by David Jay Bolter, one of the scholars who first began to study hypertext from the perspective of media studies, who observed that in printed books (as well as in previous technologies such as papyrus roll) authors can suggest alternative paths through the text, but the path corresponding to the reading line after line, from the beginning to the end, dominates on the others (Bolter 1993: 137). The author disposes the contents in such a way that the different topics follow one to the other in a sequential way.<sup>6</sup> This disposition is the one the author considers to be the most appropriate in order to reach the text’s comprehension. Therefore, the reader can decide to read the text in a different order (and this happens quite often, even if, as Bolter underlined [1993: 138], it can entail a risk), but a “preferential”, canonical order is proposed. When approaching the text, the reader presupposes the existence of this canonical order and this helps her/him in getting oriented during the act of reading, both at the physical level (to understand her/his position within the text) and at the cognitive-semantic level (to understand and build the text’s coherence). In hypertext this presupposition is substituted by the opposite one, according to which no pre-established reading order exists and it is up to the reader to choose it. Of course, there are hypermedial applications where this presupposition is limited by the presence of devices that provide to the reader suggestions about possible reading orders (we are especially thinking of the device of guided tours).<sup>7</sup> However, basically it holds in hypertexts (cf. Storrer 2002).

Because of it and because of the physical fragmentation of contents, cues for user’s orientation and text’s coherence recognition and building are weaker than they are in printed texts. In order to allow various reading paths through a given set of contents, the coherence between the different nodes has often to be left implicit by the author/designer (cf. Fritz 1999). This obliges the reader to perform a bigger effort in order to recognize it.

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<sup>6</sup> We have to precise that this is not (completely) true for some kinds of books, such as dictionaries, encyclopedias or manuals organized as collections of topics.

<sup>7</sup> Guided tour is an elementary navigation pattern, used in order to organize the navigation among different informational objects belonging to a same collection. In guided tour the possibility is provided to navigate “sequentially” from one informational object to the previous/next one, according to an order that has been defined by the author/designer.

In this sense, the user has to be more active than s/he is in reading printed texts. Better said, s/he constantly has to perform choices and to evaluate them. This can result in cognitive overload, which has been identified as a problem of hypertext navigation since the beginnings (cf. Conklin 1987) and which consists in the fact that during the navigation, besides reading and understanding the application's contents, the user has to perform an additional effort of information processing, in order to make the most adequate choices for the continuation of her/his navigation and in order to deal with the artifact itself.<sup>8</sup>

A further challenge in hypertext reading is introduced by multimediality. In fact, we have to consider that nowadays hypertext is almost always combined with multimediality. Practically, all hypertexts are hypermedia. Hypertext's contents are normally provided not only through written text, but also through other media, namely images (both static images, such as pictures, graphics, maps, etc., and dynamic images, such as videos) and oral text (audio files can be used for different purposes). Of course, the use of different media in order to convey text's contents or to accompany written texts was not unknown before the advent of hypermedia (in our work we will detail this aspect later on as to literary texts). But in hypermedia, on the one side, the different media are integrated within a single artifact and, on the other side, the increased technological easiness of this integration makes the use of different media more widespread. The increased quantity and integration of multimedial contents introduces new challenges in the act of reading and understanding the contents. We can wonder if their semantic contribution is always easily understandable to the user.

Considering the above-described difficulties, we can wonder how the reading of a text that present a high semantic complexity (namely, the literary text) can successfully take place through hypertext. The experience of reading a literary text goes beyond the contents processing the comprehension of other kinds of texts requires. Literary reading presents particular features. Precisely because of these features some scholars, such as David Miall – professor of English at the University of Alberta –, expressed reserves as to the effectiveness of hypertext for the reading of a literary text. Considering and agreeing with Landow's claim, according to which the possibility to rapidly and easily access contextual and background materials is one of the advantages of hypertext, Miall pointed out that to read and to understand a literary text is not a matter to find and know as much information as possible about it, but a matter of "listening to the text" and of an exchange between reader's feelings and experiences and the text (1999b; cf. also Iser 1980). Therefore, in Miall's opinion, hypertext doesn't represent the real nature of reading, but on the contrary it obstructs a real act of reading. Besides, he argues against that hypertext would never be capable of adequately considering and representing the

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<sup>8</sup> "The other fundamental problem with using hypertext is that it is difficult to become accustomed to the additional mental overhead required to create, name and keep track of links. I call this 'cognitive overhead'" (Conklin 1987).

personal interaction with the literary text, which is different from reader to reader. In commenting the suitability of hypertext for the reading of a poem by Wordsworth, Miall emphasized that

Even it were true that the mind functions associatively, no conceivable hypertext could be built that would accommodate individual differences in patterns of association. As a reader responds to a specific passage of literature, the feelings, ideas, memories, or literary allusions that help to shape understanding cannot be modeled in advance by links coded into the text (Miall 1999b).

## **0.2 The present work**

### **0.2.1 Research object and perspectives**

Our work joins the debate on the novelties, the advantages and the difficulties of the use of hypertext in the field of literature and literary studies. It focuses on a precise kind of hypertext for literature, namely on hypertextual transpositions. Hypertextual transpositions are online and offline hypermedial applications that present a precise literary work. They are meant to be used in reading, enjoying and/or studying the literary work. Although they have been less studied than other kinds of hypertext for literature (particularly hyperfictions), hypertextual transpositions constitute an interesting case of use of hypertext in the field of literature and literary studies. Their interest consists in the fact of transposing in a new medium a text that was originally conceived for a different medium. Consequently to this transposition, some textual features of the new medium (namely, the physical fragmentation of the contents and the absence of a reading order proposed by the author) are superposed to a text (the literary text) that has been conceived according to different textual features. This fact can cause problems for the text coherence building process and, therefore, for a successful comprehension of the literary text.

This category of hypermedial applications will be investigated staying on the borders of two disciplines, namely humanities and technologies studies. Such an interdisciplinary approach is in fact essential, since a merely technological approach will not adequately consider the features of the literary text and of the experience of reading a literary text, while a merely humanistic approach will not cast light on the impact the technological artifact has on such an experience.

More precisely, the focus of this work is set upon the study of the reading of the literary text in hypertextual transpositions. The main question we want to answer by means of our interdisciplinary approach is if and how the conditions of reading literary

texts change owing to the change of the medium, to which the literary text undergoes in hypertextual transpositions. As to the technological approach, we will refer in our work to W2000, a recent evolution of HDM (cf. HOC – Politecnico di Milano 2001). HDM is a design model for hypermedial applications, which has been developed since 1990 at the Hypermedia Open Center of the Polytechnic of Milan (cf. Garzotto et al. 1993 and Paolini & Bolchini 2001-2002). It has been the archetype of various models for hypermedia design. It pays great attention to the semantic and communicative aspects involved in hypermedia design and, therefore, it constitutes a particularly suitable tool for studying hypermedial applications devoted to a text (the literary text), which is rich and stratified from the semantic point of view. Therefore, all along our work we will employ W2000 terminology as a common description language in order to describe hypertextual transpositions. We have to specify that we will sometimes use W2000 terminology in a broad sense. In fact, given the different philosophies and methodologies underlying the hypertextual transpositions we will analyze, some terms are not applicable in a narrow sense. As to the humanistic research approach, we will adopt two complementary perspectives, which are directly bounded to the organization of the literary text: the semiotic perspective and the hermeneutic perspective. In fact, we consider hypertextual transpositions as the result of the adding of new signs (which can be new contents or devices and tools added for the navigation in the application) to the signs of the literary text. The semiotic perspective will lead us to answer the question how the reader interprets the signs composing the hypertextual transpositions. The hermeneutic perspective will lead us to deal with the final goal of hypertextual transpositions (which is the literary text comprehension), by underlining contribution and problems the presence of the new signs added to the signs of the literary text brings with.

In answering our main question we will keep in mind the perspective of the history of media. We will not forget that hypertext did not come up from nothing, but it comes into the history of technologies of writing. David Jay Bolter widely developed this perspective, concluding that “hypertext is the remediation of print” (Bolter & Grusin 1999: 272; Bolter 2001: 42). Particularly, in our work we will compare hypertextual transpositions to printed editions (especially, annotated and illustrated editions) from different points of view. This perspective will allow us to go deep into the description of hypertextual transpositions and into the understanding of the main novelties they introduce in respect to the medium in which we are more accustomed to read literary works.

On a more general level we have to precise that in this work we use the term “hypertext” as comprising “hypermedia”. Following some similar interpretation we found in literature on hypertext studies (cf. Nielsen 1995: 5; Bolter & Grusin 1999: 272), we consider that hypermedia are all hypertexts, since the organization of their contents is hypertextual. Therefore, we will speak of hypertext, but the applications we will analyze

are hypermedia. They do not include only verbal materials. Their contents can also be visually or acoustically presented.

The expected outcome of this study is the understanding of the factors involved in the experience of reading and studying the literary text by means of hypertextual transpositions. In a successive step (which is however not tackled in this work) this understanding could help in finding useful solutions for the improvement of the effectiveness of this kind of applications.

More precisely, our research will be guided by the following questions:

- What does actually happen when literary texts are presented in hypertextual form?
- Given that hypertextual transpositions usually add to literary text additional materials (images, explanations, etc.), what does this mean as to the reading experience?
- Does the reading experience change in respect to what happens in printed editions? Which are the factors underlying this change?
- Do hypertextual transpositions present advantages in respect to printed editions? Do they present shortcomings? When and to which extent?

Answers to such questions will be provided in the three parts composing the present work.

## **0.2.2 Structure of the work**

In the first part of the work we will describe hypertextual transpositions at the purpose of identifying their main characteristics and, thus, clarifying if and how the reading of the literary text undergoes to significant changes. This description will entail the identification of the main traits of this category of hypermedial applications (to which the first charter is devoted, where a first comparison with printed texts will be sketched), as well as the analysis of seventeen hypertextual transpositions of different literary texts, namely the *Divine Comedy*, the *Decameron*, the *Odyssey*, some plays of Shakespeare (*Hamlet*, *Macbeth*, *Measure for Measure*, *A Midsummer Night's Dream*, *Romeo and Juliet*) and Mary Shelley's novel *The Last Man* (cf. bibliography for detailed references). The elaboration of an appropriate checklist appeared to be necessary in order to guide the analysis and in order to observe and elicit the elements and aspects of the applications that are most directly connected to the act of reading the literary text. In the elaboration of this checklist we took into consideration different principles, related to both the two main disciplines involved in our work. Some principles deal with the structure of hypermedial applications and others with the specificity of the reading experience of a literary text, as it has been described in the field of philosophical hermeneutics by Hans-Georg Gadamer (1975, 1983, 1988, 1989, 1995) and in the field

of empirical studies of literature and reading by David Miall (1998a, 1998b, 1999a, 1999b, Miall & Kuiken 1999, Miall & Dobson 2001) and Russel Hunt (1991, 1992, 1996, 1999, 2000, Hunt & Vipond 1991). The complete checklist is provided in Appendix 1 and it will be widely described in the second chapter. In the third chapter we will summarize the results of the analysis (which are thoroughly provided in Appendix 2), comparing them with the practices and uses of printed editions. Interesting features and new possibilities hypertextual transpositions offer in respect to printed annotated and illustrated editions of literary texts will emerge.

Particularly, two features appeared to characterize hypertextual transpositions. First, as to the contents, we noticed the considerable amount of included visual representations (far more considerable than what it usually is in printed texts). Second, as to the tools, the analysis underlined the presence of aspects and elements of the application that can influence and determine the way in which the reader approaches the literary text. In the second and third parts these two main hypertextual transposition's features will be investigated starting from a semiotic perspective and in relationship to our fundamental research object, that is, how the literary text is read in hypertextual transpositions.

The second part will focus on the problem of interpretation of representations in respect to the literary text, particularly of images. This problem constitutes an important aspect of the new challenge introduced in the act of reading by multimediality. The high presence of representations seems to suggest that hypertextual transpositions try to make the literary text understandable by visualizing it, that is, by applying what we will call the "understanding by seeing" maxim. In the first chapter this maxim will be defined and its effectiveness will be discussed, starting from some basic semiotic concepts such as denotatum and meaning and Bühler's distinction between Zeigfeld and Symbolfeld and the features as images as analogical signs. In the second chapter examples of use of images for the illustration and explanation of passages of the Divine Comedy, included in the site "The World of Dante" (a hypertextual transposition of the Divine Comedy that particularly focuses on the visual representation of the text), will be discussed and classified according to a semiotic typology (based on Charles Sanders Peirce's classification of signs in icons, indexes and symbols), in order to outline the semantic contribution they bring to the literary text's comprehension and the difficulties they bring with. This exemplification will allow us to outline the possible misunderstandings arising in images interpretation, sketching out their possible origins. We will do it in the third chapter, concluding by considering the contribution images bring to interpretation on the base of the Text-Bild-Schere norm (widespread in TV journalism, particularly in Germany) and, finally, of the classical hermeneutics (namely, in respect to the four level of interpretation a text entails according to scholars of the Middle Age).

The third part will focus on the aspects and elements of the hypertextual transposition that influence the way the reader approaches the literary text. From a semiotic point of view these aspects and elements represent reading strategies. Reading strategies

representations form a second order representation, which in the hypertextual transposition is superposed to the representation constituted by the literary text. Being composed of signs (standing for given meanings), the literary text is itself a representation. In hypertextual transpositions other signs are added to this representation. Some of these signs are capable of representing to the reader possible ways to approach the literary text (possible reading strategies). The presence of this second order representation (or at least its accentuated character) is the second main feature that differentiates hypertextual transpositions from printed annotated editions and it is an essential factor as to the change of the conditions of reading between printed editions and hypertextual transpositions. On its base a model of the act of reading the literary text in hypertextual transpositions will be elaborated. This model can be a valid starting point for the evaluation of the adequacy of the second order representation and, therefore, of the quality of the hypertextual transposition. Both the second order representation and the model will be described in the first chapter and in Appendix 3. In the second chapter we will focus on one of the crucial elements of the second order representation, namely on hyperlinks and their interpretation.



# 1 Features of hypertextual transpositions

## 1.1 Hypertextual transpositions

### 1.1.1 Definition

Hypertextual transpositions are online and offline applications that focus on a precise literary work. They are usually hypermedia, that is, following Bolter and Grusin's definition, "computer applications that present multiple media (text, graphics, animation, video) using a hypertextual organization" (1999: 272). It is according to this definition that we consider them a type of hypertext for literature.<sup>9</sup> In fact, they consist of the electronic version of the literary text and of other texts, images, video clips and audio files. This is one of the innovative aspects of hypertextual transpositions: the fact that they bring together different media, exploiting them in a single object for the reading and understanding of a given literary work.

However, different combinations are possible. In fact, not all hypertextual transpositions use all the possible media. There also are hypertextual transpositions that use only verbal texts (commentaries, essays, etc.) and that exclude the recourse to the audio, visual and dynamic possibilities offered by new technologies. Nevertheless, the choice to include or to exclude a given medium can generate very different hypertextual transpositions.

Hypertextual transpositions are meant to be used in reading, enjoying and/or studying the literary work. They are meant to help in understanding the significance of the text and in enriching the reading experience. The literary text is the core of the hypertextual transposition. It is the application's content in function of which all the other contents are added. The criterion for the choice of the materials to add in the hypertextual transposition is the relevance in respect to the literary text.

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<sup>9</sup> Also Jakob Nielsen considers hypermedia to be hypertexts and he tends to use the terms hypertext and hypermedia in an interchangeable way. "The traditional definition of the term 'hypertext' implies that it is a system for dealing with plain texts. Since many of the current systems actually also include the possibility for working with graphics and various other media, some people prefer using the term *hypermedia*, to stress the multimedia aspects of their system. Personally, I would like to keep using the traditional term 'hypertext' for all systems since there does not seem to be any reason to reserve a special term for text-only systems. Therefore I tend to use the two terms, to stress the multimedia aspects of their system. Personally, I would like to keep using the traditional term 'hypertext' for all systems since there does not seem to be any reason to reserve a special term for text-only systems. Therefore I tend to use the two terms *hypertext* and *hypermedia* interchangeably with a preference to sticking to *hypertext*" (Nielsen 1995: 5).

Previous scholars pointed out the existence of such a kind of hypertexts. Landow called them translations into hypertextual form of poems, fiction and other materials originally conceived for book technology (Landow 1997: 49) and, within this category, he distinguished three different forms. For the moment, let us briefly consider the third form, which, we would argue, has not found many concrete realizations till now. In the third form the “original” divisions which exist in a literary text are subverted in new divisions: “In contrast to adapting texts whose printed versions already divide into sections analogous to lexias, one may, in the manner of Barthes’s treatment of *Sarrasine* in *S/Z*, impose one’s own divisions upon a work” (Landow 1997: 56). The traditional divisions in literary texts, of course, are the result of impositions in writing on, originally, oral narratives; in early narrative, these divisions were introduced to allow the reader a chance to ‘take breath’ and the text to enact scene or time shifts (Lodge 1992: 163-168).<sup>10</sup> In fact, generally speaking, when transposing the literary text in hypertextual form, the organization (the division in nodes) respects the original organization and division of the literary text (in chapters, paragraphs, acts, scenes, cantos, etc.) In this sense, it is a common practice to adopt Landow’s rule 19, which reads

When adapting for hypermedia presentation documents created according to book technology, do not violate the original organization. However, when the text naturally divides into sections, these provide the basis of text blocks. The hypermedia version must contain linkages between previous and following sections to retain a sense of the original organization” (Landow 1994: 101).

Our hypertextual transpositions may stay in between the first and the second of Landow’s forms. The first form consists, according to Landow, of a translation that “preserves the linear text with its order and fixity and then appends various kinds of other texts to it, including critical commentary, textual variants, and chronologically anterior and later texts” (Landow 1997: 49), where, therefore, a main central axe of exploration (corresponding to the literary text) is maintained. The second form consists of a translation in which “one adapts for hypertextual presentation material originally conceived for book technology that divides into discrete lexias” (Landow 1997: 49) and in which the network constituted by links is dense in order to allow the reader to move through the literary text along many different axes (Landow 1997: 55). The literary text is physically fragmented in the hypertextual transposition, but the connections among different passages of the text or different added materials can be more or less numerous, various and rich. However, according to Landow’s definition, it can be that the literary text itself is not included in the hypertextual translation (1997: 49). In our definition, on

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<sup>10</sup> Division in literary narrative texts is like formalization of the poetic form (Lodge 1992: 167).

the contrary, we set that the inclusion of the literary text is essential in order to identify a given application as a hypertextual transposition.

According to Bolter and Grusin's classification of the different kinds of transpositions of a content in one medium to another medium, hypertextual transpositions belong to the category of transpositions that present themselves as improvements in respect to the previous medium, but that do not call it into question (Bolter & Grusin 1999: 46).

### **1.1.2 Hypertextual transpositions and editions of literary texts**

According to Bolter and Grusin, "What is new about new media comes from the particular ways in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media" (1999: 15). One of the defining characteristics of new digital media is "remediation", that is, the representation of one medium in another (Bolter & Grusin 1999: 45). Remediation takes place when a new media refashions a prior media form (Bolter & Grusin 1999: 273). In fact, hypertextual transpositions have equivalents or ancestors in the realm of print and of other media and, to a certain extent, several elements of continuity exist between hypertextual transpositions and these ancestors.

First of all, we can think of printed annotated editions, where a series of other texts (annotations of various kinds) accompany the literary text as footnotes or endnotes, as well as introductory and conclusive essays.<sup>11</sup> As it happens in hypertextual transpositions, the literary text constitutes the core and all the other texts are disposed "around" it, both from a physical point of view (the literary text is usually placed at the centre of the book and annotations are placed in a secondary position in respect to it) and from a semantic point of view (annotations and the other added texts aim at clarifying the literary text's significance). The presence of annotations is what, obviously, characterizes an annotated edition. The use of endnotes was (and still is) less common than the use of footnotes, because of its inconvenience for the reader. Footnotes are more widely used in annotated editions, because they allow the reader to view on the same page both the relevant passage of the literary text and the annotation. We could say that they respect a principle of spatial juxtaposition. Besides assuming different formats, annotations deal with different contents. They can be of very different types according to their purpose. Annotations of a critical edition accomplish the process of restoring or presenting a "definitive" version of a text, such as Shakespeare's first folio. Annotations in an annotated scholastic edition accomplish a function of mediation. This mediation can be historical or linguistic (in a wide sense), giving contextual information about

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<sup>11</sup> As a matter of facts, the variety of texts that are added to the literary text in printed annotated editions and the variety of their format is much wider. Gérard Genette (1997: 320-321) provides a brief, synthetic overview on this topic.

authors or language. Such annotations are additions to a text which serve the purpose of reducing the distance between the world of the addresser and the world of the addressee. Annotations can accomplish their function of mediation by either recuperating the codes or recovering the context or the intertext (intertextuality).

Also multimediality was used to present literary texts before the advent of hypertext. Images, videos and audio devices have been used in order to offer different modalities to access, to read or to know a literary text. The tradition of book illustration is very old. In a narrow sense, this activity started immediately after Gutenberg's invention of print. As Paola Pallottino points out

Ricordiamo che il primo libro a caratteri mobile, la *Bibbia a 42 linee* di Gutenberg, venne stampato a Magonza intorno al 1456 e che il primo libro illustrato di cui in assoluto si abbia notizia, ovvero *Der Edelstein (La pietra preziosa)*, raccolta di favole di Ulrich Boner, stampato a Bamberga da Albrecht Pfister nel 1462, è di appena cinque anni più giovane (Pallottino 1988: 19).

In a broader sense, book illustration or the use to add explicative or ornamental pictures, drawings or images to texts began even earlier.<sup>12</sup> Already in the Middle Ages miniatures in manuscripts were illustrations of the text they referred to. Illustrated editions of the Bible are widespread in the Middle Ages and they aim at letting the most large audience know and access to the Bible's message. For this reason these editions are known as *biblia pauperum*. The medieval romances were usually illustrated, but also less well known works. As to the Italian literature, the illustration of the works of the three great authors of the 14<sup>th</sup> century dates of the very beginnings of the work's appearance. Among Petrarch's works, especially the *Trionfi* have been illustrated. Boccaccio himself illustrated his main work, the *Decameron*. Then, other illustrated editions appeared (Branca 1985-1986). As to the *Divine Comedy*

A prodigious lineage – the richest of its kind in iconographic history – spans the centuries, from the time the *Commedia* saw light in 1321 to the works of artists living today, from the predecessors of the best known and earliest example of *Commedia* book painting represented by the Codex 313 of the Palatina manuscript in Florence's Biblioteca Nazionale, dating circa 1330-1333, to the cycles of

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<sup>12</sup> Paola Pallottino underlined the importance of precisising the meaning of illustration considering it only as “ogni multiplo ottenuto tramite la riproduzione a stampa di un artefatto di natura grafico-pittorica, commissionato dall'industria editoriale, e pertanto reperibile nei relativi prodotti come libri e periodici” (Pallottino 1988: 9).

illustrations by Amos Nattini, Salvador Dali, Robert Rauschenberg, and Francis Philipps (...) (Barricelli 1992: 4).<sup>13</sup>

Also cinematic adaptation of famous literary works is an established practice. Since its beginnings cinema took inspiration from literature. “Early filmmakers borrowed from whole series of sources”, among which there also are short stories and novels (Brewster & Jacobs 1997: 5; cf. also Chanan 1996, Elsaesser & Barker 1990). It is not that before hypertext it wasn’t possible (or it wasn’t praxis) to present the text and the film of a play. Collections exist where the reader can buy, besides the book of the literary text, a VHS with a filmic transposition of the text. In this case the reader disposes of two different channels for the access to the text: the written word and the visual representation. For instance, in Italy, La Repubblica and Fonit Cetra published in the early ‘90s the series “I capolavori animati”. For each work the printed text and a VHS was available.<sup>14</sup> The advantage of hypertext is to make this matching easier. The audio device was used to make available the aloud reading of famous texts or their recitation (in the case of drama). Collections exist where the reader can buy, besides the book with the literary text, an audiocassette or an audio CD with the registration of the aloud reading of the text or its recitation. Audio books are quite common and one of the main publishers of them in Europe is HarperCollins Publisher. The site “Il Narratore” is precisely devoted to this multimodality in order to bring to fruition literary works. There, the user can listen to audio files with aloud readings and recitations of many literary texts and also buy the printed edition with audio CD.<sup>15</sup>

It is because of the existence of these various usages of media other than the written text for presenting literary texts that, according to John Slatin (1994: 157), multimedia does not constitute the central aspect of hypertext.<sup>16</sup>

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<sup>13</sup> This happens despite “Bernard Berenson’s contention that the poem does not lend itself to satisfactory illustration because it is more lyrical than epic or dramatic” (Barricelli 1992: 5).

<sup>14</sup> See, for instance, Shakespeare 1993.

<sup>15</sup> The idea of the audio book as a supplement to a written text, of course, is not unknown in literary history. One might argue that it is a continuation in part of the oral tradition of story telling and of oral composition (cf. Lord 2000). From Antiquity till the eighteenth century many literary texts were composed as written texts, but they were usually read aloud in public (Ong 1986: 220). This tradition was even continued with some success in the nineteenth century by novelists who gave public readings of their works. It is for instance the case of Charles Dickens (cf. Ong 1986: 209).

<sup>16</sup> “First of all, the hyperdocument may well contain material from several different media such as text, graphics, video, and sound. While this is an important factor, I do not think it’s decisive. After all, printed books often contain text, line drawings, tables of data, reproductions of visual images, and so forth – though of course they cannot manage full motion video or sound. Besides containing different types of materials than those to be found in printed text, the hyperdocument is likely to contain considerably more material than a printed book. Again, this is not a decisive difference in itself: encyclopedias also contain an enormous quantity of material. The quantity of material in a hyperdocument does pose problems, and it does make for complexity. But the greatest difference

This closeness of hypertextual transpositions to previous types of literary texts editions has to be taken into account. Since hypertextual transpositions are not a generalized practice, no conventional pattern exists to design them, as well as no reading practice. However, because of their closeness to printed annotated editions, it is possible that conventional patterns of printed annotated editions work on the design of hypertextual transpositions and that reading practices to which readers are more accustomed are applied to hypertextual transpositions. At least, it is very likely that the conventional pattern of printed annotated editions and the reading practices to which the reader is accustomed work on the reader's expectations when s/he explores a hypertextual transposition.<sup>17</sup>

### **1.1.3 Non-linearity in hypertextual transpositions and printed annotated editions**

Non-linearity is one of the main claimed features of hypertext. Namely, it is the one from which a new way of reading should arise. In fact, according to the first enthusiast hypertext scholars, hypertext's non-linearity should break the unity and the stability of the contents, thus allowing the reader to choose her/his own reading path (Bolter 1991, Delany & Landow 1994, Joyce 1995, Landow 1997). From hypertext's non-linearity should finally derive the realization of the "death of the author", called for by poststructuralist literary theory (cf. particularly Landow 1997; cf. here paragraph 0.1.2). Therefore, non-linearity could constitute a central new factor of the act of reading in hypertextual transpositions.

Non-linearity derives from the physical fragmentation in nodes, to which contents undergo in hypertext, and from the possibility to choose one's own path thanks to the presence of links connecting the different nodes. Thus, if in printed texts the author establishes a preferential canonical reading order, authors/designers of hypertexts establishes several different possible reading orders. It is then up to the user to choose the one s/he prefers. In this sense, as it has been widely precised by several scholars, non-linearity is as a matter of facts multilinearity. In fact, even if reading cannot be but linear – the reading of a word after the other inevitably creates a linear sequence, "an unfolding in time" (Miall 1998b: 166) -, hypertext is, at least at the potential level, multilinear, since several different possible reading paths are made available.<sup>18</sup>

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between text and hypertext is not in the relative quantity of material each form handles: it's in the technology that handles the material."

<sup>17</sup> For the notion of conventional text pattern, cf. Schnotz 1994.

<sup>18</sup> This aspect of hypertext has been widely discussed among scholars and several of them tried to clarify what the pretended non-linearity of hypertext is (cf. Cantoni & Paolini 2001; Miall 1998b; Rosenberg M. 1994; Liestøl 1994). Martin Rosenberg (1994: 275) explained in which sense

The presence of multilinearity in hypertext implies that, on a general level, the presupposition that lies at the base of hypertext reading is different in respect to the presupposition that lies at the base of reading printed texts (cf. also Storrer 2002). When approaching the printed text, the reader knows that a preferential reading path exists. This has been clearly pointed out by David Jay Bolter, one of the scholars who first began to study hypertext from the perspective of media studies, who observed that in printed books (as well as in previous technologies such as papyrus roll) authors can suggest alternative paths through the text, but the path corresponding to the reading line after line, from the beginning to the end, dominates on the others (Bolter 2001: 100). The author disposes the contents in such a way that the different topics follow one to the other in a sequential way.<sup>19</sup> This disposition is the one the author considers to be the most appropriate in order to reach the text's comprehension. When approaching the hypertext, what the reader knows is exactly the opposite. S/he knows that no preferential reading path has been established. Of course, there are hypermedial applications where this presupposition is limited by the presence of devices that provide to the reader suggestions about possible reading orders (we are especially thinking of the device of guided tours). However, basically this is the presupposition that holds in hypertexts.

Because of their being hypertexts, hypertextual transpositions are based on this second presupposition. In fact, during the navigation in a hypertextual transposition, it is up to the reader to decide, for instance, if s/he wants to start reading the literary text, the characters' presentations, the essay about the main themes developed in the literary text or if s/he wants to look at the various available illustrations. In the same way, it is up to the reader to decide if s/he wants to start reading the literary text from the beginning or if s/he wants to read before the end or some intermediate chapter.

This way of reading seems to contrast with the nature of the literary text itself. A literary text, almost per definition (because of its narrative character and/or because of the important role the form of the text plays in building the literary text's significance), requires linear reading, that is, it requires to the reader to follow the order the author

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nonlinearity in hypertext corresponds to multilinearity: "(...) what hypertext theorists mean by 'nonlinearity' is more properly analogous to what physicists call 'symmetry', or 'reversibility'. Since the focus in hypertext theory is on the functional direction of signification, the correspondence with symmetry and reversibility works more precisely, because these terms refer to the direction of the flow of duration or time. Words must be read one after another, and cannot be read backwards; we might say that the reading process is linear in the sense that its trajectory remains irreversible. If, however, the irreversible reading process could be interrupted through the intrusion of technology in the form of hypertextual nodes, which would then offer optional signifiatory trajectories (what might be called 'multilinear' directional flows), then we might call hypertext environments symmetrical or reversible. That is, the technological environment of hypertext remains (as much as possible) functionally indifferent to the chosen trajectory of the wreader. Thus, at least as hypertext theorists use them, *nonlinear* and *multilinear* are equivalent".

<sup>19</sup> We have to precise that this is not (completely) true for some kinds of books, such as dictionaries, encyclopedias or manuals organized as collections of topics.

established. As a matter of facts, the reader is not prevented to follow a different order, but her/his choice in the case of the literary text entail high risks as to the thoroughly comprehension of the narration and of the significance of the text.

However, we do not have to forget that printed annotated editions already entail important aspects of non-linearity. Footnotes (or endnotes) constitute the central aspect of printed annotated editions' non-linearity. In footnotes contents are presented in a fragmented way (as they are in hypertextual transposition's nodes). Besides, each time the reader encounters a callout for a footnote, it is up to her/him to decide if s/he wants to leave the linear reading of the literary text and to read the available annotation or if s/he prefers to go on with the reading of the literary text, thus ignoring the explanation the author (or, in this case, the editor) considered important to make available correspondently to that point of the text. In this sense, strong similarities can be found between printed annotated editions and hypertextual transpositions and, as a consequence, hypertextual transpositions do not seem to introduce something completely new in our practices of reading literary texts.

However, we also have to observe an essential difference existing between hypertextual transpositions and printed annotated editions. Printed editions do not prevent the reader to adopt a different order, but the artefact itself (the book) mainly represents the preferential one, which has been established by the author. The physical sequence of pages respects and reflects the canonical reading order established by the author.<sup>20</sup> It goes differently in hypertextual transpositions, where the contents' fragmentation in nodes and the presence of hyperlinks aim exactly at representing different possible reading orders. They aim at making the existence of different possible reading order explicit to the reader.

#### **1.1.4 The act of reading a literary text**

The literary text, which constitutes the core of hypertextual transpositions (the content in function of which all the other included materials stand), is particularly rich from a semantic point of view. It is semantically stratified. Its significance originates from the co-presence and the intertwining of several different plans. It entails more than one level of meaning as well as a big part of implicit. All these different levels contribute to the literary text's significance and, therefore, the reader has to grasp all of them in order to reach the comprehension of the text. For instance, adopting the distinction between

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<sup>20</sup> In fact, printed modernist literary works that tried to break the presupposition of the canonical reading order in favour of the reader's freedom and the establishment of several possible different orders, intervened on the artefact itself. It is the case of Marc Saporta's novel *Composition no. 1* (Saporta 1986), where the pages constituting it are not bounded in order to allow the reader to change their physical order.

denotation and connotation (widely applied in structuralist literary theory), we can say that the literary text has a denotative signified (which is constituted by the literal value of the sentences composing the text) and a connotative signified (which is constituted by the surplus of meaning added to the literal value by aspects constituting the form of the literary text and by symbolic connections it entails) (cf. Segre 1985: 51-52, 91). Its significance is composed by both the denotative signified and the connotative signified. One can say that a reader understood the text, if s/he grasped both levels and their intertwining. In order to understand the text, it is not sufficient to understand the denotative signified. In order to grasp the connotative signified, the reader has to build a series of inferences and s/he has to relate form and concept, in order to get the signification (Segre 1985: 327). The presence of a multiplicity of level of sense, as well as the fact that a full text's comprehension entails the comprehension of all these levels together has been underlined by antic hermeneutics, where (as we will see in more details at paragraph 2.3.4) four levels of interpretation were taken into consideration: literal, allegoric, moral and anagogic meaning. The understanding of the literal sense was not considered enough for the reaching of the text's comprehension.

The big part the implicit plays in the literary text's significance makes that the act of reading a literary text entails a big interpretive effort. This operation of interpretation has similarities with the operation of enrichment defined by Sperber and Wilson. According to them, enrichment is the inferential process through which the hearer, faced with a given utterance, fills in the semantic incompleteness of some linguistic constituents (Sperber & Wilson 1995: 188-189). Through inference, the reader fills in the gap between semantic representations and propositional forms in order to reach relevance. S/he has to "enrich the linguistically encoded meaning to a point where the resulting overall interpretation would be relevant enough" (Sperber & Wilson 1995: 256). Similarly, faced with a literary text, the reader has to fill in the gaps between the textual form and the semantic representations that are part (are constituents) of the literary text's significance in order to reach relevance. The higher the relevance, the higher is the "success" of the reading experience (that is, the higher is the reader's comprehension of the literary text). Borrowing Wolfgang Iser's terms (1980), we should say that the reading process consists in filling in the blanks the literary text contains.

However, the reader needs helps and hints in order to carry out this inferential process. As Sperber & Wilson clarified, in order to carry out the enrichment task, the hearer takes into consideration the context (cf. Sperber & Wilson 1995: 191). As regards the literary text, the reading process arises from the asymmetry between text and reader, from the lack of a common situation and a common frame of reference. This is the particular feature of literature as communication and it is what differentiates it from the type of verbal communication studied by Sperber and Wilson. In fact, as Roger Sell pointed out, discussing relevance theory's application to literature (2000: 66-68), in the case of a literary text we have to consider that the context of writing is different from the

context of reading and that this fact has an impact on understanding. A temporal, spatial and cultural difference intervenes. Therefore, a mediation is required, a mediation that allows the reader to enrich the textual form (to fill in the blanks) in reaching a satisfactory degree of relevance. This is precisely the function and the purpose of the hypertextualization.

Both the need to comprehend the literary text according to different level of sense and meaning and the need to enrich the text in order to make explicit what in it remains implicit are two characterizing aspects of the act of reading a literary text. This act of reading is considered as a particular act of reading (a particular type of reading experience) in that it does not only include information processing for acquiring a given declarative knowledge. When starting the act of reading a literary text, the reader expects to go through a pleasant and fascinating experience, by means of which s/he can acquire new knowledge. But the aim of this acquisition of new knowledge is not something “practical”. The reading of a literary text does not have an immediate “practical” goal. Rather, its aim is a more complex result, which we define as a change (borrowing a Peircean term, a habit-change) brought in the reader through a pleasant and fascinating experience. While reading, in order to understand the text and the narration, the reader acquires a declarative knowledge. However, declarative knowledge is not the goal in itself. In the act of reading a literary text, declarative knowledge is important only as to the extent to which it allows the habit-change, which arises from the interaction between the reader and the text and which entails the experience of pleasure. These are the aspects that, according to our hypothesis, characterize the act of reading a literary text.

Therefore, for us, a “complete knowledge of the literary text” does not include only declarative knowledge provided by historical information, linguistic definitions, information about the literary text’s structure and elements, information about the literary text’s representations, etc. (in other words, the declarative knowledge corresponds to the four different kinds of added materials we will identify at paragraph 1.2.1.2). As we will expose in detail at paragraph 1.2.3, the literary text’s comprehension corresponds to an experience of the literary text, which comprises (as the classic hermeneutics highlighted) the encounter between reader and text, the evaluation of the text by the reader and also (as approaches of experimental psychology on literature pointed out) the involvement of reader’s feelings, emotions, memories in the interactive process of reading (which is conceived as a dialogue between text and reader). In this sense, our definition of literary text’s comprehension includes also the aspect of the pleasure of reading. The question of pleasure (that is, the definition of what aesthetic pleasure is and of its role in the act of reading and comprehending literary text) has been and still constitutes a big issue of debate and investigation in the field of literary

studies.<sup>21</sup> This topic is strictly related to the problem of value, which we will deal with at paragraph 1.2.3. Without developing this broad problem in details, we consider here the pleasure of reading not as the result, a consequence of the comprehension, but as an important moment of comprehension. It is because we experience the pleasure of reading that we go on in this activity. Also it is when we experience this pleasure that we learn more. In fact, the pleasure of reading arises when the reader penetrates into the understanding of a meaningful coherence, of the essential connections constituting the text. The pleasure of reading derives from the phenomenon of the *intus-legere* (“reading inside”), that is, from the capacity of penetrating the constitutive connections of the text.

The act of reading does not only concern a mechanical process but, mainly, an ideal type of habit-change. Habit-change is what is brought by the comprehension of the literary text’s significance. Therefore, it is also what defines the success of the reading experience. A reading experience is successful when it brings a reader’s habit-change. The term “habit-change” was coined by Peirce. We borrow it from Peirce, since it seems to us adequate in order to define the effect of the act of reading. Habit-change occurs when the reader perceives (when he begins to see) the constitutive connections and coherence of the text. The act of reading is similar to the discovery of a “world”, which entails the pleasure for this discovery.

Habit-change is the result of an interaction between text and reader. In fact, as it clearly appears in the works of Wolfgang Iser, the act of reading a literary text entails an interactional component. Iser helps us in defining this component, commenting Henry James’ *The figure in the carpet*. In this short story Henry James discusses the problem of literary texts’ interpretation through two characters, namely the narratee (who expresses the point of view of the literary critic) and his friend Corvick, both looking for the meaning of the last novel of the writer Hugh Vereker. Corvick is the one who experiences meaning as an effect, not as an explanation. Iser presents Corvick’s position as a position clarifying that meaning is the product of the interaction between text’s signals and reader:

meaning is no longer an object to be defined, but is an effect to be experienced. This is the situation which James thematized through the perspective of Corvick. After he has experienced the meaning of Vereker's novel, his life is changed. But all he can do is report this extraordinary change – he cannot explain or convey the meaning as the critic seeks to do (Iser 1980: 9).

In fact, “the meaning of a literary text is not a definable entity but, if anything, a dynamic happening” (Iser 1980: 22). For this reason, the critic has not to explain a work,

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<sup>21</sup> Connor 1992: 34-56 provides a valuable overview on this debate. The question of pleasure has been developed, for instance, also by Barthes 1973 and by Iser in the essay *The reading process: a phenomenological approach* (in Lodge 1988: 188-205).

“but to reveal the conditions that bring about its various possible effects. If he clarifies the potential of a text, he will no longer fall into the fatal trap of trying to impose one meaning on his reader, as if that were the right, or at least the best, interpretation” (Iser 1980: 18).<sup>22</sup>

Being defined in these terms, the success of the reading experience (the habit-change) can change all along repeated readings of the same work, owing to the change of the reader’s knowledge and experience that happened in between. Moreover, it is something personal, not in the sense that it is completely subjective (as we will see later on at paragraph 1.2.3 there are important objective aspects), but in the sense that it happens “inside the reader”. It is therefore not measurable. However, it is possible to verify if some factors that can sustain its taking place are present or not. This is exactly what we intend to do with the analysis of some concrete examples of hypertextual transpositions.

As the critic has not to explain a work, but to reveal the conditions that bring about its various possible effects, similarly hypertextual transposition is not devoted to “explaining” a text, rather it functions to demonstrate the conditions of the text’s operation. The function and the purpose of hypertextualization, then, are precisely congruent with Iser’s explication of the work of the critic.

Because of this analogy with the work of the critic, hypertextual transpositions constitute an interesting case of use of hypertext in the field of literature and literary studies. They have been less studied than other kinds of hypertext for literature, particularly hyperfictions. Their interest consists in the fact of transposing in a new medium a text that was originally conceived for a different medium. As a consequence some textual features of the new medium (such as the physical fragmentation of the contents or the absence of a linear reading order proposed by the author) are superposed to a text (the literary text) that has been conceived according to different textual features. This fact can cause problems for the text’s coherence building process and, therefore, for a successful comprehension of the literary text (cf. also Storrer 1999, Storrer 2002) and it can be supposed that considerable innovations intervene in the act of reading the literary text. For different reasons, we can say that hypertextual transpositions represent the most interesting case of use of hypertext in the field of literature and literary studies. First, they take as their focus the existing literary text, that is, the core, the object of study of the literary discipline. In this sense they are more interesting than those presentations which provide paratextual information on authors or themes. They instead focus on the significance of textual information. Second, as mentioned before, in relationship to the literary text they use the possibility to create semantic connections offered by the hypertextual form. In this sense, they are more interesting than electronic versions of literary texts for archives, which simply provide access to a version of the text. They imply a problem of knowledge, not only of accessibility. Third, since they transpose in a

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<sup>22</sup> These concepts have also been widely developed by Umberto Eco (cf. 1995, 1997).

new form an already existing text, they give us the possibility to observe if and how a different form has an influence on the reader's approach to the text. Therefore, they are more interesting than hyperfiction, which is created directly in a hypertextual form.<sup>23</sup>

## 1.2 Establishing an adequate checklist for the analysis

In order to investigate how the literary text is read in hypertextual transpositions, we need to analyze some examples of hypertextual transpositions. However, in order for our analysis to be effective (to highlight the phenomenon we want to understand), we have to identify the aspects of the application and of the use of the application that are involved in and that influence the reading process in the hypertextual transposition. We need to establish an appropriate checklist that guides us in the observation of the hypertextual transpositions taken as examples. This checklist is generated through a heuristic reflection that takes into consideration principles coming from the domain of web content analysis and information quality evaluation, principles coming from the domain of hypermedia design (particularly, we will consider the field of design patterns) and principles coming from the various domains that studied the act of reading and the act of understanding a literary text (namely, philosophical hermeneutics and empirical studies of literature and reading). In fact, the reading of a literary text in a hypertextual transposition is influenced by the available added materials (their type and their quality) and by the way the reader can navigate within the application. However, in order to cast light on this phenomenon we also need to take into consideration the very nature of this process of reading and comprehending. Therefore, we need to consider some more domain-related principles.

This heuristic method of analysis is similar to the deductive approach adopted in the field of "web usability" (Cantoni & Di Blas 2002: 150). Obviously, we will not perform here an analysis of web usability. This will be too broad in respect to our interest.<sup>24</sup>

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<sup>23</sup> As regards the operation of transposing classical literary works in hypertext, here is Nielsen's position (1995: 120): "As further described in Chapter 10, I got very negative replies when I asked a group of computer science students whether they would like to read fiction online. They only gave online fiction a rating of 0.5 on a scale from zero to four (with two as the neutral point). But that survey asked people who had not had actual experience with reading online fiction and who would therefore have a hard time imagining the potential advantages of *interactive* fiction as opposed to purely *online* traditional fiction. My personal view is that there is very little to be gained from converting traditional forms of fiction to the online medium. As long as you are just reading a regular novel with a single stream of action, you are much better off reading a printed book. Only when new forms of fiction are invented will we gain any benefit from putting them on hypertext. The reader needs to be able to interact with the fictional universe instead of just being in a page-turning mode".

<sup>24</sup> "Usability is a fairly broad concept that basically refers to how easy it is for users to learn a system, how efficiently they can use it once they have learned it, how pleasant it is to use. Also, the frequency and seriousness of user errors are normally considered to be constituent parts of usability. Thus, a user

However, we will orientate our analysis in terms of the approach most commonly adopted in this field: the heuristic evaluation (Nielsen & Mack 1994; Matera et al. 2002: 100-101). In this approach experts (reviewers) inspect web applications starting from a checklist of principles they call heuristics. Heuristics are elaborated according to the objectives of the analysis, that is, according to the level of the application it is meant to be inspecting. Usability problems are deduced through this operation of (informal) inspection of applications. We will adopt a similar procedure for hypertextual transpositions. Our heuristic will consist in a checklist highlighting how the act of reading the literary text takes place in a hypertextual transposition.

## **1.2.1 Web content analysis and information quality**

### 1.2.1.1 Considering traditional criteria of media analysis

On the web a large amount of information is made available. In order to use it selectively it is essential to evaluate it. This need appeared very early, mainly in the field of libraries. In this field a modality of analysis of the contents of web sites was elaborated on the base of the criteria traditionally used for the evaluation of the contents of printed publications (Cantoni & Di Blas 2002: 145). Janet E. Alexander and Marsha Ann Tate (1999) elaborated one of the most well-know models for such an evaluation. Alexander & Tate's model proposes to judge the quality of web pages on the basis of the five traditional criteria of accuracy, authority, objectivity, currency and coverage. Applying these five criteria to digital information and taking into consideration some specific features of the Web (such as hypertext links, frames and the need for specific software to access certain materials), Alexander and Tate established a checklist of basic questions that is meant to help both users and web designers.

Even if our aim is not evaluation, but the identification of the aspects of the application that have an impact upon the reading and comprehension of the literary text, the consideration of these five criteria in relationship to hypertextual transpositions can

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can find an interface element to be problematic for many reasons: It might make the system harder to learn; it might make it slower for users to perform their tasks; it may cause usage errors; or it may simply be ugly or otherwise unpleasing. Much of the work of usability inspection is concerned with classifying and counting the number of usability problems found in an inspection. Such analyses depend on the exact definition of what constitutes a usability problem and judgments as to how different phenomena might constitute manifestations of a single, underlying problem. It is difficult to make these distinctions, but often common sense is sufficient to determine what constitutes a usability problem. From the general definition of usability problem, one can say that any aspect of the design where a change would lead to improved system measures on one or more usability measures should be counted as a usability problem" (Nielsen & Mack 1994: 3).

be useful. It gives important hints for clarifying and delimiting the aspects of the hypertextual transposition that deal with our research topic. The five traditional criteria are not always relevant or pertinent to hypertextual transpositions and to the act of reading the literary text in them. However, applying them to hypertextual transpositions highlights some of their central features. It also helps us in circumscribing the issue we want to investigate.

Accuracy is “the extent to which information is reliable and free from errors” (Alexander & Tate 1999: 11). In the case of hypertextual transpositions this has to do, on the one hand, with the content of the added materials, and, on the other hand, with the quality of the electronic version of the literary text. This second aspect (the quality of the electronic version of the text) is one of the concerns with which humanities computing deals, both as regards the accurate transcription of the text and as regards the use of encoding techniques that render the text adequate for interesting computed manipulations (Gants 1994; Hockey 2000: 12; MLA 1997). As regards accuracy, we also have to consider that “authority and accuracy often go hand in hand and may need to be viewed together to get a more complete picture of a particular source” (Alexander & Tate 1999: 10-11). This is particularly true in the field of literary studies, where, often, it is the authority of the editor or of the commentator that guarantees for reliability and correctness of the information given through literary annotations and essays and it is the authority of the editor of the critical edition that guarantees for reliability and correctness of the electronic version of the literary text. In fact, very often we identify an annotated edition by the name of the commentator, stressing in this way her/his work of representation of the literary work. For instance, we say “The Horace by Gambrinus” or “The Dante by Benvenuto”. However, as to the problem of authority and literary texts, we do not have to forget that, on the one side, the meaning of the term “author” can change or shift owing to the writing technology to which it is related (the importance of authority and authorship is different in different technologies). On the other side, as to hypertext and literature, we do not have to forget that the problem of authorship is central to theoretical approaches, to which hypertext studies referred (especially, at the beginnings). According to this perspective, hypertext “destroys” the concept of authority. In hypertext the author “dies” (cf. paragraph 0.1.2). For instance, the possibility to add new links and nodes to an already existing hypertext, offered by certain hypertext systems, should eliminate (or, at least, strongly minimize) the importance of the criterion of the authority of the editor, that is, of the one who proposes a text’s interpretation.

Despite these points of view derived from theoretical approaches, in the practice of the use of the Web for finding relevant information, the authority criterion appears essential for the reader in order to judge the reliability of the found information. In order to assess the observance of the authority criterion (which Alexander and Tate defined as “the extent to which material is the creation of a person or organization that is

recognized as having definitive knowledge of a given subject area”, 1999: 11), in the case of hypertextual transpositions different aspects have to be taken into consideration: the authority of their authors from the point of view of literary studies; the authority of their authors from the point of view of the design and implementation of multimedial applications; the authority of the edition from which the electronic version of the literary text is drawn; and, eventually, also the authority of the annotated or illustrated editions, of the filmic or theatrical transposition from which the added materials have been drawn (cf. MLA Guidelines for Editors for further considerations about the specificity of authority problems in literary studies and, more precisely, in scholarly editions field).

Objectivity is “the extent to which material expresses facts or information without distortion by personal feelings or other biases” (Alexander & Tate 1999: 13). This is a common discussion topic in literary and textual studies and, therefore, it is not peculiar to hypertextual transpositions. It has to do with the content, with the information given through annotations and additional materials, with the subtle line between information and interpretation (cf., for instance, Battestin 1981, Derrida 1991, Groden 2001). Objectivity and the question of the appropriate balance between information and interpretation is an essential aspect of the value of a hypertextual transposition (as of any annotated or commented edition of a literary text).

As regards currency – that is, “the extent to which material can be identified as up to date” (Alexander & Tate 1999: 13) -, generally speaking it is important to verify if the date of publication is indicated as well as the date of further revisions and updating. In the case of hypertextual transpositions the value of this criterion has to be adjusted considering two aspects. First, we have to consider that in the field of literary studies works and studies are considered current longer than in other fields. Therefore, changes in the content of the application because of currency problems in hypertextual transpositions are less important than in other kinds of applications. Therefore, the date of publication or updating of the application can be old, but the hypertextual transposition can still be perfectly current from the point of view of its content. Second, it is important to know the date of publication and updating of the hypertextual transposition, but also of the edition of the literary text the digital version is drawn from and of the various sources used in the annotations and in the additional materials. However, also for them it is true that they can be old, but still current from the point of view of their content.<sup>25</sup>

The application of these first four criteria to hypertextual transpositions does not seem to reveal essential aspects or features of the reading and comprehension of the literary text. The respect of the accuracy, authority, objectivity and currency criteria is necessary to it. However, these criteria cast little light on the act of reading itself and on how

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<sup>25</sup> Also the pattern “News” described by Jenifer Tidwell (“UI Patterns and Techniques”, <http://time-tripper.com/uipatterns/>) deals with the currency topic and it is not important in hypertextual transpositions.

comprehension of a literary text might take place. Accuracy, authority, objectivity and currency almost have to be presupposed in order to tackle the very core of our research topic. Besides, they do not seem to stress particular features of hypertextual transpositions in respect to other modalities of editions. On the contrary, the consideration of the coverage criterion seems to be important in relationship to our research question.

Coverage is defined as “the range of topics included in a work and the depth to which those topics are addressed” (Alexander & Tate 1999: 14). In hypertextual transpositions the coverage criterion is important in relationship to the added materials. In fact, the tendency to inclusiveness that characterizes hypertext (cf. Slatin 1992: 876 and Hockey 2000: 140) transforms many hypertextual transpositions in simple databases. The limit between hypertextual transposition and database or texts archive is very important, but, because of this inclusiveness, it tends to be annulled. Therefore, several applications (especially online) have a mixed nature that weakens them from the point of view of their effectiveness. On the contrary, it should be clear if the hypertextual transposition aims to present all the aspects of the literary work, in making available all – or as many as possible – materials on a given literary work or to focus on a precise perspective or interpretation of this work. This gives the reader important hints. Therefore, in our analysis we can take into consideration Alexander & Tate’s question COV/IA1.1 – Is it clear what materials are included at the site? (1999: 118) – and a second more precise question: does the hypertextual transposition focus on a particular aspect of the literary work? Besides these fundamental questions, other aspects of coverage have to be highlighted in respect to hypertextual transpositions. Since, as we said before, hypertextual transpositions maintain several elements of continuity with printed annotated editions, it is important to clarify this relationship. This is possible, for instance, in investigating if the materials included in the hypertextual transposition have been created expressly for the hypertextual transposition or if they have been drawn from already existing editions. Questions COV/IA 1.3 (“Is there a print equivalent to the Web page? If so, is it clear if the entire work is available on the Web?”) and COV/IA 1.4 (“If there is a print equivalent to the Web page, is it clear if the Web version includes additional information not contained in the print version?”) of Alexander & Tate informational checklist (1999: 123) can be useful in order to clarify the relationship between hypertextual transposition and printed annotated edition. One of the hypotheses we can set is that because of the increased possibilities offered by multimediality, the contents of a hypertextual transposition are richer than the contents of a printed annotated edition. It is important in our analysis to verify if this is true.

Related to the criterion of coverage is the consideration of the intended audience, that is, of “the group of people for whom material was created” (Alexander & Tate 1999: 14). Taking into consideration this aspect, we should verify if in the considered applications there is a page that explicitly provides this information. In the particular case of

hypertextual transpositions we can observe that the tendency in hypertextual transpositions, as it is in many other kinds of applications (cf. Crivelli 2001), is to widen the target audience. The same application is offered to different target audiences. This attitude, however, weakens the effectiveness of the application itself. Typically, hypertextual transpositions are intended at the same time for researchers and students, or for students and people that have a personal interest in a given literary work. Therefore, it is important to verify the accuracy of the definition of the hypertextual transposition's target audience (it is important to avoid what advertising names "wastage").

#### 1.2.1.2 Considering the fundamental structure of web sites

In order to investigate our central theme (how does the act of reading a literary text take place in hypertextual transpositions?), it is essential to tackle the application design. To this purpose, it is useful to consider a scheme of the general structure of a web site.

A web site is "(A) a set of ideas, messages, interactive possibilities like buying, bidding, etc.; (B) a number of tools which give access to those contents or functions, hardware and software: html pages, scripts, graphics and so on; (C) people who have those ideas, have built the web service and run it; (D) people who visit the website and have access to those messages or activate functionalities" (Cantoni & Bolchini 2001: 2). Thus, a web site consists of four levels:

- (A) Content and possible activities and interactions
- (B) Tools available to clients for accessing (A)
- (C) People offering (A)
- (D) Clients accessing (A)

To a certain extent these levels correspond to the traditional criteria of information quality evaluation. For instance, level (A) partially corresponds to the coverage criterion, level (C) corresponds to the authority criterion and level (D) corresponds to the intended audience criterion. However, this distinction, and particularly the distinction between content and activities at level (A) and tools at level (B), is useful in order to go deeper in the organization of the contents and of the user's interaction within the application. We will organize our checklist according to this basic distinction.

In the particular case of hypertextual transpositions, content consists of the literary text and the added materials. In the analysis it is important to distinguish these two main different components. Consequently, tools have to be analyzed distinguishing "tools available to clients for accessing the literary text" and "tools available to clients for accessing the added materials". However, a more detailed analysis of the contents (of coverage, in Alexander and Tate's terms) regards mainly the added materials and not the literary text. Added materials can be of different kinds. The decision to include given added materials instead of others is made by the authors of the hypertextual

transpositions and it reflects their interpretation of the literary text or their ideas about the most suitable use of the application.

First of all, added materials can address different layers or aspects of the literary text structure or significance, namely narrative aspects, linguistic and stylistic aspects, aspects related to the text history and aspects related to visual or acoustic representations of the literary text. These are categories that correspond to different aspects of the literary text. They are intertwined one with the other and therefore cannot be separated. However, it is useful to distinguish them for the purposes of the analysis. Narrative elements or aspects consist of characters, plot, overall structure of the text, geographical setting, historical setting and themes (the presentation of which can include intratextual references among different passages of the literary text). Linguistic aspects or elements consist of explanations of words or expressions used in the literary text, text paraphrase or translation. Stylistic aspects or elements (which we consider together with linguistic aspects) consist of remarks about the language and the genre of the literary text, styles used in it, intratextual references and metrical and rhetorical remarks. Aspects related to the text's "history" include author's biography, remarks about the historical context in which the literary text was produced and published, sources and echoes of the text, criticism as well as philological aspects (namely considerations about different editions of the literary text and about variants).<sup>26</sup> Finally, aspects related to visual and acoustic representations can consist of general presentation of these representations, filmic representations, theatrical representations, illustrations, recitations or aloud readings. Considering the elements of continuity existing between hypertextual transpositions and the presentation of literary texts in printed annotated and illustrated editions and in other media, to verify the kind of added materials included in them can also be useful in assessing, on a general level, which novelties hypertextual transpositions bring to literary criticism and literary studies. It can be useful to understand if the use of the new medium

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<sup>26</sup> In Gérard Genette's terms (1997), some of these contents are part of the paratext, more precisely of the epitext. It is the case of annotations provided by the author of the literary text, biographical remarks or remarks about the historical context provided through other texts (other works, letters, diaries, articles, interviews) by the author of the literary text. However, most of these contents would fall outside Genette's paratext, since they are produced by editors or commentators without connection with or responsibility of the author her/himself (cf. 1997: 337). In this sense, most of them would rather belong to Genette's category of metatextuality (1997: xix, 343). On the contrary, in hypertextual transpositions, most of the elements that according to Genette constitute the paratext – titles, intertitles, epigraphs, dedications, prefaces, postfaces, etc. – would be part not of the added materials, but of the literary text itself (that is, of the included electronic version of the literary text). Rather than through Genette's framework, the added materials included in hypertextual transpositions belonging to the layer of text's "history" could be identified with the aspects constituting the "inter-textuality" as defined, for instance, in Bennett & Woollacott 1987 (cf. also Bennett 1990). "Inter-textuality" consists in all "the social organisation of the relations between texts within specific conditions of reading" (Bennett & Woollacott 1987: 45) and it highlights how cultural, ideological and social aspects shaped (organized) and continue to shape the text's reception (the reading and the understanding of the text) by given readers' groups and in given moments of history.

leads to the creation and use of new kinds of contents for literary text comprehension and for the enrichment of the reading experience, and also if the use of “traditional” contents of literary criticism and literary studies or if some of these “traditional” contents become more important.

Second, added materials can be annotations or essays. Annotations usually are short comments related to precise and short passages of the literary text, while essays are longer texts that usually develop global aspects or comment wide portions of it and in which a more overall argumentation is developed. This distinction belongs to the realm of print. However, it is interesting to note that in hypertextual transpositions themselves this distinction is used. For instance, in some of the considered examples of hypertextual transpositions (namely, in MM1, LM1 and M2) collections or links named “Essay(s)” are available. Jakob Nielsen (1995: 142) emphasized the presence in hypertexts of annotation links (cf. descriptions in Appendix 2).

A special link type is the annotation link to a small, additional amount of information. The reading of an annotation typically takes the form of a temporary excursion from the primary material to which the reader returns after having finished with the annotation. Annotations are quite similar to footnotes in traditional text (...). However, we could suppose that, because of the contents fragmentation characterizing hypertext, in hypertextual transpositions annotations are more widely used.

Third, in hypertextual transpositions, because of multimediality, added materials are usually provided by means of different media, namely verbal written text, audio device, static images or dynamic images (videos). Checking which media are used in order to address the different layers or aspects of the literary text’s structure and significance will allow us to identify and highlight possible novelties introduced by multimediality.

### **1.2.2 Hypermedia design**

In the field of hypermedia design other useful conceptual tools have been elaborated in order to go deeper in the description of the organization of the navigation within the application. Particularly useful is the consideration of the concept of design patterns and of some concepts of the so-called W2000 model.

In the field of hypermedia design interface and navigational patterns have been identified in order to solve recurrent problems in application design. These patterns are also used in order to describe the organization of the interaction between the user and the application (Garzotto, Paolini, Bolchini & Valenti 1999), which constitutes an important component of the act of reading hypertextual transpositions. Therefore, in our analysis of

hypertextual transpositions it would be useful to verify the presence of given design patterns. More precisely, it would be useful to consider the active reference pattern, the behaviour anticipation pattern, the information factoring pattern and the guided tour pattern.<sup>27</sup> These patterns do not identify specific features of hypertextual transpositions, but, since they highlight aspects of the user's navigation, they can help in identifying some characteristics of the act of reading a literary work when it is transposed in a hypertextual form. The active reference pattern consists in the maintainance of an "active and perceivable navigational object acting as an index for other navigational objects", which provides "a perceivable and permanent reference about the current status of the navigation". The anticipation behaviour pattern provides "feedback about the effect of activating each interface element", thus helping the user in foreseeing it. The information factoring pattern presents "information needed by the reader to understand a given topic/information unit in a pop-up window ("in-place" activation). In this way "the reader does not have to navigate to another node avoiding the inherent context switch and cognitive overhead". Guided tour pattern consists in providing a guided access to a group of informative objects, by "identifying an order among the collection members, and creating sequential links among them".

W2000 is a recent evolution of HDM (Hypermedia Design Model) (cf. HOC – Politecnico di Milano 2001). HDM was conceived in 1990 at the Hypermedia Open Center of the Polytechnic of Milan and it has been the archetype of various models for hypermedia design (cf. Garzotto et al. 1993 and HOC – Politecnico di Milano 2001). One of its fundamental concepts is the distinction between two layers of web applications, namely "hyperbase" and "access structures". Hyperbase consists of the application contents (in the case of hypertextual transpositions, for instance, the literary text itself, the included illustrations of the literary text, the various available annotations, the various essays explaining different aspects of the literary text, etc.) and of the messages the application communicates to the user (in the case of hypertextual transpositions, they essentially coincide with the literary text's interpretation the application contents and their structure let emerge). Access structures consist of the devices or contents' organizations that allow the user to access the hyperbase. The essential concept of access structures layer is the concept of collection. A collection is a

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<sup>27</sup> We refer essentially to design patterns described in the Hypermedia Design Patterns Repository (an initiative of ACM-SIGWEB in collaboration with the University of Italian Switzerland; <http://www.designpattern.lu.unisi.ch/>). Quotations used hereafter in order to describe these patterns are drawn from this repository. On the Web it is possible to find also other sites dedicated to design patterns, such as "www.welie.com" (<http://www.welie.com/>) or "UI Patterns and Techniques" (<http://time-tripper.com/uipatterns/>). However, they are less interesting to us, because they deal with very general aspects of the application design. The first one deals with patterns about how to make the possibilities of navigation available in an effective way (mainly, from the visual point of view), while the patterns presented in the second one take care of the user's orientation within the different parts of the application.

set of objects. It is a hierarchical concept. There are base collections that gather informative objects of the hyperbase and collections of collections that gather different other collections. The criteria according to which the objects are gathered in a collection (that is, the criteria according to which a collection is established) are decided by the designers and can be of very different types. A collection establishes a cognitive context, which has an impact on the comprehension of the informative objects themselves. As a cognitive context a collection adds something to the meaning of each one of its members. The fact of being part of the set of informative objects corresponding to a given collection says something more about (it communicates an aspect of) the considered informative object. For this reason, it is important to observe which cognitive contexts (which collections) are established in the considered hypertextual transpositions.

W2000 distinguishes between structural links and semantic associations. Considering general definitions, semantic has to do with how things refer to the world and to the possibility of having meaning, while structure refers to how things are arranged. Correspondently in W2000, structural links allow the user to navigate within the components of a given information object (they structure a given informational object). Semantic links (which manifest semantic associations) define possibilities of navigation between two different information objects (or information object types) that are considered to be relevant to the users and have a semantics attached to them. In relationship to our research questions, semantic associations and semantic links (or, more generally defined, links among different objects of the hyperbase) are important, since they coincide with the associations among informative objects that the designer considered so worthwhile for the reading and comprehension to decide to make them explicit. Besides, semantic links allow the user free navigation among contents. Therefore, it is interesting to observe if and which semantic links are proposed. In fact, the more semantic links (or links among different informative objects) are available, the more the integration of added materials and literary text is supported. The less semantic links are available, the more the structure of the hypertextual transposition is similar to an archive, where the reader finds lots of materials that s/he can relate one to the other according her/his personal needs. To investigate the presence of links among different objects of the hyperbase reveals whether some associations are made explicit by the designer or if the task to relate the different contents of the application is left up to the reader.<sup>28</sup>

Links of whatever kind presuppose a reader's choice. However, in hypermedia there also are automatically displayed or automatically activated contents or elements. They are interesting, since they correspond to designer's choices about what the reader must

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<sup>28</sup> A further problem related to semantic associations is to know if and to which extent the anchor of the semantic link manifests the semantics of the association. This problem will be addressed in the third part of this work.

access and read. They do not presuppose the reader's choice, rather they are imposed. In our checklist we will take them into consideration, in order to verify which contents are automatically displayed or activated, especially in relationship to the literary text.

### **1.2.3 Considering peculiar features of hypertextual transpositions**

The purpose of hypertextual transpositions is the “comprehension” of the literary text. The literary text is the core of such an application and the added materials are functional to the literary text itself. Therefore, besides distinguishing literary text and added materials at the level of tools (level B of Cantoni & Bolchini 2001), it is essential to focus also on the intertwining of literary text and added materials. From the point of view of the act of reading it is important to understand how the user can access the content, but, moreover, it is important to clarify when and from where a given added material is accessible. It is important to answer questions such as which information is directly accessible for the reader from the literary text pages, if the added material is accessible only from the literary text pages or also (respectively only) independently on them, and whether on the added materials pages a connection to the literary text is always available or not (cf. point 2.3 of our checklist).

In order to attempt to capture the specificity of the interaction of a reader with the hypertextual transposition, it is necessary to take into consideration the specificity of the act of reading a literary text. Through the centuries several disciplines have tried to describe this fascinating human process. Philosophical hermeneutics<sup>29</sup> faced the problem of how human beings understand, how it happens that we comprehend something. Hermeneutics “explores how understanding occurs at all” (Weinsheimer 1991: x). It does not propose a method of interpretation, what interpreters do or should do (as, on the contrary, does hermeneutic theory as represented for instance by Emilio Betti), but “it asks (to put it in Kantian terms): How is understanding possible” (Gadamer 1975: xxix-xxx). It aims “to discover what is common to all modes of understanding” (Gadamer 1975: xxxi).

The act of reading and understanding a literary text is one particular type of human understanding. Highlighting the factors of each type of understanding, philosophical hermeneutics also describes some central features of the process of text comprehension. As regards hypertextual transpositions, taking into consideration the factors of human understanding as pointed out by philosophical hermeneutics we can try to identify the devices that in such an application can sustain the occurrence of understanding. The occurrence of these central factors does not depend only on how the application itself is built. It also depends (even for a big part) on the reader her/himself. However, a different

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<sup>29</sup> We will particularly refer to the works of Hans-Georg Gadamer.

hypertextual transposition design supports the occurrence of these central factors in a different way and to a different extent. Therefore, philosophical hermeneutics can offer hints for the heuristic approach to hypertextual transpositions.

The first feature is that the act of reading of a literary text is an experience of the text. The understanding of the text derives from the “fusione di orizzonti”, from the “incontro tra ciò che il testo afferma in un codice tanto più occulto quanto più distante e ciò che il suo interprete decifra, come in una traduzione” (Raimondi 1990: 31). “Per comprendere, osserva questi [Gadamer], è necessario ascoltare riconoscendo, nell’atto di ‘lasciarsi dire qualcosa’ da un testo, la sua alterità. L’attenzione di ‘una coscienza ermeneuticamente educata’ è la disposizione verso ciò che di nuovo il testo, alla maniera di una persona, ha da dire” (Raimondi 1990: 28). This character of encounter (or of “crash”, using Gadamer’s term)<sup>30</sup> with the text is recognized as a characteristic of the reading of a literary text also in the field of empirical studies of literature. For instance, David Miall underlined that “the act of reading can in itself be made creative by the encounter with the text. This opposes the ‘always already’ of post-structuralism in which it is argued that a text can only exist by replicating existing textual fragments and strategies” (Miall 1998a). As also Hunt and Vipond concept of “dialogic reading” underlines (cf. Hunt 1991, 1999), comprehension of a literary text is the result of a dialogue between the reader and the text and the result of the reader’s “listening” to the literary text. This requires an “absorption” in the text.<sup>31</sup>

In his description of a passage of poetry from Wordsworth, Miall gives a sense of how absorption in a literary text can take place:

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<sup>30</sup> “Bisogna dire che in generale quello che ci costringe a riflettere e richiama la nostra attenzione sulla possibilità di un uso diverso del linguaggio che ci è familiare, è l’esperienza di un ‘urto’ che si verifica di fronte a un testo – sia che il testo non esibisca alcun senso, sia che il suo senso contrasti irriducibilmente con le nostre aspettative” (Gadamer 1983: 315).

<sup>31</sup> Absorption is an essential aspect of the experience of literary reading and, as such, it has been widely investigated in the field of literary studies and of empirical studies of literature (both through qualitative and quantitative methods). Nevertheless, its definition constitutes a hard point (cf. Braun & Cupchik 2000). Some scholars, such as Viktor Nell, defined it as the result of concentrated attention (it is “the effortless concentration involved when reading for pleasure. To become absorbed, reading must be automatized so that attention is not otherwise engaged in understanding the symbols of the text”). Other scholars, namely Ingrid Braun and Gerard Cupchik, interestingly proposed to understand it as a precondition to reading experience. On the base of Iser’s conception of what the reading process of a literary text is (they refer to Iser 1980), Braun and Cupchik state that “Readers can only connect to the story representation in the virtual dimension if it is experientially relevant to them. A connection is made when readers apply their life experiences to the story as laid out by the suggestions of the text. Absorption is a quality of the virtual dimension, occurring when the structural parameters of text (i.e., plot and surface features) and structural parameters of experience found in phenomenological (i.e., sensory, emotional, and feeling) elements or in historical experience (personal experience) converge in the virtual dimension. So, when the reader connects to the text’s suggestions, we have *intrinsically* founded absorption. Absorption, then, is a *precursor* to concentrated attention because it exists when the reader relates experientially and emotionally to the story” (Braun & Cupchik 2000).

Unlike the information processing called for by Landow, or the playful, ludic attitude proposed by Bolter, this passage seems to call first for the immersion of the reader in the extended, highly evocative language of the poetry: it is an effortful, constructive activity (...) To become attentive to the tone of the words, to hear the rhythms and textures at work within them, takes a rather special, extended kind of attention. A part of the work seems to be the evocation of our own concepts, memories, and feelings, which are required in order to situate the new perspective that the poem seems to be offering us; but the poetry in its turn may modify these. This kind of reading embodies a dialogical process, an interactive exchange of our concepts and feelings with those of the poet. It is a process that seems to unfold in alternating phases of receptivity and self-awareness (Miall 1999b).

Similarly in hermeneutic tradition there is a belief that literary texts can absorb the reader in listening and dialogue: “I testi letterari sono fatti in modo tale che, nella loro lettura, si debba dare ascolto alla sonorità, anche forse soltanto all’orecchio interiore, e che quando vengano recitati non si ascoltino soltanto, ma vi si dialoghi intimamente” (Gadamer 1995: 312). As Douglas and Hargadon (2000: 154) clearly summarized, the literary text comprehension and the pleasure of reading derive both from immersion (allowed by the recognizing in the literary text of familiar schemas) and from engagement (allowed by overturnings of schemas or by conjunctions of conflicting schemas). However, it is a process that belongs to the interior sphere of the reader (“La lettura è un fatto della pura interiorità”, Gadamer 1983: 197). It is an affective process. “La comprensione è un evento, un’esperienza, un accadere limitato e determinato in cui peraltro entra in gioco, e secondo regole precise, l’essere di chi accoglie il testo come palestra di ‘una disciplina del domandare e del ricercare, che garantisce la verità’” (Raimondi 1990: 31). Because of this character of the reading of a literary text, according to David Miall, hypertext presents several shortcomings in respect to an effective and successful reading. “Literary reading is predominantly an affective process, whereas the medium of hypertext tends to place emphasis on the discursive” (Miall 1999a; cf. also Miall & Dobson 2001).

The presence of hyperlinks on the electronic version of the literary text is, according to Miall, the first instance of the impossibility of the reader to get absorbed in the act of reading.<sup>32</sup> However, he tried to identify devices or ways of implementing the contents of a hypertextual transposition that could at least minimize these shortcomings. He

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<sup>32</sup> It has to be noted that this kind of intrusiveness is also attributed to footnotes in printed annotated editions (Beehler 2001, Derrida 1991, Groden 2001).

produced a CD-Rom on English romantic literature, adopting such devices. Among them there is (Miall 1999b):

- to separate the access to literary texts and the access to other added materials;
- to use a clear anchor that highlights the access to the texts;
- to emphasize a single-windows layout, with no overlapping screens, so that the text can be read in a full mode (“the environment fosters the integrity of the single text and the sustained attention it requires from readers”, Miall 1999b);
- to use on the text screens unembedded links instead of embedded links (“this makes it possible to read a poem while ignoring the invitation to follow links or activate pop-up boxes”, Miall 1999b);
- to use one-way links, instead of double-way links, from the secondary texts into the primary text (in this way primary texts were kept clear of links);
- to include reader’s utilities, such as the possibility to make a bookmark and the possibility to annotate a text (“In this way readers can personalize the software, leaving traces of their reading to orientate themselves during subsequent reading”, Miall 1999b).

Considering our comments on the characteristics of the act of reading a literary text and David Miall’s attempt to implement a CD-Rom that respects it, we can complete our checklist with some other relevant questions. As regards the tools, we can observe:

- how the literary text can be accessed;
- how the literary text collection is structured;
- how the reader can navigate within this collection;
- if the literary text is presented on a screen clear of links; if not, we can observe if these links are embedded (more intrusive in respect to the literary text itself) or unembedded (less intrusive);
- if the access to the literary text (that is, the device that allows the reader to encounter the text) is evident to her/him and if it is in some way privileged in respect to the access to the other contents of the hypertextual transposition.

Concerning the organization of the added materials in respect to the literary text, it will be useful to observe if links are one-way or double-way. As regards the contents, we can check if reader’s utilities are available and which operations the reader can perform on the literary text (subsequently, at the tools level, we will observe how the reader can perform these operations).

A second interesting characteristics of comprehension (and, therefore, also of text comprehension and act of reading a literary text) pointed out by classical hermeneutics, is the involvement in the understanding of “judgement and taste”. According to Gadamer, judgement and taste are related to the ability to view the particular in its relationship to the whole and the ability to grasp the universal in the particular. The aesthetic experience for Gadamer has to do with this judgment. That is, the aesthetic experience goes beyond the sensual data to reach a level that is almost objective.

Through judgement the value (in our case, the value of a text) emerges. Not all texts are equal. In the act of reading the reader experiences the text and in this act the value of the text emerges. This value consists in significance for the reader. It is the experience of the pleasure of the reading, the experience that an author of the past can still today speak to me. As much as an author gets near the universal as much he remains significant during the time (that is, as much s/he has value). The value is measured as text meaningfulness, that is, as capacity of the text to provoke a change (in Peircean term, we could say a habit change) in the readers of the future.<sup>33</sup> This is not a common shared notion in literary theory and in theory of literary interpretation. It has been and it still is a widely discussed topic (cf. Connor 1992 for an overview). Some modern approaches (such as postcolonial studies) argued against the universal character of literary texts' interpretation, pointing out that such a view could destroy the specific identity to which a literary work refers. Within these streams of research scholars underlined that literature reveals identities related to different communities and that narrative is an important vehicle of national and cultural differences (cf. Copley 2001: 40-41). Accordingly, interpretation cannot be considered universal. However, we want to precise that judgment as recognition of the universal in the particular does not forcibly and automatically cancelled differences in the perception of values. The value readers recognize in a given text can be different and this difference depends, of course, on readers' identity, history and culture. However, a change occurs in the reader and the occurrence of this change is a matter of fact (even if experienced in a subjective way and, thus, hardly verifiable at the empirical level). It takes place through the operation of evaluation, which (as several scholars in the field of empirical studies of literature pointed out) is an essential mental-affective process involved in the act of reading.<sup>34</sup> In the same line, but adopting a more general perspective on the problem, Connor (1992: 8)

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<sup>33</sup> "Il senso normativo che è contenuto nel concetto di letteratura universale significa che le opere che in essa rientrano rimangono significative anche se il mondo a cui esse parlano è tutto diverso" (Gadamer 1983: 199).

<sup>34</sup> In Argenton & Messina 2000 several studies and approaches to literature and reading stressing the importance of the process of evaluation are presented. Some approaches deal with evaluation of precise aspects and elements of literary texts. It is the case of Miall and Kuiken's theory of defamiliarization (Miall & Kuiken 1994), as well as of Hunt and Vipond's notion of "dialogic reading" (cf. Hunt & Vipond 1991; cf. also Argenton & Messina 2000: 190-191), where the process of evaluation of literary text's features plays an essential role. Other approaches consider evaluation as a more comprehensive process of taking into consideration experiential aspects, feelings and emotions arising during the act of reading. For instance, starting from the model of comprehension of Kintsch and van Dijk (1978; Kintsch 1988), Kneepkens and Zwaan investigated the interrelation between the cognitive and affective dimensions in the process of literary text's comprehension and they underlined that the attribution of meaning to the emotions that emerge in the act of reading occurs through an appraisal process, which is a form of cognition (cf. Argenton & Messina 2000: 176). Spiro investigated the differences and the relationships in the act of reading between two forms of comprehension, namely the "analytic, discursive and denotative" form of comprehension and the "experiential, evaluative and holistic" form of comprehension (cf. Argenton & Messina 2000: 186).

points out that “value is inescapable”, in the sense that it is not possible for human beings to avoid processes of interpretation.<sup>35</sup> Applying this perspective to our main object of study, we notice that hypertextual transpositions include several different kinds of contents and contents with several different functions. It is essential for the reader’s comprehension of these contents (and, therefore, for an effective and successful reading of the literary text) to grasp the different functions of the different contents, to judge their different value, to grasp the relationship of the particular added material to the whole significance of the literary text. Because of the tendency to inclusiveness that characterize hypermedia applications and because of the fact that “computer processing also tends to reduce everything to the same plane or level” (Hockey 2000: 140),<sup>36</sup> the realization of this reader’s need is not guaranteed in hypertextual transpositions. Besides, the importance of the suitability of the application to such a need has often been minimized in hypertext studies. Transposing in the realm of hypertext positions that in literary criticism contested “relationships of authority between the so-called principal text, the footnoted text, which happens to be higher (spatially and symbolically), and the footnoting text, which happens to be lower, situated in what could be called an inferior margin” (Derrida 1991: 193; cf. also 203-204), well-known hypertext scholars stated that the value of all materials included in hypertext is equal or, at least, that it is not hierarchical (Bolter 1993 257; Landow, 1998: 103, 120-125; Miall 1998a). Landow stated this aspect very clearly in the following passage

One experiences hypertext annotation of a text very differently. In the first place, electronic linking immediately destroys the simple binary opposition of text and note that founds the status relations that inhabit the printed book. Following a link can bring the reader to a later portion of the text or to a text to which the first one alludes. It may also lead to other works by the same author, or to a range of critical commentary, textual variants, and the like. The assignment of text and annotation to what Tom Wolfe calls different “statuspheres” therefore becomes very difficult, and such text hierarchies tend quickly to collapse (1997: 85).

Similarly, Terence Harpold stated that

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<sup>35</sup> “Value is inescapable. This is not to be taken as a claim for the objective existence or categorical force of any values or imperatives in particular; but rather as a claim that the processes of estimating, ascribing, modifying, affirming and even denying value, in short, processes of *evaluation*, can never be avoided. We are claimed always and everywhere by the necessity of value in this active, transactional sense. The argument (...) [is] that we should acknowledge that value and evaluation are necessary as a kind of law of human nature and being, such that we cannot help but enter the play of value, even when we would wish to withdraw from or suspend it” (Connor 1992: 8).

<sup>36</sup> “Computer processing also tends to reduce everything to the same plane or level. It does not privilege important material and the user is thus expected to know what is important in this database” (Hockey 2000: 140).

One of the most conspicuous traits of hypertextual form is founded on the absence of a class of structures that are common in other kinds of texts. Hypertexts lack cues marking clear divisions between the ‘primary’ text and what Gérard Genette has called the ‘paratextual’: the footnote, the chapter title, the marginal scribble – the array of printed matter on the periphery of the book. In a hypertext these elements are perceptually as ‘close’ to the trajectory of a reading as any element within the reading’s ‘primary’ path, and the same may be said of linked lexias from ‘other’ documents, outside a text’s formal limits (1994: 195-196).

Considering the history of writing, it is true that the importance of footnotes or annotations was not always secondary to that of the text itself. For instance, in early modern books annotations occupied an important position, since they were used in order to confute or to polemize with other authors or other texts or to present different interpretations of a given fact or a given topic (Tribble in Bornstein & Tinkle 1998). Besides, the typographical differentiation between text and notes or glosses appeared at a certain point in history, namely at the middle of the thirteenth century. It has not always been like this. Before notes and glosses were interlinear and constituted, therefore, a continuum with the text (see Colombo & Eugeni 1996: 55-60).

However, considering the particular kind of applications we are studying, we have to take into consideration and to include in our checklist the judgement-evaluation criterion highlighted in hermeneutics, because the understanding of the function of each one of them is essential as to the understanding of the application as a whole. The aim of the added materials included in the hypertextual transposition is to explain, highlight or let the reader infer particular aspects of the literary text, in order to let her/him understand the literary text significance and, thus, enrich her/his reading experience. Therefore, first, it is important for the reader to identify different types of contents. The criteria we inserted in our checklist, starting from the consideration of the text encounter principle, indirectly point out also this aspect of the application. However, we can more directly throw light on it by observing if and how added materials and literary text are differentiated. Second, it is important for the reader to understand to which part of the literary text a given added material refers to. Therefore, we will observe how precisely the relationship between the sign of the literary text and the added material is signaled.

Generally speaking, in printed annotated editions this relationship is signaled through the use of footnotes or the spatial juxtaposition of the added material and the interested passage of the text. In printed annotated editions the relationship between the original text and the comments is mainly manifested by a spatial physical contiguity allowed by the system of footnotes.<sup>37</sup> The page is divided in zones: a zone for the literary text and a

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<sup>37</sup> Even if we do not have to forget the variety of formats annotations can assume in printed editions. Cf. note 3.

zone for the comment. The portion of text and corresponding comment appear on the same page. It is interesting to observe in the new medium if the organization of the added materials in respect to the literary text also relies on the same principle. That is, if it is possible to view simultaneously and to compare different contents. This could be done through the use of frames and pop-up windows.

#### **1.2.4 The final checklist**

The final checklist (which is completely provided in Appendix 1) consists of forty-one questions. Some of them are “yes or no” questions, while others are questions requiring a descriptive answer. In answering all them, the application as a whole will be described and the elements and aspects having an impact on how the literary text is read will be elicited.

Questions are divided in three main categories (namely, “1. Content and possible activities and interactions”, “2. Tools available to clients for accessing 1” and “3. Clients accessing 1”), which corresponds to three essential levels of the structure of a web site, we exposed at paragraph 1.2.1.2 on the base of Cantoni & Bolchini 2001 (the level considering the authors – “People offering (A)” – is not directly taken into consideration in the checklist, but, as we will explain in the next paragraph, it has been considered as a criterion for the choice of the hypertextual transpositions to be analyzed).

Questions belonging to the first category aim at casting light on the kinds of included contents (cf. “coverage” criterion at paragraph 1.2.1.1 and content layer at paragraph 1.2.1.2). Two main categories of provided contents are analyzed. They correspond to the two main categories of contents comprised in a hypertextual transposition besides the core literary text. They are namely “Annotations and added materials” and “Possible activities and interactions”.

Questions belonging to the second category aim at clarifying how the reader can access to the different hypertextual transposition’s contents. We obtained five subcategories of questions. The first one focuses on the access to “Annotations and added materials”, the second on the access to the literary text, the third on the intertwined access between added materials and literary text, the fourth on the access and modality of performance of “Possible activities and interactions” and the fifth on general aspects of the navigation (namely, on the presence of given design patterns).

The third category is composed of two questions aiming at clarifying if the hypertextual transposition’s target audience is precisely and explicitly circumscribed or if it is as broad as possible. This has (or should have) an influence on the way the application is structured.

## 1.3 Analysis of some hypertextual transpositions

On the base of this checklist we inspected seventeen hypertextual transpositions. Their complete analysis is provided at Appendix 2. In the following paragraphs, after having explained the reasons of the choice of these precise examples of hypertextual transpositions, we will summarize the major results.

### 1.3.1 Analyzed hypertextual transpositions

In choosing the hypertextual transpositions to analyze we considered several criteria, dealing with the nature and the features of the literary text at the core of the application and with the reliability of the authors/designers (in a broad sense, those officially responsible for the production of the literary text and the hypertextual transposition).

We analyzed hypertextual transpositions of Homer's *Odyssey*, of Dante's *Divine Comedy*, of Boccaccio's *Decameron*, of a sample of Shakespeare's plays (*Hamlet*, *Macbeth*, *Measure for Measure*, *A Midsummer Night's Dream* and *Romeo and Juliet*) and of Mary Shelley's *The Last Man*. Here are the detailed references (to each hypertextual transposition an abbreviation is assigned, which will be used from now on to identify it):

- D1) The Decameron Web. Available at [http://www.brown.edu/Departments/Italian\\_Studies/dweb/](http://www.brown.edu/Departments/Italian_Studies/dweb/).
- DC1) The World of Dante. Available at <http://www.iath.virginia.edu/dante/>.
- DC2) Princeton Dante Project. Available at <http://etcweb.princeton.edu/dante/index.html>.
- DC3) *La Divina Commedia: [Inferno]: un viaggio interattivo alla scoperta del capolavoro dantesco.* – Milano: Rizzoli New Media, cop. 2001.
- DC4) ILTweb Digital Dante. Available at <http://dante.ilt.columbia.edu/>.
- DC5) Webscuola – L'Inferno dantesco. Available at <http://webscuola.tin.it/risorse/inferno/index.htm>.
- H1) Webscuola – Amleto. Available at <http://212.216.182.159/risorse/amleto/>.
- H2) Hamlet on the Ramparts – MIT. Available at <http://shea.mit.edu/ramparts/>.
- LM1) *The Last Man* by Mary Wollstonecraft Shelley. A Hypertext Edition by Steven E. Jones. Available at <http://www.rc.umd.edu/editions/mws/lastman/index.html>.
- M1) BBC Shakespeare on CD-ROM. *Macbeth.* – London: BBC Education: HarperCollins, cop. 1995.
- M2) *Macbeth.* – The Voyager Company, cop. 1994.

- M3) William Shakespeare's Macbeth – Bride Digital Classic. Bride Media International, cop. 1999.
- MD1) Midsummer Night's Dream – Lingo.uib, Universitetet i Bergen. Available at <http://cmc.uib.no/dream/index.html>.
- MD2) BBC Shakespeare on CD-ROM. A midsummer night's dream. – London: BBC Education: HarperCollins, cop. 1996.
- MM1) Interactive Shakespeare. Available at <http://www.holycross.edu/departments/theatre/projects/isp/>.
- O1) Odissea – Milano: Rizzoli New Media, cop. 2001.
- RJ1) William Shakespeare's Romeo & Juliet – Bride Digital Classic. Bride Media International, cop. 1999.

These hypertextual transpositions are all devoted to “classical” literary texts, that is, to texts that are considered part of the world literary canon. With this criterion of choices we do not intend to state a particular position within the long debate about the literary canon.<sup>38</sup> Rather, the reason of the choice of this criterion is more “practical” and it resides in the fact that, in order to detect the most “universal” factors and conditions the hypertextual form introduces in the act of reading the literary text, we wanted to analyze literary texts, the reading of which is widespread all over the world. Since the texts, to which are devoted the above-mentioned hypertextual transpositions, are considered significant in every culture, their reading is not bounded and restricted to readers belonging to a particular cultural context. They are read all over the world and they also are usual study topics in schools all over the world. Their audience is therefore very broad. It includes readers who read these texts for pleasure and also students to whom these texts are proposed as pathways to the world cultural wealth. Because of their belonging to the world literary wealth, a wide range of printed annotated and illustrated editions of these texts exists. This fact allows us to compare hypertextual transpositions and printed editions, thus exploring similarities and differences between these two different kinds of artefacts. For the same reason, they are among the texts for which a

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<sup>38</sup> The notion of “literary canon”, particularly its legitimacy and its usefulness, underwent to an intense debate throughout the 1980s (cf. Bolter 2001: 165-167, where such a debate is resumed). The legitimacy and the usefulness of the literary canon were argued against (or suspiciously looked) by several scholars and professors, because of the power the canon exercees on the choice of the texts to be read. The canon was seen as pushing given texts at the margins of the world literature and fostering a notion of literary studies and reading as communion with some great souls (Bolter 2001: 166). In relationship to this debate hypertext scholars immediately considered hypertext as the possibility to make up for the fixity of the canon. In fact, according to them, this fixity derived from the book technology (from the high costs each change in print entails). Thanks to the easiness with which new texts can be “published” and new anthologies or texts collections can be provided, hypertext offered a solution allowing the existence of a more quickly changeable canon (Bolter 2001: 165-169; Landow 1997: 245-252). As to the notion of canon, its origins, its relationship with the problem of authority and its implications as to text interpretation, cf. also Iser 2000: 13-40.

larger number of hypertextual transpositions exist. This fact allows us to take into consideration and to compare different applications devoted to a same literary text.

It also allows us to find hypertextual transpositions, which are (or which have good chances to be) reliable from the point of view of their authors/designers. According to Alexander and Tate (1999; cf. paragraph 1.2.1.1), the criterion of authority was an important criterion for the evaluation of the reliability and of the quality of the information found on the Web. Some of the considered hypertextual transpositions (namely some of the CD-Roms) were published by important and well-known publishers (Rizzoli New Media, BBC Education and HarperPublisher). Some of them were created by universities, university institutes or other educational institutions. Finally, others were available for purchase on the site “Social Studies School Services” ([www.socialstudies.com](http://www.socialstudies.com)), a portal for teachers and educators. The nature of the generators of such hypertextual transpositions is taken to guarantee (at least at a satisfying degree) that care has been given to structuring and designing the application in such a way that the reader’s navigation brings her/him to reading, enjoying and/or studying the literary text.<sup>39</sup>

Finally, the chosen hypertextual transpositions deal with very different literary texts. This was considered another important aspect in order to identify through the analysis the most essential characteristics of the category of hypertextual transpositions. These literary texts, to which the above-mentioned hypertextual transpositions are devoted, are very different one from the other. They belong to different literary genres and, at their origins, they were thought for different types of fruition. Therefore, considering this range of literary texts, we should be able to overcome specific features of the application related to particularities of the literary text. By analyzing hypertextual transpositions devoted to so different literary texts, we should be able to identify the most fundamental features of this category of hypertexts and the most fundamental factors of reading literary texts through them.

Homer’s *Odyssey* is a narrative epic poem. It was composed in verses and it contains many formulas and formulaic expressions, that is, many repeated groups of words and key-phrases. According to Albert B. Lord (2000), these are signs of the oral origins of the poem. The *Odyssey* is an oral composition (it was composed during its oral performance; Lord 2000: 5). The original fruition modality of the *Odyssey* was, therefore, very different in respect to the modality we adopt nowadays and, moreover, it was very different from the modality of hypertextual fruition. The poem appeared before

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<sup>39</sup> Some of the chosen hypertextual transpositions do not respect all the above-described criteria. Particularly, we analyzed only one hypertextual transposition of Homer’s *Odyssey*, Boccaccio’s *Decameron*, Shakespeare’s *Measure for Measure* and *Romeo and Juliet* and Shelley’s *The Last Man*. However, these hypertextual transpositions have been included in our sample because they respect all the other criteria and they appear to be the most authoritative hypertextual transpositions of those literary texts on several portals of web resources.

the invention of writing and the division in twenty-four books (according to which we are used to read this text) appeared only when the poem began to circulate in a written form (this likely happened at about the seventh-century BCE; Cobley 42-44). In the *Odyssey* we find a text's structure, which is for us "traditional" (the one according to which we are accustomed to read the poem), but that is not the very original one. It goes different in some of the other literary texts, the hypertextual transpositions of which we choose for the analysis.

Dante's *Divine Comedy* is a narrative allegoric poem (about these aspects, cf. Cobley 2001: 68-69). It is a text in which the structure is very important. This structure was established by Dante himself and it strongly contributes to the significance of the text. Some of its main central structural features are the following: the poem is composed of three cantiche (three is the perfect number), each cantica is composed of thirty-three cantos (a multiple of three) and it is composed in terza rima. As it was usual in the Middle Age (cf. Ong 1986: 28), it was meant to be recited and listened, not to be privately and silently read (as we are accustomed to do nowadays). However, unlike Homer's *Odyssey*, it is a written composition. Its allegoric character, as well as the fact that mentioned places and characters mainly correspond to real contemporary or historical places and characters, makes it an ideal text to be visualized (as the long iconographic tradition born around it demonstrates, cf. paragraph 1.1.2).

Boccaccio's *Decameron* is in prose. It also is a written composition, the structure of which was established by its author. This structure (the presence of a "frame-narration", the division of tales in ten days according to themes and according to the member of the brigata who rules the day) has an accentuated function of organization of the narration. This division points out important aspect of the narration itself, such as, precisely, the predominant theme of each tale.

Plays are very particular kinds of text in that they call for a performance. The complete work consists of the text as it is enacted in performance, not in the text alone. In fact, as to Shakespeare's plays, we have to keep in mind that originally (when Shakespeare wrote plays for production), the text was conceived only as a script, suggesting cues and presenting to the actors the plot, the fil rouge of the story to be played. For instance, originally, Shakespeare did not introduce the divisions in acts and scenes, which were established later by editors (cf. *The Drama and Shakespeare*, <http://web.uvic.ca/shakespeare/Library/SLTnoframes/stage/scenesubj.html>). For us, nowadays, theatrical texts are part of literature and they also are often just read as a novel is read. Also, at school, they are often studied as texts and not as performances. Shakespeare's plays are considered as classical literary texts and they have found an auspicious place in the realm of new media. The advantage of multimediality for the presentation of their performance aspect has immediately been clear and therefore they have been object of several hypertextual transpositions.

Finally, Mary Shelley's *The Last Man* is a romantic novel. It has been first published in 1826. It is a written composition, thought for silent reading. The text's division is by its author, but it is not as meaningful as it is in the *Divine Comedy* or in the *Decameron*. It does not have deep semantic implications and the structure it provides to the text is less elaborated. It is functional to the structuring of the flowing of the narration time, but it seems like if it is not necessary for the reader to pay too much attention to the original text's division in order to comprehend the literary text's significance. S/he just have to follow it while reading.

### **1.3.2 Results**

In the following pages we will summarize the results of the analysis of the above-described hypertextual transpositions. We will constantly compare them with printed annotated and illustrated editions. Thanks to this summary it will thus be possible to highlight the major differences we noticed between hypertextual transpositions and printed annotated or illustrated editions. Such differences can be considered as the new factors the hypermedial technologies introduce in the act of reading a literary text.

In presenting these results, we will repropose the three main categories of the checklist, on the base of which we conducted the analysis (cf. paragraph 1.2.4 and Appendix 1). The categories are "Contents and possible activities and interactions", "Tools available to clients for accessing contents" and "Clients accessing contents". Within each one of these categories specific results will be grouped in different aspects that can resume answers to several different questions of the checklist. For the most interesting results, besides a description, also a figure will be available, in order to help the understanding of the problem. For all the described examples, we refer to the complete description of the results of the analysis, provided in Appendix 2.

#### 1.3.2.1 Contents

#### **Hypertextual transpositions and print equivalents**

As noticed above, hypertextual transpositions present several elements of continuity with printed annotated or illustrated editions. However, it is interesting to note that for none of the considered hypertextual transpositions a perfect print equivalent exists. Some of them gather and combine contents drawn from several different printed sources. It is for instance the case of D1, where almost all the available essays consist of excerpts of already existing studies or essays on the *Decameron*. However, in this way the

hypertextual transposition represents a new edition of the literary text. Often these materials drawn from previous existing printed sources are completed with materials created expressly for the hypertextual transposition. This happens also in D1 and in O1. However, there also are hypertextual transpositions the contents of which are new and produced expressly for it. MD1 commentary has been produced for the hypertextual transposition and in the case of MM1 not only added materials but also the text of the play edition and the theatre performance from which video clips have been drawn, have been produced in view of the Interactive Shakespeare Project of which the hypertextual transposition is part. A very interesting case is represented by M2, because the hypertextual transposition (published 1994) precedes the printed edition (published 1997; cf. Shakespeare 1997).

### **Attention devoted to the different aspects of the literary text structure and significance**

MLA guidelines for electronic scholarly editions state that

the content of an electronic edition differs little from that of a print edition. It should be appropriate, complete, and coherently conceived. The criteria for what is to be included in an electronic edition will generally be more expansive than those for a comparable printed edition, because of the computer's inherent ability to organize and manipulate large amounts of data (MLA 1997).

No big difference exists in added materials of hypertextual transpositions in respect to the praxis of literary commentary and annotation. The main difference regards the quantity of available materials, which is higher in hypertextual transpositions. This higher quantity of added materials provides richer presentations of the literary text, which are meant to provide a more thorough clarification of the literary text's significance. Having to read and understand more added materials, the reader has to perform a demanding inferential and interpretive process in order to avoid disorientation and confusion.

However, considering from closer the added materials in respect to the four layers of hypertextual transpositions, some interesting observations emerge. For instance, considering narrative aspects we observe that characters and places (the geographical setting of the narrated story) seem to be the most widely developed. As regards aspects of text history, philological aspects (such as presentation of different editions of the literary text or of textual variants) are not addressed in a consistent number of hypertextual transpositions, namely D1, DC1, DC3, DC4, DC5, M1, M3, MD1, MD2, O1 and RJ1. On the contrary, they are widely developed in H2 and M2. Similarly, not all

printed annotated editions include comments and annotations about philological aspects. Usually, in the realm of print, annotated editions (containing annotations addressing the different layers of the literary text structure and significance) and critical editions (including annotations about different variants and aiming at presenting the literary text archetype) are two different and distinct kinds of editions.

Generally speaking, those representations of the literary text that the hypertextual transposition deals with are “traditional” ones. This means that they are representations that already existed before the advent of hypertext and that are part of the tradition of the literary text on which the hypertextual transposition is based. No new representation is invented. In fact, in LM1 (which is a hypertextual transposition based on a Romantic novel, that is, on a text that – unlike a dramatic play – does not claim to be represented), no visual or acoustic representation of the text is available. However, if “traditional” representations of the literary text exist, they are included in the hypertextual transposition (the only exception in this sense is MD1). In printed annotated editions this is not always the case. Even if widely and completely illustrated and annotated editions exist (it is for instance the case of the Berthier’s edition of the *Divine Comedy*, cf. Alighieri 1895), they do not represent the common case. Thanks to the gains in multimediality brought by new technologies, in hypertextual transpositions it is easier to include such contents.

### **Impact of hypertextuality on contents**

In paragraph 1.2.1.2 we hypothesised that the fragmentation characterizing hypertext could increase the use of annotations. In fact, annotations constitute an interesting form for providing knowledge and information in chunks but in a precise relationship to the literary text. However, if annotations are used in the major part of the considered hypertextual transpositions, it has to be noted, first, that there are nevertheless hypertextual transpositions in which they are not used (namely, D1, DC1, DC5, H1 and H2) and, second, that their use is, generally speaking, not innovative. In fact, they are usually used in order to provide linguistic explanations or basic cultural explanations. Annotations are used for the same purpose in printed annotated editions. That is, they are used in order to provide the most basic help the user needs in order to understand the literary text. DC2 constitutes an example of hypertextual transposition in which the use of annotations is exploited in order to provide several different contents in a precise relationship to passages of the literary text.

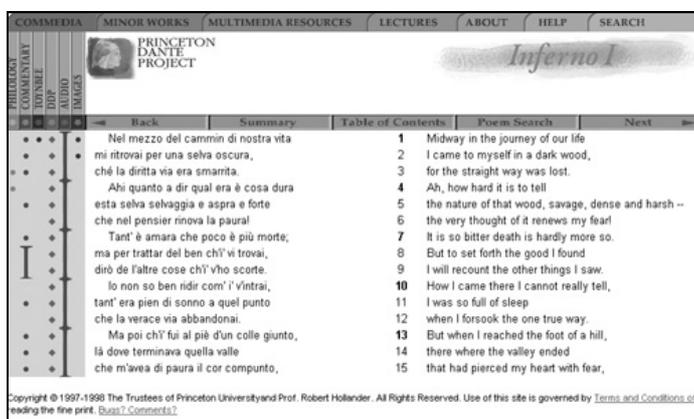


Fig. 1 – DC2 – On the left side of the literary text's screen access to several different kinds of annotations is made available.

The presence of essays in hypertextual transpositions contributes to prove that the hypothesis we set at paragraph 1.2.1.2 is wrong. In fact, essays are included in practically all the considered hypertextual transpositions (exceptions are only DC1 and MD1) and in many of them (namely, in D1, DC5 and H1) they constitute the major part of the added materials. We also find multimedial essays (in M1 and MD2, because essays include video clips and audio files, completing the information provided by the verbal written text, and in M3 and RJ1, because they consist of videos).

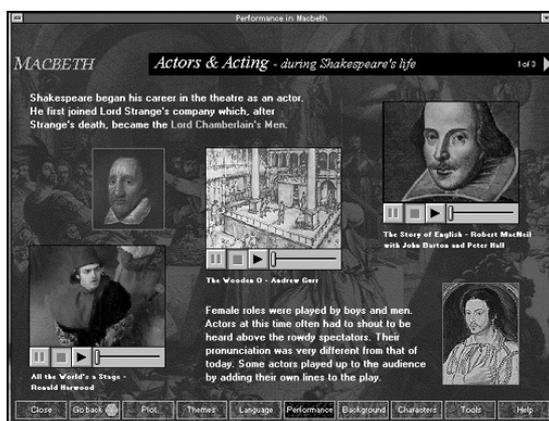


Fig. 2 – M1 – Example of multimediaal essay. Not only verbal written text, but also static images, video clips and audio files are available.

Therefore, the use of essays in hypertextual transpositions seems to be widened and increased in respect to printed annotated editions. More essays, which can also assume new forms (as it is in multimediaal essays), are made available in hypertextual transpositions.

## **Impact of multimediality on contents**

Verbal written text (the main medium used in printed annotated editions) is still widely used in hypertextual transpositions in order to address all the aspects of the literary text structure and significance. In fact, these aspects are commonly developed in annotations or essays. As regards aspects of the literary text history, an interesting use of this medium can be found. Verbal written text is used to reproduce and make available other texts that maintain a relationship to the literary text central to the hypertextual transposition (sources, other versions, texts in which echoes can be found). It is the case of DC3, DC4, H2 and LM1. In DC4 and H2, on the contrary, the major part of the contents consists of the electronic version or digital version of objects and artifacts.

However, altogether in the considered hypertextual transpositions also a remarkable amount of images is used in relationship to the different aspects of the literary text structure and significance. As to narrative aspects, static images are mainly used in relationship to characters and places. Maps, photographs, reproductions of paintings or other works of art, schemes, screen backgrounds and VRML possibilities contribute in trying to provide access to narrative aspects in a visual way. Also parts of the hypertextual artifact (such as links and collection center) are used in order to visually show or point out given narrative elements. It is the case of the collection center of the “Gli incontri” collection of O1, which reproduces the fabula of Odysseus’ journey, and of the confession links of RJ1, which are set side to passages of the text of the play where a risky action is taking place, and of links pointing out intratextual references in LM1 and MD1.

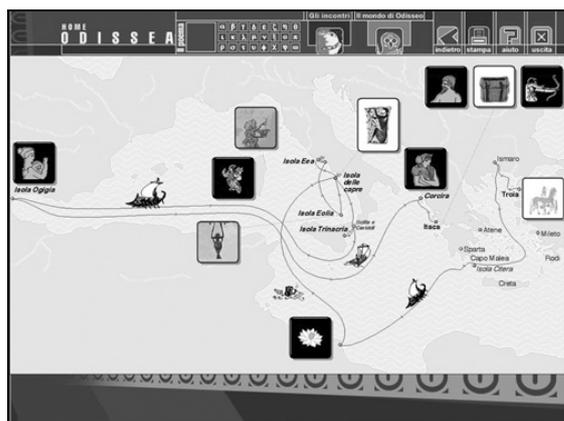


Fig. 3 – O1 – “Gli incontri” collection center reproduces the *fabula* of Odysseus’ journey.

In relationship to aspects of the literary text history, static images are used either to illustrate elements of the historical context in which the literary text has been produced (for instance in DC4 photographs of various places and monuments of Italy are

provided) or to make available images of the pages of various manuscripts, folios or editions of the literary text (for instance in H2).

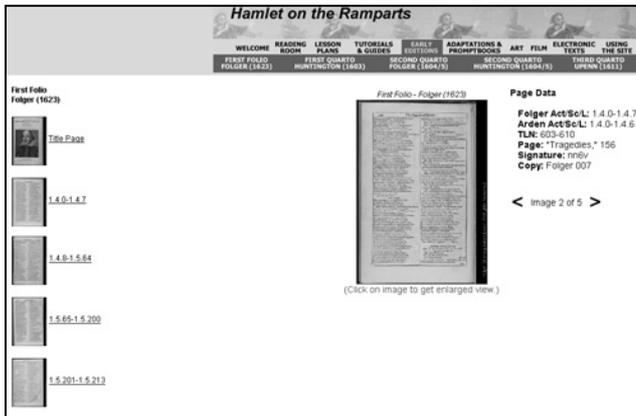


Fig. 4 – H2 – Use of static images to provide images of pages of different folios or editions of the text of the play.

In M3 and RJ1 an innovative way for providing summaries is available. They consist of short video clips in which two presenters narrate the main events of the part of the literary text to which the summary refers. In RJ1 expository video clips addressing stylistic characteristics of the play are provided. In this same hypertextual transposition as well as in M3 also links are used in order to point out the presence of given stylistic features in passages of the text of the play.

In D1 and LM1 also the audio device is used in order to help the reader in building the context within which the literary text has to be set. In these two hypertextual transpositions it is possible to listen to music having some relationship with the literary text history. In D1 the reader can listen to compositions of Francesco Landini, a well-known composer of Boccaccio's time, and in LM1 the reader can listen to Haydn's Creation, which inspired Mary Shelley in the production of *The Last Man*.

Aspects dealing with representations of the literary text represent the layers of the literary text significance where media others than the verbal written text are widely used. The audio device is used for providing recitation or aloud reading, but also for providing a music theme, which reflects in some way the character of the literary text and which accompanies at times the reader's navigation. It is the case in M1, M3, MD2 and RJ1. As to plays, mainly film video clips are made available. Only in MM1 clips of a theatrical representation are provided.

### 1.3.2.2 Tools available for accessing the contents

#### Use of cognitive contexts created by collections

Two different modalities of use of collections can be detected. First, in some hypertextual transpositions (D1, DC5, H1, M1, MD2), collections correspond to different semantic aspects of the literary text. Therefore, they contribute to clarify the different aspects of the literary text significance. This is a modality of use of collections that helps in providing important cognitive added value in respect to the literary text comprehension.

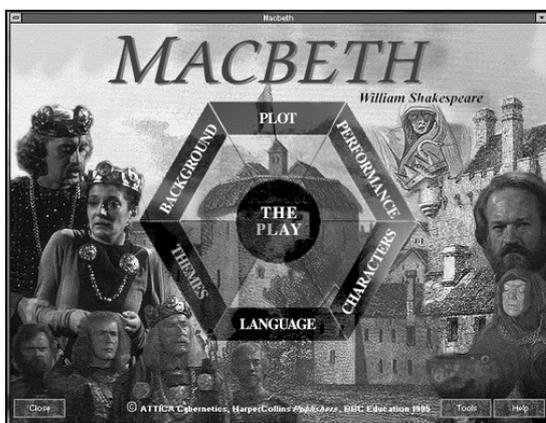


Fig. 5 – M1 – Homepage. Collections are devoted to different aspects of the literary text significance.

Second, in some other hypertextual transpositions (DC2, H2, M2, MM1), collections gather the different added materials by type and not by their semantic relationship to the literary text. Therefore, what the reader learns from such collections is only that a given informative object is a multimedia or that it is an essay or that it is an illustration of the text or so forth, but s/he does not know more about what this informative object adds to the knowledge of the literary text. Such a use of collections is very close to information retrieving. It also happens that these different uses of collections are mixed in a same hypertextual transposition (DC4 and O1). In DC3 collections are organized according to a criterion that considers the function of the added material. The focus is set on what will the reader be able to do or to learn if entering a given collection. It is for instance the case of the “Strumenti” collection). This also implies that some collections are organized according to a thematic and semantic criterion (“Percorsi letterari” and “Percorsi iconografici”). However, these two collections do not allow the reader a deeper knowledge of the literary text. There also are cases (DC1, M3, RJ1), where the only real collections are the literary text collections. This stresses the literary text as the very core of the application and the real important content. In MD1 only one real collection has

been set: the “Text and commentary” collection. The added material (the commentary) has not been further classified according to the topic different parts of it deal with. This classification has not been considered important. In this sense, the organization of the commentary in MD1 is very similar to the organization of the commentary of a printed annotated edition.



Fig. 6 – MD1 – Homepage. Only one real collection has been set: the “Text and commentary” collection.

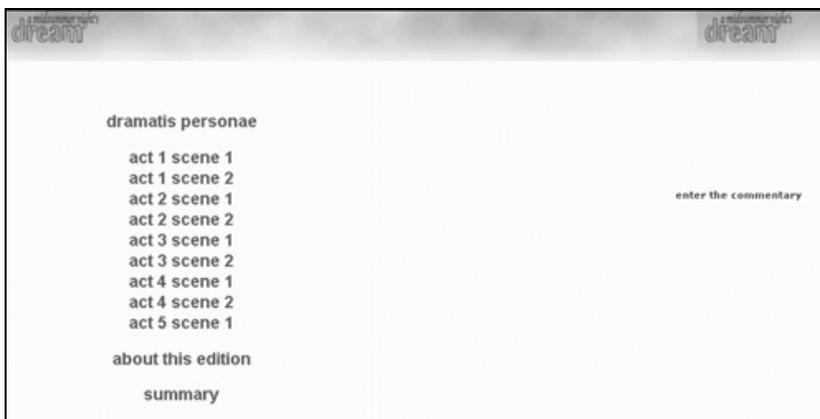


Fig. 7 – MD1 – The commentary has not been further classified.

In some cases (DC5, H1) the user finds practically only one main collection of collections, which gathers all the other collections without letting the user understand the hierarchy among them. This way of organizing content creates confusion. In these cases we also noticed that collections (and also entities) do not always have the same name. For instance, in H1 the collection “Personaggi” of the “Sommario” collection and the collection “Dramatis personae” of the “Opera” collection are the same, but they are differently named. The same happens with Sommario > teatro and Opera > I testi teatrali and with Sommario > autore and Opera > Biografia di Shakespeare. This changing of names creates confusion.

### **Access to the literary text**

Generally speaking, the access to the literary text is unique. It is offered at different stage of the navigation, but the way to access the text is always the same (to click on the access link of the literary text collection). This is essential for the hypertextual transposition coherence. It is essential for the reader to get oriented. In fact, in H1, where different accesses to the literary text are established (different access link with different anchors), reader's orientation is difficult (cf. above). This risk of disorientation can prevent the reader to find the literary text when s/he wishes during her/his navigation path. Since the literary text is the core of hypertextual transpositions, this is a severe problem.

In some hypertextual transpositions the literary text collection center reproduces the literary text's table of contents. This repeats a common practice of printed annotated editions, to which readers are used and which also constitutes the usual way readers apprehend the physical structure of the literary text itself. There are printed annotated editions without table of contents,<sup>40</sup> of course, but they are relatively rare. DC3 is an example of hypertextual transposition where the literary text collection center reproduces the table of content. There, another interesting device is provided. When rolling over the icon corresponding to each canto, the reader receives at the bottom of the page information about the events narrated in that canto (place, date, time and main involved characters). However, in some others reader's choices are immediately filtered. The access device in these cases is organized in hierarchical levels and only one hierarchical level at a time is visible to the reader. This is interesting because it saves the reader having to face lots of different possibilities at the same time, but it also prevents the reader gaining an overall overview of the physical structure of the literary text. In M3 and RJ1 this problem is made even more severe by the use of scrolling menus in the collection centers of each act collection. In M1 and MD2 an interesting compromise was found. The access to the literary text is filtered, but on each text screen the navigator scene is available and shows to the reader her/his current position within the whole of the literary text.

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<sup>40</sup> It is for instance the case of the printed annotated edition related to M2 (cf. Shakespeare 1997). There, the table of contents of the whole book is provided. However, in it the detailed index of the play is not available. This is a sign of the fact that it is presupposed that the reader follows the text of the play from the beginning to the end.

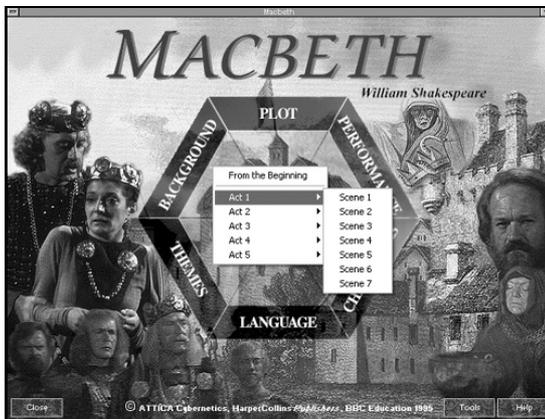


Fig. 8 – M1 – Filtered access to the literary text.

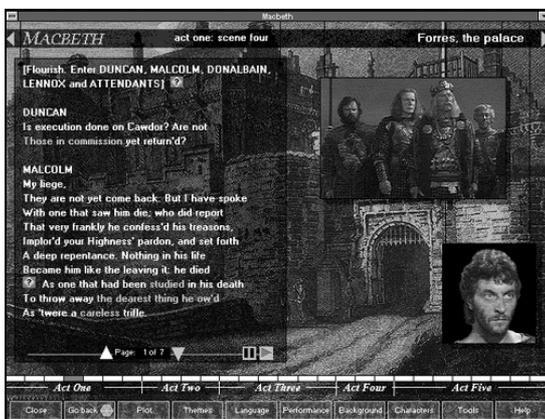


Fig. 9 – M1 – Scene navigator.

In D1, DC2 and DC4, when entering a part of the literary text, the reader can choose how to display it. S/he can choose to display only the original text or the original text and a translation. S/he can also choose which translation to display and, in DC2, how many lines per screen to display. Dual translations have appeared in book form, usually with facing pages in different languages; however, this particular feature has been impossible in printed annotated editions and it is very useful for a reader who intends to explore the literary text according to some personal questions and needs.



Fig. 10 – DC2 – When entering a part of the literary text, the reader can choose how to display it. S/he can choose the number of lines per screen and if displaying only the Italian text, only the English text or both of them.

In the majority of the analyzed hypertextual transpositions the access to the literary text is in some way privileged. In M1, for instance, the access link of the text of the play collection is placed at the center of the homepage (cf. fig. 5). In M2 this access link is in bold font. This is an element that strongly manifests the centrality of the literary text in the application. This means that the text of the play is considered to be a part that the reader has to explore and it is proposed as the starting point of the navigation. In a printed annotated edition this is not done: it is not necessary to underline that the text of the play is important; this is already part of the presuppositions of a printed annotated edition. On the contrary, in hypertextual transposition this has to be emphasized in some ways.

In all the considered hypertextual transpositions the reader has to choose the part of the literary text s/he wants to access to. In W2000 terms, we say therefore that the literary text collection provides index navigation. However, there are some cases, where it is also provided a way to access directly to the beginning of the text. A device is provided in order to allow the reader to perform a usual action, namely to open a book at the first line of the chapter, canto, act, etc. In DC2 and DC5 this is done by supplying another access link.



Fig. 11 – DC2 – The links “Inferno”, “Purgatorio” and “Paradiso” provide access to the beginning of each cantica.

In M1 and MD2 is made offering the possibility “From the beginning” in the filtered access to the literary text (cf. fig. 8).

In all the analyzed hypertextual transpositions, once s/he has entered a given part of the literary text, the reader can browse it sequentially. In W2000 terms, we say that the literary text collection also provides guided tour navigation (therefore, it is a hybrid collection). This feature allows the reader to move within the literary text in a way that is very similar to the paging forward and backward to which s/he is used when reading a book. H1 is an exception. There the reader at the end of each scene has to step back to the literary text collection center in order to go on reading the following scene. This makes the reader’s navigation within the literary text collection unnecessarily laborious.

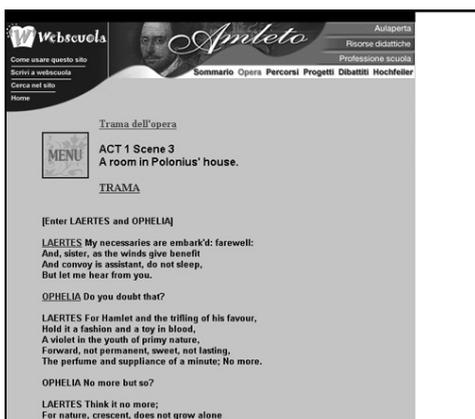


Fig. 12 – H1 – On text’s screens no link is provided in order to allow the reader to browse to the next scene.

In the major part of the considered hypertextual transpositions, once the reader has entered a given part of the literary text the possibility to browse the literary text non-

sequentially is also available. In D1 and DC1 this is possible thanks to the fact that the index of the literary text remains available in the left frame of the literary text screens.

INFERNO	
CANTO 1	
CANTO 2	
<b>CANTO 3</b>	
CANTO 4	
CANTO 5	
CANTO 6	
CANTO 7	
CANTO 8	
CANTO 9	
CANTO 10	
CANTO 11	
CANTO 12	
CANTO 13	
CANTO 14	
CANTO 15	
CANTO 16	
CANTO 17	
CANTO 18	
CANTO 19	
CANTO 20	
CANTO 21	
CANTO 22	
CANTO 23	

Canto 3	
"Per me si va ne la città dolente..."	
per me si va ne l'eterno dolore,	
per me si va tra la perduta gente.	3
Giustina mosse il mio alto fattore..."	
fecenza la donna podestade,	
la somma sapienza e 'l primo amore.	6
Dinanzi a me non fuor cose create	
se non eterne, e io eterno duro.	
Lasciate ogni speranza, voi ch'intrate."	9
Queste parole di colore oscuro	
vid' io scritte al sommo d'una porta..."	
per ch'io: "Maestro, il senso lor m'è duro."	12
Ed ella a me, come persona accorta:	
"Qua si comen lasciare ogni sospetto;	
ogne viltà conven che qui sia morta.	15
Noi niam venim al loco ov' i'ho detto..."	
che tu vedrai le genti dolerose	
ch'hanno perduto il ben de l'intelletto."	18
E poi che la sua mano a la mia pose	
con lieto volto, ond' io mi confortai,	
mi mise dentro a le segrete cose.	21
Quivi sospiri, pianti e alti guriai	

Fig. 13 – DC1 – The index of the literary text remains available on the text's screens, thus allowing the reader to browse the literary text non-sequentially.

In DC3, H2 and O1 this is possible thanks to the expansion of the literary text access link in the navigation bar. In M1 and MD2 this is possible thanks to the presence of the scene navigator. In M2 this is possible thanks to the presence of both these devices. However, in some hypertextual transposition this possibility is not available. It is for instance the case of M3 and RJ1, where the literary text screens are provided with arrows links for sequential browsing, but they are not provided of any other device for moving within the text of the play.

### Literary text presentation

The hypertextualization of the literary text itself always follows its original structure and division. Nodes coincide with chunks of the text that the author itself proposed as parts of the whole work (cantos, scenes, etc.)

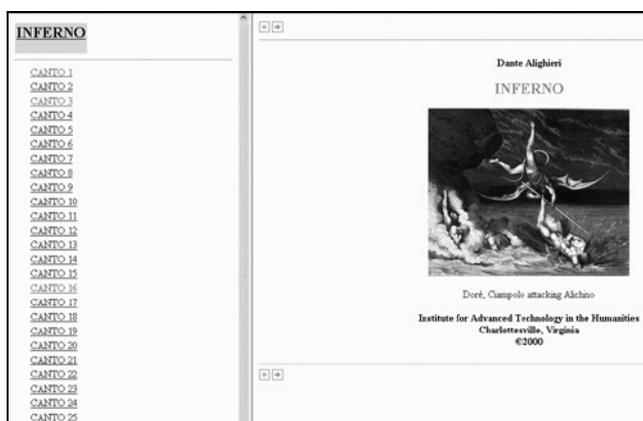


Fig. 14 – DC1 – The literary text’s division corresponds to the original division in cantos.

This means that the guiding concern of the multimedia edition is to respect the original text. At this level, at least, then, the hypertext version of the text is not a wild deconstruction. Already Landow signaled the necessity of this feature in his rule 19 (cf. Landow 1995: 101, already quoted at paragraph 1.1.1). It helps the reader in knowing the literary text as it was conceived by its author. We can conclude that it is recognized as essential to present and to allow the reader access to the text as the author conceived it, as far as that is known. It is interesting to note that this is maintained also in O1, that is, in a hypertextual transposition devoted to a literary text (Homer’s *Odyssey*), in which, as we said at paragraph 1.3.1, divisions are not “original”. The text was conceived without making these divisions explicit. Divisions were introduced only later on, when the text began to circulate in a written form. This means that in hypertextual transpositions the status of the written form is maintained. H2 constitutes an exception. Since it focuses only on an episode of Hamlet, situated inbetween two different scenes, the excerpt is divided in seven segments corresponding to seven different subepisodes (or seven different narrative sequences) of the whole episode of the ramparts (1.4.1-41 Hamlet, Horatio and Marcellus on the castle’s platform; 1.4.42-62 entering of the ghost and Hamlet’s exclamation; 1.4.63-102 Hamlet follows the ghost; 1.5.1-41 dialogue between the ghost and Hamlet till the moment the ghost finds Hamlet inclined to revenge – it is interesting to note that the end of this sequence and the beginning of the next one occurs within a single ghost’s cue-; 1.5.42-98 the ghost narrates to Hamlet how he died; 1.5.99-119 Hamlet’s invective; 1.5.120-212 Horatio and Marcellus join Hamlet and they swear not to tell anybody what happened). This implies an interpretation of the text, which can help the reader in grasping the text significance better than a division based on the number of lines per segment.

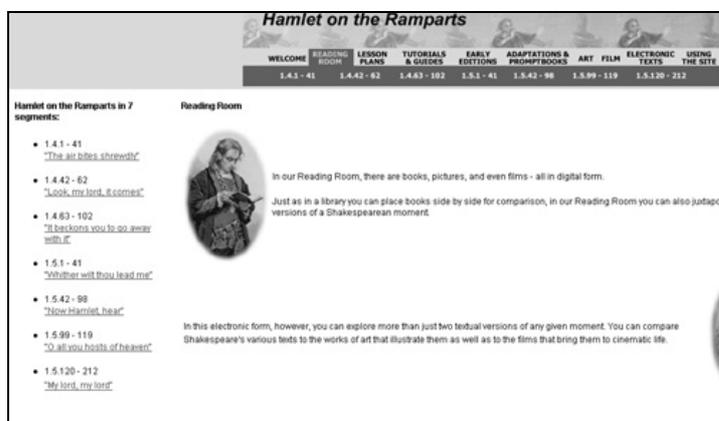


Fig. 15 – H2 – The text of the scene of the ramparts is divided in seven segments, which do not correspond to the original text's division.

The two possibilities for displaying the text of each part are used with the same frequency. It does not seem to make a big difference. What is interesting is the modality of division of the text used in DC3. Usually, the division of the text of each part in the different screens is guided by a criterion of the size of the screen itself (on each screens are displayed as many lines as the screen can contain). This is also the criterion used in printed editions. On the contrary, in DC3 the division among the different screens is made according to a semantic criterion. This is helpful for the reader in order to understand the logical structure of the literary text.

Generally speaking, links are always present on the literary text pages and both types of anchors (embedded and unembedded) are used. It is very rare that the literary text is presented clear of links. The presence of links on the literary text screens repeats the practice footnotes of printed annotated editions. Unembedded anchors (which represent an interesting arrangement between the need of non-interference in the reading process and the need to provide essential explanations) are used quite often, but usually together with embedded anchors (cf. for instance fig. 9). The possibility to hide links available in M2 also constitutes an interesting solution.

The two different types of anchors stress a functional difference of the correspondent links. Embedded anchors stress the need of establishing a precise and direct correlation between the considered passage of the literary text and the annotation in view of a solid integration at the level of meaning. They are mainly used to supply linguistic explanations, that is, the most basic explanations the reader needs in order to enter the literary text meaning and significance. In this sense, the device used in M3 and RJ1 is very interesting. There, the words to which the linguistic explanations refer are highlighted in blue. They constitute the embedded anchor. When the reader rolls over them, the correspondent linguistic definition (in red) substitutes these words directly within the electronic transcription of the text of the play.

## Distinction of the different available contents

In the majority of the analyzed hypertextual transpositions literary text and added materials are differentiated. This is mainly done by combining a graphical device (to make literary text and added material look different) and a spatial device (to display these different contents in different parts of the screen). This is a reinterpretation according to the new potentialities offered by the new medium of devices that are also used in printed annotated editions. There, in fact, footnotes generally have a smaller font in respect to the text and they are placed at the bottom of the page. Only in H2 the device of footnotes, typical of printed annotated editions, is plainly reproduced. This use of hypertext does not exploit its new potentialities.<sup>41</sup>

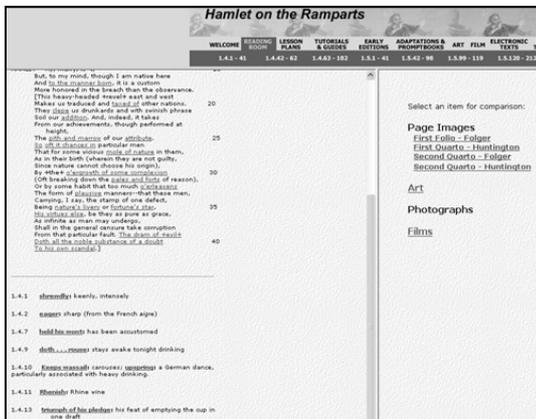


Fig. 16 – H2 – Reproduction of the footnote device.

The footnote device is no more adequate in hypertextual transpositions. In fact, its effectiveness in printed annotated editions originates from the fact that the reader can look at them without leaving the text page s/he was reading. On the contrary, in hypertextual transpositions, usually, when footnotes are simply reproduced in the “printed annotated editions fashion”, the reader moves. What is displayed on the screen changes. The low part of the text page (the part dedicated to footnotes) substitutes the upper part (the part where the literary text itself is displayed) on the same screen. In M3 and RJ1 we find the use of a device that strongly stresses the contents differentiation by introducing a metadiscourse. There, each video clip starts with the animated slide on which the title “The Globe Theater presents ...” appears. This device distracts the reader (it is “against” a seamless interaction). In a similar way when the reader reaches the end of a given scene and s/he continues to a new scene, the changing of scene is clearly highlighted by the appearance on the screen of the title of the new scene in big font. It is

<sup>41</sup> Michael Groden (2001) questioned about the most suitable and effective way to present annotations exploiting the new potentiality of hypertext and new media.

interesting to note, with Cantoni and Di Blas,<sup>42</sup> that this device embodies an essential difference of hypertextual transpositions and printed annotated editions.

### **Information more directly accessible starting from the literary text screens**

Generally speaking, when reading the literary text in a hypertextual transposition, the reader most directly finds added materials that help her/him in understanding the linguistic and semantic level of the literary text, that is, the basic level in order to enter the literary text meaning and significance (see linguistic explanations, translation and paraphrase). Besides, it is very common that, if representational elements are available, access to them is supplied. This is mainly the case of Shakespeare's plays where the aspect of performance is essential to a full comprehension of the work itself. Direct access is also provided to elements representing the whole of the literary text (index, scene navigator and summaries). When reading the literary text in a printed annotated edition, these elements mainly remain implicit. The reader is not explicitly referred to summaries or to indexes. The book supposes that the reader follows the order proposed by the author and represented in the book itself. For instance, summaries are often provided as an introduction to a given part of the literary text. Therefore, it supposes that the reader already read the summary before entering the literary text itself. The indication of the title of the part the reader is exploring is a constant element of hypertextual transpositions (cf. for instance fig. 9 and 13). This element is also present in some printed editions, but not always. There, because of the book presupposition and physical structure, it is not necessary.

### **Accessibility of the literary text starting from added materials**

Added materials directly accessible from the literary text screens are often displayed in different frames or pop-up or new windows. In this way the reader can consume them without losing the text screen. Generally speaking, on the added materials pages in which references to a passage or a part of the literary text are made, access to that passage or part is provided. However, in several hypertextual transpositions this is not done in a systematic and consistent way. This is a shortcoming because the absence or the unclarity of the relationship between literary text and added material tends to separate these two contents at a cognitive level. It is, for instance, the case of M2 (where referred passages of the text of the play are directly transcribed within the text of the

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<sup>42</sup> "Si pensi, per esempio, a cd-rom ipermediali dove il lettore è costretto a fruire ogni volta, per numerosi secondi, dei titoli di testa: nessun libro è in grado d'imporre a ogni fruizione la lettura della propria copertina" (Cantoni & Di Blas 2002: 141).

essay and where the text of the play is always accessible, but no specific relationship is brought to the reader's attention), H2 (where, however, this lack is supplied by other devices, such as the indication of the passage of the text images and clips refer to and the possibility to juxtapose and to compare all the contents in the "Reading room") and DC2. There, for instance, in the lectures only referring to some of the mentioned passages of the Divine Comedy a link is available to access to it. There is no link to the literary text from the minor works. There is no link to the literary text from the Italian audio and from the English audio in the "Multimedia Resources" section. There are few links to the literary text from the "Maps and Diagrams". These materials can even not be accessed from the literary text. The same is true for other collections of the « Multimedia resources » collection. However, when the access to a referenced passage of the literary text is given, an interesting device is used. The referred passage is displayed in a new pop-up window. In this pop-up window a link is available allowing the reader to move to and to display in the main window (instead of the content the user was reading) the text screen containing this passage. This intermediate step allows the user to read the passage s/he needs to read without leaving the section s/he is exploring.

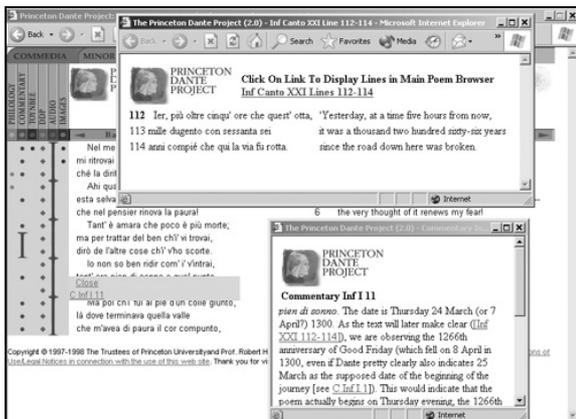


Fig. 17 – DC2 – Intermediate step for accessing to the literary text starting from annotations.

There are cases where the access to the literary text passages starting from added materials pages aims at providing evidence for what is explained in the added material. Such connections between added material and literary text provide evidence for the relevance of the content of the added material in respect to the commented passage of the literary text. In M1 and MD2, for instance, at the end of each short essay of the "Themes" collection a list of links to passages of the literary text demonstrating what it is explained by the added material itself is made available. This is done in making available audio files containing the recitation of the relevant passages of the literary text. This device prevents the user of leaving the page of the added material s/he was reading. Thus, it allows a higher precision in signaling the relationship and it helps the reader in keeping the path s/he began to follow.

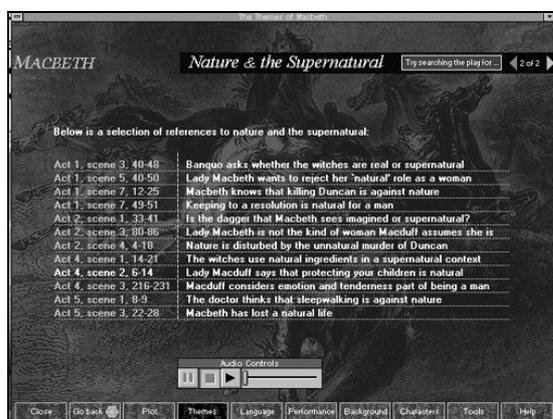


Fig. 18 – M1 – Links to audio files with the recitation of passages of the literary text relevant in respect to the displayed short essay.

### Navigation among different added materials

If (semantic) links usually underline the central role of the literary text (they are widely used in order to allow the reader to access annotations starting from the literary text or to point out relationships between a given added material and a given passage or part of the literary text), they are less used to point out relationships among different added materials. This phenomenon is clearly present in M1, M3, MD2 and RJ1. In these hypertextual transpositions all the added materials can be accessed from the literary text, but where no (semantic) link is made available between different added materials. In this way invitations are made to the reader to visit interesting added materials, but her/his distance in respect to the literary text is kept under control by the structure of the application. On the contrary, LM1 is an interesting example of hypertextual transposition where (semantic) links are abundant and where the reader distance from the literary text is not controlled. There, the focus has been set on the possibility for the reader to explore all the interesting existing connections. Thus, annotations contain links to other related annotations.

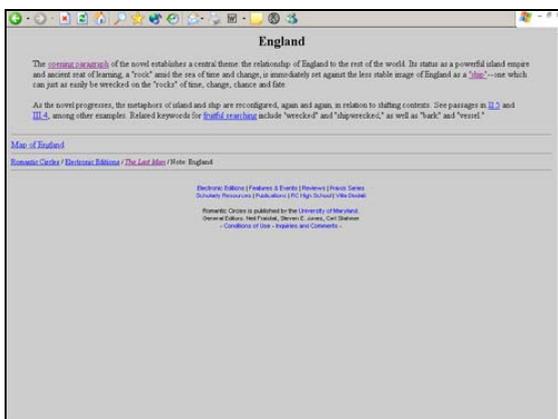


Fig. 19 – LM1 – Annotations contain links to other annotations.

In H2 and MD1 the wide use of (semantic) links is combined with the use of frames (respectively in the “Reading room” collection and in the “Text and commentary” collection).

One-way links are more widely used than double-way links. One-way links can create disorientation or confusion. In fact, once the reader follows a link, s/he is not invited to go back to the content s/he was exploring. Thus, there is the risk that the reader never finishes to read what s/he began to read. This is evident in MD1. There, each commentary is full of links leading to other commentaries or to other passages of the text of the play. These links leading aim at creating consistent thematic paths. However, after the user accomplished the first step along one of these paths (after s/he clicked the link proposing that path), s/he is left alone. On the passages of the commentary s/he accesses to, nothing will continue indicating to her/him how keeping on the chosen path.

Unlike one-way links, double-way links invite the reader to finish her/his previous reading. They are provided for instance in M3 and RJ1. There, no link is available on the added material pages, which could lead the reader away from the literary text. The authors of the application cared to always bring the user immediately back to the original text (often this return is automatically provided by the application). This is the same principle leading printed annotated editions. Usually, a footnote is something concluded in itself and, after having read it, the reader is supposed to go back to the text. But here is a difference: in a printed annotated edition the user is supposed to go back, while in a hypertextual transposition s/he is invited (or even forced) to do it. Otherwise, s/he is invited to go somewhere else. In a hypertextual transposition the reader always needs to be invited to go somewhere. The risk of one-way links can be controlled thanks to the use of pop-up or floating windows or frames, which allow the reader to access to the added material without leaving the literary text pages. This is the case for instance in DC1 and DC2 (as regards annotations).

### **Automatically activated elements**

It is quite common to find in hypertextual transpositions some automatically activated elements. Some (parts of) contents are automatically displayed on the screen. This is an important device as regards the reading of the literary text. It manifests the fact that the hypertextual transposition author or designer estimated these contents so essential for the text comprehension that s/he decided to present them independently on the reader's action. These elements state the author/designer's opinion about what the reader has absolutely to see or read. In M1 and MD2 this device is used in order to strengthen the integration between the text of the play and its representational aspects. In this hypertextual transposition when the reader is on the text of the play and the audio file with the recitation is on, the following screen substitutes the previous one automatically (automatic browsing of the text). Besides, when accessing the text of the play, the audio file with the recitation automatically starts. Also the update of the images of the characters on stage in the scene the text of which is displayed in the left frame is automatic. So is the synchronization between an activated video and the displayed part of the text. Similarly, in DC3, when entering the text of a canto, images, paraphrase and Sapegno's annotations (that is, added materials that more immediately need to be integrated to the text in order for the reader to understand the text meaning) are automatically displayed and synchronized. It is interesting to note that this situation is similar to what happens in a printed annotated edition. There, annotations or images are presented on a given page, independently on the reader's interest or will.

In M3 and RJ1 an automatic activated element is used in order to make sure that the reader continues her/his reading of the text. In fact, at the end of each video clip the user is automatically brought back to the text of the play.

### **Manifestation of the relevance of added materials to the literary text**

In all the considered hypertextual transpositions the relationship between the text of the play and a given added content is clearly pointed out. This helps in making clear the relevance of the added material in respect to the literary text. Different devices can be used at this purpose. Embedded anchors and anchor positioning side to the referred passage are the most simple ones (cf. D1, DC1, DC4 and H2).

Next Canto	
<p>READ THE COMEDY or GO HOME</p> <p>Dante and Longfellow Tr.</p> <p>Inferno 01 Inferno 02 Inferno 03 Inferno 04 Inferno 05</p> <p>Dante and Mandelbaum Tr.</p> <p>Inferno 01 Inferno 02 Inferno 03 Inferno 04 Inferno 05</p> <p>Longfellow Tr. and Mandelbaum Tr.</p> <p>Inferno 01 Inferno 02 Inferno 03 Inferno 04 Inferno 05</p>	<p>INFERNO CANTO 01 Dante and Longfellow Tr.</p> <p>Nel mezzo del cammin di nostra vita mi ritrovai per una selva oscura ché la diritta via era smarrita.</p> <p>MIDWAY upon the journey of our life I found myself within a forest dark, For the straightforward pathway had been lost.</p> <p>Ahi quanto a dir qual era è cosa dura esta selva selvaggia e aspra e forte che nel pensier rinova la paura!</p> <p>Ah me! how hard a thing it is to say What was this forest savage, rough, and stern, Which in the very thought renews the fear.</p> <p>Tant'è amara che poco è più morte; ma per trattar del ben ch'i' vi trovai, dirò de l'altre cose ch'i' v'ho scorte.</p> <p>So bitter is it, death is little more:</p> <p>Notes</p> <p>01.001 01.002 01.003</p> <p>01.006</p>

Fig. 20 – DC4 – The relationship between annotation and literary text is pointed out through the anchor positioning.

Other devices stress this relationship in a more explicit way. For instance, in DC2 the anchor shape is used in order to strengthen this relationship. In fact, if the material that the user will access through a given link relates to a single verse, the anchor has a point shape. If this material relates to a group of verses, the anchor is a bar that embraces the correspondent verses (cf. fig. 1). In M2 (where, generally speaking, this relationship is not pointed out) a different interesting device is used to manifest the relationship of some annotations to the text of the play. There, the anchor position device is completed by the fact that, after the user clicked on the link leading to the annotation, the part of the text of the play to which the link refers is highlighted. Similarly, in M3 and RJ1 the relationship is signaled by the anchor position and by the underlining in the electronic text version of the complete passage the link refers to. In several cases this relationship is signalled through the spatial juxtaposition of passage of the literary text and added material. This is made possible by the use of frames, namely synchronized frames (as in DC3 or in M1 and MD2 for the correlation between text and audio or video), or pop-up windows. Therefore, we note that the principle of spatial juxtaposition (typical of printed annotated editions) remains widely used in hypertextual transpositions. In the « Reading room » of H2, besides than by the spatial juxtaposition created by frames, the relationship is signaled by the fact that, according to the segment of the text the reader is visiting, only added materials relevant to this segment can be displayed in the right frame.

### Search tools

In numerous of the considered hypertextual transpositions no search tool is available. Search tools are important devices in order to study the literary text, in order to browse it in a non-sequential way following some personal interest and, thus, in order to find passages relevant in respect to this interest. Hypertextual transpositions in which such

tools are not made available (as it is the case in DC5, H1, M3, MM1, O1 and RJ1) seem to be meant mainly only for consuming the content directly provided in the application. The reader is supposed only to read what the hypertextual transposition author or designer proposed. The most simple search tool usually available in hypertextual transpositions is a full text one, allowing the reader to search for words or expressions in the literary text. In DC3 also the possibility to conduct a full text search on the text of annotations is offered. This is a useful tool for users who want to study the literary text. In some hypertextual transpositions not only simple full text search tools are made available, but also search possibilities allowing the reader to retrieve or to look for narrative elements of the literary text. D1 and DC1 make available search possibilities for retrieving places and characters, while M1 and MD2 offer guided search possibilities in order to help the reader in going deeper into the knowledge of a given theme of the literary text. They constitute an invitation to the reader to strengthen the relationship to what s/he reads in the short essay and the text itself.

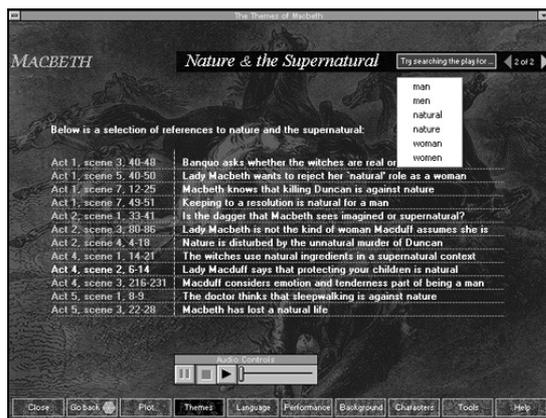


Fig. 21 – M1 – Guided search possibilities.

**Search References by Type**

**Search For All:**

**People**  
(The following search qualifiers are optional)

Who were born in:  (e.g. Mantua)

Who were affiliated with:  (e.g. Ghibelline)

Who were ecclesiasts:

Whose nature is:  Historical  Mythical  None

Whose literary source is:  Biblical  Classical  Medieval  None

**Places**  
(The following search qualifiers are optional)

Whose nature is:  Historical  Mythical  None

Whose literary source is:  Biblical  Classical  Medieval  None

Fig. 22 – DC1 – Search tool for persons and places.

Concordance is made available only in D1 and M2. It is a traditional tool of literary studies and it is a more scientific tool in respect to simple full text search. The merit of hypertextual transpositions is to include it in a same artifact together with the literary text, while in the realm of print concordance is usually a different item in respect to the literary text.

Name of Range	PDF (size in K)	ZIP (size in K)
lexicon	247	200
ab-allora	351	275
allori-andata	384	289
andataci-avanti	386	297
avanza-battuto	379	283
bazzica-camino	389	285
camisci-ch'	290	225
che-cheggia	783	578
cheggio-cominci	497	373
comincia-convento	319	244
conventuale-croce	378	293
crocetta-dilettvoli	375	281
diletti-determinato	354	279

Fig. 23 – D1 – Concordance.

Generally speaking, search possibilities potentiate tools already present in printed annotated editions, such as analytic indexes. Search tools in hypertextual transpositions make analytic indexes dynamic and more flexible. Since the user can define her/his entries, they can fit the user's needs. They are less dependent on the author's prior decision about what is worthwhile to look for. However, depending on her/his degree of expertness, the user needs to be guided in this search. This is what guided search possibilities in M1 and MD2 do.

### **Use of the principle of spatial juxtaposition**

The possibility to simultaneously view literary text and added materials is important, in order for the reader to relate the information provided by the added materials to the passage of the literary text it comments. It is also the way in which readers are used to consume literary annotations in printed annotated editions or illustrations in illustrated editions of literary texts. Pages of printed annotated or illustrated editions are usually organized according to the principle of spatial juxtaposition. Therefore, annotations and illustrations are placed on the same page (or at least side to the page) where the passage of the literary text they refer to is printed (cf. paragraph 1.1.2). Our analysis reveals that hypertextual transpositions tend to conform to this use. In fact, in almost all the considered hypertextual transpositions this possibility is offered (exceptions are D1, DC5 and H1). The used devices are frames and pop-up or floating windows. In DC3

synchronized frames are used in order to display the literary text, Sapegno’s annotations and the image. In DC2 pop-up windows are used. In M1 and MD2 both are used in order to allow the reader to simultaneously view different kinds of content. Pop-up windows are used in order to display linguistic or cultural explanations (starting from the embedded and the “question mark” links). Frames are used in order to constantly propose the images of the characters on stage in the part of the play the reader is exploring. It has to be noted that the possibility to view simultaneously is usually not offered for all the added materials, but only for those that are considered to be the most basic ones or those that refer to a precise passage of the literary text. In fact, for instance, in M1 and MD2 all the other added materials cannot be viewed simultaneously with the text of the play. However, since they are essays devoted to topics dealing with the play as a whole, this is not a problem (besides, the audio device used in order to provide access to the most interesting passages of the text recovers this shortcoming).

Comparing implies that different versions of a same content or different contents belonging to a same category are included in the hypertextual transposition and that comparing these different versions or different contents helps the reader in going deeper in the literary text comprehension. This could be the case of a philological study of different editions of the literary text or a study of illustrations by different artists. Only in H2 and MM1 this possibility is provided. In H2 (namely in the “Reading room” collection) this seems to be the central feature, the privileged point of view from which the reader is invited to approach the text of the play. There, all contents of the hypertextual transpositions referring to a given segment of the scene of the rampart can be compared (mainly, contents dealing with philological aspects or with aspects of representations) (cf. fig. 16). In MM1 this possibility is offered only in a limited fashion as to this specific purpose. In fact, thanks to the use of frames, it is possible to compare parts of the transcription of the text of the play and the reproduction of the correspondent folio page.

Folio Comparison: Act I, Scene I	
Main Menu - Home Page - The Play - Folio Comparison	
<p><b>ESCALUS</b> If any in Vienna be of worth To undergo such ample grace and honour, It is Lord Angelo.</p> <p><i>Enter ANGELO.</i></p> <p><b>DUKE</b> Look where he comes.</p> <p><b>ANGELO</b> Always obedient to your Grace's will, I come to know your pleasure.</p> <p><b>DUKE</b> Angelo There is a kind of character in thy life.</p> <p><b>ANGELO</b> Yet give leave, my lord, That we may bring you something on the way.</p> <p><b>DUKE</b> My haste may not admit it, Nor need you (on mine honour) have to do With any scruple: your scope is as mine own, So to enforce or qualify the laws As to your soul seems good: Give me your hand, I'll pry away I love the people, But do not like to stage me to their eyes: Through it do well, I do not relish well Their loud applause and Aves vehement, Nor do I think the man of safe discretion That does affect it. Once more fare you well.</p> <p><b>ANGELO.</b> The heavens give safety to your purposes!</p> <p><b>ESCALUS.</b> Lead forth and bring you back in happiness!</p> <p><b>DUKE</b> I thank you. Fare you well.</p>	<p><i>Ang.</i> If any in Vienna be of worth To undergo such ample grace and honour, It is Lord Angelo.</p> <p><i>Enter Angelo.</i></p> <p><b>Ang.</b> Look where he comes.</p> <p><i>Ang.</i> Always obedient to your Grace's will, I come to know your pleasure.</p> <p><i>Duke.</i> <i>Angelo.</i> There is a kind of character in thy life,</p> <p><i>Ang.</i> Yet give leave (my Lord) That we may bring you something on the way.</p> <p><i>Duke.</i> My haste may not admit it, Nor need you (on mine honour) have to do With any scruple: your scope is as mine own, So to enforce or qualify the laws As to your soul seems good: Give me your hand, I'll pry away I love the people, But do not like to stage me to their eyes: Through it do well, I do not relish well Their loud applause and Aves vehement: Nor do I think the man of safe discretion That does affect it. Once more fare you well.</p> <p><i>Ang.</i> The heavens give safety to your purposes!</p> <p><i>Escal.</i> Lead forth, and bring you back in happiness!</p> <p><i>Duke.</i> I thank you, fare you well.</p>

Note how the stage direction for Angelo's entrance precedes the Duke's line "Look where he comes." Also note, in the second Folio snippet, how the stage direction for the Duke's exit precedes his line, "I thank you, fare you well." These two lines and their relationship to the stage directions illustrate how staging necessities often dictated dialogue. J.L. Styan in his book, *Shakespeare's Shaggyruff* points out that the configuration of the Globe Theatre dictated certain blocking and dialogue choices: Styan notes "the majority of entrances were made from backstage through one of two doors. If the actor felt the need, he could perambulate for up to fifty feet. On the Elizabethan stage, the actor

Fig. 24 – MM1 – Folio comparison.

## **Design patterns**

None of the design patterns we took into consideration in our checklist is fully and systematically applied in the considered hypertextual transpositions. However, in some of them interesting devices that partially implement these patterns are present. Thus, in some hypertextual transpositions (DC1, DC2, M1, MD2), the anticipation behaviour pattern is applied in order to explain the exact meaning of the arrows links allowing the user to move within the literary text screens. In such cases the pattern is used for orienting the reader within the physical structure of the literary text or of the application as a whole. This device points out an interesting difference in respect to printed annotated editions, where it is not necessary to make explicit to the reader to which page s/he will be brought when turning the current one.<sup>43</sup> It is evident that s/he will be brought to the following one. In some hypertextual transposition this same perspective is adopted. For instance, in DC3 arrows links are available, but no specification is provided as to the part of the text they provide access to. In DC3 the behaviour anticipation pattern is applied in order to orient the reader within the narration itself. In fact, there, this pattern is used in order to provide important information about the narrated story. When the reader rolls over one of the points representing the different Divine Comedy's cantos in the navigation bar, information about the canto the point represents (title, place, date and time of the narrated events, main involved characters) appears at the bottom of the screen. This information helps the reader in understanding the position of that canto in respect to the whole.

In M2 the information factoring pattern is quite systematically applied. In fact, when, starting from the text of the play screens, the reader browses the essays about collation and casting or the commentaries and summaries through the tool box, the text of these essays appears in floating boxes overlapping with the page of the text of the play. Therefore, the reader can read these essays within the context of the text of the play screens. This device corresponds to an attempt to keep the reader on the text of the play, avoiding her/him to get lost. In this sense, it compensates the disadvantage of one-way links (leading the reader away from the path s/he is currently exploring). The fact that this device is used only when the reader is on the text of the play underlines the importance of the reading of the text itself. In DC2 the information factoring pattern is interestingly applied in order to display passages of the literary text referred to in the added material and for images. When the text of a given annotation contains a link to a passage of the literary text, instead of simply providing access to the text screen including it, the text of this passage is displayed in a new pop-up window. Only at this point the possibility is provided to move to the text of the canto this passage belongs to.

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<sup>43</sup> However, in manuscripts a similar practice was present. There, the first word of the following page was reported at the end of the current page.

In this way the reader can read the passage remaining within the path s/he was following (cf. fig. 17). In DC3 the information factoring pattern is applied in order to always make available to the reader the content of the “Strumenti” collection.

In all the considered hypertextual transpositions, the literary text collection is organized as a guided tour.<sup>44</sup> This organization of the text collection navigation imitates the sequential paging we are used to when reading books. However, in some hypertextual transpositions the literary text guided tour presents some limitations. For instance, in MD1 the reader can only browse the literary text forward. In M3 and RJ1, because of the fact that each act corresponds to a different text collection, navigation as guided tour is provided only within the text screens of scenes belonging to a same act. Once the reader reaches the end of the act (the last text screen of the last scene of this act), s/he is automatically brought back to the homepage, where s/he has to make a further choice through the main collections. Generally speaking, supports to user’s orientation are not complete. Exceptions are M1 and MD2, where at the top of the page the number of the act and of the scene to which the page belongs is displayed, while at the bottom of the left frame occupied by the text, the total number of pages of the scene as well as the number of the displayed page are indicated (cf. fig. 9). This is also valid in the added material pages. Guided tour navigation is used in some hypertextual transpositions also for paging different screens of essays or for browsing the various available images in a sequence (generally, within the collection dedicated to them). In O1 the “Gli incontri” collection is organized as a guided tour (cf. fig. 3). Browsing the members of this collection in the guided tour mode, the reader retraces Odysseus’ journey in the chronological order (which is different from the order in which the different encounters are narrated).

### 1.3.2.3 Clients accessing the contents

Very few among the analyzed hypertextual transpositions provide precise information about their intended audience. It is the case of D1, MD1 and MM1. Several hypertextual transpositions provide no information at all (DC3, DC4, DC5, H1, LM1, M2 and O1). However, for some of these applications, the target audience can be extrapolated by the fact that the hypertextual transposition belongs to a wider site the purpose of which is clear and explicit (DC4, DC5 and H1 belong to more wide educational sites or portals). Some of the analyzed hypertextual transpositions provide this information in an indirect way: either the information about the target audience is provided in the form of the indication of the purpose for which the application is intended to be used or the

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<sup>44</sup> More precisely, it is organized as a hybrid collection. But, what is interesting to us is now the possibility of navigating it as a guided tour.

indication of the purpose of the project in the realm of which the application has been produced (DC1, DC2, H2, M1, M3, MD2, and RJ1).

Students constitute the primary intended audience of the major part of the considered hypertextual transpositions (D1, DC2, DC4, DC5, H1, H2, M1, MD1, MD2 and MM1). This is interesting, since it indicates that the authors of the major part of the considered hypertextual transpositions thought at a precise situation of use when designing them. However, in some cases (D1, DC2, M1, MD1, MD2) such a precise definition of the hypertextual transposition's target audience and use is weakened by the extension of the intended audience of the application to other categories of users, namely teachers, researchers and readers in general. On the same line, generally speaking, it is interesting to note that only three among the analyzed hypertextual transpositions (namely, DC4, M3 and RJ1) indicate only one category of users as their intended audience. Moreover, in DC4 this category is constituted by students, while for M3 and RJ1 it is constituted by readers in general.

The category of readers in general is indicated as (primary or secondary) intended audience of seven hypertextual transpositions (D1, DC1, DC2, M1, M3, MD2 and RJ1). However, we have to consider that it is very likely that this category constitutes the intended audience also of the hypertextual transpositions in which no precise definition of the target is provided (since there is no specification, the application is intended for everybody). Therefore, we can consider that the category of readers in general constitutes the intended audience of a half of the analyzed applications. Researchers constitute the intended audience of very few hypertextual transpositions (D1, DC2, MD1 and MD2).

DC1 constitutes an interesting particular case. In fact, it explicitly and precisely indicates that its primary intended audience is constituted by readers in general, while students constitute only a secondary intended audience. As we will see later on, this is coherent in respect to the special nature of the added materials it includes (which are mainly constituted by images).

In this first part we identified the peculiar features of hypertextual transpositions, by considering them, first, as a category of hypermedial applications and, second, by analyzing some concrete examples of such applications. We gained help by comparing them with printed annotated and illustrated editions of literary texts.

Several elements of continuity between hypertextual transpositions and printed annotated and illustrated editions have been identified. In a certain sense, hypertextual transpositions can be considered a new modality for providing annotated or illustrated editions of a literary text. Similarities have been identified both at the level of the general structure of the artefacts (the literary text is at the core, it is the content in function of which all the other contents stand; possibility to use multimediality in order to provide

the contents; presence of aspects of multilinearity) and at the level of the presence of given devices or tools allowing the reader to read the literary text according to well known and common reading practices (see the presence of tables of contents, the possibility to browse the literary text sequentially, the distinction among different available contents, the automatic presentation of some contents, the presence of tools helping the reader to look for given elements of the literary text and the use of the principle of spatial juxtaposition in order to organize the literary text and added materials).

However, thanks to the analysis, we also observed the presence of considerable differences between hypertextual transpositions and printed annotated and illustrated editions. Some particular features of hypertextual transpositions emerged, both as to their contents and as to the devices and tools provided in order to access to the contents. As to the first level, we noticed the presence of a major quantity of added materials and, particularly, the presence of a remarkable amount of images. As to the second level, we observed that several of the provided devices and tools (their presence or absence, the way in which they are used and their intertwining with contents) have an impact upon the way in which the literary text is read. It is for instance the case of the use of the device of collections. Collections can present the added materials according to the semantic aspects of the literary text they relate to or according to their type. These two different modalities have an impact upon the way in which the reader relates the added materials to the literary text and, therefore, upon the way in which the literary text is read.

The differences existing between hypertextual transpositions and printed editions constitute new factors that intervene in the act of reading the literary text. Having assessed their presence in this part of our work, we still have now to understand if and how these new factors entail new conditions in the act of reading. This will be done in the two following parts of our work. In the next part we will consider the new conditions introduced by the increased presence of added materials, especially visual ones (that is, images), while in the third and last part we will reflect upon the new conditions introduced by the presence of contents, devices and tools having an impact upon the act of reading the literary text.



## **2 The role of visual material: the “understanding by seeing” maxim**

### **2.1 Images: features and problems**

#### **2.1.1 Representation as an essential logic of hypertextual transpositions**

The analysis of contents of hypertextual transpositions let emerge that the main difference existing at this level between hypertextual transpositions and printed annotated or illustrated editions consists in the quantity of available materials. The absence in the hypertextual medium of limitations characterizing the print technology (such as limitations of space and book’s size, limitations of costs or copyright limitations) is easily transformed in a tendency at inclusiveness from the contents’ point of view. As to hypertextual transpositions, when a content is available, it is included. For instance, if materials dealing with visual or acoustic representations of the literary text are available, they are included in the hypertextual transposition. This is not always the case in the realm of print, where the inclusion of such materials is not common, except than in the precise case of printed illustrated editions. Such a difference in quantity also makes a difference at the cognitive level. In fact, having more available material means having the possibility to know more or more completely or more in depth.

The usual presence in hypertextual transpositions of visual and acoustic materials dealing with representations of the literary text constitutes an aspect of another difference we remarked at the contents’ level in respect to printed editions. As we underlined at paragraph 1.3.2.1, besides the basic difference of quantity, also a difference of type of contents emerged. In fact, we noticed the use of a remarkable amount of images in relationship to all the different aspects of the literary text’s structure and significance.<sup>45</sup> Also leaving for a moment a part the evident case of visual representations of the literary text (filmic transpositions, theatrical performances, illustrations), we observed that both static and dynamic images were widely used in order to describe characters and places (geographical setting of the narrated story) or in order to illustrate elements of the historical context in which the literary text has been produced (important characters of the time, important places, important events). Images were also used in relationship to philological aspects, namely for illustration of and access to manuscripts, folios or different versions of the literary text.

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<sup>45</sup> This hypertextual transpositions’ characteristic seem to be in line with a general trend several commentators observed in contemporary society and which consists in the dominance of images in human communication (Cobley 2001: 205).

As all the other added materials, in hypertextual transpositions, images are used in relationship to (a passage of) the literary text. This can happen in a direct way (when images refer directly to elements or aspects of the literary text, such as characters or places relevant for the narrated story) or in an indirect way (when images refer to the literary text only indirectly, since their most direct relationship is to elements or aspects explained in other added materials). In both cases, as it is for all the other added materials, their basic function is to cast light upon the literary text's significance and to enrich the reading experience. Images are used in hypertextual transpositions in order to propose to the reader elements or aspects of the literary text or related to it in a different modality in respect to the written medium. They present them in a visual way. In this sense they are representations of these elements or aspects.

Given the higher presence of images in hypertextual transpositions in respect to printed editions, we can say that one of the peculiarities of hypertextual transpositions consists in expanding the level of representations. Representation constitutes an essential logic of the hypertextualization of the literary text. Following the tendency at inclusiveness, in hypertextual transpositions whenever possible elements of or related to the literary text are represented. In hypertextual transpositions the literary text's significance, for a great part, is highlighted through representations.

Representations are also present in printed annotated and/or illustrated editions. For instance, the English translation of the *Divine Comedy* by Lawrence Grant White (Alighieri 1948) sets beside the text the illustrations of Gustave Doré. Berthier's edition of the *Divine Comedy* (Alighieri 1895) is even more striking. There, different types of images (reproductions of drawings, engravings, illustrations, photographs) are used and added in the footnotes as part of the commentary of the passages of the original text. However, in printed annotated editions, but also in printed illustrated editions, the inclusion of images is more difficult from a technical point of view and more costly. This difficulty usually excluded the use of images for the comment of the text from the common practices of the literary annotation.<sup>46</sup> On the contrary, representations become an important part of hypertextual transpositions.

The way and the purpose for which images are used in hypertextual transpositions lets emerge another peculiar feature of these artifacts in respect to printed editions. As we said above, images in hypertextual transpositions are also used for the clarification of philological aspects of the literary text, in order to reproduce and to provide access to manuscripts, folios and other editions of the literary text. In this case images try to make

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<sup>46</sup> However, to include images in printed editions was easier in respect to the era preceding the advent of print. "L'invenzione della stampa si allaccia al rinnovamento tecnico della produzione di immagini sotto due aspetti. In primo luogo la stampa coinvolge anche l'immagine, permettendone una moltiplicazione precedentemente impossibile. In secondo luogo essa è contemporanea all'invenzione della prospettiva, strumento riproduttivo grafico-geometrico che modifica l'idea stessa di immagine e di fruizione del testo iconico". (Colombo & Eugeni 1996: 67).

present and available in the hypertextual transposition artifact another artifact or object. Such a function is not exclusively accomplished through images. Also the verbal written text can serve the same purpose. In fact, in some hypertextual transpositions it is possible to find and access to digital versions of texts other than the literary text at the core of the hypertextual transposition. They are texts related to the central literary text, such as sources, texts in which a similar theme is developed, parodies or texts in which echoes of the central literary text can be found. Therefore, hypertextual transpositions are characterized not only by a higher use of the level of representation, but also by a higher use of added materials at the purpose of making present (and, therefore, immediately accessible) artifacts or objects. Once more, we have to precise that this feature is not absent from printed editions. However, its presence is much more limited, precisely because of the above-mentioned limitations of the print technology. For instance, in some printed annotated editions appendixes are included where full texts or excerpts of central sources of the literary text, of other works on the same theme or of other works of the same author are made available. It is for instance the case of the printed edition of Mary Shelley's *The Last Man* by Anne McWhir (Shelley 1996).<sup>47</sup> However, this is not a very common practice.

### 2.1.2 Definition of the “understanding by seeing” maxim

The feature of providing direct access to artifacts or objects presents a common character with the category of representations, which consists in the use of the modality of *monstrare ad oculos*. Objects and artifacts are not verbally described (as it happens in the literary text itself, but also in annotations), but shown. What is aimed is contributing to the comprehension in allowing the user to see the object or the artifact s/he has to know in order to understand a given word or passage of the literary text or a given added material.

Therefore, peculiarities of hypertextual transpositions, as they emerged from the above exposed analysis of their content, seem to correspond to a maxim, which we could summarize as following: “In order to make you understand exactly, I will show you”. The presupposition upon which it is based is “if you see, you will understand”.<sup>48</sup>

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<sup>47</sup> This edition (Shelley 1996) entails seven appendixes (namely “Appendix A: Some Contemporaries of the Last Man”, “Appendix B: The Sibyl's Cave”, “Appendix C: Versions of the Plague”, “Appendix D: ‘The Web of Mind’”, “Appendix E: Mary Shelley's poems (1825)”, “Appendix F: Contemporary comments on and reviews of *The Last Man*” and “Appendix G: Postscript”), all comprising excerpts of texts other than the central novel, but which are important in relationship to it (for its comprehension).

<sup>48</sup> Scholars, from the Ancients to Russell, were aware of this type of understanding when they spoke of mental images.

This modality introduces a strong deictic aspect. Hypertextual transpositions try to make the literary text more experiential. They try to privilege perception as the way to understanding. In terms of Bolter & Grusin (1999) we should say that they try to reduce hypermediacy and mediation in favor of immediacy. By means of this deictic character and this increased immediacy hypertextual transpositions aim at making perceptible what the reader should imagine or to transform the reader's hypotheses about implicit aspects of the literary text into factual knowledge. In fact, the advantage of hypertextual transpositions seems to consist in this possibility to make the literary text (its content and its structure) something the reader can experience not only through reasoning or imagination, but also through a direct perception.

In other words, we can say that hypertextual transpositions (thanks to the use of multimedial devices, especially images) tend to transpose the experience of reading from the Peircean category of thirdness to the category of secondness, that is, from mediation and interpretation (which are more evident in the case of the mainly verbal annotations of a printed annotated edition) to existence, presence, fact (which are more evident in the case of images, videos and audio devices of a hypertextual transposition).

La Secondità è la categoria dell'esistenza, di ciò che accade, di ciò che è esterno, che 'si oppone' al soggetto come dato costrittivo, 'qualcosa la cui esistenza consiste nel nostro sbatterci contro' (1.358). Il Secondo 'ci viene incontro in fatti come alterità, relazione, coercizione, effetto, dipendenza, indipendenza, negazione, evento, realtà, risultato' (*ib.*) Con la irruzione del *fatto* nella coscienza la secondità implica lotta, forza. La Terzità è la categoria della necessità, della legge, della mediazione (e quindi anche del segno), del significato, dell'interpretazione, della ragione. È sintesi di Qualità e Fatto, ma è irriducibile ad essi. Caratteristica delle relazioni triadiche è di non essere scomponibili in somme di relazioni duali (Fumagalli & Manzato 1999: 233).<sup>49</sup>

This hypertextual transposition's maxim can also be described as the implementation through a new medium of an antique rhetorical principle:

D'altro canto, fin dalla *Retorica* di Aristotele era chiaro il principio secondo cui primo compito dell'oratore è quello di 'far vedere' le cose, di dare alla parola un Massimo di *evidential* come dicevano i latini, mentre i greci usavano il termine *enàrgheia* – da non confondere con *enérghēia*: la parola eloquente, la parola che ha effetto, deve presentare il suo argomento come una cosa viva, come un'immagine. Per suscitare emozione e persuasione, per *movere* e *delectare*,

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<sup>49</sup> It has to be noted that, as Fumagalli & Manzato (1999: 233) point out, this passage is part of *A Guess at the Riddle*, a Peirce's work which remained unpublished and which date from 1890. Subsequently, Peirce will consider reality as belonging to thirdness and no more to secondness.

occorre che lo spettatore partecipi all'evento, lo 'veda' a tal punto da restarne coinvolto drammaticamente, come se si svolgesse davanti ai suoi occhi (Raimondi 2002: 43-44).

In the implementation of such a maxim, visual materials (images) play a prominent role.<sup>50</sup> In the following paragraphs we will therefore focus our attention on the contribution this type of added materials brings to the act of reading and to the comprehension of the literary text, by representing the literary text in the above-described deictic way. This study will point out that the complexity and the particular features of images as signs always imply a level of interpretation that cannot be avoided and that contrasts the attempt to provide to the reader a more direct (more experiential) access to the literary work.

As we will see later on, the “understanding by seeing” maxim is effective only to a certain extent. In fact, visual signs present characteristics that seem to contradict it and to prevent a complete transfer of knowledge through images. The understanding of the meaning of images and of their contribution to the literary text explanation and illustration is not always easier and more complete than the understanding of verbal explanations.

### **2.1.3 Denotatum and meaning: essential components of signs**

The literary text is composed of linguistic signs.<sup>51</sup> The main characteristics of linguistic signs is their double reference. A linguistic sign refers both to a concept and to a concrete object in the reality. The relationship between the signifier and the signified of a linguistic sign entails at the same time a relationship of representation (of a concept, an idea in our mind) and a relationship of reference (to the external reality). A linguistic sign denotes an object and connotes an idea. In this way a linguistic sign refers not only

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<sup>50</sup> In hypertextual transpositions also different uses of the audio device are present. In them the deictic character is not as evident as it is in the case of images. For instance, the use of the audio device to make available the aloud reading of the literary text can be a possibility for the reader to perceive the literary text in a more direct way, but we cannot state that it is deictic. In some way, considering the case of the use of the audio device to make available the sounds and noises that are part of the scene narrated by the literary text, we note that they have an iconic, not an indexical character. Therefore (as for illustrations and video clips of films or performances) we can state that they have a deictic character only in the sense that they show, they make manifest something the literary text narrates. But sometimes these sounds are not narrated by the literary text itself. Therefore, they make explicit something that was implicit in the literary text. However, the result for the reader is to experience directly something that otherwise s/he would have had to imagine.

<sup>51</sup> All along this paragraph we refer to the working papers of the Boris Uspenskij's course “Semiotica I”, held at the University of Lugano during the academic year 2000-2001 (Uspenskij 2000-2001). Particularly we refer to working paper 5.

to a single specific object in the reality, but also to a class of objects, which is associated to the specific object. For instance, when we say “table”, we do not only refer to a concrete table, but also to the concept of “table”, that is, to the class of objects, which, because of their characteristics, we recognize as being tables.

A sign is therefore composed of three elements, namely its perceptible part, the concrete object of the external reality to which the sign refers and the concept or idea which the sign represents. This distinction is well known in the history of semiotics as the semiotic triangle. Several scholars have described it all along the centuries, using different terminologies in order to identify the different components of the triangle. St. Augustine called them *vocis*, *res* and *verbum mentis*; Ockam used the terms *terminus*, *res* and *conceptus*; John Locke name, thing and nominal essence; Frege *Zeichen*, *Bedeutung* and *Sinn*; Carnap sign, *nominatum* and *sense*; Peirce firstness, secondness and thirdness; Morris sign vehicle, *denotatum* and *significatum*. We will here adopt the terminology usually in use in the field of semiotics, namely signifier (the perceptible part of the sign), *denotatum* (the concrete object of the external reality to which the sign refers) and meaning (the mental concept or idea which the sign represents in the mind of the interpreter).

The characteristic of the double reference of linguistic signs is essential to communication. Communication cannot work only through the reference of linguistic signs to the external reality. It works thanks to the presence of meaning, as Jonathan Swift ironically points out in a passage of *Gulliver’s Travels*. In a passage of part III, chapter 5 of the novel,<sup>52</sup> one of the Professors of Languages Gulliver met at *Balnibarbi*

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<sup>52</sup> “We next went to the School of Languages, where three Professors sate in Consultation upon improving that of their own country. The first Project was to shorten Discourse by cutting Polysyllables into one, and leaving out Verbs and Participles, because in reality all things imaginable are but Nouns. The other, was a Scheme for entirely abolishing all Words whatsoever; and this was urged as a great Advantage in Point of Health as well as Brevity. For it is plain, that every Word we speak is in some Degree a Diminution of our Lungs by Corrosion, and consequently contributes to the shortning of our Lives. An Expedient was therefore offered, that since Words are only Names for *Things*, it would be more convenient for all Men to carry about them, such *Things* as were necessary to express the particular Business they are to discourse on. And this Invention would certainly have taken Place, to the great Ease as well as Health of the Subject, if the Women in conjunction with the Vulgar and Illiterate had not threatned to raise a Rebellion, unless they might e allowed the Liberty to speak with their Tongues, after the manner of their Ancestors; such constant irreconcilable Enemies of Science are the common People. However, many of the most Learned and Wise adhere to the New Scheme of expressing themselves by *Things*, which hath only this Inconvenience attending it, that if a Man’s Business be very great, and of various kinds, he must be obliged in Proportion to carry a greater bundle of *Things* upon his Back, unless he can afford one or two strong Servants to attend him. I have often beheld two of those Sages almost sinking under the Weight of their Packs, like Pedlars among us; who, when they met in the Streets, would lay down their Loads, open their Sacks, and hold Conversation for an Hour together; then put up their Implements, help each other to resume their Burthens, and take their Leave. But for short Conversations a Man may carry Implements in his Pockets and under his Arms, enough to supply him, and in his House he cannot be at a loss: Therefore the Room where Company meet who practise this Art, is full of all Things ready at Hand, requisite to

suggests to abolish words and to communicate through things. The reason of such a proposition resides in the fact that words (nouns) stand for things. So to abolish the mediation of words would make communication more direct. However, as Roman Jakobson (1994) and Uspenskij (2000-2001) pointed out, such a modality of communication will not be convenient. In fact, “come potremmo, ad esempio, discutere di elefanti? Dovremmo evitare questo argomento di discussione?” (Uspenskij 2000-2001). Similarly,

It would be difficult to converse in things about ‘a whale’, even more embarrassing about ‘whales’, and hardly possible to communicate about ‘all whales’ or ‘absent whales’. Even if miraculously succeeding to collect all the whales of the world, how to convey in things that they are indeed all? (Jakobson 1953: 21).

Therefore, it is thanks to their relationship of representation of a concept or idea, of a general class of objects that linguistic signs allow us to discuss and communicate about any topic or object, despite its presence or absence in the communicative situation. Should we communicate with objects and not with words, we will not be able to do that. Neither we will be able to express logic relationships or abstract concepts such as the ones mentioned by Jakobson. Besides, through the relationship of representation of linguistic signs classes of objects are established. Linguistic signs operate a classification of the world, which makes possible to us to speak about any imaginable topic or object, without need to use a different noun for each of them. In natural languages we have a finite number of signs, which allows us to discuss and communicate about an infinite number of objects and arguments.

However, we have to underline that if reference to meaning is essential to human communication, the role of denotata is not less important. As it will not be possible to have an effective communication without referring to meaning, it will not also be possible for this communication to be effective without reference to the denotata, to the concrete objects of the world. In fact, on the one hand, without reference to denotata meaning will not exist, since meaning is the result of a semiotic classification of the concrete objects of the world. On the other hand, human knowledge is based on senses, on perception of objects.<sup>53</sup> The experience of concrete objects in the reality is essential to

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furnish Matter for this kind of artificial Converse. Another great Advantage proposed by this Invention, was that it would serve as a Universal Language to be understood in all civilized Nations, whose Goods and Utensils are generally of the same kind, or nearly resembling, so that their Uses might easily be comprehended. And thus Embassadors would be qualified to treat with foreign Princes or Ministers of State to whose Tongues they were utter Strangers” (Swift, quoted from Gulliver’s Travels by Jonathan Swift, <http://www.jaffebros.com/lee/gulliver>).

<sup>53</sup> This principle has been discussed since Antiquity. Aristotle at the very beginning of his Metaphysics stated that “[980a][21] All men naturally desire knowledge. An indication of this is our

human knowledge. The meaning of the word “whale” could never substitute the experience of seeing and touching a whale. The level of denotatum stands exactly for the direct experience of an object. The reference to the world is essential to human communication.

Considering this essential characteristic of linguistic signs, we can describe the modality in which hypertextual transpositions try to enrich the reading experience of the literary text (the “understanding by seeing” maxim) as an attempt to “communicate with things”, that is, to make the denotata present in the act of reading. In other words, we can say that the maxim characterizing hypertextual transpositions states: “In explaining you the meaning, you can understand only to a certain extent; but, if I show you the denotatum, you will fully understand”. Hypertextual transpositions try to make the reader understand by experiencing. However, given the essential role meaning plays in communication, we have to clarify when and how this way of understanding works properly.

#### **2.1.4 Bühler’s distinction between *Zeigfeld* and *Symbolfeld***

Karl Bühler introduced a model, which can help us in further clarifying the working and the nature of this maxim and the role of denotata in hypertextual transpositions. In fact, in Bühler’s model the importance of deictic elements (of reference to the concrete communicative situation) in language and communication has been underlined for the first time in a systematic way. In his *Sprachtheorie* Bühler pointed out the existence of two different fields, namely the *Zeigfeld* and the *Symbolfeld*. He clearly distinguished these two fields and he showed that both are essential for a linguistic representation. The *Zeigfeld* is tied up to the concrete situation. Signs belonging to this field are called deictic terms (*Zeigwörter*) and they provide indication of sure reliance only in relationship to their position, in relationship to the situation in which they are used (1983: 159). On the contrary, the *Symbolfeld* is the field of representation and therefore it is abstracted from the situation. It is the result of a progressive freeing from indication and of a release of the linguistic expression from the situational aids (1983: 309). Signs belonging to this field are called conceptual signs or denotative terms.

The modality of *monstrare ad oculos*, the presence of which we noticed in hypertextual transpositions, belongs to Bühler’s *Zeigfeld*. Bühler explains that the *demonstratio ad oculos* constitutes one of the three modes of indication (the other two

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esteem for the senses; for apart from their use we esteem them for their own sake, and most of all the sense of sight. Not only with a view to action, but even when no action is contemplated, we prefer sight, generally speaking, to all the other senses. The reason of this is that of all the senses sight best helps us to know things, and reveals many distinctions” (Aristotle, *Metaphysics*; quoted from Perseus Digital Library, <http://www.perseus.tufts.edu/>).

are the anaphora and the *Deixis am Phantasma*).<sup>54</sup> It is the primitive type of indication and also the one that is in accordance with perception. The forefinger is the natural instrument of the *demonstratio ad oculos*. Through the *demonstratio ad oculos* the object itself (which in the triade constituting a sign is the *denotatum*) is shown and pointed out to the reader's attention. Similarly, in hypertextual transpositions, signs showing (and making present) the *denotatum* of given signs of the literary text (or – because of the hierarchic structure of the hypertextual transposition – of other signs added to the literary text) are present and, as we showed above, quite predominant.

In Bühler's terms, the presence of such signs (that is, the large use of images in order to explain the literary text and the modality of making present objects and artifacts) we noticed in hypertextual transpositions can be described as an increased and powerful presence of the *Zeigfeld*. In fact, hypertextual transpositions seem to attempt at explaining the literary text in making direct reference to objects, events and places, in making objects, events and places to which the literary text refers directly perceptible and experiential. As we will see later on (particularly in chapter 2.2), several of these images, in Peircean terms, can be defined as indexes. However, when taking into consideration their function in respect to (the passage of) the literary text to which they refer, we realize that they belong to the *Symbolfeld*, in that they work as denotative signs. Their indication of the *denotatum* is much more mediated than it can appear at first sight.

### 2.1.5 Features of images as signs

Images and verbal texts refer to two different kinds of codes. Verbal text is a digital code, while image is an analogical code. Analogical signs are characterized by the fact that they “involve graded relationships on a continuum. They can signify infinite subtleties which seem ‘beyond words’ (...)” (Chandler 2002: 46). However,

(...) the graded quality of analogue codes may make them rich in meaning but it also renders them somewhat impoverished in syntactical complexity or semantic precision. By contrast the discrete units of digital codes may be somewhat

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<sup>54</sup> “Die Modi des Zeigens sind verschieden; ich kann *ad oculos* demonstrieren und in der situationsfernen Rede dieselben Zeigwörter *anaphorisch* gebrauchen. Es gibt noch einen dritten Modus, den wir als *Deixis am Phantasma* charakterisieren werden. Phänomenologisch aber gilt der Satz, dass der Zeigefinger, das natürliche Werkzeug der *demonstratio ad oculos* zwar ersetzt wird durch andere Zeighilfen; ersetzt schon in der Rede von präsenten Dingen. Doch kann die Hilfe, die er und seine Äquivalente leisten, niemals schlechterdings wegfallen und entbehrt werden; auch nicht in der Anaphora, dem merkwürdigsten und spezifisch sprachlichen Modus des Zeigens. Diese Einsicht ist der Angelpunkt unserer Lehre vom *Zeigfeld* der Sprache” (Bühler 1999: 80-81).

impoverished in meaning but capable of much greater complexity or semantic signification (Nichols 1981: 47).

In fact, images as analogical signs present particular features, some of which can be considered as benefits in respect to the verbal text, while others are limitations.<sup>55</sup> The main value of images consists in their high semantic richness. A single image transmits at the same time a lot of information in a dense way. In an image not only a given object is illustrated, but also color and spatial perspective are present, which transmit further information. However, images cannot express logical or grammatical relationships. For instance, it is not possible to represent a negation through an image. Images cannot express incertitude, doubts or hypothesis. They can only express certitude, real facts and real existence. The fact to present things as sure is, according to Barthes, one of the peculiar features of photography (a particular type of images, in which some features of analogical signs are very evident).

Se la Fotografia non può essere approfondita, è a causa della sua forza d'evidenza. Nell'immagine, l'oggetto si presenta in blocco e la percezione ne è *certa* – contrariamente a quanto avviene per il testo o altre percezioni che mi presentano l'oggetto in forma vaga, discutibile, e che in tal modo mi esortano a diffidare di ciò che credo di vedere. Questa certezza è assoluta perché ho la possibilità di osservare la fotografia con intensità; d'altra parte, per quanto prolunghi tale osservazione, essa non mi apprende nulla. Ed è precisamente in questa sospensione dell'interpretazione che risiede la certezza della Foto: io mi consumo nel constatare che *ciò è stato*; per chiunque tenga una foto in mano, questa è una 'credenza fondamentale', una 'Urdoxa', che niente può annullare, posto che mi venga provato che quell'immagine *non è* una fotografia. Purtroppo, è proporzionalmente alla sua certezza che io non posso dire niente di quella foto (Barthes 2001: 106-107).

Images can only be assertive; they cannot provide information in a critique, reflexive or dubitative mode. They cannot represent specific concepts. For instance, it is not possible to represent the expression "this is my chair" through an image. They cannot represent time. An image in itself is neither true nor false. Images prove their truthfulness only within a communicative context. Finally, the perception and the interpretation of an image are open to different possibilities. Because of these limitations, images can show, but they cannot explain. Barthes pointed out that photography can only represent, while a text can represent (through the description), but

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<sup>55</sup> Different articles and books deal with this topic. We refer here to the contents of Peter Schulz's course "Semiotica I", held at the School of Communication Sciences of the University of Lugano during the academic year 2002-2003 (Schulz 2002-2003).

also comment, discuss, etc. (through reflection) (2001: 30). He agreed with Brecht, who said that photography has no critical power (2001: 36-37).

It has to be noted that there is no consensus among semioticians about these features of images. For instance, Wittgenstein argued against the images' assertive force. Since images are characterized by a pragmatic indeterminacy (a picture representing a boxer in a particular stance can be used to tell how he should stand, but also how he should not stand or how this particular boxer stood at that moment, etc.), they cannot assert (Nöth 1997: 142-143). As to the truthfulness of images (an issue which can also be summarized in the question "Can images lie?"), there are semioticians, such as Janice Deledalle-Rhodes (1997), who argue that images in themselves cannot lie, because in themselves they are neither true nor false.

In itself the image does not lie, because it does not say anything. Only a proposition can be false or true (thirdness), and the image (secondness) is not a proposition. The lie can occur only when the image is purported *by* someone *for* someone to be the true picture of some event which is happening or has happened at a particular time or place. The image then becomes an element of some proposition such as "This is true" or "This is a fact", which may or may not be true but whose truth or falsity must be attributed only to the speaker or user of the image and has no other relation with the image itself (Deledalle-Rhodes 1997: 114-115).

Other semioticians, such as Winfried Nöth (1997), argue that images, having the power to assert, can also lie, even if they do it in a more restricted manner in respect to verbal text.

The result of our study was that pictures can be used to assert or to deceive about facts from the semantic, syntactic, and with certain reserves, also from the pragmatic dimension. This does not mean that asserting and lying are very typical modes of pictorial information. Most of the manipulative strategies of pictorial information in the media are not direct falsifications of reality expressed in the assertive mood, but manipulations by means of a plurality of indirect modes of conveying messages (Nöth 1997: 144).

According to Nöth, the fact that photography can only represent is one of the arguments that bring to conclude that at the semantic level images in themselves have the power to be true or false. "Photographs seem to be the prototype of visual messages which are true because they fulfill the semantic criterion of correspondence to the facts" (Nöth 1997: 134).

Also images referring to a literary text present the above-described characteristics. The meaning of an image illustrating the content of a passage of a literary text is very complex and dense. In fact, on the one side, in respect to the text to which it is related, the image has to recall and summarize elements that were introduced in previous parts of the literary text. On the other side, it must make explicit elements, aspects or particulars that in the literary text remain implicit. If the literary text entails a (positive) ambiguity, the image has to solve it choosing one precise representation. This case is exemplified and described by Schapiro, who, commenting an illustration of Exodus 14, pointed out the existence of discrepancies between text and image:

We note in this first example some differences between image and text. The artist has chosen the moment when Moses' raised arms are not yet weary and require no support from Aaron and Hur. But for this early phase of the battle, the posture is arbitrary with respect to the written words. These state clearly that Moses carried a rod, the same rod with which at God's bidding he divided the Red Sea (Exodus 14: 16 ff.) and struck the rock in the desert to bring forth water for his people (1996: 31).

Because of its semantic richness, an image is open to interpretation. In fact, semantic richness also means co-presence of different meanings. We can say that images always have a main meaning, but they also have secondary meanings, some of which go beyond the passage of the literary text to which they refer and its explanation. This derives for instance from the fact that, in Peircean terms, images in themselves can be icons, indexes or both at the same time. A photograph of a landscape is an icon in respect to the landscape itself, but it also is an index pointing out the spatial connection between the landscape and the photographer (that is, it is an index in respect to the photographer). In an image added meanings are present that are not directly related to the literary text's meaning. An image can provide factual information, but also information about atmosphere, feelings, etc. It is up to the reader to grasp all this information and to understand what is the most relevant in a precise case, in a precise point of the literary text. In some cases images' secondary meanings can distract the reader from the main one and, therefore, not let her/him completely grasp the relevance of the image in respect to the passage of the literary text, the relevance the author of the hypertext was thinking about.

Besides, we can observe that different kinds of images possess a different degree of indexicality.

As a mirror image, an outward appearance, almost a mirage, the prephotographic image functions as a metaphor, a window onto the world. In this way, the real is imagined by the subject filtered through the grid of codified illusion (...) As a

double, record, reflection, and emanation of the material world, the photographic image functions as a metonymy that establishes a relation of contiguity between the real and its image (Santaella Braga 1997: 129).

Photographs immediately have a stronger indexical character. As Barthes said “Una fotografia (...) dice: questo, è proprio questo, è esattamente così! ma non dice nient’altro; una foto non può essere trasformata (detta) filosoficamente (...) essa addita un certo vis-à-vis, e non può uscire da questo puro linguaggio deittico” (2001: 6-7). They create a connection with the actual reality. Because of the fact that it is a photograph, the image claims the actual existence of the object.<sup>56</sup> Already Peirce was convinced that photographs were mainly indexes and not icons.<sup>57</sup> Illustrations have a more iconic character. Their main characteristic is the reproduction of an object by similarity. This different degree of indexicality comes from a different degree of mediation in respect to reality. In photographs there are not conventional aspects that are present in illustrations, such as the ones introduced by the recourse to the technique of direct perspective (see Uspenskij 2000-2001, working paper 3). The access to reality is more mediated in the case of illustrations. As Barthes (2001)<sup>58</sup> as well as Bolter and Grusin (1999) underlined,

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<sup>56</sup> “Chiamo ‘referente fotografico’, non già la cosa *facoltativamente* reale a cui rimanda un’immagine o un segno, bensì la cosa *necessariamente* reale che è stata posta dinanzi all’obbiettivo, senza cui non vi sarebbe fotografia alcuna. La pittura, dal canto suo, può simulare la realtà senza averla vista. Il discorso combina segni che hanno certamente dei referenti, solo che tali referenti possono essere e sono il più delle volte delle ‘chimere’. Nella Fotografia, contrariamente a quanto è per tali imitazioni, io non posso mai negare che *la cosa è stata là*. Vi è una doppia posizione congiunta: di realtà e di passato. E siccome tale costrizione non esiste che per essa, la si deve considerare, per riduzione, come l’essenza stessa, come il noema della Fotografia. Ciò che io intenzionalizzo in una foto (non parliamo ancora del cinema), non è l’Arte e neppure la Comunicazione, ma la Referenza, che è l’ordine fondatore della Fotografia” (Barthes 2001: 77-78). Barthes underlined that photography is constative (“*è stato*”) and exclamative (“*È esattamente questo!*”) (2001: 112). “Ecco, la follia è proprio qui; infatti, sino ad oggi, nessuna raffigurazione poteva assicurarmi circa il passato della cosa, se non per mezzo di riferimenti ad altre cose; invece, con la Fotografia, la mia certezza è immediata: nessuno mi può disingannare” (Barthes 2001: 115).

<sup>57</sup> “Peirce referred to signs in (unedited) photographic media as being primarily *indexical* (rather than *iconic*) – meaning that the signifiers did not simply ‘resemble’ their signifieds but were mechanical recordings and reproductions of them (within the limitations of the medium)” (Semiotics for Beginners, “Codes”). Here is the referred Peirce’s quotation: “Photographs, especially instantaneous photographs, are very instructive, because we know that they are in certain respects exactly like the objects they represent. But this resemblance is due to the photographs having been produced under such circumstances that they were physically forced to correspond point by point to nature. In that aspect, then, they belong to the second class of signs, those by physical connection” (Peirce 1935-1966, 2.281. This brought Peirce to argue that, because of its main indexical character, photography has no assertive force (cf. Nöth 1997:135, 143).

<sup>58</sup> “La tale foto, in effetti, non si distingue mai dal suo referente (da ciò che essa rappresenta), o per lo meno non se ne distingue subito o per tutti (ciò che invece fa qualsiasi altra immagine, ingombra com’è, sin dal primo momento e per sua stessa condizione, della maniera in cui l’oggetto è simulato (...))” (2001: 7).

photographs give a perception of greater immediacy. Photograph is a medium that pretended to fulfill the logic of immediacy better than the previous, already existing, media. A photograph creates a relationship with the actual reality of the reader, while an illustration does not (it is perceived as something old, not as something contemporary to the reader). A photograph shows the actual reality, while when s/he is in front of an illustration or a map, the reader perceives that it is itself a sign of a sign and that, therefore, the understanding of the illustration and its relationship to the literary text requires from her/him a further inference to pass from the representation of the place or object to the identification of the real place or object (the denotatum). This stronger indexical feature of photographs is another possible source of images' secondary meanings. Photographs are one of the novelties brought by new technologies in hypertextual transpositions. In fact, they are the kind of images that were less part of the common practice of literary comments and annotations. They were used for literary annotation in some printed annotated editions (such as Berthier's edition [Alighieri 1895] and Ricci's edition [Alighieri 1898]), but their use increased in hypertextual transpositions.<sup>59</sup>

## **2.2 Images interpretation in hypertextual transpositions**

### **2.2.1 A semiotic typology**

The understanding of the semiotic relationship existing between a given image and the signs of the literary text to which the image refers is essential. Only if the reader grasps this semiotic relationship, the image accomplishes the function for which the hypertextual transposition's author/designer decided to include it in the hypertextual transposition. Therefore, it is not enough for the reader to look at the image and to understand what it represents. After this first step, s/he has to answer the question "Why is this image there?" S/he has to integrate the meaning of the text and the meaning of the image. Only at this point, s/he understood the relevance of the images in respect to the literary text. In other words, the user has to delimit the semantic richness and the openness to different interpretations that characterize images as analogical signs. S/he

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<sup>59</sup> The use of photographs at illustrative purposes began during the last quarter of the nineteenth-century. Two main categories of photographs were used. The first one was composed of photographs aiming at documenting places, events, persons or objects (views, landscapes, reproductions of work of arts and reportage photographs). The second category was composed of photographs aiming at illustrating scenes narrated in literary works. These scenes were played and photographed in studio. These second category never had success and it always remained at an experimental level (Pallottino 1988: 160-162). Photographs belonging to the first category were used for instance in Berthier's edition of the *Divine Comedy* (Alighieri 1895).

has to identify the proper meaning of the image by considering it in relationship to the (passage of the) literary text the image refers to. In this sense, the meaning of an image (what the image represents) coincides with its relationship to the literary text. The understanding of this relationship is not automatic and it can also be difficult, precisely because of the images' semantic richness and the openness to different interpretations.

Images can have different relationships and functions in respect to the text. It is possible and useful to draw a typology of images included in hypertextual transpositions, based on the functions the images fulfill. We will fundamentally refer to Peirce's classification of signs in icons, indexes and symbols. We draw this classification considering mainly DC1 (the site "The World of Dante"), since, among the seventeen analyzed hypertextual transpositions, it is the one where images of different kinds, used in order to comment words or passages of the literary text, constitute the main added material.<sup>60</sup>

In presenting the examples drawn from DC1, besides the precise line to which the considered images refer, we will always transcribe the tercet to which this line belongs. The precise line to which the images are linked in DC1 will be transcribed in italic fonts. Besides, the images made available in DC1 and commented and described in each example will be reproduced.

We identified five different classes of images. The first class is composed of images illustrating the narrated story. They represent the content of a given passage of the literary text in a visual way. Their function is to help the reader in visualizing what it is narrated, especially in building a complete image of the scene. Therefore, they are icons in respect to the literary text. The presence of this kind of images is current in and characteristic of illustrated editions of literary texts.

The second class is composed of images, the function of which is to indicate a given element of the literary text. They aim at showing to the reader the denotatum of the signs of the literary text. They do not add further information to what the literary text says. They just have a deictic function. In Peircean terms, they can be defined indexes.

The third class is composed of images, the function of which is to exemplify. Also in this case the image aims at explaining a sign or a group of signs of the literary text by showing its or their denotatum. However, the denotatum of these signs is not precisely identifiable. Therefore, the image shows one of the possible denotata, an instance of the class of denotata corresponding to those signs of the literary text.

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<sup>60</sup> DC1 seems to aim at providing a visualization, as wide and rich as possible, of the text *Inferno*. This focus on the aspect of visualization of the narration and of the narrative and contextual elements can explain the reasons of the particular identification of the intended audience we find in it. As we underlined at paragraph 1.3.2.3, in DC1 it is explicitly stated that the intended audience is composed in a first range by readers in general, while students constitute the intended audience only in a second range. The ludic aspect (even if oriented to the transfer of a given knowledge) seems to be more important than the strictly didactic one.

The fourth class is composed of images, the function of which is to explain something the literary text left implicit (something that is presupposed by the literary text or to which the literary text refers without exposing it). In this case the image function is to comment the literary text, to provide further information in respect to what the literary text says. Unlike images belonging to the previous classes (which just show, without pretending to say something more), images belonging to the fourth class make explicit something, which is not explained by any other verbal comment, neither in the literary text nor in other added materials. They correspond to explicative texts.

The fifth class is composed of images related to a simile present in the literary text. A simile is an image the author used in order to better represent what he had in mind. The image related to it reproduces the term of comparison of the simile. As we will see later on, the process of interpretation of such images is quite complicated. In fact, the reader, after having looked at the image and having understood what it represents, has to come back to the literary text in order to understand the final meaning of the image.

In DC1 the most numerous class is definitely the first, for which we found 120 images. Then, the second (24 images) and the third (19 images) follow. Finally, we found 4 images belonging to the fifth class and 2 images belonging to the third class.

As we noticed above, a same image can accomplish different functions (and, therefore, it can belong to different classes), when it is set in relationship to different passages of the literary text. Its semantic richness and openness to different interpretations is delimited in different way by different passages of the text. The understanding of the semiotic relationship between image and literary text is essential as to the comprehension of the literary text's significance. For instance, in DC1 at *Inferno* X, 26 ("La tua loquela ti fa manifesto / di quella nobil patria natio, / a la qual forse fui troppo molesto"), at *Inferno* VI, 62 ("li cittadin de la città partita; / s'alcun v'è giusto; e dimmi la cagione / per che l'ha tanta discordia assalita"), at *Inferno* XIII, 143 ("raccoglietele al piè del tristo cesto. / I' fui de la città che nel Batista / mutò 'l primo padrone; ond'ei per questo"), at *Inferno* XV, 78 ("in cui riviva la sementa santa / di que' Roman che vi rimaser quando / fu fatto il nido di malizia tanta"), at *Inferno* XVI, 9 ("Venian ver' noi, e ciascuna gridava: 'Sòstati tu ch'a l'abito ne sembri / esser alcun di nostra terra prava'") and at *Inferno* XXIII, 95 ("E io a loro: 'I' fui nato e cresciuto / sopra 'l bel fiume d'Arno a la gran villa, / e son col corpo ch'i' ho sempre avuto") two illustrations and a photograph of Florence are available.

In all these four passages, these images solve a periphrasis standing for "Florence", thus providing the reader with further information. In all these cases these images belong to the fourth class of our typology. On the contrary, at *Inferno* XXIV, 144 ("apri li orecchi al mio annunzio, e odi. / Pistoia in pria d'i Neri si dimagra; / poi Fiorenza rinova gente e modi"), at *Inferno* XXVI, 1 ("Godi, Fiorenza, poi che se' si grande / che per mare e per terra batti l'ali, / e per lo 'nferno tuo nome si spande!") and at *Inferno* XXXII, 120 ("Se fossi domandato 'Altri chi v'era?' / tu hai dallato quel di Beccheria / di cui segò

Fiorenza la gorgiera”) the same three images clearly accomplish a function of spatial indication, by showing the denotatum of “Fiorenza”. Therefore, they belong to the second class.

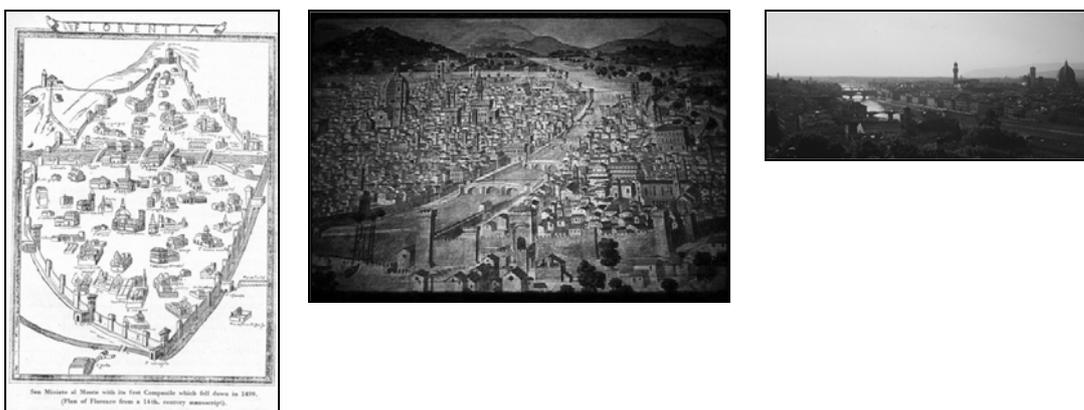


Fig. 25 – Illustrations and photograph of Florence available at *Inferno* X, 26, VI, 62, XIII, 143, XV, 78, XVI, 9, XXIII, 95, XXIV, 144, XXVI, 1, XXXII, 120.

The same can be said for the illustration and the photograph of Lucca at *Inferno* XXI, 41 (“a quella terra, che n’è ben fornita: / ogn’uom v’è barattier, fuor che Bonturo; / del no, per li denar, vi si fa ita”) – where they solve a periphrasis, providing in this way further information (fourth class) – and at *Inferno* XVIII, 122 (“già t’ho veduto coi capelli asciutti, / e se’ Alessio Interminei da Lucca: / però t’adocchio più che li altri tutti”) – where they have a function of indication (second class).

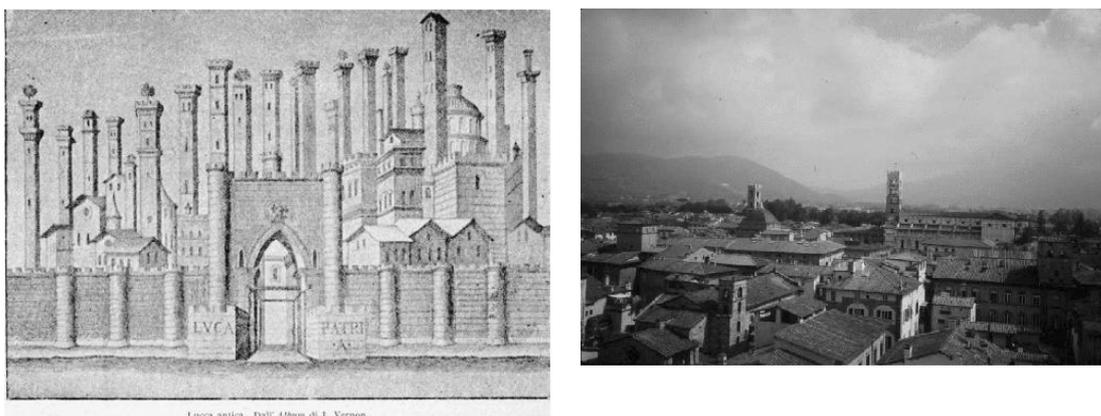


Fig. 26 – Illustration and photograph of Lucca available at *Inferno* XXI, 41 and XVIII, 122.

Images of all five classes can be both reproductions of illustrations or photographs. As regards the images of the first class, the fact that they are illustrations or photographs does not change the way in which they perform their function. For instance, the photographs of Ugolino’s sculptures by Rodin and by Carpeaux, available at *Inferno*

XXXIII, 71 (“Quivi morì; e come tu mi vedi, / vid' io cascar li tre ad uno ad uno / tra 'l quinto dì e 'l sesto; ond' io mi diedi”), accomplish their function in the same way (with the same degree of mediacy) as the numerous Doré’s illustrations available in the whole hypertextual transposition.

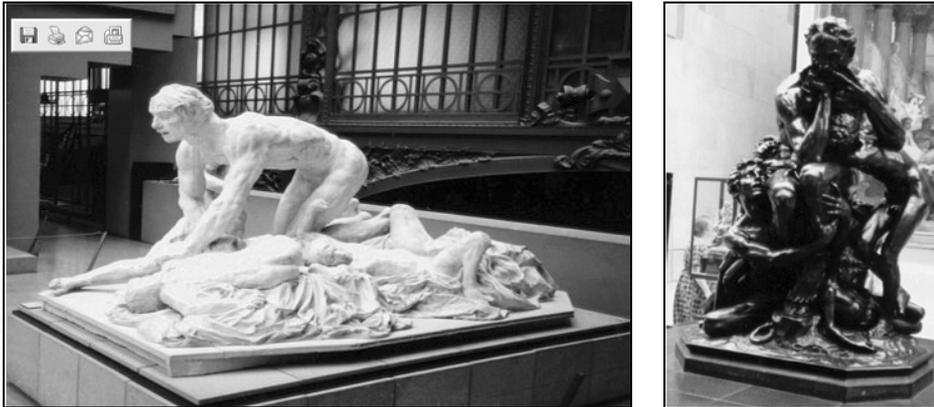


Fig. 27 – Photographs of Ugolino’s sculptures by Rodin and by Carpeaux available at *Inferno* XXXIII, 71.

On the contrary, the other functions are fulfilled in a different way, owing to the type of the available images. For instance, illustrations fulfill the function of indication in a more mediated way, while photographs realize it more directly. When an illustration is used, the indication of the real object is mediated. The reader has to make an inference in order to pass from the illustration to the real object. S/he has to interpret the conventional elements the illustration includes. The more the illustration approximates the reality (the more realistic the illustration is), the more the perception of immediacy grows. For instance the two illustrations of Florence available at *Inferno* VI, 62 (“li cittadin de la città partita; / s’alcun v’è giusto; e dimmi la cagione / per che l’ha tanta discordia assalita”) (cf. fig. 25) present a different degree of immediacy: the second one requires less inference from the part of the reader in order to imagine the city of Florence. The different degree of immediacy entailed by photographs and illustrations also influences the way in which images of the fourth and fifth classes accomplish their function. For instance, at *Inferno* XXXI, 40 (“però che, come su la cerchia tonda / Montereccion di torri si corona, / così la proda che 'l pozzo circonda”), since the images of Montereccion’s towers are photographs and not illustrations, they assume a stronger indexical character. They create a connection with reality.

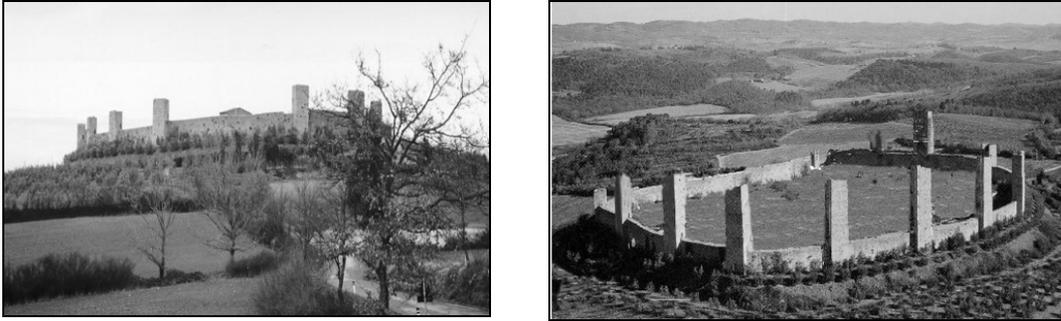


Fig. 28 – Photographs of Monteregioni’s towers available at *Inferno XXXI*, 40.

The difference between photographs and illustrations is less relevant for the images of the third class. The reason may be that images belonging to this class do not aim at showing a real denotatum, a connection with reality. They aim at showing one of the possible denotata without considering if this denotatum actually exists or not.

## 2.2.2 Examples from “The World of Dante”

After having generally described the semiotic typology of images drawn on the base of their relationship to the signs of the literary text to which they refer, we will propose concrete examples of images of the five classes, drawn from DC1. Since the reader’s understanding of the semiotic relationship existing between image and signs of the literary text to which it refers, is essential to the accomplishment of the image function, in the examples’ description we will underlined the steps of the reader’s process of interpretation.

### 2.2.2.1 Examples of images of the first class

Typically, in the case of DC1 but also, generally speaking, in the case of each hypertextual transposition of the *Divine Comedy*, reproductions of illustrations belonging to the long iconographic tradition of this literary work are part of this first class. In fact, the *Divine Comedy* inspired several artists all along the centuries and its illustrations have a long history (cf. paragraph 1.1.2). In DC1 illustrations by Gustave Doré and Sandro Botticelli, as well as illustrations drawn from Vellutello’s illustrated edition are available.<sup>61</sup>

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<sup>61</sup> It is interesting to note that these illustrations are part of the tradition of Dantean studies. Besides visualizing a narrated scene, looking at them, the reader can learn something about the fortune of the work, about the history of its reception. However, this is a secondary function of these images, a function of which the reader can remain unaware.

In DC1, at Inferno XXXI, 33 (“sappi che non sono torri, ma giganti, / e son nel pozzo interno da la ripa / da l’umbilico in giuso tutti quanti”) the reader finds a link leading her/him to a Botticelli’s illustration of the scene described in the literary text.

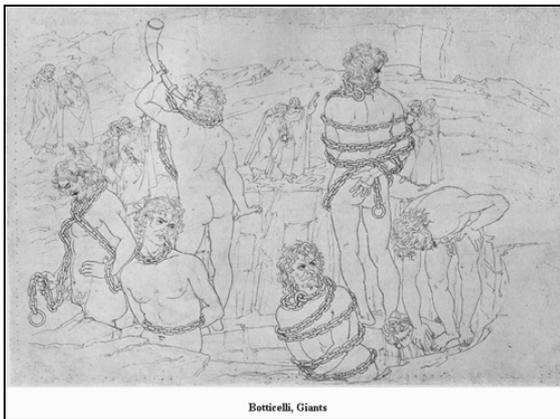


Fig. 29 – Botticelli’s illustration of the giants available at Inferno XXXI, 33.

The illustration represents the giants in the pit and Dante and Virgil approaching them. In this illustration Botticelli represented a segment of the narrated story. Therefore, the illustration works as an icon in respect to the literary text. When reading, the reader can perceive the scene the literary text is describing. This helps her/him in understanding what it is happening, what it is narrated. The semiosis process is based on perception: the reader has to recognize the similarity between what s/he read and what it is illustrated in the image. A caption, placed below the image (“Botticelli, Giants”), helps her/him in identifying the kind of image the illustration s/he is watching at belongs to.

Several examples of such a use of images can be found in DC1. For instance, at Inferno XXXI, 91 Doré’s illustration of Virgil pointing out Ephialtes is available correspondently to the passage “‘Questo superbo volle esser esperto / di sua potenza contra ‘l sommo Giove,’ / disse ‘l mio duca, ‘ond’elli ha cotal metro”.



Fig. 30 – Doré’s illustration of Virgil pointing out the Ephialtes available at Inferno XXXI, 91.

Illustrations of this kind can illustrate a scene (as it is in the two above examples), but also a particular of the literary text, as it is for Doré’s illustration of the giant Nimrod at Inferno XXXI, 71 (“E ’l duca mio ver’ lui: ‘Anima sciocca / tienti col corno, e con quel ti disfoga / quand’ ira o altra passïon ti tocca!”).

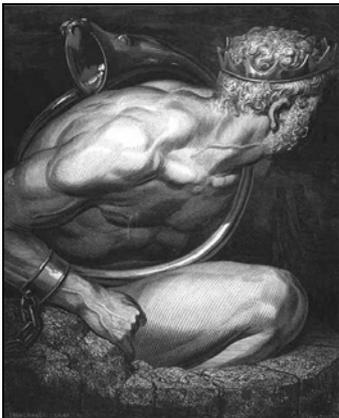


Fig. 31 – Doré’s illustration of the giant Nimrod available at Inferno XXXI, 71.

Some of Botticelli’s illustrations, despite the above-described limitation of analogic signs according to which they cannot represent time, attempt to represent the progression of time, as it is in Inferno XXXI, 33, where Dante and Virgil appear in four different positions, the more and more closer to the giants (cf. fig. 29).<sup>62</sup>

<sup>62</sup> The representation of different moments of a same scene within a single illustration comes from the medieval tradition. In fact, as it was pointed out by Rosci (1971: 4), it is widespread in miniatures: “Le antiche miniature possono in un certo senso essere avvicinate, psicologicamente, alle odierne strisce a fumetti: con il loro andamento orizzontale, esse accompagnano passo passo le tappe del viaggio oltremondano, raggruppando talora in un’inquadratura più episodi successivi. La figura di Dante (che non di rado si trova ripetuta diverse volte nella stessa illustrazione) è, insieme con quelle dei suoi accompagnatori, Virgilio, Stazio e Beatrice, il *leitmotiv* che conferisce unità alla sequenza dei

Not only reproductions of illustrations are part of this class. Also reproductions or photographs of other works of art can be part of it. For instance, at *Inferno* XXXIII, 71 (“*Quivi mori; e come tu vedi, / vid’io cascar li tre ad uno ad uno / tra ‘l quinto dì e ‘l sesto; ond’io mi diedi,*”) seven photographs are available: five photographs of Rodin’s sculpture of Ugolino and his sons and two photographs of Jean-Baptiste Carpeaux’s sculpture of Ugolino (cf. fig. 27). The depicted sculptures represent what Ugolino is narrating at *Inferno* XXXIII, 71. They are therefore iconic in respect to the passage of the literary text to which they refer.

The iconic relationship to the passage of the literary text to which they refer characterizes images belonging to the first class. The main step the reader has to accomplish in order to understand their function is to recognize the similarity existing between the content of the image and the content of the passage of the literary text to which it refers.

#### 2.2.2.2 Examples of images of the second class

If the function of the images of the first class is to represent a scene or an object of the narrated story, the function of the images of the second class is to indicate an object in the actual reality, which the literary text is talking about. We can say that images of the first class work as descriptions, while images of the second class work as definitions. Usually, images of the second class refer to very precise elements of the literary text.

At *Inferno* X, 32 (“*Ed el mi disse: “Volgiti! Che fai? / Vedi là Farinata che s’è dritto: / da la cintola in sù tutto ‘l vedrai”*”) two photographs of the statue of Farinata degli Uberti, placed in Florence, are available. Captions (in both cases “*Farinata degli Uberti, Uffizi, Florence*”) inform the reader about what the monument is and where it is placed.

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momenti figurativi”. It also constitutes a constant factor of other Botticelli’s works, such as his frescos of the Histories of Moses of the Sistine Chapel or the Histories of Saint Zanobi (Morello 2000: 49). This illustrative tradition has been carried on also during the sixteenth-century, for instance in the illustration of the Niccolini’s edition of 1564 (cf. *Enciclopedia dantesca*, entry “*Commedia*”). In this way Botticelli produced (very likely, since some illustrations got lost) an illustration for each canto of the *Divine Comedy*. Despite Botticelli’s faithfulness to the tradition of miniatures, Schulze Altcappenberg (2000: 31) pointed out that, unlike what happened in this tradition, Botticelli did not simply illustrate a selection of episodes (which are then integrated in the text), but he represented the whole content of each canto as a unitary structure through a “primitive” simultaneity in phases.



Fig. 32 – Photographs of the statue of Farinata degli Uberti in Florence available at Inferno X, 32.

The aim of these photographs is to define (to let the user know) who Farinata was. Both photographs allow the reader to know how Farinata looked like (at least according to the author of the statue). But they also allow her/him to understand that Farinata had to be a well-known person at his time (since someone made a sculpture of him), that he had probably some relationship to Florence (since this statue is placed in Florence) and that this statue can still be seen in Florence (this is a meaning that has not directly something to do with the understanding of the text, a meaning that goes beyond the text itself). These photographs in themselves are icons (more precisely, in this case, since they are photographs of a statue, they are icons of an icon). They represent a given object the literary text is talking about by similarity (in this case, Farinata). But they work as indexes. They point out the object the literary text is talking about. They show it to the reader. They accomplish a function of indication.

It is possible to distinguish different kinds of indication, according to the object the image indicates. For instance, the image of the statue of Farinata, the photograph of the bas-relief of Virgil at Inferno I, 79 (“Or se’ tu quel Virgilio e quella fonte / che spandi di parlar sì largo fiume?” / rispuos’io lui con vergognosa fronte”) and the reproduction of a portrait of Brunetto Latini at Inferno XV, 30 (“la conoscenza sūa al mio ‘ntelletto; / e chinando la mano a la sua faccia, / rispuosi: ‘Siete voi qui, ser Brunetto?’”) show to the reader a character. The same can be said for the photograph of the body of St. Zita in Lucca at Inferno XXI, 38 (“Del nostro ponte disse: ‘O Malebranche, / ecco un de li anzian di Santa Zita! / Mettetel sotto, ch’i’ torno per anche”), for the photographs of frescos of Constatine’s life at Inferno XXVII, 94 (“Ma come Costantin chiese Silvestro / d’entro Siratti a guerir de la lebbre, / così mi chiese questi per maestro”),<sup>63</sup> for the two photographs of portraits of Boniface VIII at Inferno XIX, 53 (“Ed el gridò: ‘Se’ tu già

<sup>63</sup> The same photographs are available at Inferno XIX, 114 (“Fatto v’avete dio d’oro e d’argento; / e che altro è da voi a l’idolatre, / se non ch’elli uno, e voi ne orate cento?”). However, there, there is a problem as to the precision of the relationship between text and image (cf. paragraph 2.3.3).

costì ritto, / se' tu già costì ritto, Bonifazio? / Di parecchi anni mi mentì lo scritto”), for the image of a fresco representing the Last Supper at Inferno XXXIV, 62 (“Quell’anima là sù c’ha maggior pena,” / disse ‘l maestro, ‘è Giuda Scariotto, / che ‘l capo ha dentro e fuor le gambe mena”).

It is also possible that an image indicates an object or an event. For instance, at Inferno XVII, 55 (“che dal collo a ciascun pendea una tasca / ch’avea certo colore e certo segno, / e quindi par che ‘l loro occhio si pasca”) the reader finds an illustration of the usurers’ purses.

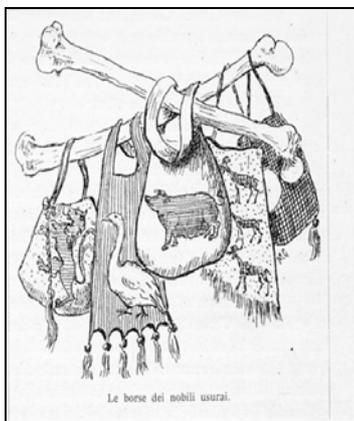


Fig. 33 – Illustration of usurers’ purses available at Inferno XVII, 55.

At Inferno XVIII, 29 (“come i Roman per l’essercito molto, / l’anno del giubileo, su per lo ponte / hanno a passar la gente modo colto”) two illustrations of the crowd in Rome for the Jubilee are available. At Inferno XXI, 48 (“Quel s’attuffò, e tornò sù convolto; / ma i demon che del ponte avian coperchio, / gridar; ‘Qui non ha loco il Santo Volto!”) three photographs of a statue of the Santo Volto are available. Thanks to the caption (“Ricci, Santo Volto, San Martino, Lucca” and “Santo Volto, San Martino, Lucca”), the reader learns that this statue is placed in Lucca. At Inferno XIII, 146 (“sempre con l’arte sua la farà trista; / e se non fosse che ‘n sul passo d’Arno / rimane ancor di lui alcuna vista”) an illustration of a statue of Mars which is supposed to be on Ponte Vecchio in Florence at Dante’s time is available.

The indication can also be spatial or both spatial and temporal.<sup>64</sup> At Inferno XXI, 7 (“Quale ne l’arzanà; de’ Viniziani / bolle l’inverno la tenace pece / a rimpalmare i legni lor non sani”) we find an example of spatial indication. There, the reader finds an illustration of the Venice’s arsenal. Object of this sign is a precise element of the sentence (not the whole sentence). The element of the text object of the image is an

<sup>64</sup> The indication cannot be only temporal, since, as we underlined at paragraph 2.1.5, images cannot represent time.

adverbial phrase of place. It lets the user know how the arsenal (the place Dante is talking about) looked like.<sup>65</sup>



Fig. 34 – Illustration of the Venice’s arsenal available at *Inferno XXI*, 7.

A function of spatial indication is also accomplished by the illustration and the photograph available at *Inferno XIII*, 9 (“Non han sì aspri sterpi né sì folti / quelle fiere selvage che ‘n odio hanno / tra Cecina e Corneto i luoghi cólti”), the photograph of the waterfalls of the river Acquaqueta at *Inferno XVI*, 100 (“rimbomba là sopra San Benedetto / dell’Alpe per cadere ad una scesa / ove dovea per mille essere recetto”), the illustration and the four photographs of Rome, St. Peter and Castel Sant’Angelo available at *Inferno XVIII*, 32 (“che da l’un lato tutti hanno la fronte / verso ‘l castello e vanno a Santo Pietro, / da l’altra sponda vanno verso ‘l monte”), the photograph of the baptistery of San Giovanni in Florence available at *Inferno XIX*, 17 (“Non mi parean men ampi né maggiori / che que’ che son nel mio bel San Giovanni, / fatti per loco d’i battezzatori;”), the photograph of Brescia available at *Inferno XX*, 68 (“Loco è nel

<sup>65</sup> The illustration of the Venice’s arsenal does not capture the richness of Dante’s description, as Barricelli’s comment to these passage of the literary text lets us understand: “On the opposite side of the atmospheric ledger, the one that closes up spatially with burdensome landscapes and oppressive overtones approaching (though different in spirit) Hieronymus Bosch or even Pieter Brueghel – better still Quentin Massys, spreads that view of the Venetian Arsenal, where pitche is used to repair boats and where the ubiquitous, busy activity of the caulkers (Dante’s pitch-bound cheaters), making oars and sails and plugging holes under gloomy skies, reminds us more of a Nordic scenario worthy of Antwerp (‘Quale i Fiamminghi tra Guizzante e Bruggia’ [*Inferno XV*, 4: ‘As the Flemings in between Wissant and Bruges’]), a kind of Brueghelian ‘Contest Between Carnival and Lent’, than of the Italic, Byzantine seaport. Dante sees Malebolge’s fifth circle ‘mirabilmente oscura. / Quale nell’arzanà de’ Viniziani / bolle l’inverno la tenace pece / a rimpalmare i legni lor non sani ... / chi ribatte da proda e chi da poppa, / altri fa remi e altri volge sarte; / che terzeruolo a artimon ritoppa ... [*Inferno XXI*, 6-9, 13-15] (wondrously dark. / As in the arsenal of Venetians, / the sticky pitch boils all winter long / to patch their tattered ships ... / some beat the prow and some the stern, / some make oars and some braid ropes; / one mends the mainsail, one the jub ...)’ Through a sheer multiplicity of dark activities, the planes recede sequentially – a formula for landscape painting that remained functional until the 17<sup>th</sup> century” (1992: 10).

mezzo là dove ‘l trentino / pastore e quel di Brescia e ‘l veronese / segnar poria, s’è fesse quel cammino”),<sup>66</sup> the illustration of Mantua at *Inferno* XX, 93 (“Fer la città sovra quell’ossa morte; / e per colei che ‘l loco prima elesse, / Mantùia l’appellar sanz’altra sorte”), the illustration of Bologna at *Inferno* XXIII, 142 (“E ‘l frate: ‘Io udi’ già dire a Bologna / del diavol vizi assai, tra’ quali udi’ / ch’elli è bugiardo e padre di menzogna”), the illustration and photograph of the town of Urbino at *Inferno*, XXVII, 29 (“dimmi se Romagnuoli han pace o guerra; / ch’io fui d’i monti là intra Orbino / e ‘l giogo di che Tever si diserra”), the reproduction of an illustration of Tagliacozzo at *Inferno* XXVIII, 17 (“a Ceperan, là dove fu bugiardo / ciascun Pugliese, e là da Tagliacozzo, / dove sanz’arme vinse il vecchio Alardo”), the photographs of Arezzo and Siena at *Inferno* XXIX, 109 (“‘Io fui d’Arezzo, e Albero da Siena,’ / rispuose l’un, ‘mi fé mettere al foco; / ma quel per ch’io mori’ qui non mi mena”), the photographs of San Giovanni in Laterano at XXVII, 86 (“Lo principe d’i novi Farisei, / avendo Guerra presso a Laterano, / e non con Saracin né con Giudei”), the reproduction of an old photograph of the castle in Palestrina at *Inferno* XXVII, 102 (“E’ poi ridisse: ‘Tuo cuor non sospetti; / finor t’assolvo, e tu m’insegna fare / sì come Penestrino in terra getti”), the illustration and the photograph of Lucca at *Inferno* XVIII, 122 (“già t’ho veduto coi capelli asciutti, / e se’ Alessio Interminei da Lucca: / però t’adocchio più che li altri tutti”), the five photographs of the ruins of the castle of Romena at *Inferno* XXX, 73 (“Ivi è Romena, là dov’io falsai / la lega suggellata del Batista; / per ch’io il copro sù arso lasciai”), the two photographs of Fonte Branda in Siena at *Inferno* XXX, 78 (“Ma s’io vedessi qui l’anima trista / di Guido o d’Alessandro o di lor frate, / per Fonte Branda non darei la vista”), the illustration of Faenza at *Inferno* XXXII, 123 (“Gianni de’ Soldanier credo che sia / più là con Ganellone e Tebaldello, / ch’aprì Faenza quando si dormia”) and the illustration and the photographs of Florence at *Inferno* XXIV, 144 (“apri li orecchi al mio annunzio, e odi. / Pistoia in pria d’i Neri si dimagra; / poi Fiorenza rinnova gente e modi”), *Inferno* XXVI, 1 (“Godi, Fiorenza, poi che se’ sì grande / che per mare e per terra batti l’ali, / e per lo ‘nferno tuo nome si spand!”) and at *Inferno* XXXII, 120 (“Se fossi domandato ‘Altri chi v’era?’ / tu hai dallato quel di Beccheria / di cui segò Fiorenza la gorgiera”).

An example of both spatial and temporal indication can be found at *Inferno* XXI, 95 (“così ved’io già temer li fanti / ch’uscivan patteggiati di Caprona, / veggendo sé tra nemici cotanti”), where three photographs of the ruins of the fortress of Caprona (one is the reproduction of an old photograph) are available. Their object is a very precise element of the literary text. Therefore, in itself the photograph is an icon of the object, but its function is to indicate, to define this precise element of the literary text. They have a deictic character. The reproduction of the old photograph aims at showing to the reader how the place looked like “once upon a time”.

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<sup>66</sup> The photograph does not reproduce an overview of Brescia, but a precise spot of this town. It is not clear why.



Fig. 35 – Photographs of the fortress of Caprona (the last one is the reproduction of an old photograph) available at *Inferno XXI*, 95.

The same function is accomplished at *Inferno I*, 71 (“Nacqui sub Iulio, ancor che fosse tardi, / e vissi a Roma sotto ‘l buono Augusto / nel tempo de li dèi falsi e bugiardi”) by four photographs of Roman remains, at *Inferno XII*, 120 (“Mostrocci un’ombra da l’un canto sola, / dicendo: ‘Colui fesse in grembo a Dio / lo cor che ‘n su Tamisi ancor si cola”) by an illustration of the Thames River in London, at *Inferno XV*, 62 (“Ma quello ingrato popolo maligno / che discese di Fiesole ab antico, / e tiene ancor del monte e del macigno”) by two photographs of remains of a Roman amphitheater in Fiesole. In all these cases, the caption is essential in order for the reader to understand what it is illustrated (unless the prior knowledge of the reader is rich enough, that is, unless the reader already saw them).

In all the above-described examples, although the illustrated element or aspect of reality can be of different nature (character, object, event, place, place at a given time), the images aim at letting the user see it. They show it *ad oculos*. The reader presupposes a direct and precise correspondence between the image and the element of the literary text to which it refers, in interpreting the available images as a visual definition of it.

### 2.2.2.3 Examples of images of the third class

As images belonging to the second class, images belonging to the third class aim at providing explanation of the meaning of an expression contained in the literary text by showing its denotatum. They correspond to a word’s definition. However, images of the third class realize this through the presentation of an example, of an instance of the class of possible denotata.

At *Inferno III*, 11 (“Queste parole di colore oscuro / vid’io scritte al sommo d’una porta; / per ch’io: ‘Maestro, il senso lor m’è duro”) a photograph of Porta San Frediano in Florence is available, correspondently to the line of the literary text talking about the Hell’s gates. Here, the photograph does not have a function of indication. In fact, there is no direct relationship between Porta San Frediano in Florence and Dante’s Hell gates, as

some of the traditional commentaries to this passage of the text show.<sup>67</sup> Porta San Frediano is not the denotatum of Dante's Hell gates. However, it is an example of medieval gate. It is an example of how Dante Hell's gate could look like. Therefore, the image creates a generalization in respect to the literary text. It has a function of exemplification. This function is similar to the function of indication, but it requires to the reader to understand that the object of the image is an instance of the type to which the element mentioned in the literary text belongs, not the element mentioned in the literary text itself.

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<sup>67</sup> None of the commentaries different scholars made all along the centuries about this passage of the *Divine Comedy*, hypothesize that Dante Hell's gates looked like Porta San Frediano in Florence. On the contrary, other gates in other parts of Europe, as well as other descriptions of gates in other literary works, are considered to be Dante's source of inspiration. The following quotations are drawn from the database of Dartmouth Dante Project (<http://dciswww.dartmouth.edu:50080/?&&&7&s>).  
 "Commentary: Berthier Language: Italian Publ.Date: 1892-97 Reference: Inferno 3. 10-12 Text: **scritte**. C'era altre volte l'uso di mettere iscrizioni sulle porte: sull'antica porta di S. Giorgio al Palazzo in Milano, si leggeva: Janua sum vite: precor, omnes intro venite. Per me... E sulla porta di S. Ambrogio, a sinistra, secondo l'Allegranza, *Spiegazioni*, p. 30: Justitiae clausit virtus, patefecit olympi Casus amor.... E nella chiesa di S. Francesco in Gallarate della stessa città, si leggeva in una memoria di Otto di Cedrate, secondo il Giulini, *Memorie*, ediz. 1855, vol. IV, p. 849: ... Est nostre sortis transire per hostia mortis. Est grave transire... usque redire. **porta**. Ognuno sa quanto sia celebre nella Scrittura l'espressione «Porta dell'Inferno», dopo la parola di Cristo in *Matt.*, XVI, 18. -- Se il lettore vuole una ipotesi degna di essere più conosciuta, tra mille altre, intorno al luogo che avrebbe dato a Dante l'idea di quell'ingresso, si leggano nel graziosissimo poema che è il *Mireille* del Mistral, le note intorno a un caverna, che esiste presso la città oggi distrutta «des Baulx» presso Arles, città che fu visitata da Dante. *Inf.*, IX, 112. Per me credo che Dante accenni solo quella per cui Enea entrò colla Sibilla, cioè la spelonca presso il lago d'Averno, in Campania". "Commentary: Mattalia Language: Italian Publ.Date: 1960 Attrib.: copyright Reference: Inferno 3. 11-11 Text: **scritte: scritte** in pietra, quindi: incise; una *scritta* sulla tomba di papa Anastasio, in *Inf.*, XI, 7. -- **al sommo**: alla sommità, sull'alto; cfr. *Purg.*, XIII, 1; VI, 132. -- **porta**: porta o porta-caverna? Porta-caverna, nel VI dell'*Eneide*; ma qui **porta** vera e propria, parrebbe, meglio intonata con la nozione medievale della città, con le sue mura e porte (cfr. *Inf.*, VIII, 67-82); l'idea della scritta, infatti, secondo il Casini-Barbi, sarebbe derivata dal costume di ornare con epigrafi le porte d'entrata delle città. Dove poi sia la porta il lettore può fantasticare a suo piacere: la immagini, comunque, la porta della salvezza, in direzione opposta al *colle*, colle di salvezza". "Commentary: Padoan Language: Italian Publ.Date: 1967 Attrib.: copyright Reference: Inferno 3. 11-11 Text: **VID'IO**. Dalla soglia dell'*Inferno* fino all'ultimo canto del *Paradiso* ricorre insistente nel racconto di Dante questo verbo *vidi*, che accentua la drammaticità del racconto sottolineandone appunto la realtà vissuta, e proponendo subito la relazione tra quella realtà e il personaggio Dante: se avesse detto «erano scritte» avremmo sentito meno immediatamente lo sconforto e la paura che si impadronivano del poeta man mano che leggeva quelle terribili parole. **SCRITTE**: forse incise, come nelle epigrafi sepolcrali (cfr. *Inf* XI 7); ma *scritte* pone più in rilievo il *colore oscuro*. **UNA PORTA**. La paura è suggerita dunque dalla scritta, non dalla porta, che pare una porta qualsiasi, anche se alta (come ha osservato il Pietrobono, Dante «non direbbe così [*al sommo*], se non la immaginasse alta»). Il lettore medievale la vedeva con la fantasia, immediatamente, appunto alta, larga, aperta (cfr. *Aen.* VI 127), anzi senza serramenti (cfr. *Inf.* VIII 126), pronta a ricevere entro sé sempre e chiunque (cfr. *Inf.* XIV 87). «Intrate per angustam portam, quia lata porta et spatiosa via est quae ducit ad perditionem» (*Matth.* 7, 13)".



Fig. 36 – Photograph of Porta San Frediano in Florence available at *Inferno* III, 11.

Similarly, the illustration and the photograph of the wheel of fortune at *Inferno* VII, 62 (“Or puoi, figliuol, veder la corta buffa / d’i ben che son commessi a la fortuna, / per che l’umana gente si rabuffa”) accomplish such a function of exemplification. A univoque representation of the wheel of fortune does not exist. Many different representations are possible. The two presented in DC1 at *Inferno* VII, 62 are only two examples of how this object looks like.

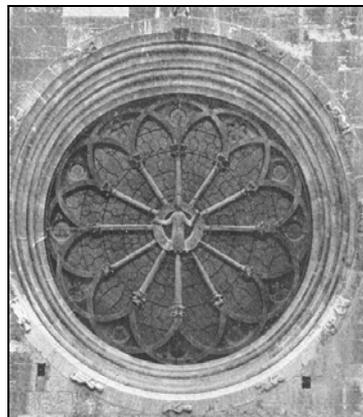
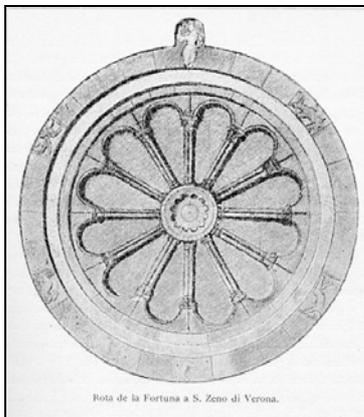


Fig. 37 – Illustration and photograph of representations of the wheel of fortune available at *Inferno* VII, 62.

At *Inferno* XIX, 18 (“Non mi parean men ampi né maggiori / che que’ che son nel mio bel San Giovanni, / fatti per loco d’i battezzatori”) a photograph of the baptistery in Pisa and two photographs of the baptistery in Pistoia are available. The font in San Giovanni in Florence (the one the literary text mentions) was demolished in 1576-1577. Therefore, it is not possible to make available a photograph of the actual denotatum of the sign of the literary text. It is only possible to make available photographs of other fonts, similar to the one that was in San Giovanni before 1576-1577. Therefore, these images work as exemplifications.



Fig. 38 – Photographs of the baptistery in Pisa (the former one) and in Pistoia (the two latter ones) available at Inferno XIX, 18.

A different case can be found at Inferno XXXIII, 151 (“Ahi Genovesi, uomini diversi / d’ogne costume e pien d’ogne magagna, / perché non siete voi del mondo spersi?”), where an illustration of the town of Genova is available. In this case, the image creates a metonymy. In fact, in order to indicate the Genovesi an image of their town is used (the town for the inhabitants). The image does not have a function of exemplification, but, as it happens for the images belonging to this third class, it shows a denotatum that is not the actual denotatum of the signs of the literary text, but a denotatum that has a quite evident relationship to it.



Fig. 39 – Illustration of the town of Genova available at Inferno XXXIII, 151.

Similarly, at Inferno XXX, 77 (“Ma s’io vedessi qui l’anima trista / di Guido o d’Alessandro o di lor frate, / per Fonte Branda non darei la vista”) an example of indication of character by metonymy (the place for the person) can be found. There, a photograph of Palazzo Pretorio, Poppi, formerly castle of the Conti Guidi, is available. The two characters mentioned in this passage of the literary text (Guido and Alessandro) are two members of the family of Conti Guidi.



Fig. 40 – Photograph of Palazzo Pretorio, Poppi, formerly castle of Conti Guidi, available at *Inferno* XXX, 77.

Examples of images belonging to this class are rare in DC1 and, in a certain sense, they could be considered as particular cases of images of the second class (accomplishing a function of indication). However, they are interesting, since their interpretation involves a further step in respect to the interpretation of images of the second class. The reader has to understand that the connection between the image and the passage of the literary text to which it refers is not direct, but mediated by a function of exemplification. In other words, we can say that images belonging to the third class show one concrete denotatum chosen among the denotata constituting the class of objects, which is represented by the meaning of the signs of the literary. That is, they aim at showing the common characteristics, which constitute all these denotata in a same class of objects.

#### 2.2.2.4 Examples of images of the fourth class

Within this class, we have to distinguish between images representing the meaning of a periphrasis and images representing something the literary text presupposes.

In the first case, the image easily provides new information to the reader. The image succeeds in explaining something.<sup>68</sup>

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<sup>68</sup> By the way, it is interesting to note that, in the case of a periphrasis, the image easily succeeds in its aim, while in the case of a metaphor or a simile (see examples of the next class) it is more difficult. Maybe, this is due to the fact that the periphrasis is a trope that remains within the field of the conceptual content of the term it substitutes, while the metaphor (and also the simile, even if a simile is a figure of thought, while a metaphor is a trope) implies a jump between the concept it expresses and the term to which it wants to lead the reader's attention (cf. Lausberg's division of tropes, in Mortara Garavelli 1988: 147). Therefore, in the case of a metaphor or a simile it is more difficult for the reader to draw the right inference.

Images used to solve the meaning of periphrases contained in the literary text constitute the most evident and simple use of images for making explicit something the literary text left implicit. We found several examples of such images in DC1. At *Inferno* XXX, 74 (“Ivi è Romena, là dov’io falsai / la lega suggellata del Batista; / per ch’io il corpo sù arso lasciai”) a photograph and an illustration of a thirteenth-century florin are available. The lines of the literary text to which the images refer constitute a periphrasis and the two available images allow the reader to solve its meaning, in showing the denotatum of the periphrasis. Thanks to them, the reader understands that “la lega suggellata del Batista” is a periphrasis standing for the florin and that, therefore, on the florins St. John the Baptist was represented. Characteristic of periphrasis is the fact that it substitutes a word by an expression or a sentence, in defining or paraphrasing it (Mortara Garavelli 1988: 171). The function of the image, in this case, is to show the denotatum of the word the periphrasis substitutes.

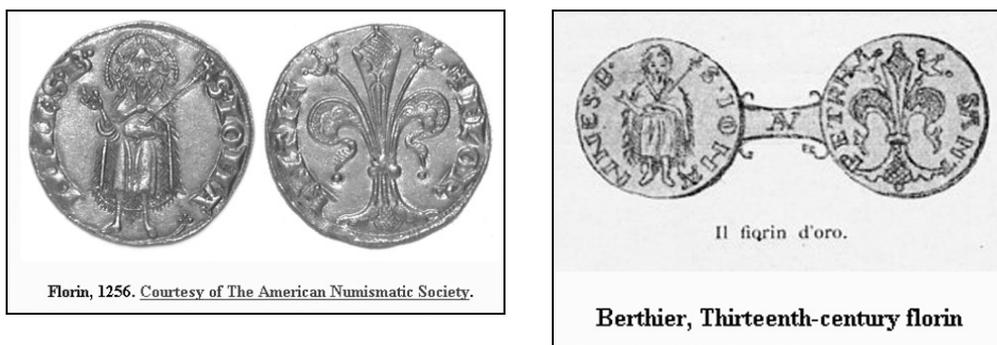


Fig. 41 – Photograph and illustration of the florin available at *Inferno* XXX, 74.

Other cases of use of images for the explicitation of the meaning of a periphrasis can be found at *Inferno* V, 97 (“Siede la terra dove nata fui / su la marina dove ‘l Po discende / per aver pace co’ seguaci sui”), where an illustration of Rimini is available; at *Inferno* XXXIII, 29 (“Questi pareva a me maestro e donno, / cacciando il lupo e’ lupicini al monte / per che i Pisan veder Lucca non ponno”), where two photographs of Monte San Giuliano are available (thanks to these images and their captions, the reader can solve the meaning of the expression “monte / per che i Pisan veder Lucca non ponno”, even if the link is set at the level of line 29, correspondently to the word “monte” only); at *Inferno* XXIV, 138 (“Io non posso negar quel che tu chiedi; / in giù son messo tanto perch’io fui / ladro a la sagrestia d’i belli arredi”), where a photograph of a church in Pistoia is available; at *Inferno* XXVII, 49 (“Le città di Lamone e di Santerno / conduce il lioncel dal nido bianco, / che muta parte da la state al verno”), where an illustration of the town of Faenza is available; at *Inferno* XXI, 41 (“a quella terra, che n’è ben fornita: / ogn’uom v’è barattier, fuor che Bonturo; / del no, per li denar, vi si fa ita”), where an illustration and a photograph of Lucca are available, at *Inferno* XV, 78 (“in cui riviva la sementa

santa / di que' Roman che vi rimaser quando / fu fatto il nido di malizia tanta"), at *Inferno* X, 26 ("La tua loquela ti fa manifesto / di quella nobil patria natio, / a la qual forse fui troppo molesto"), at *Inferno* VI, 62 ("li cittadin de la città partita; / s'alcun v'è giusto; e dimmi la cagione / per che l'ha tanta discordia assalita"), at *Inferno* XIII, 143 ("raccoglietele al piè del tristo cesto. / I' fui de la città che nel Batista / mutò 'l primo padrone; ond'ei per questo"), at *Inferno* XVI, 9 ("Venian ver' noi, e ciascuna gridava: 'Sòstati tu ch'a l'abito ne sembri / esser alcun di nostra terra prava") and at *Inferno* XXIII, 95 ("E io a loro: 'I' fui nato e cresciuto / sovra 'l bel fiume d'Arno a la gran villa, / e son col corpo ch'i' ho sempre avuto"), where two illustrations and a photograph of Florence are available.

At *Inferno* X, 91 ("Ma fu' io solo, là dove sofferto / fu per ciascun di tòrre via Fiorenza, / colui che la difesi a viso aperto") a photograph of Piazza Farinata degli Uberti in Empoli is available. This is not exactly a periphrasis, but it is very similar to it. The reader interprets it as an image of the place the character is referring to in the literary text. It works as an index and it has an indication function, but it also adds information. It makes explicit something that is implicit in the literary text (the meaning of the deictic word "là").



Fig. 42 – Photograph of Piazza Farinata degli Uberti in Empoli available at *Inferno* X, 91.

To the fourth class belong also images that aim at providing new information about events or objects mentioned or referred to in the literary text. They accomplish this function by showing to the reader an element that should allow her/him to draw an inference bringing as its result more information about the sign of the literary text to which the images refer. Such images representing something the literary text presupposes or refers to aim at fulfilling a function of comment of the literary text. For instance, the image available at *Inferno* X, 47 ("poi disse: 'Fieramente furo avversi / a me e a miei primi e a mia parte, / sì che per due fiata li dispersi") is the reproduction of an illustration of the Guelf and Ghibelline towers. Looking at this image, the reader learns that the division, the "parte" Farinata is talking about, has something to do with

Guelfs and Ghibellines. The image almost accomplishes the same function an explanatory text about the struggle between Guelfs and Ghibellines would have. It makes explicit the historical event the literary text refers to. By showing, it also provides further information. In other words, it makes explicit something, which is implicit in the literary text.



Fig. 43 – Illustration of the Guelf and Ghibelline towers available at *Inferno* X, 47.

At *Inferno* X, 48 (“poi disse: ‘Fieramente furo avversi / a me e a miei primi e a mia parte, / sì che per due fiata li dispersi’”) three photographs of the site of the battle of Montaperti (Tuscany) are available. They make explicit an event the literary text is referring to. But it has to be noted that in this case the reference to this event is understandable only thanks to the captions (“Site of the Battle of Montaperti, Tuscany”). Otherwise, the relationship between the literary text and the images remains too implicit. In fact, instead of directly presenting the event, the available images present the place where this event took place. There is here a metonymy (the place for the event). The understanding of this metonymy would be impossible for the reader without the caption, unless her/his prior knowledge is so deep and rich to make possible to her/him to draw this inference. However, a verbal comment could more easily make the reference to the event of the Battle of Montaperti clear to the reader. For instance, Tommaso Di Salvo’s note about this passage is “Le due volte in cui Farinata disperse i guelfi furono la cacciata degli stessi nel 1251 e la battaglia di Montaperti che segnò la rivincita dei ghibellini” (Alighieri 1985: 171).<sup>69</sup>

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<sup>69</sup> We refer to Tommaso Di Salvo’s commented edition of the *Divine Comedy* (Alighieri 1985) as to one of the annotated editions most widely used in high schools.

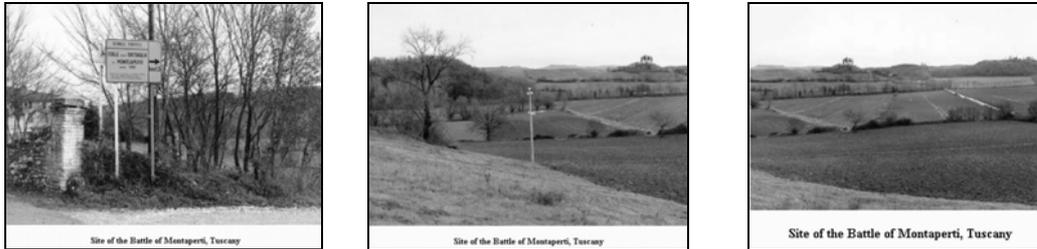
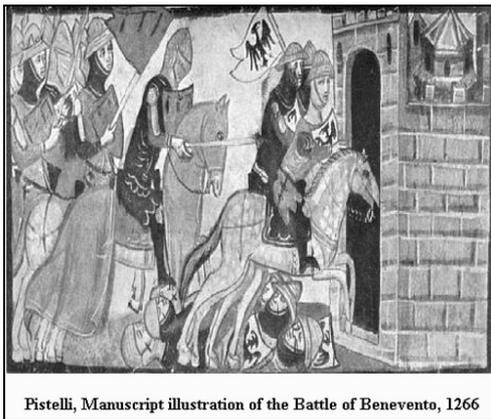


Fig. 44 – Photographs of the site of the battle of Montaperti available at Inferno X, 48.

Another example can be found at Inferno X, 50 (“S’ei fur cacciati, ei tornar d’ogne parte’, / rispuos’io lui, ‘l’una e l’altra fiata; / ma i vostri non appreser ben quell’arte”) the image of a manuscript illustration of the Battle of Benevento (1266) is available. There, too, the user knows what the image represents thanks to the caption (“Pistelli, Manuscript illustration of the Battle of Benevento, 1266”).



Pistelli, Manuscript illustration of the Battle of Benevento, 1266

Fig. 45 – Illustration of the Battle of Benevento available at Inferno X, 50.

Similarly, at Inferno XIV, 56 (“o s’elli stanchi li altri a muta a muta / in Mongibello a la focina negra, / chiamando ‘Buon Vulcano, aiuta, aiuta!’”) a photograph of Etna is available. Since the link is set at the level of line 56, the inference a reader will probably draw is that Mongibello and Etna are the same thing. Mongibello is the only word in this line denoting a place and that could most naturally be the object of the image. Therefore, in this case, the photograph not only indicates, but it also provides to the reader some new information. However, it provides it in an implicit way: it is up to the reader’s inference. On the contrary, a verbal text would make it explicit in a more clear way, as the example of the comment of Tommaso di Salvo shows

52-60. **Se Giove:** ‘anche se Giove stancasse ed esaurisse, fiaccasse il suo fabbro Vulcano, da cui, adirato (*crucciato*) contro di me prese il fulmine (*folgore*) aguzzo, acuminato (*aguta*) da cui fui colpito l’ultimo giorno di mia vita; se anche sottoponesse alla stessa stancante fatica fino all’esaurimento (*stanchi*) gli altri

fabbrì, i Ciclopi, facendoli lavorare a turni (*a muta a muta*: a vicenda, per poter da loro ottenere un più alto numero di fulmini) nella sua nera officina dell'Etna (*Mongibello*) gridando (*chiamando*): valente (*buon*) Vulcano, aiuto, aiuto! (...)  
(Alighieri 1985: 236)

56. **Mongibello**: era il nome arabo che durante il Medioevo ebbe l'Etna (Alighieri 1985: 237).



Fig. 46 – Photograph of Etna available at Inferno XIV, 56.

An image illustrating an event, the knowledge of which the literary text presupposes, can also be found at Inferno IX, 52 (“Vegna Medusa: sì ‘l faremo di smalto’ / dicevan tutte riguardando in giuso; / ‘mal non vengiammo in Tesëo l’assalto”)), where a photograph of Perseus holding in his hand the head of Medusa is available. We will consider this examples from closer at paragraph 2.3.3.



Fig. 47 – Photograph of a statue of Perseus holding in his hand the head of Medusa available at Inferno IX, 52.

Images belonging to this class seem to be the ones, the interpretation of which can be the most hard and difficult to the reader. They indicate to the reader something that was implicit in the literary text, by showing it. However, the understanding of their deictic

character leans not simply on perception, but on the inferences the reader is able to draw (on the base of information provided by captions or on the base of her/his prior knowledge).

#### 2.2.2.5 Examples of images of the fifth class

In DC1 we found only four examples of images related to similes contained in the literary text and accomplishing an iconic function in respect to the term of comparison of these similes.

At *Inferno XXXI*, 59 (“La faccia sua mi pareva lunga e grossa / come la pina di San Pietro a Roma, / e a sua proporzione eran l'altre ossa;”) Dante employs a simile in order to describe the shape of the face of a character he encountered (the giant Nembrot). Correspondently, in the hypertextual transposition a link is set allowing the user to see an illustration and two photographs of the bronze pine sculpture that was once placed in Piazza S. Pietro in Rome and that is today visible in the Papal Gardens. These images in themselves have a function of indication: they show to the reader the object the literary text is talking about. However, the fact that the segment of the literary text they refer to is the term of comparison of a simile (of an iconic sign of the literary text) has an influence upon the function of these images. In fact, considering them in connection to the simile of the literary text, we notice a more relevant function: they show to the reader the characteristics of the face of the encountered character Dante takes as term of comparison of the simile. They visually represent these characteristics. They help in describing these characteristics. Therefore, mainly, they are not indexes (as they would be if their main function would be a function of indication), but icons.



Fig. 48 – Illustration and photographs of the pine sculpture in Rome available at *Inferno XXXI*, 59.

Other examples of use of photographs or illustrations in relationship to metaphors or similes of the literary text can be found. The function of the image in these cases is to help the reader's imagination, showing her/him the term of comparison Dante employs.<sup>70</sup>

<sup>70</sup> The image of the Venice's arsenal at *Inferno XXI*, 7 is also inserted in a simile. However, its function is not to illustrate the simile, but to show the Venice arsenal. It has a function of indication.

At *Inferno* XXXI, 40 (“però che, come su la cerchia tonda / Montereccion di torri si corona, / così la proda che ‘l pozzo circonda”) two photographs of Monteriggioni’s towers are available (cf. fig. 28). When looking at these photographs, the reader perceives a spatial connection between what Dante is telling and reality (function of indication). However, this is not Dante’s aim. As Deborah Parker – the main author of DC1 – points out in the site’s overview (cf. <http://jefferson.village.virginia.edu/dante/overview.html>),

It is important to remember that these images are not what the text represents primarily: they are used by Dante in representing something else. For example, Dante’s mention of the towers of Monteriggioni in *Inf.* 31 is accompanied by photos of the fortress. Dante is not trying to make us think primarily of Monteriggioni. He wants readers to keep in mind the effect of Monteriggioni’s towers when we visualize the real object represented in the poem--the giants. Dante’s comparison of the giants to the towers of Monteriggioni helps underscore key aspects of the giants’ appearance--their Gargantuan proportions, their immobility, even their bellicose nature (Monteriggioni was a military fortress). The images are second order representations, instrumental in what the poem represents, but not that representation itself. The visual material furnished in *The World of Dante* then is intended to help readers better apprehend and ultimately further interrogate the complex nature of Dante’s visual imagination.

At first glance a reader can interpret these photographs as indexes, but in reality they pretend to be icons. After having perceived and read them as indexes, the reader has to carry out a further inference in order to understand their iconic function within the frame of the simile to which they refer.

At *Inferno* XXXI, 136 (“Qual pare a riguardar la Carisenda / sotto ‘l chinato, quando un nuvol vada / sovr’essa sì, ched ella incontro penda”) two photographs of the Garisenda tower and a map of Bologna are available. The two photographs work as the photographs of Monteriggioni’s towers do. Dante makes a comparison. The Garisenda tower is the term of this comparison. The photographs try to underline the dimensions of

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For this reason this example belongs to the second class of images and not to the fifth. This difference can be explained by the fact that the image at *Inferno* XXI, 7 does not refer to the term of comparison of the simile, but to another (secondary) syntagm of the text’s passage. The same can be said for the photographs of the fortress of Caprona available at *Inferno* XXI, 95. The element of the literary text the image refers to is part of a comparison. However, the photographs refer only to Caprona. They do not refer to the event Dante is talking about. The same can be said for the two illustrations of the crowd in Rome for the Jubilee at *Inferno* XVIII, 29. The term of comparison Dante aims at is not the crowd, but the plan Romas contrived in order to let the people pass across the bridge. Therefore, the two illustrations fulfill a function of indication and belong to the second class.

the tower and the effect a person feels when standing at its feet. This is the same effect Dante is narrating he felt standing in front of Anteo.



Fig. 49 – Photographs of the Garisenda tower in Bologna available at *Inferno* XXXI, 136.

At *Inferno* IX, 112 (“Si come ad Arli, ove Rodano stagna, / si com’a Pola, presso del Carnaro / ch’Italia chiude e suoi termini bagna”) a reproduction of an illustration of the Roman tombs in Arles (France) is available. This image can work like an index of the place Dante is mentioning. But the real object of this image is the term of comparison of the simile Dante is using in order to describe the scenario he is seeing. The aspect upon which Dante tries to focus the reader’s attention is the unevenness of the plain. This unevenness is the real object of the image, which is, therefore, an icon in respect to this feature of the plain.



Fig. 50 – Illustration of the Roman tombs in Arles (France) available at *Inferno* IX, 112.

Besides these four examples, two other particular examples of images belonging to the fifth class are present in DC1. At *Inferno* XXVI, 100 (“ma misi me per l’alto mare aperto / sol con un legno e con quella compagna / picciola da la qual non sui deserto”) a

photograph of the open sea near Gaeta is available. The caption is important in order to help the reader to identify the geographic place, that is, in helping the reader to understand the function of spatial indication. However, in this case what is important in respect to line 100 is not mainly the precise geographic place, but the view of the open sea. It is this view that manifests to the reader the feeling of the vastness Ulysses decided to face. In this sense, this photograph is an icon of this feeling and the knowledge of which precise geographic place it is, is not so important. It is an icon in respect to a feeling, even if, unlike what happens in the above-described examples, the passage it refers to is not a simile.



Fig. 51 – Photograph of the open sea near Gaeta available at *Inferno* XXVI, 100.

At *Inferno* XXX, 65 (“Li ruscelletti che d’i verdi colli / del Casentin discendon giuso in Arno, / faccendo i lor canali freddi e molli”) two photographs of the Arno river at Stia in the Casentino are available. They have a function of spatial indication. However, Dante’s communicative aim is not to show the place, but to make the reader think to the feeling of peace and relief this water provokes. What is important, is not the function of indication, but the iconic representation of the source of this feeling. In fact, as Tommaso di Salvo maintains,

In concreto maestro Adamo intende dire che la maggiore sofferenza gli giunge dalla sete: ma l’acqua, desiderata come un bene perduto ed intensamente accarezzato dalla memoria come tenera e limpida creatura, gli si offre nel duplice aspetto della suggestività affascinante e della triste tormentosità. Più che sul male che lo affligge egli insiste, con immagini luminose e cariche di nostalgia, sulla cara e delicata bellezza di quell’acqua che scendeva per ruscelletti e canali dalle colline del Casentino giù verso l’arno (Alighieri 1985: 512).



Fig. 52 – Photographs of the Arno river at Stia in the Casentino available at *Inferno* XXX, 65.

As it was for images belonging to the third class, despite their low number, images belonging to the fifth class are very interesting as to the interpretation process the reader has to carry out in order to understand their proper function. In fact, these images accomplish their deictic function (they show the relevant denotatum) in establishing an iconic relationship with an element of the literary text. The reader has to understand this essential step. Otherwise, s/he will miss the point as to the image's function.

#### 2.2.2.6 Considering other applications

Images included in the other analyzed hypertextual transpositions can also be classified according to the above-described semiotic typology. Although we didn't apply it to all the considered hypertextual transpositions in a systematic way, we provide here some examples. As it is for images included in DC1, images belonging to the first and second class are more numerous, while images belonging to the third, fourth and fifth class are more rare.

In M1 both images belonging to the first and second class can be found. The photographs of characters and scenes available on the text of the play screens have the same iconic function as images of the first class (cf. fig. 9). Also screen backgrounds are icons in respect to the literary text and they belong to the first class (cf. fig. 9). In fact, they are drawings of the landscape or place where the narrated scene takes place. They illustrate it. However, the relationship these backgrounds have in respect to the text of the play is different in respect to the relationship photographs of characters and scenes have. In fact, photographs of characters and scenes illustrate something that was explicitly narrated in the text. Screen backgrounds partly do the same (they visualize, they illustrate what is present in the setting's instructions of the text), but partly they amplify what the text of the play narrates. In M1 also pages devoted to the exposition of different themes characterizing the play have a graphic background (cf. fig. 18 and 21).

These screen backgrounds are drawings intending to represent in some ways the correspondent theme. They also have an iconic function. They aim at illustrating the theme. However, in this case, the iconic sign does not refer directly to the literary text, but to the text explaining the theme. It refers to a sign that already is a new sign of the hypertextual transposition.<sup>71</sup> It has, therefore, an indirect relationship to the literary text. For some characters, in the “Characters” collection, more than one photograph of her/him are available. They are illustrations or photographs, showing “different versions” of the character. They all are icons in respect to the character. They refer to the title of the screen they appear on (that is, to the name of the character). That is, they refer to the comment about the character as a whole, not specifically to something said about the character.

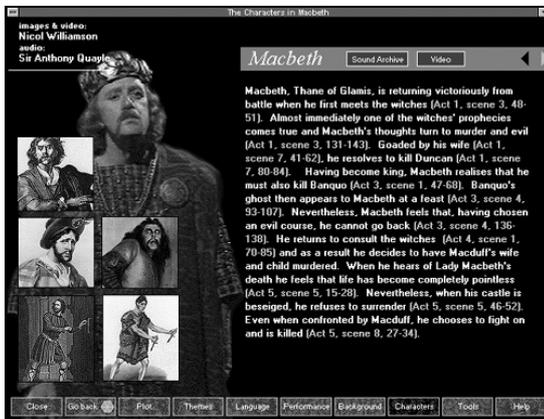


Fig. 53 – M1 – Character presentation card with images of different “versions” of the character.

In the collection “Performances” many images are available. They are portraits of important actors, photographs of different actors acting a given character, photographs of different scenarios, illustrations of different scenes or of different characters. They all refer to the text of the commentary, not directly to the text of the play. As to them, the role of captions is very important for the understanding of what the picture intends to represent. In fact, these captions provide further information about what the image represent, but they do this in the perspective of the function of the image in respect to the text. Since the image is related to a text, its meaning does not precisely coincide with what it represents, but it is determined by its relationship to the text itself (in this case to the text of the commentary and only in a second indirect step to the text of the play).

<sup>71</sup> The background of the collection “Language” is a reproduction of a piece of a manuscript page; it works differently in respect to the backgrounds of the themes.

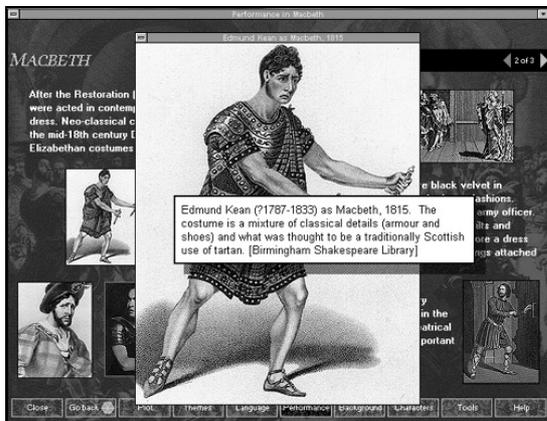


Fig. 54 – M1 – Images available on pages of the “Performance” collection with caption.

Photographs available in the “Background” collection of M1 mainly have a function of indication and, therefore, they belong to the second class. In the “Sources of the play” collection an illustration drawn from the Holinshed’s Chronicles (the text supposed to have inspired Shakespeare) is available, as well as a map of Scotland, the photographs of the title page of a eighteenth-century edition of the play and the reproduction of Shakespeare’s portrait of the First Folio. Also these images accomplish a function of indication.



Fig. 55 – Images available on the pages of the “Source of the play” collection.

The same is valid for the several portraits of Shakespeare, as well as for the photographs and illustrations of the place mentioned in the commentary, the illustrations of usual performances, the reproduction of part of documents important in respect to the life of Shakespeare and the photographs of some pages of the First Folio available in “The Life of Shakespeare” collection. They all refer to the commentary and only indirectly to the original text.

In H2 images belonging to the first class can be found. They are all drawn from printed illustrated editions. When accessing to the text of the play from the “Reading room” collection, only images that directly refer to the segment of the play the reader choose in the collection center can be accessed to. The possibility is offered to look at the images in a sequence (almost as a slide show).

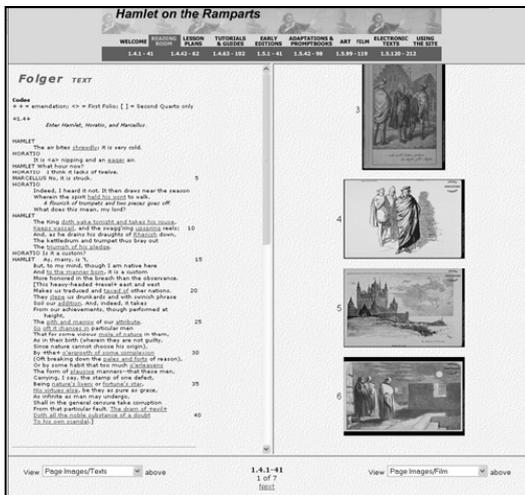


Fig. 56 – H2 – Available images drawn from printed illustrated editions.

In M2 images are gathered in the “Picture Gallery” collection. Often, they refer to precise passages of the text of the play (the transcription of which is made available in their captions), but they are not directly accessible from the text of the play’s screens. However, examples of images belonging to the different classes can be found, except for the fourth. Images representing scenes of the play are numerous. For instance, there is the reproduction of a late 15<sup>th</sup>-century woodcut depicting witches raising a hailstorm, from Ulrich Molitor’s *De Lamiis*, which describes what it is narrated at I, 3, 10-13 of the text of the play (“SECOND WITCH I’ll give thee a wind. / FIRST WITCH Th’art kind. / THIRD WITCH And I another. / FIRST WITCH I myself have all the other. / And the very ports they blow / All the quarters that they know”).

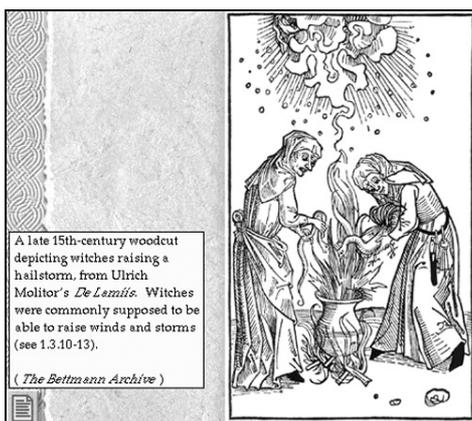


Fig. 57 – M2 - Reproduction of a late 15<sup>th</sup>-century woodcut depicting witches raising a hailstorm, from Ulrich Molitor’s *De Lamiis*.

As to images belonging to the second class, there is for instance the reproduction of an Albrecht Dürer’s illustration of a rhinoceros, which aims at providing definition of the

expression “armed rhinoceros” at III, 4, 100-101 (“Approach thou like ... The armed rhinoceros”).

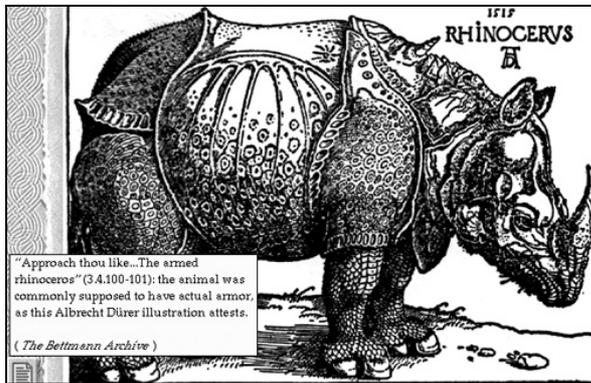


Fig. 58 – M2 – Available reproduction of an Albrecht Dürer’s illustration of a rhinoceros.

Besides, there are two interactive maps and different illustrations with overviews of London, accomplishing a function of spatial indication.

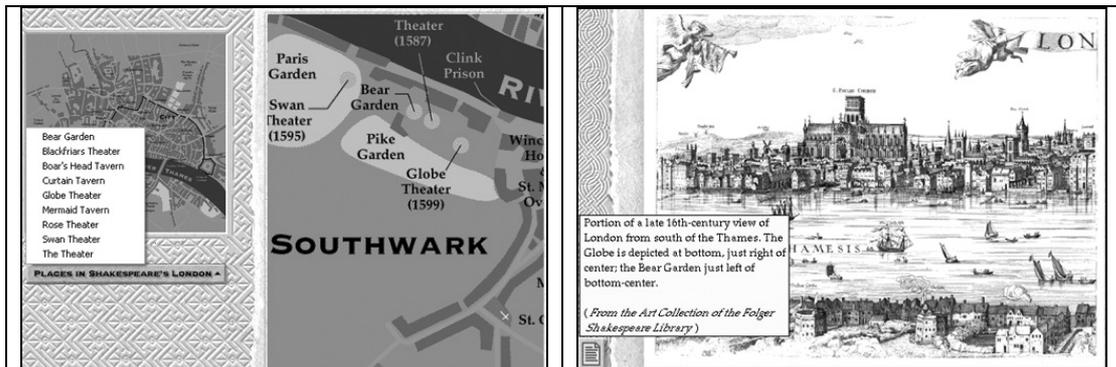


Fig. 59 – M2 – Example of available interactive map and illustration of London.

In relationship to the passage 1.3.16 (“I’the shipman’s card”), the reproduction of a mariner’s chart is available, as example of denotatum of the expression “shipman’s card”. This image accomplishes a function of exemplification and, therefore, belongs to the third class.

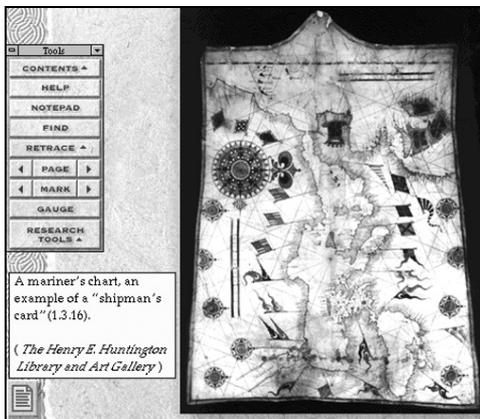


Fig. 60 – M2 – Example of “shipman’s card”.

In relationship to I, 3, 43-45 (“... you should be women / And yet your beards forbid me to interpret / That you are so”), the reproduction of a sketch of Cumaean Sybil by Michelangelo is made available. As the caption points out, this sketch represents the supposedly masculine appearance of witches. It is, therefore, iconic in respect to the passage of the text of the play to which it refers and it belongs to the fifth class.

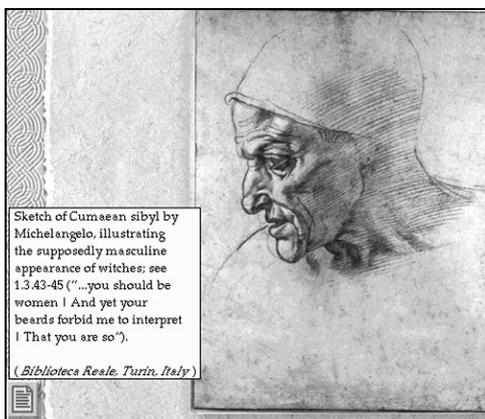


Fig. 61 – M2 – Reproduction of a sketch of Cumaean Sybil by Michelangelo.

All the above-described examples show how the “understanding by seeing” maxim is realized through images in hypertextual transposition. Images show denotata. They do it in different ways, owing to the class to which they belong, because their semantic richness and openness to different interpretations is delimited differently by the text. This variety of modality underlines the high potentiality of representation images have in respect to the literary text. Thanks to their deictic modality of representation, they seem to clearly and easily accomplish their function and, therefore, their contribution to the literary text’s comprehension seems to be easily understandable to the reader. However,

these examples also show that the images' interpretation and the understanding of their function (and, therefore, of their relevance and of the enrichment they bring) in respect to the literary text cannot only be based upon perception. The correct understanding of their deictic character very often depends on the inferences the reader is able to draw.

### 2.2.3 Problems in interpretation

In considering from closer the process of understanding of the relationship existing between text and image, the first-sight appearance of easiness of images' interpretation, deriving from their deictic character, proves to be wrong. Difficulties in images' interpretation can easily arise and, therefore, misunderstandings as to the images' function can occur. In the following paragraphs we will expose some examples of such difficulties we detected in DC1. Sometimes, in order to better clarify them, we will refer to correspondent verbal annotations, drawn from Tommaso Di Salvo's annotated edition of the Divine Comedy (an edition which is widely in use in high schools; Alighieri 1985).

#### 2.2.3.1 Images of the first class

The use of illustrations of narrated events or scenes can pose problems of interpretation, because of the complexity and density of images' meaning we described at paragraph 2.1.5. In fact, in such kind of images, on the one side, the illustrator has to solve the verbal (positive) ambiguity the literary text entails, by choosing one precise representation. On the other side, s/he has to precisely represent also elements and aspects the literary text left implicit. On the one hand, it can happen that an illustration contains and represents also elements and particulars that in the literary text were explained before the passage to which the image refers. On the other hand, it can happen that an illustration anticipates an element or a particular that in the literary text will be described later. Illustrations linked at Inferno XXI, 29 ("che, per veder, non indugia 'l partire: / e vidi dietro a noi un diavol nero / correndo su per lo scoglio venire") are drawn from Corrado Ricci's and Alessandro Vellutello's editions exemplify such problems.<sup>72</sup> The illustration drawn from the Ricci's edition anticipates a little bit what is narrated in the following verses (namely, how devils look like and the way they catch the damned

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<sup>72</sup> Vellutello's edition is a Venetian edition by Francesco Marcolini, which dates of 1544. Vellutello composed the commentary to the text, with which he pretended to overcome the well-known and appreciated Cristoforo Landino's commentary (which appeared in 1481). The name of the author of the xilographies included in this edition is not sure (maybe, it is Marcolini itself) (cf. Enciclopedia dantesca, entries "Commedia" and "Vellutello").

souls, described at lines 31-36), while the illustration drawn from the Vellutello's edition summarizes what was narrated till this point (particularly, the bubbling Dante sees at bottom of the bolgia, describe at lines 16-18: "tal, non per foco ma per divin'arte, / bollia là giuso una pegola spessa, / che 'nviscava la ripa d'ogne parte").



Fig. 62 – Illustrations linked at Inferno XXI, 29, drawn respectively from Ricci's and Vellutello's editions.

Another case of anticipation can be found at Inferno XXI, 22 ("Mentr' io là giù fisamente mirava, / lo duca mio, dicendo 'Guarda, guarda!' / mi trasse a sé del loco dov' io stava"), where in Botticelli's illustration positions and movements of Virgil and Dante described in the following lines, as well as the scene of damned souls boiling in the pitch and devils keeping them plunged in it with hooks (which in the literary text is described at lines 55-57), are represented.<sup>73</sup>

<sup>73</sup> This is a consequence of Botticelli's faithfulness to the medieval tradition of representing different moments of a same scene in a single illustration (cf. paragraph 2.2.2.1, note 62). Hein-Th. Schulze Altcapenberg studied Botticelli's illustrations of the Divine Comedy in relationship to the text and noticed the constant presence (especially in the illustrations of the Inferno) of anticipations and posticipations and of a reciprocal exchange of illustrated elements between initial and final scenes of neighbouring cantos, through which Botticelli created a spatial-temporal narrative "continuum" (Schulze Altcapenberg 2000: 29).



Fig. 63 – Botticelli's illustration available at Inferno XXI, 22.

Because of this power of summarization or anticipation images possess, it is difficult to link illustrations at the very correspondent passage of the literary text. Therefore, quite often, a discrepancy (which can be more or less deep) between the content of the illustration and the content of the passage of the literary text to which it is linked, exists. This can disorient the reader. Sometimes the non-correspondence between what the literary text narrates and what the image illustrates, is so important that it makes impossible for the reader to profite of the presence of the image. It is for instance the case of Inferno XXI, 72 (“usciron quei di sotto al ponticello, / e volser contra lui tutt' i runcigli; / ma el gridò: ‘Nessun di voi sia fello!’”), where the Doré's engraving does not illustrate exactly what the text narrates. In fact, according to the literary text, Dante and Virgilio are not together: Dante is hiding himself and Virgilio went ahead.



Fig. 64 – Doré's engraving available at Inferno XXI, 72.

This problem is not peculiar to hypertextual transpositions. In fact, it also emerges in printed illustrated editions. For instance, in White's edition (Alighieri 1948), each one of the reproduced Doré's illustrations occupies an entire page at the right text's side. The

spatial juxtaposition between illustration and passage of the literary text it illustrates is not precise. It is up to the reader to identify the precise passage to which the illustration refers. In Mandelbaum's edition (Alighieri 1995), Doré's illustrations are reproduced on two juxtaposed pages. Therefore, the problem is even more visible. In Cary's edition (Alighieri 1929), a solution is found. There, Flaxman's illustrations are reproduced in small dimensions. It was thus possible to insert them within the literary text itself, precisely at the point where the text is narrating what the illustration represents. The Camerini's edition (Alighieri 1868-1869) presents another possible solution to the problem. There, below each illustration, the text of the illustrated passage is reproduced, as well as the number of the canto and the numbers of the lines the illustration refers to. In the ideal reconstruction of the edition containing Botticelli's illustrations, the problem is solved by placing the illustration of the verso of each sheet and the integral text of the canto this illustration represents on the recto of the following sheet (all sheets are disposed in landscape format). In this way the correspondence between illustration and literary text would be assured. But such a solution is possible only because each one of Botticelli's illustrations corresponds to a whole canto (it represents simultaneously different moments of a given canto). However, it has to be noted that we do not know for sure the genre and the original function of Botticelli's illustrations. The hypothesis of such a manuscript is only one of the possible explanations scholars formulated as to this subject.<sup>74</sup>

Also the hypertextual structure of a hypertextual transposition offers solutions to this problem. One has been implemented in DC2, thanks to the use of different anchor's shapes we already described at paragraph 1.3.2.2 ("Manifestation of the relevance of the added materials to the literary text"). Two different anchors for the hyperlink leading to the images are used. One is a bullet and it signals that the image refers only to the line side to which the bar is set. The other is a vertical bar and it signals that the image refers to all the lines side to which it is set. Besides, when clicking on one of these two anchors, a new window appears in which a snapshot of the image is displayed. It is accompanied by information about the creator, the title, the date of production, the edition from which it has been drawn and copyright, as well as, again, by the indication of the lines of the literary text to which the image refers. Then, clicking on the snapshot, the reader can see it in bigger dimensions in a new window. However, it has to be noted that such a device could be even more properly used in order to provide a good solution to the problem of signaling the correspondence between text and image. In fact, in DC2 the passage reported in the field "Poem lines" coincides with the passage side to which the link for the image is set. However, the latter one not always corresponds to the

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<sup>74</sup> Botticelli's illustrations could have been destined to a manuscript structured in the (unusual) way we described above, but also to a roll of images, to a wall decoration or to a collection of loose images to be exposed, commented and admired by small groups guided by a lecturer (Schulze Altcapenberg 2000: 19, 23, 28-29).

former one (see examples above). Therefore, it would be interesting to improve the use of this device, including in the field “Poem lines” the whole passage the original text refers to.

Difficulties in interpreting images of the first class consists in difficulties of recognizing the similarity existing between the content of the image and the content of the passage of the literary text to which the image refers. Such similarity exists, but it is sometimes not evident because a discrepancy between image and literary text, which can arise from the density of meaning of images and from the difficulty of precisising relating image and referred passage of the literary text. The first source of discrepancy derives from the discrepancy between the temporal ordering of linguistic signs and the spatial ordering of visual signs. The second source of discrepancy mainly consists in a technical/technological problem.

#### 2.2.3.2 Images of the second class

The function of indication seems to be the one an image can more easily and surely accomplish. It simply consists in ostending something, which the reader simply has to look at. Yet, also as to images belonging to the second class, difficulties in interpretation can arise. They can be of different kinds.

The illustration and the photograph of the town of Urbino available at *Inferno* XXVII, 29 (“dimmi se Romagnuoli han pace o guerra; / ch’io fui d’i monti là intra Orbino / e ‘l giogo di che Tever si diserra”) accomplish a function of spatial indication. However, they can mislead the reader’s understanding of the literary text. In fact, their object is very precise and very (even, too) narrow. They are signs in respect to the word “Urbino”. But, as it is possible to understand considering a printed annotated edition (cf., for instance, Alighieri 1985: 456), the character speaking in the literary text does not come from Urbino. He comes from “monti là intra Orbino / e ‘l giogo di che Tever si diserra”, that is, from Montefeltro. Therefore, the fact to present the images of Urbino induces the reader to focus her/his attention upon a place, which is not the relevant one in respect to the passage of the literary text the images refer to.

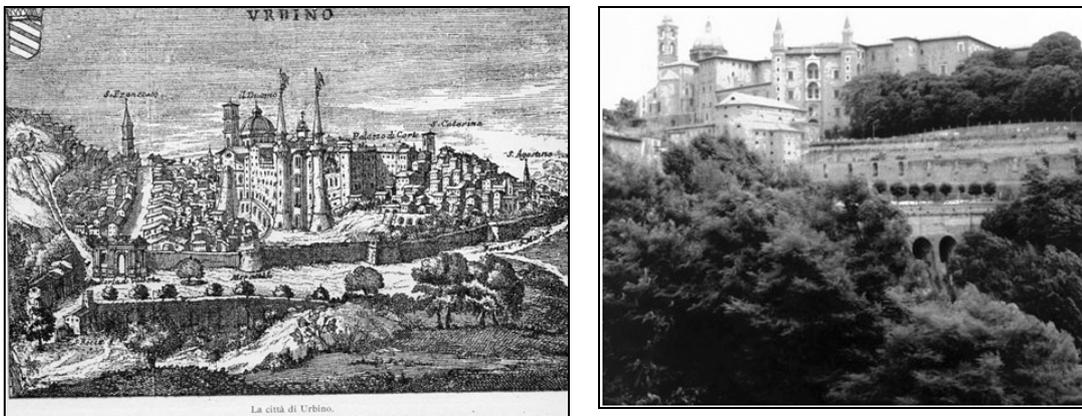


Fig. 65 – Illustration and photograph of the town of Urbino available at *Inferno* XXVII, 29.

The same situation can be found at several other passages of the literary text. At *Inferno* XVIII, 122 (“già t’ho veduto coi capelli asciutti, / e se’ Alessio Interminei da Lucca: / però t’adocchio più che li altri tutti.”) an illustration and a photograph of Lucca are available. However, the meaning of the sentence pronounced by Dante is only indirectly related to Lucca. What Dante is communicating is his recognition of the character he encountered as being Alessio Interminei, who comes from Lucca. At *Inferno* XXVIII, 17 (“a Ceperan, là dove fu bugiardo / ciascun Pugliese, e là da Tagliacozzo, / dove sanz’arme vinse il vecchio Alardo”) a reproduction of an illustration of Tagliacozzo is available. However, Tagliacozzo is only a small element of a more large and complete sentence of the literary text. Dante’s communicative aim here is not to focus the reader’s attention on how Tagliacozzo looks like. At *Inferno* XXIX, 109 (“Io fui d’Arezzo, e Albero da Siena, / rispuose l’un, ‘mi fé mettere al foco; / ma quel per ch’io mori’ qui non mi mena”) six photographs are available: three of Arezzo and three of Siena. They all have a function of spatial indication. The photographs of Arezzo clearly and properly accomplish this function. It is different for the photographs of Siena. In fact, the decision of the author of the hypertextual transposition to make available photographs of Siena correspondently to this line of the literary text, didn’t take into consideration the fact that the meaningful object of the literary text is not the town of Siena, but the character of Alberto da Siena. Therefore, the photographs of Siena are not really informative. We find a similar situation at *Inferno* XXI, 38 (“Del nostro ponte disse: ‘O Malebranche, / ecco un de li anzian di Santa Zita! / Mettetel sotto, ch’i’ torno per anche”), where a photograph of the body of Santa Zita in Lucca is available. The relevance of this image in respect to the whole sentence is quite low. It explains nothing about the text. For instance, it does not explain what does “un de li anzian di Santa Zita” mean. It only shows St. Zita to the reader. Similarly, the photographs of remains of a Roman amphitheatre in Fiesole available at *Inferno* XV, 62 (“Ma quello ingrato popolo maligno / che discese di Fiesole ab antico, / e tiene ancor del monte e del macigno”) will not necessarily clarify to the reader the meaning of the expression “ab

antico” used in the text. The reader will only understand that there is a reference to the Roman period.

On the base of all these examples, we can conclude that, in order to be informative, the object of the image has to correspond to elements of the literary text that are meaningful and relevant in respect to the author’s communicative aim. All the considered images correctly accomplish their function of indication. The denotatum they show corresponds to the denotatum of the signs of the literary text to which they refer. However, this denotatum does not correspond to the most relevant denotatum in respect to the communicative aim. Therefore, the image is weakly informative or even misleading for the reader. By the way, these detected difficulties arising in interpreting images of the second class demonstrate that images accomplishing a function of indication do not provide new information; they are not able to explain.

However, there are (rare) cases where the denotatum of the signs of the literary text to which the image refers and the denotatum of the image do not exactly coincide. There, too, difficulties in understanding the images’ function of indication arise. For instance, at *Inferno* XXVII, 86 (“Lo principe d’i novi Farisei, / avendo Guerra presso a Laterano, / e non con Saracin né con Giudei”) two photograph of buildings in the area of San Giovanni in Laterano in Rome are available. They accomplish a function of spatial indication. However, it is not clear what they exactly aim at indicating (if they aim at indicating a precise building – as the second image seems to suggest – or if they aim at indicating the whole zone – as the first image seems to suggest). It is not clear which is the denotatum of the word “Laterano”. The encoded information related to the asterisk link set side to the word “Laterano” suggests that it has to be a palace. The same does Tommaso Di Salvo’s annotation (“Laterano: era ai tempi di Dante il palazzo pontificio”, 1985: 461). However, looking at the images, it is difficult for the reader to understand which this palace is.



Fig. 66 – Photographs of San Giovanni in Laterano and encoded information available at *Inferno* XXVII, 86.

A similar situation is present at *Inferno* XXXIV, 62 (“Quell’anima là sù c’ha maggior pena,” / disse ‘l maestro, ‘è Giuda Scariotto, / che ‘l capo ha dentro e fuor le

gambe mena”), where an image of a fresco representing the Last Supper is available. On the fresco also Judas (the character mentioned in the passage of the literary text to which the image is linked) is represented. However, he does not constitute the main subject of the image.



Fig. 67 – Image of the fresco of the Last Supper available at Inferno XXXIV, 62.

Interpretation’s problems related to images belonging to the second class can also arise because of the impossibility to express incertitude through images. For instance, at Inferno XIII, 146 (“sempre con l’arte sua la farà trista; / e se non fosse che ‘n sul passo d’Arno / rimane ancor di lui alcuna vista”) an illustration and a photograph of Ponte Vecchio in Florence are available. The photograph is used in order to show the place the literary text is talking about. Also the illustration of a statue of Mars on Ponte Vecchio accomplishes the same function of indication. But this image accomplishes such a function in providing certitude about the presence of this statue of Mars. However, as a matter of fact, this presence is not so sure, as Di Salvo’s comment to this passage shows: “L’immagine di Marte che Dante afferma essere ancora ai suoi tempi sul Ponte Vecchio era un frammento di statua che fu detta del dio della guerra” (Alighieri 1985: 225).

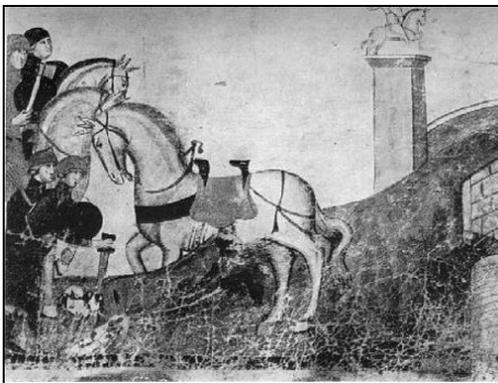


Fig. 68 – Illustration and photograph of Ponte Vecchio in Florence available at Inferno XIII, 146.

This example also shows that the difficulty we noticed as to images of the first class can be found also as to images of the second class. Also for them difficulties in images' interpretation can arise from the fact that the relationship of the image to the passage of the literary text is not precisely signaled. In fact, the object of the illustration of the statue of Mars is not only constituted by line 146 (side to which the link providing access to the image is set), but by lines 146-147. In fact, it is in line 147 that the literary text mentions the fact that some effigy of Mars remained on Ponte Vecchio is mentioned at line 147. It is in this line that there really is the reference to the presence of a statue. Therefore, here, two images referring to two different objects are set on the same level.

As to photographs accomplishing the function of spatial and temporal indication, their strong indexical character can mislead the reader. The four photographs of Roman remains in Rome available at *Inferno I*, 71 (“Nacqui sub Iulio, ancor che fosse tardi / e vissi a Roma sotto 'l buono Augusto / nel tempo de li dèi falsi e bugiardi”) aim at showing the place mentioned in the literary text as it was at the time the literary text is referring to. However, as we said at paragraph 2.1.5, photographs' strong indexical character establishes a connection with the actual reality of the reader. Such a connection goes beyond the meaning of the literary text. It is an added meaning, which however is not part of what Dante wanted to communicate. The literary text puts the accent upon the past, while the photographs added to comment this passage put the accent on the present. The reader could interpret them in a misleading way (“Oh, look at what there is in Rome!”), without grasping the most relevant connection with the text.

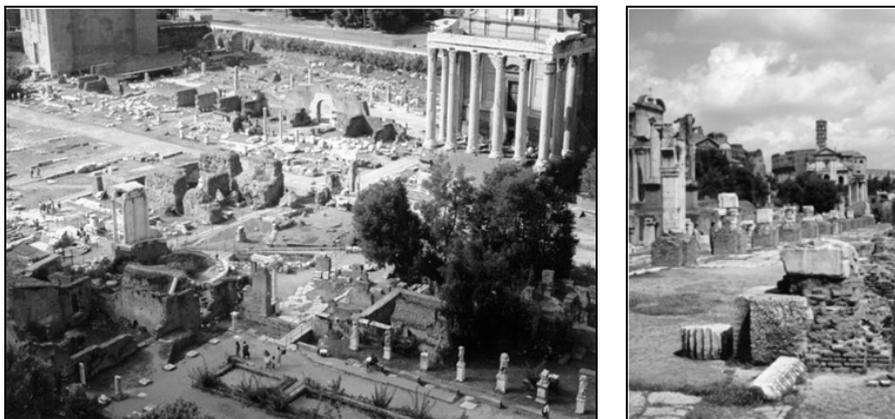


Fig. 69 – Two of the four photographs of Roman forum in Rome available at *Inferno I*, 71.

### 2.2.3.3 Images of the third class

The effectiveness of the images used to provide definitions or explanations to given passages of the literary text can depend on the reader's prior knowledge. This is particularly true for images belonging to the third class. Since these images do not

provide access to a precise denotatum, but only to an example of a possible denotatum, it is important that the reader at least previously knows to which class of denotata the signs of the literary text refer to. Otherwise, the image would hardly succeed in providing an effective definition. Such a situation is quite paradoxical, since it seems that the reader has to know the meaning (the common characteristics of all the possible denotata, which constitute these denotata in a class of object) of the signs of the literary text for the explanation of which the image is provided, in order to understand what the image exactly aims at showing. Therefore, the correct understanding of images belonging to the third class is very difficult for novice readers, who, looking at the provided images, are supposed to extrapolate the characteristics of the illustrated object which constitute its meaning. We can at least note that, for such an inferential operation to be effective, it is necessary that at least more than one possible denotatum is shown.

Thus, for instance, the understanding of the relationship between Inferno VII, 62 (“Or puoi, figliuol, veder la corta buffa / d’i ben che son commessi a la fortuna, / per che l’umana gente si rabuffa”) and the images of the wheel of fortune related to it can be difficult for a novice reader (cf. fig. 37). Fortunately, in DC1, captions (“Berthier, Wheel of Fortune at San Zeno, Verona” and “Ricci, Wheel of Fortune, Trento”) support her/him in understanding what the images illustrate.

At Inferno XIX, 18 (“Non mi parean men ampi né maggiori / che que’ che son nel mio bel San Giovanni, / fatti per loco d’i battezzatori”) a photograph of the baptistery in Pisa and two photographs of the baptistery in Pistoia are available (cf. fig. 38). However, the matching between these images and Inferno XIX, 18 can be misleading for the reader. S/he expects photographs of the inside of San Giovanni and if s/he does not know that the font in San Giovanni Dante saw, and of which he is talking in this passage of the literary text, does not exist anymore, s/he is disoriented by the presented photographs. S/he will not understand why images of fonts others than the one in San Giovanni are proposed. This example also shows that images alone can hardly provide new information. In fact, the matching of the images of the baptistery in Pisa and Pistoia to the passage of Inferno XIX, 18 does not let the reader learn that the font Dante saw was destroyed and that it was similar to the fonts in Pisa and Pistoia. On the contrary, the verbal comment present in Berthier’s edition and accompanying a photograph of the font in Pisa explains these facts:

Venne distrutto nel 1576-1577, per ordine del Gran Duca Cosimo I, il quale non lo trovava abbastanza bello per il Battesimo del principe Don Filippo, primogenitor del Gran Duca Francesco I de’ Medici; il qual battesimo seguì nel 29 di settembre del 1577. La demolizione si fece per consiglio dell’architetto Bernardo delle Girandole. Cf. Lumachi, *Memorie di S. Giov. Batt. in Firenze*, p. 30, e Richa, *Chiese*, T. V, p. 1. Il Fonte, per quanto si asserisce era affatto simile al sussistente di Pisa (Alighieri 1895: 337)

Caption of the photograph of Pisa font: “Il Fonte battesimale di Pisa, al quale somigliava il Fonte di Firenze” (Alighieri 1895: 338).

The operation of generalization entailed by the function of exemplification characterizing images of the third class constitutes a difficult step, especially for novice readers. In a certain sense, it stands in the way to fluent passage from perception to comprehension of the image’s function.

#### 2.2.3.4 Images of the fourth class

Important problems of interpretation arise in relationship to images belonging to the fourth class, especially in relationship to images showing something the literary text presupposes. In fact, in these cases the understanding strictly depends on the reader’s ability to draw the right inference. This ability can depend, on the one side, on how attentively the reader reads the image itself and relates it to the passage of the literary text. On the other side, it can depend on her/his prior knowledge. For instance, the understanding of the relationship between the illustration of the Guelf and Ghibelline towers (cf. fig. 43) and the passage of *Inferno* X, 47 (“poi disse: ‘Fieramente furo avversi / a me e a miei primi e a mia parte, / sì che per due fiata li dispersi’”) can be very difficult. It is very likely that a novice reader will not even completely understand the passage of the literary text. Maybe s/he will only understand that it is question of division within society and the division of the two towers illustrated in the image will be meaningful to her/him in this generic sense. The image will simply be iconic in respect to a social division Farinata is talking about in the literary text. Maybe the reader knows that this division involves different parties that are at loggerheads with each other. In this case the image will be iconic in respect to a precise historical struggle: the struggle between Guelfs and Ghibellines. Only if the reader draws a further inference, relating the “parte” Farinata is talking about and the division between Guelfs and Ghibellines, s/he will fully grasp the new information the image aims at providing, that is, the direct involvement of Farinata and his family in the struggle between Guelfs and Ghibellines.

Also at *Inferno* X, 50 (“‘S’ei fur cacciati, ei tornar d’ogne parte’, / rispuos’io lui, ‘l’una e l’altra fiata; / ma i vostri non appreser ben quell’arte’”) the reader’s prior knowledge is a decisive factor in the interpretation of the illustration of the Battle of Benevento (cf. fig. 45). It is likely that to a novice reader, only the iconic reproduction of someone who is being driven out of a city will be meaningful. However, looking attentively at the picture, the reader learns that one part is being driven out by another part and, thanks to the caption, s/he will know that this happened during the battle of Benevento in 1266. We have to notice that in this case, in order to draw the right inference, the reader has to refer not only to the line of the literary text at which side the

link is set, but also to the previous line. In fact, there is no direct relationship between “rispuos’io lui, ‘l’una e l’altra fiata;” and the image of the battle of Benevento. Instead, there can be a relationship between the previous line (“S’ei fur cacciati, ei tornar d’ogne parte”) and the image. The verbal comment by Di Salvo is clearer:

50. **l’una e l’altra fiata:** le sorti dei ghibellini si legarono strettamente a quelle dell’Impero; caddero i ghibellini a Firenze e ne furono cacciati via il 1251 dopo la morte di Federico II, la seconda volta il 1267 dopo la morte di Manfredi (Alighieri 1985: 171).

As it appears already in this example, the role of the caption can be essential in the understanding process of images of the fourth class. At *Inferno* XVII, 59 (“E com’io riguardando tra lor vegno, / in una borsa gialla vidi azzurro / che d’un leone avea faccia e contegno”) a photograph of a sculpture and an illustration of the Gianfigliuzzi arms are available. The reader knows that they are Gianfigliuzzi arms thanks to the captions (“Ricci, Gianfigliuzzi arms” and “Berthier, Gianfigliuzzi arms”). In integrating the images, the captions and the passage of the literary text, the reader should draw new information: yellow and azure are the colors of Gianfigliuzzi arms and, therefore, Dante, who in his journey in the Hell sees a yellow pursue on which something azure is present, just encountered a member of this family. However, this is not an easy inference, also because of the fact that the available images do not present colors. In a verbal comment this inference will be explicitly proposed to the reader:

58. **E com’io:** ‘e man mano li andavo osservando, fissando la mia attenzione in particolare sui singoli (*riguardando*), vidi su una borsa dal fondo giallo rilevarsi una macchia di colore azzurro che aveva la forma (*faccia*) e l’atteggiamento (*contegno*) di un leone’. – Il leone d’oro in campo (con lo sfondo) giallo era lo stemma dei Gianfigliuzzi, famiglia guelfa fiorentina; ne fece parte quel Catello Gianfigliuzzi che storicamente risulta avere esercitato l’usura in Francia; il dannato potrebbe essere proprio lui, ma è un’ipotesi (Alighieri 1985: 286).



Fig. 70 – Photograph of a sculpture and illustration of the Gianfigliuzzi arms available at Inferno XVII, 59.

Another important difference emerges in this case between the verbal comment and the comment provided through the image, a difference already emerged as to images belonging to the second class and depending on the fact that images can only be assertive. In DC1 the fact that the character Dante encounters is a member of Gianfigliuzzi family, is presented as a certain fact. On the contrary, the verbal comment underlines that this is only a hypothesis, but that it is not sure. The same is valid for the images of Obriachi and Scrovegni arms at Inferno XVII, 63 and 64 (“Poi, procedendo di mio sguardo il curro, / vidine un’altra come sangue rossa, / mostrando un’oca bianca più che burro. / E un che d’una scrofa azzurra e grossa / segnato avea lo suo sacchetto bianco, / mi disse: ‘Che fai tu in questa fossa?’”). Tommaso di Salvo’s verbal comment to these passages is the following:

Non vale più per Dante quello che egli stesso aveva detto poco fa, di non averne conosciuto nessuno; indirettamente attraverso gli stemmi ne conosce alcuni e li indica al nostro disprezzo. Ma li conosce non singolarmente, bensì come famiglia o consorzeria. 61. **Poi, procedendo:** ‘e poi, mentre il carro (*curro*) del mio occhio, del mio sguardo procedeva oltre (mentre continuavo a guardare oltre), vidi un’altra borsa rossa come sangue che mostrava (*mostrando*) come stemma un’oca più bianca del burro’. – L’oca bianca in campo rosso era l’insegna degli Obriachi, famiglia ghibellina di Firenze, che il Lana, l’antico commentatore del poema, dice di ‘grandissimi usurai’. Alla fine del duecento, come risulta da fonti storiche, un Locco degli Obriachi esercitava l’usura in Sicilia. 64. **E un che d’una:** ‘e uno che aveva disegnata sulla sua borsa bianca una scrofa in azzurro, grassa mi disse: ‘che fai in questa buca dell’inferno (*fossa*) Ora vattene via; ma poiché sei ancora in vita, sappi che qui alla mia sinistra siederà il mio concittadino (*vicin*) Vitaliano’’. – L’insegna della scrofa azzurra in campo bianco era degli Scrovegni di Padova; il dannato viene ritenuto essere Reginaldo, di cui, come di un usuraio con caratteri

patologici, parlano le cronache del tempo. Figlio di Reginaldo fu Arrigo, il quale per lavarsi dei peccati della famiglia fece a sue spese costruire la cappella di Padova che prende il nome degli Scrovegni e che fu interamente affrescata da Giotto ed è della pittura giottesca una delle opere più alte. L'usuraio che lo Scrovegni nomina sgarbatamente (ma tutto il tono del suo discorso è di un uomo sgarbato, stizzoso) è forse Vitaliano di Jacopo Vitaliani, questo sicuramente notevolissimo usuraio (...)" (Alighieri 1985: 286).

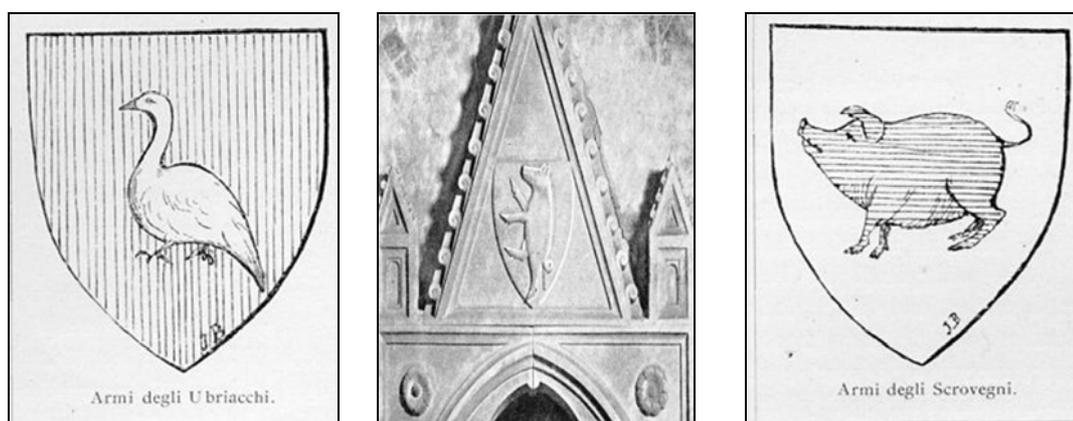


Fig. 71 – Illustration of the Obriachi arms and sculpture and illustration of the Scrovegni arms available at *Inferno* XVII, 63-64.

At *Inferno* XXVII, 41 (“Ravenna sta come stat è molt’anni: / l’aguglia da Polenta la si cova, / sì che Cervia ricuopre co’ suoi vanni”), 45 (“La terra che fé già la lunga prova / e di Franceschi sanguinoso mucchio, / sotto le branche Verdi si ritrova”), 46 (“E ‘l mastin vecchio e ‘l nuovo da Verrucchio, / che fece di Montagna il mal governo, / là dove soglion fan d’i denti succhio”) and *Inferno* XVII, 73 (“che recherà la tasca con tre becchi!” / Qui distorse la bocca e di fuor trasse / la lingua, come bue che ‘l naso lecchi”) we find similar cases with an image of the arms of the Polenta, an image of the arms of the Ordelaiffi, the arms of the Parcitati and the arms of the Becchi.

Also the role of information provided through other links can be essential. For instance, the illustration and the photograph of a view of Lucca available at *Inferno* XXI, 41 (“a quella terra, che n’è ben fornita: / ogn’uom v’è barattier, fuor che Bonturo; / del no, per li denar, vi si fa ita”) allow the reader to make an important inference about the meaning of the literary text: Dante is talking about the town of Lucca and Lucca, at Dante’s time or at least according to Dante’s beliefs, was particularly known for the fact that its inhabitants were grafters. This inference is allowed by the images of Lucca, but the reader, in order to properly carry it out, has to go beyond what s/he sees in the image and s/he has to set it in relationship with the passage of the literary text to which it refers and with the other information s/he can access through the other available hyperlinks (in this precise case, the encoded information and the English translation).

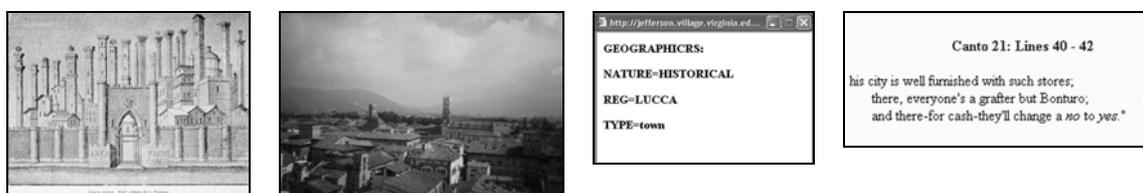


Fig. 72 – Illustration and photograph of Lucca, encoded information about Lucca (accessible through the asterisk link) and English translation of the tercet where the periphrasis for Lucca is present, available at *Inferno XXI*, 41.

As a whole, difficulties in understanding the function of images belonging to the fourth class arise from one of their essential characteristics exposed at paragraph 2.1.5, namely from the fact that images can show, but they cannot explain.

### 2.2.3.5 Images of the fifth class

The interpretation process the user has to carry out in order to grasp the most relevant relationship between images belonging to the fifth class and the passage of the literary text to which they refer consists of several steps. For instance, the operations the user performs when reading *Inferno XXXI*, 59 (“La faccia sua mi pareva lunga e grossa / come la pina di San Pietro a Roma, / e a sua proporzione eran l’altre ossa”) are (cf. fig. 48):

- a) S/he clicks on the link “Illustration 1” and s/he sees an illustration of the old St. Peter Church in Rome with the pine in front of it. Thus, s/he knows that the pine is a sculpture and how the pine was used, where it was placed. That is, s/he gets information about the object itself, about how the object looked like and information about the use of the object. Therefore, the illustration is at the same time an icon and an index. It accomplishes a function of indication. Which kind of information is predominant in respect to the other depends on the user’s prior knowledge. This means that for different users this same illustration can be a different kind of sign.
- b) The user clicks on the link “Illustration 2” and s/he sees a photograph of the pine. Because it is a photograph, the user understands that the pine still exists and, thanks to the caption, s/he learns that it is now placed in the Papal Gardens. At the same time, the user gets a better knowledge of how the pine really looks like. Therefore, the image is still an icon, but the indexical function of indication seems to become predominant.
- c) The users clicks on the link “Illustration 3” and s/he sees another photograph of the pine. It is the same photograph as before, but it is taken from a closer point of view. As the previous illustration it can be both an icon and an index and it accomplishes a function of indication.

At this point the user knows what the pine is, that is, s/he knows to what does the words “pina di San Pietro a Roma” refer. S/he knows which is the denotatum of this

linguistic expression. However, the fact to have this knowledge does not automatically mean that the reader understood what Dante is saying. In fact, Dante is not saying that in Rome there is a sculpture of a pine. This is not his communicative goal. Dante is saying that to know how the pine in Rome looks like, it is useful in order to imagine (and to know) how big and how long is the face of the giant he encountered at that point of his journey. What interested Dante was the simile. Therefore, coming back from the image to the literary text and integrating the new knowledge s/he got thanks to the image with the co-text of the passage to which the link refers to, the user understands that what is important in the image is not the object in itself, the factual knowledge about it (what it is, where it is, the fact that it still exists, etc.), but one particular feature of it: its dimensions and its shape. The factual knowledge is part of the meaning of the images, but it is not its central meaning. The final meaning can be determined only in the phase of the integration of the new sign with the signs of the literary text. We observe that, in this case, there is a mutual dependence between literary text and images: the images are added in order to show and to let the user understand the literary text, but the accomplishment of this function depends on the reference to the literary text itself (the real meaning of the images can be established by the user only in respect to the literary text). The image's real function can be established only when the user comes back to the literary text in a second step in respect to the fruition of the images themselves.

It is important for the reader not to get misled by secondary meanings images entail. But also captions can be misleading. For instance at *Inferno* XXVI, 100 (“ma misi me per l’alto mare aperto / sol con un legno e con quella compagna / picciola da la qual non sui deserto”) the caption of the image, which identifies the represented geographical place (“Open sea near Gaeta”), could induce the reader to think that the image function is of spatial indication, preventing her/him to grasp the iconic relationship in respect to the feeling of vastness of the off shore, which is the real object of the literary text (cf. fig. 51). Similarly, at *Inferno* XXX, 65 (“Li ruscelletti che d’i verdi colli / del Casentin discendon giuso in Arno, / faccendo i lor canali freddi e molli”) the caption (“Arno River at Stia in the Casentino”) could induce the reader to stop at the function of spatial indication, without leading her/him to the iconic reproduction of a feeling or atmosphere (cf. fig. 52).

In order to understand the deictic character of images belonging to the fifth class, the reader has to grasp their iconic relationship to the literary text. However, several aspects of images can prevent her/him to achieve this understanding, by stopping her/him to the indexical aspect of images.

## 2.3 Benefits and limits of the “understanding by seeing” maxim

### 2.3.1 Images’ benefits: a vexed question

Around the benefits brought by an increased use of images in hypertextual transpositions there is no consensus among scholars. The usefulness of the help of images for the interpretation of a literary text is a vexed question.

There are scholars who emphasize the benefits of images in hypertextual transpositions. Joseph A. Feustle (1994) illustrates this position:

A graphical image can vastly facilitate comprehension of an important idea, the theme of melancholy in Darío’s poetry, for example. While one can explain concepts such as the relationship between melancholy, *desidia*, and *deseo*, average undergraduates may more easily understand melancholy if they could simply see it. For this purpose, I have scanned and included Albrecht Dürer’s classic work *Melancholy*, whose angel’s face conveys quite succinctly what would cost many words and much time to explain. ‘En Chile, en busca de cuadros’, the final Porse section in *Azul*, offers even richer possibilities. Here, Darío paints with words in a series of short narratives titled *Acuarela* (WaterColor), *Paisaje* (Landscape), *Aguafuerte* (Etching), *Retrato de Watteau* (Portrait by Watteau), *Naturaleza muerta* (Still life), and *Al carbón* (Charcoal). While the more cultured reader of Darío’s age may well have been acquainted with this early form of multimedia, it is highly doubtful that even an advanced graduate student, highly specialized in Modernism, now would have even a superficial understanding of what Darío is attempting. Thus, I am using hypermedia to provide immediate examples of a Water Color (Jean-Auguste-Dominique, *L’Odalisque*), a Landscape (Vincent van Gogh, *Landscape with the Plains of the Crau*), a work by Watteau (*The Embarcation for Cytheria* or *Nymph Surprised by a Satyr*), a Still Life (Paul Cézanne, *Nature morte aux Pommes sur un Dressoir*), and a Charcoal (Francisco de Zurbarán, *Un fraile*) (Feustle 1994: 309).

However, there also are scholars who express scepticism in respect to images’ benefits. According to them, the main images’ shortcoming consists in the fact that they substitute in some ways the reader imaging activity, which is an important part of the reading experience. In fact, as we underlined in paragraph 2.1.5, if a verbal description contains a (positive) ambiguity allowing different possible interpretations (and representations), in an illustration every element and every aspect has to be precisely defined. Along this line, for instance, David Miall and Teresa Dobson (2001) state that

the presence of images in hypertextual literature reduces the interpretive horizon and, therefore, it introduces a negative factor in the reading experience.

Indeed, as the above-described examples prove, images provide both helps and difficulties as to the literary text's comprehension. In the following paragraphs we will further describe and summarize in what such helps and benefits respectively difficulties and limitations consist, in order to further clarify when and how the "understanding by seeing" maxim properly works and, therefore, can be advantageously used in hypertextual transpositions.

### **2.3.2 Benefits**

The main benefit of the "understanding by seeing" maxim consists in the possibility (highlighted all along this chapter) of making the literary text more directly experiential for the reader. The more direct experienciability consists in the possibility of (visually) perceiving what otherwise the reader should imagine. This is accomplished by showing the denotata, that is, by using the modality of *monstrare ad oculos*.

However, this modality and, subsequently, the "understanding by seeing" maxim can provide (at least to some extents) benefits to the literary text's comprehension only if an essential presupposition is respected, namely the presupposition according to which the available image corresponds to (the passage of) the literary text to which it refers. If they do not show the denotatum of the signs of the literary text to which it refers, images cannot help the literary text's comprehension. The images present in hypertextual transpositions (at least considering the seventeen analyzed examples) always respect such a correspondence. In this sense, we can conclude that in hypertextual transpositions the relationship between images and literary text respects a general norm that is maintained in the field of TV journalism (particularly in Germany), according to which words and images in television films should not diverge. This issue is well known in Germany as the problem of the *Text-Bild-Schere*, which occurs when image and text (mainly, oral text since it is question of television films), although being presented simultaneously (which means that they are supposed to be semantically related) diverge from the point of view of their content (as the two blades of scissors), thus bringing divergence in the reader's visual and acoustic attention focus (cf. Renner 2001).

Karl Nikolaus Renner (2001) developed an interesting framework for a deeper understanding of the phenomenon of the *Text-Bild-Schere* and, more generally, of the relationship text-image. As we will see later on, this framework requires some more detailed discussion. However, it immediately provide us with fruitful concepts for the definition of images' benefits. According to Renner, in television films three different possible relationships can occur between text and image. The first one consists in a correspondence: the image's content confirms the text's content and, therefore, the

image can be said true in respect to the text itself. The relationship of correspondence can occur in a strong modality (which can be described as the case in which the image's denotatum and the text's denotatum perfectly correspond) or in a weak modality (which can be described as the case in which the image's denotatum includes the text's denotatum but it is in some ways broader).<sup>75</sup> The second possible relationship between text and image consists in a contradiction: the image's content contradicts the text's content and, therefore, the image can be said false in respect to the text itself. The third possible relationship consists neither in a correspondence nor in a contradiction, since the image's content simply has nothing to do with the text's content: the image shows something different in respect to what the text deals with (Renner 2001: 28).

In borrowing this framework from the field of journalism and applying it to hypertextual transpositions, we observe that, there, the first possible relationship always occurs. In hypertextual transpositions, images always confirm the literary text, that is, they are always true in respect to (the passage of) the literary text they refer to. In two cases (images available at Inferno XXVIII, 86 and at Inferno XXXIV, 62, cf. paragraph 2.2.3.2) we observed the presence of a weak correspondence. But, generally speaking, a strong correspondence exists between an image and the (passage of the) literary text to which it refers. In any case, in hypertextual transpositions no contradiction occurs between text and image. As a consequence, we can say that the modality of *monstrare ad oculos* is always adequately fulfilled, thus guaranteeing the benefit of a more directly experiential approach to the literary text.

Such an approach is essential, especially for hypertextual transpositions such as DC1, the audience target of which is composed of persons (English native-speakers, probably students of the United States; cf. Appendix 2) who very likely never saw Italy life and, therefore, who can hardly appeal to their personal experience in the act of reading and in the comprehension of the Divine Comedy. The degree of centrality of such an approach depends on the composition of the audience target of the hypertextual transposition, but also on the literary text itself. The more the narration of the literary text is "historical" (that is, it presupposes the reference to characters, events or places of the past or contemporary reality and it is built upon this reference), the more the correspondence between text and image is essential.

The power of images to provide a more experiential approach to the literary text is related to their high emotional aspects. The visual message has a higher emotional

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<sup>75</sup> Renner describes these two modalities in terms of reference semantics. "Eine starke oder unmittelbare Text-Bild-Bestätigung eines Kommentarsatzes *Pa* liegt dann vor, wenn während des Zeithorizonts, in dem dieser Kommentarsatz *Pa* geäußert wird, zu sehen ist, dass das Denotat von *a* zum Denotat von *P* gehört". "Eine schwache oder mittelbare Text-Bild-Bestätigung eines Kommentarsatzes *Pa* liegt dann vor, wenn für einen aus diesem Kommentarsatz *Pa* folgerbaren nicht-trivialen Satz *P'a'* gilt, dass das Denotat von *a'* zum Denotat von *P'* gehört" (Renner 2001: 29).

involvement power than verbal text.<sup>76</sup> Thus, we can suppose that the increased presence of images in hypertextual transpositions, by making the denotata more directly perceivable and experiential, can sustain the reader's emotional response to the literary text. Several studies in the field of experimental psychology approaches to literature have proved that this emotional response is an important element of the relationship established during the act of reading between the text and the reader and, therefore, an essential factor for the literary text's comprehension.<sup>77</sup> Therefore, images could help by arising in the reader essential aspects of the act of reading, thus bringing her/him to a more complete reading experience. However, such a supposition should be further proved.

Finally, we can notice that, thanks to their more direct appeal to perception and emotions, images have the power to highlight elements of the literary text, bringing them to the reader's attention. Such a power can be a benefit if it is well used, in order to highlight elements of the literary text, the importance of which is not immediately evident for readers (especially for novice readers) and, therefore, they will tend to neglect.

### **2.3.3 Origins of misunderstandings in images' interpretation**

Although the presupposition of the correspondence (whether strong or weak) between the content of the image and the content of the text (which is essential to an appropriate and useful working of the "understanding by seeing" maxim) is always respected in hypertextual transpositions, difficulties in the interpretation of the images' function are not eliminated. The above-described examples prove that problems easily arise. There are cases in which Renner's notion of correspondence between text and image is not sufficient in order to explain and understand how the image relates to the text. In fact, the use of images as commentary to literary texts entails communicative risks, deriving from the inferential process involved in interpretation. Misunderstandings can arise between editor and user about the function of an image. From a semiotic perspective and in Peircean terms, we can say that in such cases the image does not give rise in the mind of the reader to the most adequate interpretant. The reader does not draw the most relevant inference and, therefore, the enrichment (cf. paragraph 1.1.1) is weaker than the editor intended it to be. When such a misunderstanding occurs, the image does not optimally perform its function, although its correspondence to the literary text. The

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<sup>76</sup> As to this topic, cf. Buddemeier 1993: 20 quoted in Nöth 1997: 133.

<sup>77</sup> We refer here, once more, to Argenton and Messina's detailed review of the different stream of research of experimental psychology on literature (2000), in which also approaches stressing the role of emotions in the act of reading literary texts (such as the approach of Kneepkens and Zwaan, the approach of Miall and Kuiken, the approach of Zillmann and the approach of Oatley) are presented.

benefit provided by the presence of a correspondence is invalidated by the arising of other factors.

Risks of misunderstanding as to the function an image accomplishes in respect to the literary text have different possible causes. First, risks can arise from technological causes, that is, from problems or difficulties arising at the level of the implementation of a hypertextual transposition. Second, they can have deeper causes, which lay at the semantic-cognitive level, at the level of the relationship among literary text, image and reader.

As to the first type of causes, we observed sometimes a difficulty in signaling the segment of the literary text the image relates to. For instance, at *Inferno IX*, 52 (“Vegna Medusa: sí ‘l farem di smalto’, / dicevan tutte riguardando in giuso; / ‘mal non vengiammo in Tesëo l’assalto”)) an element that makes difficult for the reader to understand the function of the image of the statue of Perseus holding the head of Medusa (cf. fig. 47) is the fact that the link is set at the level of line 52, but the event the characters are referring to, appears at line 54 (which reads “mal non vengiammo in Tesëo l’assalto”). This problem is present with the images of all the five classes. At *Inferno XVI*, 100 (“rimbomba là sovra San Benedetto / dell’Alpe per cadere ad una scesa / ove dovea per mille essere recetto”) a photograph of the waterfalls of the river Acquaqueta is available. The caption is important in order to identify the object of the image, which has a function of spatial indication. However, the photograph is not placed at the right point. In fact, only at the following line (“dell’Alpe per cadere ad una scesa”) the reader understand that it is question of waterfalls. On the contrary, at line 100 where the link is set the literary text talks about the noise of the waterfalls.<sup>78</sup>

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<sup>78</sup> ‘To reverberate’ means ‘riverberare’ but also ‘riecheggiare’.



Waterfall formed by the Acquacheta River

Fig. 73 – Photograph of the waterfalls of the river Acquacheta available at Inferno XVI, 100.

At Inferno XIX, 114 (“Fatto v’avete dio d’oro e d’argento; / e che altro è da voi a l’idolatre, / se non ch’elli uno, e voi ne orate cento?”) the photographs of frescos of Constatine’s life are linked at the wrong line. In fact, it is at line 115 (which reads “Ahi, Costantin, di quanto mal fu madre,”), not at line 114, that Constantine is mentioned. Referring to line 115, they would have a function of indication, even if this function is not clearly precised. In fact, they are not portraits of Constantine (their main subject is not how Constantine looked like) and it is difficult to understand if on the reproduced paintings the fact the literary text is referring to, is illustrated.

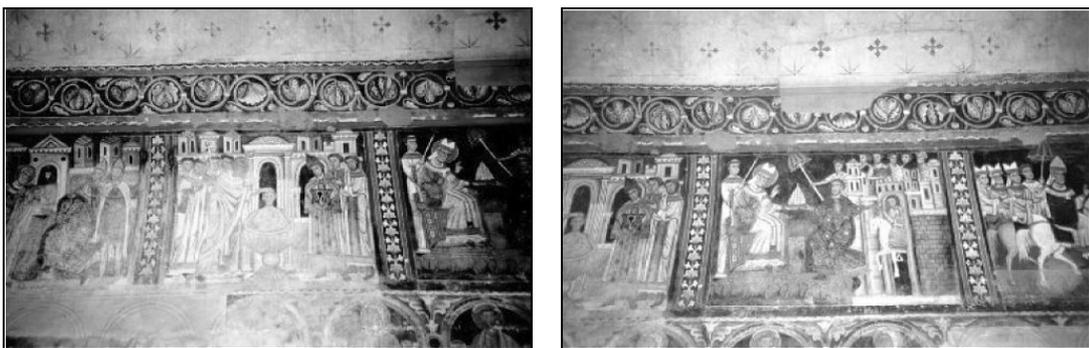


Fig. 74 – Two of the three photographs of frescos of Constantine’s life available at Inferno XIX, 114.

At Inferno XXVII, 94 (“Ma come Costantin chiese Silvestro / d’entro Siratti a guerir de la lebbre, / così mi chiese questi per maestro”) the same images are available. Here they are relevant in respect to the line they refer to. There only still is one problem: it is almost not possible for the reader to clearly see what it is illustrated in the reproduced

fresco. This impossibility (dictated more by technological problems; for instance, the images should be bigger) weakens the function of indication the images have. Embedded links could signal it better. But embedded links have disadvantages in respect to the reader's ability of focusing upon the literary text. Therefore, the solution adopted in DC2 (described at paragraph 2.2.3.1) looks interesting. Another example of difficulty in relating the image to the most relevant passage of the literary text can be found at *Inferno* XXXIII, 23 (“Breve pertugio dentro da la Muda, / la qual per me ha ‘l titol de la fame, / e che conviene ancor ch’altrui si chiuda”), where two photographs of the site of Tower of Hunger in Pisa are available. They are available at line 23. Therefore, their object should be the “Muda” and they should have a function of indication in respect to this place. In reality, in the captions the name Tower of Hunger is used. Therefore, they completely perform their function of indication only if they refer not only to line 23, but also to line 24.

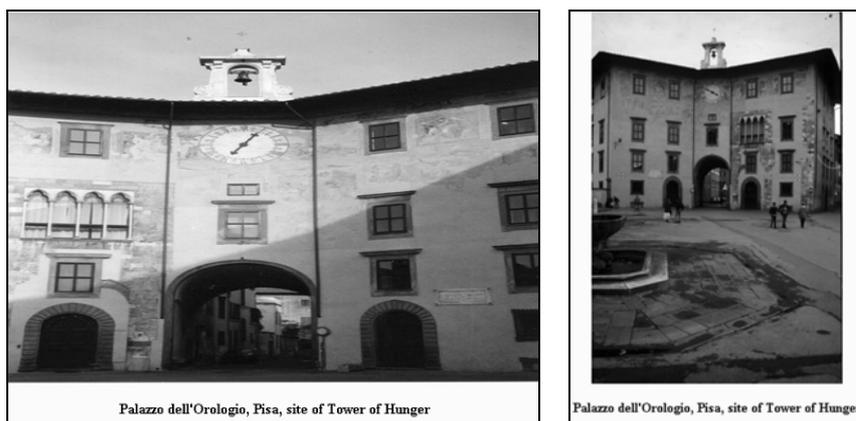


Fig. 75 – Photographs of the tower of Hunger in Pisa available at *Inferno* XXXIII, 23.

As to the second type of causes, we can immediately observe that the presence of a weak correspondence between text's and image's content (detected at *Inferno* XXVIII, 86 and at *Inferno* XXXIV, 62) can be source of misunderstandings. The image of a fresco representing the Last Supper available at *Inferno* XXXIV, 62 (“‘Quell’anima là sù c’ha maggior pena,’ / disse ‘l maestro, ‘è Giuda Scariotto, / che ‘l capo ha dentro e fuor le gambe mena”), obviously, represents also Judas (the character mentioned in the line the image refers to; cf. fig. 67). However, the relationship between the referred syntagm and the image remains generic. Therefore, the image is little informative.

A second possible source of misunderstanding is the fact that the image's object (the object the image illustrates) is too narrow in respect to the object which is actually relevant in the passage of the literary text the image refers to. The correspondence of the denotata is present and it is even strong. But the image's object does not correspond to the relevant syntagmatic element in the present text. We found an example at *Inferno* XXIX, 109, where correspondently to the passage “‘Io fui d’Arezzo, e Albero da Siena’ /

rispuose l'un, 'mi fé mettere al foco", photographs of Siena (and not images illustrating Albergo da Siena) are made available. The information the image provides is not helpful in order to understand the syntagmatic element corresponding to the author's communicative aim. The text is referring to Alberto da Siena, meanwhile the pictures show simply Siena.

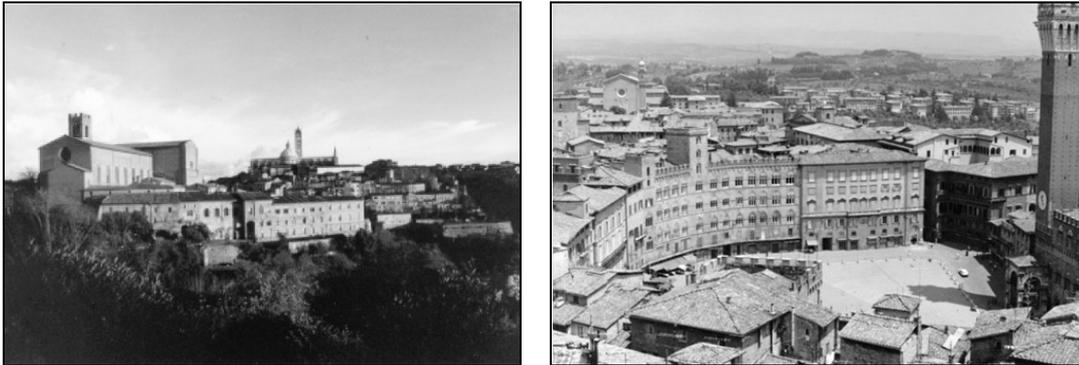


Fig. 76 – Two of the three photographs of Siena available at *Inferno* XXIX, 109.

In order to avoid such misunderstandings, an image should take as its object a relevant syntagmatic object, not an element inferior to it. Only in this way the image will serve the literary text's communicative aim. We can therefore establish the following rule: for an image to be significant, it has to represent the denotatum of a relevant syntagmatic element of the literary text. Otherwise, even if it represents an element mentioned in the literary text, it is not informative.

Images' secondary meanings can be the third source of misunderstandings. When such a misunderstanding takes place, the correspondence between the denotatum of the image and the denotatum of the text is present, but secondary aspects of the image take get the upper hand of the whole representation. Secondary meanings can mislead the reader, in that they induce her/him to stop at the most immediate conclusions as to the image's relationship to the literary text (for instance, the actual current existence in a given place of the object mentioned in the literary text), retaining her/him from continuing the reasoning and reaching a more relevant inference. On its turn, an inadequate caption (for instance, a caption focusing on the factual knowledge or the indexical aspect of the image) can induce the reader to focus on these secondary meanings. According to the analyzed examples, captions play an important role. Images are always accompanied with captions. The function of the captions is to identify the object of the image and it is essential for the understanding of the relationship between text and image and, therefore, also to the understanding of the image's function. This is particularly true for images belonging to the fourth class, where the identification of the object constitutes only the first step toward the understanding of the relationship. For instance, without caption it will not be possible for the reader to understand what the

image available at Inferno XIII, 9 (“Non han sì aspri sterpi né sì folti / quelle fiere selvage che ‘n odio hanno / tra Cecina e Corneto i luoghi còlti”) and the one available at Inferno XX, 68 (“Loco è nel mezzo là dove ‘l trentino / pastore e quel di Brescia e ‘l veronese / segnar poria, s’e’ fesse quel cammino”) represent (the reader will not be able to recognize the represented places).

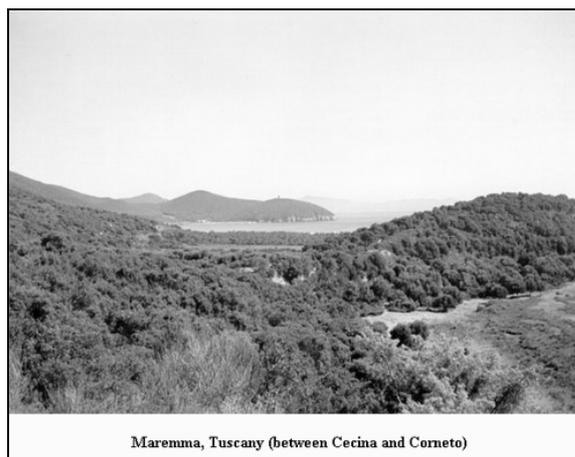
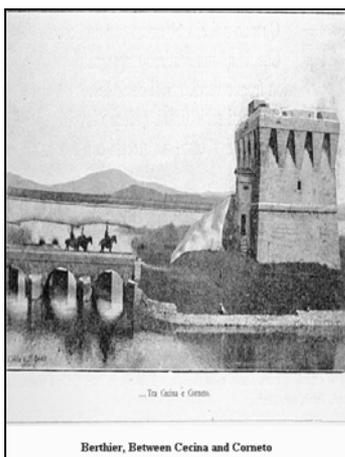


Fig. 77 – Illustration and photograph of the region between Cecina and Corneto available at Inferno XIII, 9.



Fig. 78 – Photograph of Brescia available at Inferno XX, 68.

However, also the importance of the role of the caption depends on the reader’s prior knowledge. The more the reader’s prior knowledge is rich, the less the caption is necessary. As to images belonging to the fifth class, the caption can be a misleading element in the image interpretation. In fact, it can induce the reader to stop her/his understanding of the image’s meaning at the level of indication, while the reader has to go further in the inference in order to grasp the iconic relationship to the term of comparison of the simile, which the image aims at clarifying. As we described at paragraph 2.2.3.5, this is for instance the case of images at Inferno XXVI, 100 (“ma misi

me per l'alto mare aperto / sol con un legno e con quella compagna / picciola da la qual non sui deserto”) and at Inferno XXX, 65 (“Li ruscelletti che d’i verdi colli / del Casentin discendon giuso in Arno, / faccendo i lor canali freddi e molli”).

The risk to be misled by secondary meanings is particularly present for novice readers. In fact, an expert will be more aware of the presence of information other than the factual one, while a novice will almost inevitably concentrate mainly on this factual information. For instance, at Inferno IX, 52 (“Vegna Medusa: si ‘l faremo di smalto’ / dicevan tutte riguardando in giuso; / ‘mal non vengiammo in Tesëo l’assalto”) a photograph of the statue of Perseus holding in his hand the head of Medusa is available (cf. fig. 47). The caption tells us that this statue is in Rome. The most immediate relationship the reader can identify between this passage of the literary text and this image is a function of indication in respect to who Medusa is. However, in this way, for this reader, only one element of the photograph is relevant in respect to the passage the photograph aims at commenting: the head of Medusa. This is most probably the conclusion a novice reader who does not know that “Tesëo” is Perseus will draw. If the reader knows that, s/he will interpret the image as a representation of the event referred to in the literary text. The image will then be understood as an explanation of an event the literary text is referring to, that is, an image belonging to the fourth class. It makes explicit something that it is implicit in the literary text. However, the understanding of this function of the image is possible only if the prior knowledge of the reader is adequate.<sup>79</sup> Otherwise, the reference of the image to the event remains too much implicit and the reader should draw several inferences in order to grasp this information. On the contrary, this will be soon clearer in a verbal comment. This is for instance the comment of Tommaso di Salvo about this passage:

52. ‘**Vegna**’: ‘venga Medusa; in questo mondo, col suo intervento, lo faremo di sasso (*smalto*), dicevano tutte quante guardando verso il basso; fu male, male operammo quando non punimmo nella persona di Perseo l’aggressione da lui condotta contro l’inferno’. – L’invocata Medusa era una gorgone, mostruosa specialmente per la grande testa resa più terribile dal solo occhio che possedeva il nefasto potere di pietrificare chi osava guardarla. Fu uccisa da Perseo. L’accenno alla non esercitata vendetta, alla punizione di Perseo si riferisce al fatto che secondo la leggenda Perseo era sceso nell’inferno per rapire Proserpina. Le Furie si lamentano di non essere state allora con lui persuasivamente malvage e di non aver punito il sacrilego eroe: non si sarebbe in seguito ripetuto il tentativo, che ora rifà Dante, di percorrere da vivo l’inferno. Un esempio di una punizione avrebbe dissuaso ogni altro dall’impresa. Si tratta di ricordi letterari utilizzati però secondo

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<sup>79</sup> In fact, in this case, unlike what happens at Inferno XXI, 41 (cf. paragraph 2.2.3.4), the encoded information accessible through the asterisk link does not allow the reader to acquire this knowledge.

un canone educativo che dava molta importanza all'esemplarità della punizione come persuasivo e sicuro deterrente" (Alighieri 1985: 151-152).

As this example and the other above-described examples show, the role of the reader's prior knowledge is central to the reaching of a successful interpretation of an image and to the correct recognition of the correspondence between text and image. If the author of the hypertext takes for granted a rich reader's prior knowledge without providing means by which novice readers can acquire it, misunderstandings as to images' interpretation can arise. This is particularly important for images of the third and fourth class, but also for images of the second class accomplishing a simple function of indication. For instance, at *Inferno* XXVII, 102 ("E' poi ridisse: 'Tuo cuor non sospetti; / finor t'assolvo, e tu m'insegna fare / sì come Penestrino in terra getti") a reproduction of an old photograph of the ruins of the castle in Palestrina is available. However, in order for this image to successfully accomplish the function of indication, it should be known by the reader that "Penestrino" and Palestrina are the same place.

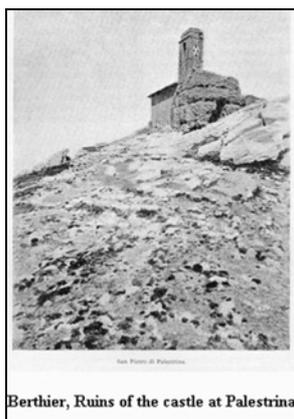


Fig. 79 – Reproduction of an old photograph of the castle at Palestrina available at *Inferno* XXVII, 102.

In some cases we observed that a given image performs optimally its function only in relationship to other added materials of the hypertextual transposition (of course, unless the reader's prior knowledge is rich enough). Therefore, in these cases, it is essential for the reader, in order to fully grasp the enrichment the image intends to provide for the literary text's comprehension, to understand and identify the relationship existing among the different added signs of the hypertextual transposition. For instance, at *Inferno* XXI, 41 ("a quella terra, che n'è ben fornita: / ogn'uom v'è barattier, fuor che Bonturo; / del no, per li denar, vi si fa ita") the connection between image and the encoded information related to "quella terra" is important in order for the reader to draw the most relevant inference about the image's function (cf. fig. 72). Another example of this kind can be found at *Inferno* XXIV, 138 ("Io non posso negar quel che tu chiedi; / in giù son messo

tanto perch'io fui / ladro a la sagrestia d'i belli arredi”). There, a photograph of a church in Pistoia is available. The caption (“Pistoia”) is quite vague. It does not allow the reader to identify precisely which is the photographed church. The reader should infer that the expression “sagrestia d'i belli arredi” is the object of that image. However, it is difficult for her/him to draw this inference. It is more likely that s/he will not understand to what the image refers, unless s/he reads the encoded information available correspondently to the asterisk link at the same line.

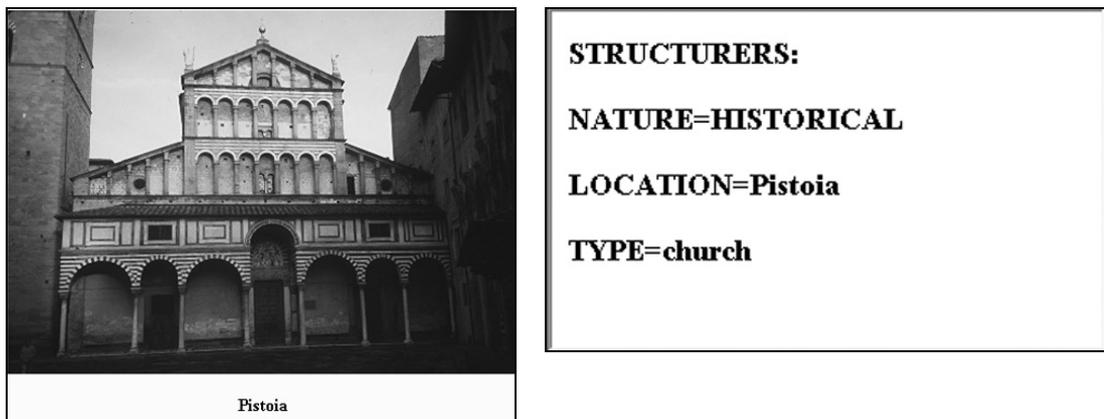
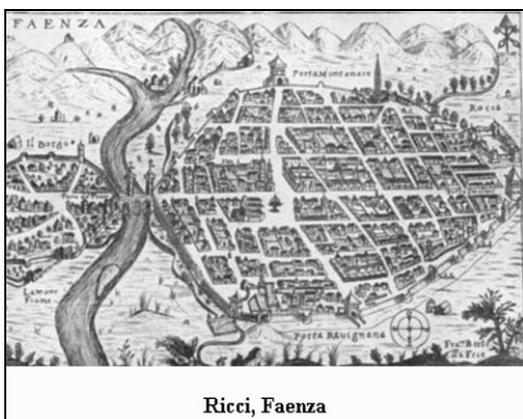


Fig. 80 – Photograph available at Inferno XXIV, 138 with caption and encoded information correspondent to “sagrestia d'i belli arredi”.

Similarly, at Inferno XXVII, 49 (“Le città di Lamone e di Santerno / conduce il lioncel dal nido bianco, / che muta parte da la state al verno”) an illustration of the town of Faenza is available. The caption is essential in order to identify the object of the image. However, in understanding its relationship to the line of the literary text it refers to, the prior knowledge of the reader or the ability of the reader to draw connections among different added signs of the hypertextual transposition (and, therefore, the necessity to explore all of them and not just one) is essential. In fact, either the reader knows that Lamone is the river of Faenza or s/he reads the encoded information related to the asterisk link set side to the expression “Le città” and s/he knows through it that one of these two towns is Faenza.



**GEOGRAPHICRS:**  
**NATURE=HISTORICAL**  
**REG=FAENZA AND IMOLA**  
**TYPE=town**

Fig. 81 – Illustration available at Inferno XXVII, 49 with caption and encoded information correspondent to “Le città”.

Also at Inferno XXX, 77 (“Ma s’io vedessi qui l’anima trista / di Guido o d’Alessandro o di lor frate, / per Fonte Branda non darei la vista”), where a photograph of Palazzo Pretorio, Poppi, formerly castle of the Conti Guidi, is available, the role of the caption and of the encoded information is essential. The reader can understand the relationship between this photograph and line 77 only relating it to the encoded information referring to the names Guido and Alessandro.



**PERSONRS:**  
**NATURE=HISTORICAL**  
**ORIGINPLACE=ROMENA**  
**TUSCANY**  
**AFFILIATION=CONTI GUIDI**

Fig. 82 – Photograph available at Inferno XXX, 77 and encoded information correspondent to “Guido” and “Alessandro”.

It can happen that images linked to a given line of the literary text actually refer to the literary text only indirectly. This fact can constitute another possible source of misunderstandings. However, if the reader relates the image and the passage of the literary text also to the other available added materials, such a misunderstanding can be avoided. For instance, at Inferno XXXI, 136 (“Qual pare a riguardar la Carisenda / sotto ‘l chinato, quando un nuvol vada / sovr’essa sì, ched ella incontro penda”), besides the two photographs of the Garisenda tower, a map of Bologna is available. This map

accomplishes a function of spatial indication, pointing out where the Garisenda tower is. It lets the user know that the Garisenda tower is in Bologna and it shows exactly where “once upon a time”. The object of this image is not directly the passage of the literary text, but the two photographs of the Garisenda tower.

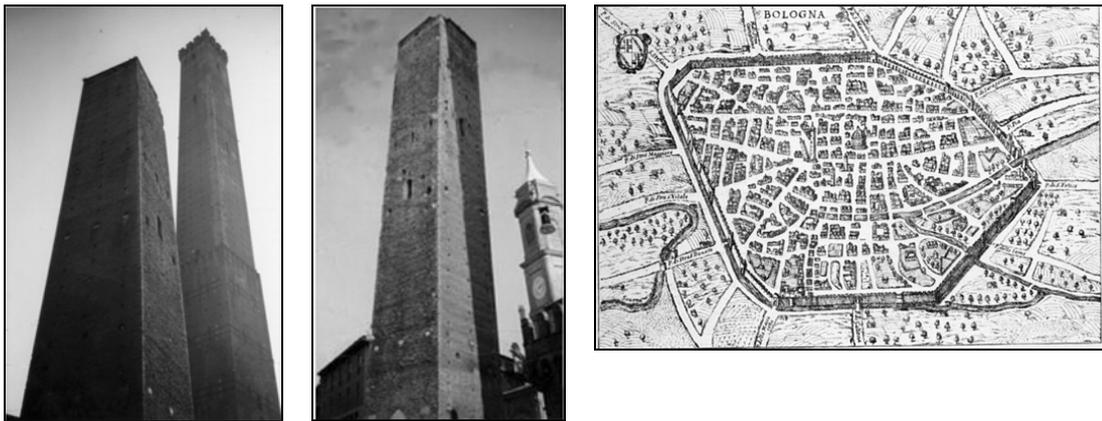


Fig. 83 – Photographs of the Garisenda tower and reproduction of a map of Bologna available at *Inferno* XXXI, 136.

A similar situation can be found at *Inferno* XXXI, 59 (“La faccia sua mi pareva lunga e grossa / come la pina di San Pietro a Roma, / e a sua proporzione eran l’altre ossa”), where an illustration and two photographs of the pine in Rome are available (cf. fig. 48). The specific contribution of each one of these three images can be established only when they are considered one in relation to the others and in relation to the literary text. The fact that the first image (the illustration) aims at underlining how and where very likely Dante saw the pine can be understood by the user only after s/he saw the two photographs that show how and where the pine is nowadays. Similarly, at *Inferno* XV, 78 (“in cui riviva la sementa santa / di que’ Roman che vi rimaser quando / fu fatto il nido di malizia tanta”) it is very difficult for the reader to understand to what the available images refer (cf. fig. 25), unless s/he explores the asterisk link at the same line. In this way, s/he discovers that “il nido di malizia tanta” is Florence and, therefore, s/he understands the meaning of the photographs. If the reader relates one to the other the information provided by these different parts, the images accomplish a function of comment, in explaining the meaning of the periphrasis contained in the literary text.<sup>80</sup>

<sup>80</sup> However, the interpretation of the meaning of these photographs can also depend on the competence of the reader, on its ability to draw inferences. In fact, it is also possible that, since s/he ascertains that at line 78 images about Florence are available, s/he immediately understands that the “nido di malizia tanta” has to be Florence itself. That is, it is possible that the reader draws the inference without the help of the encoded information available through the asterisk link.

<p><b>GEOGRAPHICRS:</b></p> <p><b>NATURE=HISTORICAL</b></p> <p><b>REG=FIRENZE</b></p> <p><b>TYPE=city</b></p>
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Fig. 84 – Encoded information available at Inferno XV, 78 correspondently to the periphrasis “il nido di malizia tanta”.

Finally, there are cases in which the understanding of the literary text (or of an element or passage of it) precedes the understanding of the image’s function and, therefore, also of the correspondence between text and image. For instance, at Inferno XXI, 48 (“Quel s’attuffò, e tornò sù convolto; ma i demon che del ponte avian coperchio, / gridar: ‘Qui non ha loco il Santo Volto!’”) three photographs of a statue of the Santo Volto are available. Captions inform the reader about the fact that this statue is placed in Lucca. The function of indication these images perform does not help the reader to understand the meaning of the exclamation “Qui non ha loco il Santo Volto!”. In order to understand it, the reader has to understand the word “convolto” at line 46. In this case s/he understands that

La posizione con cui si riaffaccia il peccatore subito dopo il contatto con la pece bollente sembra essere quella di una figura che si raggomitola e s’incurva come in un gesto di adorazione; e per questo i diavoli, prendendo spunto da questo atteggiamento, sarcasticamente gli dicono che nell’inferno non c’è l’immagine sacra del Crocifisso a lui lucchese molto nota: ed allora i diavoli lo avvertono perentoriamente che non può mettere in superficie il proprio viso: deve stare totalmente sotto la pece, tutte le parti devono essere ugualmente sottoposte a cottura (questa interpretazione è valida se *convolto* viene inteso come avvolto di pece). Il Santo Volto è un’immagine bizantina di Cristo crocifisso che si trovava e si trova nella chiesa di S. Martino in Lucca (Alighieri 1985: 356).

If the reader does not understand the word “convolto”, the presence of the images of the Santo Volto of Lucca at line 48 could induce her/him to draw wrong inferences. For instance, the reader can understand that the exclamation “Qui non ha loco il Santo Volto!” refers to the fact that in Lucca there is a Volto Santo which was presumably important and well known to its inhabitants and that, therefore, the grafters of Lucca could think to have the possibility to get in some ways relief or redemption by addressing their prayers to it. In themselves these photographs have a function of

indication. But they also make explicit something, which is implicit in the text. In this, captions play an important role, as well as the ability of the reader to relate the meaning of different relationships. Because of the freedom of the user, when navigating in the hypertextual transposition, there is the risk that s/he can't reach this meaning.

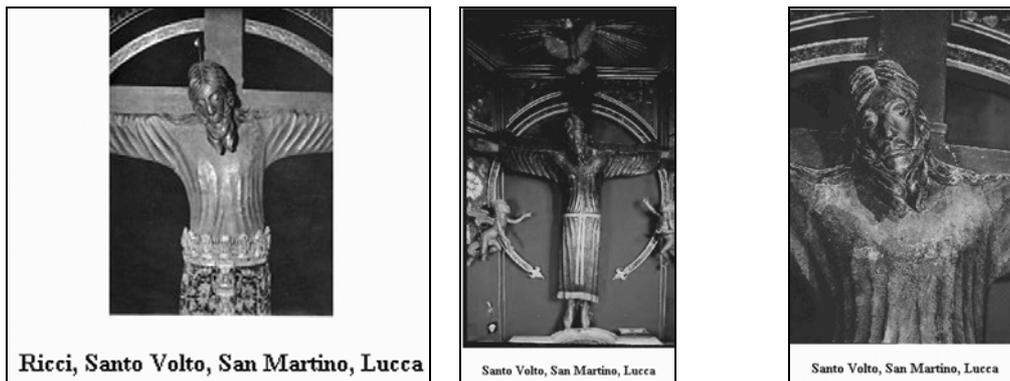


Fig. 85 – Photographs of the sculpture of the Santo Volto in Lucca with captions available at *Inferno XXI*, 48.

This description of the possible sources of misunderstanding between editor and reader as to the function of the images made available in the hypertextual transposition proves that the establishing of a proper relationship of correspondence between text and image is more complex than it appeared in Renner's framework. In fact, this description makes us realize that correspondence does not only depend on the correspondence of the denotata of text and image. The correspondence is built on the delimitation of the image's semantic richness and openness to interpretation. Besides, it entails aspects related to the reader's process of interpretation and to communication between editor and reader. In other words, it seems that correspondence occurs only when the reader recognizes it and that, if the literary text's communicative aim and the characteristics of possible readers (novice/experts) are not taken into consideration when establishing which images to use and how to relate them to the literary text, factors arise in the interpretation process, which prevent such a recognition.

More precisely, we observed that correspondence can depend on the appropriateness of the element or aspect of the literary text the image illustrates in respect to the literary text's communicative aim. The recognition of the correspondence can also depend on images' secondary meanings and, particularly, on their power of drawing upon them the reader's attention. This power varies according to the type of reader: novice readers can be more sensitive to it. Captions can play an important role in facilitating or in making more difficult the recognition of the appropriate correspondence. Also the other available added materials can contribute (sometimes even in an essential way) to such a recognition. Finally, there are cases in which, the correspondence can be recognized only thanks to a sufficiently precise and rich understanding of the literary text itself.

As a whole, we can observe that, in order to more precisely describe what correspondence and contradiction mean in the relationship between text and image, a communicative perspective needs to be adopted.

### 2.3.4 Literal meaning and beyond

As we already anticipated at paragraph 1.1.4, the antic hermeneutics distinguished different levels of interpretations of a text. Considering the role of visual materials in hypertextual transpositions, we can wonder if such kind of materials favors one of these levels and disfavor others. That is, we can wonder if the “understanding by seeing” maxim allows the reader to grasp the complexity and the richness of the literary text or whether it introduces limits into the interpretation. Particularly, given that the “understanding by seeing” maxim works by showing *ad oculos* the element of the literary text to which a given image refers and given the generally respected correspondence between image’s and text’s content described in the previous paragraphs, it immediately appears that the presence of images brings an important contribution as to the comprehension of the literal sense. However, beyond this, we can wonder if the images we detected in hypertextual transpositions contribute also to the comprehension of the other levels of sense.

The distinction between a literal sense and an allegorical one is common to the hermeneutics of the Church Fathers from Origen to St. Augustine (Mortara Garavelli 1988: 263), as it is the belief that a complete understanding comes only from the union of the two levels. Origen distinguished in the interpretation of the Holy Scripture the level of the *littera* and the level of the *spiritus* (which St. Augustin called respectively *historia* and *intellectus*). However, only the union of the two levels expresses the entire dimension of the *logos* (cf. Von Balthasar 1994: 462). The complete understanding of the Holy Scripture requires both levels. The level of the *littera* alone is not enough. The level of the *spiritus* shines through the *littera* (Von Balthasar 1994: 30). The *sensus spiritualis* is fostered through a complete comprehension of the *littera*, but it cannot be acquired simply through a “historically exact” understanding of the *littera*. A more elaborated distinction among four different levels of meanings was established by Rabano Mauro in the first middle of the ninth century. The exegetic system built on it was common at Dante’s time (cf. *Convivio*, II, i, 2, Alighieri 1995: 110). Dante himself described it in relationship to the reading and understanding of the *Divine Comedy* in the *Epistola a Cangrande* (Alighieri 1986) – whose attribution is however vexed – and in *Convivio*, II, i, 2-15 (Alighieri 1995: 108-120).<sup>81</sup>

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<sup>81</sup> There are some small differences between the two texts, but the essence of Dante’s position does not change.

Dante distinguishes, on the one side, the literal meaning and, on the other side, the allegorical meaning, the moral meaning and the anagogic meaning. The allegorical meaning, the moral meaning and the anagogic meaning go beyond the letter of the text. Dante does not explain exactly which the difference between these three meanings is, but according to the example of the interpretation of Ps., 113, 1 (in which the exit of Israel from Egypt and the effects of this event is re-evoked) he described in the Epistola a Cangrande, it is possible to identify some specific traits of each of them. The allegorical meaning is valid for all the humanity (before and after Christ). The moral meaning enters the sphere of the individual person. The anagogic meaning has to do with the last things.<sup>82</sup> These different levels of meaning are explained as following by Vasoli and De Robertis in their comment to *Convivio* II, i in Alighieri 1995 (108-109):

Iniziando il commento della prima canzone, Dante vuole spiegare quale sia il procedimento che permette di cogliere i significati più ‘profondi’ e maggiormente utili per il proposito ‘dottrinale’ cui è ispirato il *Convivio*. Perciò, rinviando a quanto ha già detto in I, I, 18, afferma che al di là dell’espressione letterale immediata, comprensibile a tutti, le *scritture* di carattere poetico possiedono dei significati nascosti. Sicché anche esse, e non solo la Sacra Scrittura, sono interpretabili secondo quattro diversi livelli di comprensione, e, cioè, 1) secondo il senso ‘letterale’ che non oltrepassa il significato più estensivo della favola poetica (in particolare, nel contesto qui esposto: Orfeo, con la sua cetra, ammansisce gli uomini);<sup>83</sup> 2) secondo il senso ‘allegorico’ che rivela delle verità nascoste sotto il velo della favola (per cui, ad esempio, la lira o cetra di Orfeo significherebbe, in realtà, la voce del sapiente che rende miti e dolci gli animi crudeli). E, come vedremo oltre, Dante sa bene che questo ‘senso allegorico’ è inteso diversamente dai teologi, quando lo usano a proposito della Sacra Scrittura, e dagli interpreti dei fatti; 3) secondo il senso ‘morale’ che ha una funzione tipicamente ammaestrativa, in quanto insegna come comportarsi nella vita, seguendo gli esempi forniti appunto dalle *scritture*; 4) infine, il senso superiore, ‘anagogico’ o ‘soprasenso’ che considera tutti i fatti reali e storici come segno di realtà spirituali ed eterne (sicché, quando nella Scrittura si parla della liberazione della Giudea dai Babilonesi, questo evento storicamente accaduto può essere inteso come simbolo dell’uscita dell’anima dal peccato e della sua restituzione alla patria potestà).

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<sup>82</sup> For this distinction, we refer to the lecture notes of Edoardo Fumagalli’s course “Lettura del Paradiso”, held at the University of Fribourg (Switzerland) during the academic year 1994-1995 (Fumagalli 1994-1995).

<sup>83</sup> In developing the them of the four levels of meaning, in *Convivio* II, i, 2-15 Dante refers to the Holy Scripture, but also to poetic texts, namely to Ovide’s poetry.

It is quite evident that verbal commentaries to literary texts can point out aspects of text's interpretation related to all these four levels of meaning, thus helping the reader in fully and deeply understanding the literary text. For instance, in Tommaso Di Salvo's commentary to the Inferno it is possible to find:

- Example of explanation of the allegorical meaning: “13. **Ma poi ch’i’ fui:** (...) La situazione trova la sua spiegazione solo se interpretata allegoricamente. Il colle (in contrasto con la selva = peccato) è l’immagine della vita virtuosa, che porta l’uomo alla salvezza e alla felicità. Il sole è simbolo della grazia di Dio, condizione indispensabile alla salvezza. Perciò Dante guarda in alto per ottenere l’aiuto della divinità” (Alighieri 1985: 8).
- Example of explanation of the anagogic meaning and of the allegorical meaning: “1. **Lo giorno:** (...) Il canto, che è legato al precedente anche narrativamente, si apre su toni di profonda mestizia e con un cenno alla fatica del vivere: ma non ha nessuna insistenza di romantico compiacimento: il dolore, come il paesaggio, non sono in Dante né fatti personali, storie private, né oggetto di gusto descrittivistico. Rientrano in una concezione compatta, che prevede ogni uomo ed ogni momento della vita dell’universo (terra, sole, stelle, ecc.) come segni di una vicenda che tutti oltrepassa e tutti contiene e spiega all’interno di un organico sistema di idee e di religiosità [anagogic meaning]. Nel momento in cui Dante si avvia verso il regno buio dell’inferno, la sua condizione d’animo come l’atmosfera naturale da cui è avvolto sono coerenti alla situazione morale di assenza o di annebbiamento della presenza della divinità [allegorical meaning]” (Alighieri 1985: 23).
- Example of explanation of the anagogic meaning: “9. **Lasciate:** la speranza abbandona per sempre quelli che entrano nell’inferno è quella dell’evasione da esso, del ritorno in terra o dell’ascesa in paradiso. Il concetto è che ogni uomo vive sempre in un rapporto di eternità: ciò che egli compie durante la sua esistenza terrena, non si conchiude entro lo spazio del nostro orizzonte, ma continua e si definisce nel suo vero significato nell’aldilà: chi ha commesso un peccato, se non se ne pente in tempo, resta legato ad esso e alle sue conseguenze per sempre; così succede a chi si è volto al bene” (Alighieri 1985: 41-42).
- Explanation of the moral meaning: “76. **“Le cose”:** (...) La risposta di Virgilio, asciutta ed ammonitrice, è un consiglio al discepolo a non fare come i superficiali ed importuni che domandano con impazienza e non sanno attendere la risposta direttamente dalle cose: è anche un invito all’autonomia del giudizio, a non dipendere sempre dal maestro” (Alighieri 1985: 46).

Can images operate in the same way? Schapiro pointed out the existence of allegorical types of illustrations. As regards the illustrations of the Old Testament, he argued that the artist knew the symbolic sense and that

In his [of the artist] illustration of the written word we can sometimes discern effects of the two great trends in Christian Biblical commentary, the one called the Antiochene approach, which explored the literal meaning in order to make it more fully intelligible in terms of the original Jewish context, and the one developed by the early Alexandrian exegetes, who looked for a specifically Christian theological, mystical, and moral sense as well, a method that is called the ‘four-fold interpretation’ (...) It should be said that the manifest literal sense, in its fuller detail, is often more than the plain historical fact of an episode in the Jewish past. Reading the account of Abraham’s Sacrifice of Isaac, we are made aware of an ethical problem and a weighty burden of religious meaning apart from the view of the story as prospectively Christian through the analogy to the sacrifice of Christ (Schapiro 1996: 17).

Also within the long and rich iconographic tradition of the Divine Comedy it is possible to find illustrations that are more narrative, focussing on the narrated events and the literal sense, and illustrations that entail some more accentuated symbolic aspects. Botticelli’s illustrations attentively represent the narration (they are attentively faithful to the narration). Together these illustrations represent the unity of the poem so effectively that they become a sort of figurative Vulgate of the poem itself (Rosci 1971: 5). In a chronological perspective, Botticelli is the last one among the most well-known illustrators of the Divine Comedy, who in his illustrations remained faithful to the text. From that moment on, the most successful illustrations (such as those by Michelangelo or Luca Signorelli) will have a more subjective character. Botticelli

traduce visivamente con perfetta coerenza tutto ciò di cui l’io narrante fa esperienza come individuo autocosciente e attraverso i propri occhi, raggiungendo proprio grazie a questa precisione raffigurativa anche una propria autonomia rispetto al testo. Chiunque conosca anche solo approssimativamente la storia, potrebbe leggere il grande poema nel suo insieme e senza interruzioni solo in base alle rappresentazioni botticelliane, quasi come una *Comoedia pauperum*, un ciclo di immagini che si spiegano da sole (Schulze Altcapenberg 2000: 28).

William Blake’s illustrations present a “visionary” character, in that, the artist choosed some motives and transposed them in a surrealist fancy. Therefore, he did not exactly illustrate the text, but he presented his interpretation of it. As it is also for the illustrations by Johann Heinrich Füssli and John Flaxman, these illustrations represent

(more than the narration) the European myth of Dante as man-hero and poet-prophet. Amos Nattini, on the contrary, illustrated the text in a more verist fancy (cf. Enciclopedia dantesca, entry “Commedia”). Eugène Delacroix’s painting of the “Boat of Dante” (which dates of 1822) presents a subjective character in that, unlike the illustrations of the sixteenth-century (where the human condition is represented as ruled by universal laws and, thus, as not modifiable by human beings), it illustrates a psychological condition, which can be modified only from inside (Enciclopedia dantesca, entry “Delacroix”).

Images in hypertextual transpositions aim at showing the denotatum of the signs of the literary text to which they refer. Images of the different classes carry out this task in a different way. They can help her/him in understanding what it is happening, how a given element of the literary text or an element the literary text refers to looks like, what it is or what and how it could be, which feelings and atmospheres Dante feels in some precise moments of his journey. Therefore, referring to the four levels of interpretation of the antic hermeneutics, we can say that images in hypertextual transpositions help the reader in understanding the literal meaning. We didn’t find examples of images illustrating one of the other levels of meaning. Images in hypertextual transpositions manifest only the literal sense and very often the literal sense is understood as being coincident with the historical fact or the actual place or person.

The difference between visual analogical signs and verbal digital signs emerges and it points out the limitations of the “understanding by seeing” maxim, typical of hypertextual transpositions, entails. To understand the literal meaning, the denotative content of a literary text, is not enough. After the Church Fathers such as Origen we mentioned above, several other scholars in the field of philosophy, hermeneutics and literary studies emphasized this fact. Benjamin, Adorno and Gadamer demonstrated the need to go beyond the literal meaning (cf. Raimondi 1990). The choice of the images to include in a hypertextual transposition, the way of presenting them, the used captions and the correlation established with the signs of the literary text should take this essential aspect into consideration, trying at least to avoid the risks of misunderstanding we described above.

The logic of representation and the underlying “understanding by seeing maxim” constitute an important new factor hypertextual transpositions introduce in the act of reading the literary text. It brings benefits mainly owing to the fact that it attaches importance to the knowledge of denotata and, thus, to the possibility to approach the literary text in an experiential way.

However, the presence of this new factor in the act of reading the literary text can also entail interpretive difficulties for the reader. The use of images in order to clarify aspects or elements of the literary text can give rise to misunderstandings between reader

and editor as to the point to be clarified and it can lead the reader to grasp only the most superficial one of the level of senses it entails, namely, the literal sense. Therefore, the presence of the logic of representation and of the “understanding by seeing” maxim introduces new conditions for the success of the act of reading the literary text. Some of them still need to be identified by investigating the contribution images can provide to the clarification of the allegoric, anagogic and moral senses of a text. However, through the above-exposed analysis of images used in DC1, we identified one essential condition to be respected, namely the avoidance of the misunderstandings these images can give rise to.

After having considered the new factors and conditions appearing in the act of reading the literary text in hypertextual transpositions at the level of contents, in the third part we will describe the new factors and conditions that are introduced at the level of the devices and tools, as well as their intertwining with the contents.

## 3 Second order representation in hypertextual transpositions

### 3.1 Adequacy of the second order representation

#### 3.1.1 Definition of second order representation

From a semiotic point of view hypertextual transpositions derive from the adding of new signs to the signs of the literary text. As we observed in carrying out the analysis, these new signs can be of different nature. Several of them can influence the way in which the reader approaches and reads the literary text. In this sense they represent reading strategies.

Reading strategies representations arise from contents, devices and tools that in the hypertextual transpositions are added to the literary text and that are signs in respect to a way to approach the literary text. These reading strategies representations constitute a representation that is superposed to an already existing representation, namely the literary text. Therefore, we can say that in hypertextual transpositions a second order representation is present.

In the field of semiotic studies, the concept of “second order” is often related to the name of Roland Barthes. Studying the myth, Roland Barthes underlined the existence of different levels of signification, one of which is based upon the other and the existence of which depends on the previous existence of the other. The first order of signification is denotation, upon which connotation (the second order of signification) is built.

In myth, we find again the tri-dimensional pattern which I have just described: the signifier, the signified and the sign. But myth is a peculiar system, in that it is constructed from a semiological chain which existed before it: *it is a second-order semiological system*. That which is a sign (namely the associative total of a concept and an image) in the first system, becomes a mere signifier in the second. We must here recall that the materials of mythical speech (the language itself, photography, painting, posters, rituals, objects, etc.), however different at the start, are reduced to a pure signifying function as soon as they are caught by myth. Myth sees in them only the same raw material; their unity is that they all come down to the status of a mere language. Whether it deals with alphabetical or pictorial writing, myth wants to see in them only a sum of signs, a global sign, the final term of a first semiological chain. And it is precisely this final term which will become the first term of the greater system which it builds and of which it is only a

part. Everything happens as if myth shifted the formal system of the first significations sideways (Barthes 1999: 114-115).

However, our concept of second order representation is different in respect to Roland Barthes's. Fundamentally this is due to the fact that Barthes's distinction of the two levels deals with signification, while our distinction deals with a different organization of signs, a different representation.

Barthes distinguished two different kinds of second order systems, namely connotation and metalanguage. The first system of signification can become the signifier of the second system (and in this case we have connotation) or the signified of the second system (and in this case we have metalanguage) (Barthes 1977: 89-94). The second order representation constituted by the contents, devices and tools of the hypertextual transposition that have an influence upon the way in which the literary text is read cannot be properly defined neither a connotation nor a metalanguage. In fact, according to Barthes, in connotation the first semiological chain becomes a mere signifier of the second order system of signification. In our case this would mean that the literary text (the core of the hypertextual transposition, that is, the representation to which the second order representation is superposed) becomes the signifier of the second order representation. But this is quite different. In fact, the signifier of our second order representation is constituted by the contents, tools and devices, which are added to the signs of the literary text (thus, giving birth to the hypertextual transposition) and which have an impact of the way in which the literary text is approached by the reader. It is as well problematic to consider the second order representation included in a hypertextual transposition a metalanguage in respect to the literary text. In case it would be a metalanguage, its signified would coincide with the literary text itself. This is not the case, since the signified of our second order representation is constituted by the reading strategies it represents. Our second order representation is another representation (with another signifier and another signified) in respect to the representation constituted by the literary text. Consequently, it is a representation that is superposed to the representation constituted by literary text itself. This does not preclude that some "parts" of the signifier of the literary text are also signifiers of the second order representation. It is for instance the case of embedded links present on the literary text pages and providing access to information (usually, definitions or widely linguistic explanations) about words or expressions of the literary text. Their anchor (which is part of the signifier of the second order representation) consists of the words or expressions of the literary text for which the definition is provided. Such words or expressions are also part of the signifier of the representation constituted by the literary text.

The study of this second order representation – that is, the study of contents, devices and tools included in hypertextual transpositions as signs of a given approach to the literary text – allows us to elaborate a model of the act of reading the literary text, which

is helpful in analyzing its adequacy in respect to the reader's goal and tasks. This adequacy is essential in respect to the quality of hypertextual transpositions. In a hypertextual transposition of good quality the second order representation is adequate to the reader's goal and tasks.

### **3.1.2 Reader's goal and tasks in hypertextual transpositions**

Hypertextual transposition's aim is to cast light on the literary text's significance. The literary text is their core, the content in function of which all the other contents stand.

The goal of the user's navigation in a hypertextual transposition is acquiring a complete knowledge about the topic to which the application is devoted, that is, acquiring a complete knowledge of the literary text. Therefore, the main goal of a user of a hypertextual transposition can be defined in a more general way as the literary text's comprehension, which brings the habit-change, that is, the success of the act of reading itself (cf. paragraph 1.1.4).

Such a comprehension is reached by the user in different ways, owing to the major task s/he has (or wants) to accomplish. The goal is always the literary text's comprehension and the habit-change. The reaching of this goal can assume various accents. It is possible that the user of a hypertextual transposition has or wants to read the literary text, to study the literary text or to conduct some specific research on the literary text. These are three different user's tasks, which can also be viewed as three different modalities in which the act of reading the literary text (which is the basic activity in hypertextual transpositions) can be carried out. By relating the concept of user's task to the aspect of the hypertextual transposition's intended audience we developed at paragraph 1.3.2.3, we observe, first, that, since the category of students constitute the primary intended audience of the major part of the analyzed hypertextual transpositions, the user's task "studying the literary text" is the most widespread among the hypertextual transpositions we analyzed; second, that, since the category of readers in general constitute the intended audience of a consistent number of analyzed hypertextual transpositions, the user's task "reading the literary text" is the second more widespread; third, that in many of the considered hypertextual transpositions the user's task could be more precisely defined. The definition of the user's task is crucial in order to make clear what the user has to do while navigating in order to achieve the goal. Different elements we mentioned at paragraph 1.3.2.3 showed that it often happens that in hypertextual transpositions a precise identification of the intended audience is lacking (therefore, it is difficult to identify the main user's task) or that the intended audience is composed at a time of several heterogeneous users' categories (to which different major user's tasks correspond).

The task “reading the literary text” (which from now on we will be abbreviated as T1) refers to the immersive reading, that is, to the kind of reading that (according to some scholars, especially related to the field of experimental psychology) characterizes literary reading. Immersive reading brings us back to the issue of the encounter with the literary text we dealt with in paragraph 1.2.3. It has been described by scholars developing empirical approaches to literature as an interactive process taking place between the reader and the text. In it readers are required “to permeate the text with their own images, memories, and desires; but the text in turn refashions these and situates them within a new perspective” (Miall 1999a). Immersive reading is not an information-seeking process. It “takes a rather special, extended kind of attention” (Miall 1999b) in order to “listen to the text” and perceive rhythms, tones and other aspects of the form of the text, which essentially contribute to the comprehension of the literary text’s significance.<sup>84</sup> As we already said at paragraph 1.2.3, in Peircean terms we can say that its result is a reader’s habit-change. Immersive reading is a “potentially self-transforming interaction with a literary text” (Miall & Dobson 2001).<sup>85</sup>

On the contrary of T1, the tasks of “studying the literary text” (from now on T2) and “researching the literary text” (from now on T3) refer to information seeking and information processing. More precisely, the task “studying the literary text” (T2) refers to the situation where the reader needs to acquire a systematic knowledge about the literary text. The task “researching the literary text” (T3) refers to a situation where the reader uses the hypertextual transposition in order to build a knowledge that was not made explicit by the authors in the hypertextual transposition’s content. In T2 the reader needs to be guided, while in T3 s/he is perfectly autonomous as to knowing what it is worthwhile to look for. This implies either that the user in T3 is an expert or that s/he aims at understanding the literary text according to a very precise perspective (which s/he has clearly in mind) or a precise element or aspect of the literary text.

Two observations have to be added. First, it has to be said that T1, T2 and T3 can be distinguished, but not completely separated. In a given session of use of a hypertextual transposition one of these three tasks will be predominant in respect to the other, but this would not imply that the other two are completely absent. For instance, it is possible that

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<sup>84</sup> Recent studies on hyperfiction (namely, Douglas & Hargadon 2000; cf. also Douglas 1992, 1994, 2000) argue that not only immersion is source of the pleasure of reading, but also engagement and flow. This observation is valid also for some “classic” literary works of the modernist and postmodernist era (mainly, the ones that in hypertext studies has been considered as hypertext’s ancestors, such as Laurence Sterne’s *Tristram Shandy*, James Joyce’s *Ulysses*, Italo Calvino’s *Il castello dei destini incrociati* and *Se una notte d’inverno un viaggiatore*, Jorge Luis Borges’s *Ficciones* or Marc Saporta’s *Composition no. 1*, cf. Bolter 1993: 153-186, Landow 1997: 182, Perissinotto 2000: 82-103). However, we consider that immersion remains the dominant trait of the act of reading “classic” literary works, at least of literary works to which are devoted the seventeen hypertextual transpositions we analyzed in our work.

<sup>85</sup> The concept of immersive reading is related to the concept of absorption (cf. paragraph 1.2.3, note 31).

a reader who has or wants to accomplish T1 has also to accomplish aspects of T2. In fact, for instance, it is not possible for the reader to get immersed in the reading if s/he does not understand the meaning of the words s/he is reading. In such a case, s/he will explore the hypertextual transposition in order to find an answer to this incomprehension. Similarly, because of the fact that the literary text's comprehension does not only coincide with declarative knowledge, in order to successfully accomplish T2 and T3, it is necessary to get (at least partly or during some lapses of time) immersed in the literary text.

Second, the concepts of goal and task have similarities with the concept of user scenario, which in the field of user-centred web design and web usability identifies "stories in which designers describe how they expect various groups of visitors to be using their site" (Van der Geest 2001: 107). User scenarios specify goals, functionality, audience and conditions of use of a given application (Cato 2001: 51). In establishing user's scenarios the cognitive spaces from which a user starts, her/his mental models and scripts have to be taken into account (Badre 2002: 51-61). On the contrary, our concepts of goal and task are more restricted.

### **3.1.3 Reading strategies in hypertextual transpositions**

#### **3.1.3.1 The concept of reading strategy**

We employ "reading strategy" as a generic term in order to indicate the reader's way to approach the text, to perform the act of reading. This approach can be more or less appropriate. The appropriateness of the reader's way to approach the text is the result of the combination of the reader's goal and the reader's major task. Therefore, a reading strategy is appropriate when it allows the reader to reach the literary text's comprehension by accomplishing her/his major task. More precisely, a reading strategy is appropriate when it allows the reader to reach a sub-goal of the comprehensive goal (consisting in the literary text's comprehension) in accomplishing a subtask of the major user's task. In fact, the reaching of literary text's comprehension (the final goal of the reader's navigation) is built step by step through the reaching of sub-goals. In reaching each one of these sub-goals the reader accomplishes a task, which contributes to the accomplishment of the major task (and which is, therefore, a subtask in respect to the comprehensive task).<sup>86</sup> For instance, in order for the reader to understand the literary text

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<sup>86</sup> The hierarchy of tasks users have to accomplish in order to achieve a given goal has already been taken into consideration as an essential criterion for hypermedia evaluation and design by other scholars. It is, for instance, the case of Andrew Dillon (1996: 33-39), who developed the TIMS (Tasks, Information model, Manipulation facilities, and Standard reading) descriptive framework.

when studying it, s/he has to understand the linguistic meaning of the words or expressions used in the literary text. This is a sub-goal of the user's final goal, which s/he accomplishes in accessing to the annotations providing linguistic definitions and relating the information they provide to the literary text. The presence in the hypertextual transpositions of contents, devices and tools allowing the reader to reach sub-goals of her/his final goal and subtasks of her/his major task is essential in order for the reader to have a successful navigation.

The existence of different possible approaches to the text has been highlighted by reception theories, mainly by Rosenblatt (cf. Argenton & Messina 2000: 117-118). In her "transactional theory" Rosenblatt distinguished two different approaches (stances or focus of attention) a reader can assume in front of a literary text, namely an efferent one and an aesthetic one. In the efferent approach the reader focuses on the analysis and the structure of what s/he considers s/he has to remember after the act of reading (information, logic argumentations, main ideas). In the aesthetic approach the reader focuses on her/his reading experience, on what s/he is living during the act of reading, on feelings and emotions arising during the act of reading. Considering our framework in comparison with Rosenblatt's theory, we could say that the efferent approach presents similarities with our T2, while the aesthetic approach presents similarities with our T1. It is also interesting to note that, according to Rosenblatt, the two approaches coexist during the act of reading, even if with a different importance of the one or the other owing to the situation (Argenton & Messina 2000: 118). Similarly, we state that T1, T2 and T3 are usually co-present in the exploration of a hypertextual transposition, even if one of them is dominant.

The issue of the existence of different approaches to the text has also been studied by scholars working in the field of experimental psychology. For instance, Hunt and Vipond identified three different possible orientations a reader of a literary text can adopt. They called them strategies (Hunt 1991, Hunt 1992, Hunt 1996, Hunt 1999, Hunt 2000, cf. Argenton & Messina 2000: 191-192). The first one is an information-driven orientation, in which the reading is guided by specific personal interests and the goal of which is to extract information from the text. The second one is a story-driven orientation, in which readers focus on "what happens", on the narrated story. The third one is a point-driven orientation, in which readers assume that the literary text constitutes an intentional act and that, therefore, the deviations from the norm present in that text are intentional and require her/him to understand this intention. This orientation corresponds to a "committed" reading and it constitutes the essential component of literary reading (which Hunt and Vipond defined dialogic reading, cf. Hunt 1991, Hunt 1999). The first

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TIMS "is intended to be an approximate representation of the human cognition and behaviour central to the reading or information usage process" and is based on an ergonomic perspective, according to which the goal the user aims at achieving through her/his navigation can be divided in "tasks", which, on their turns, can be divided in "acts".

orientation is similar to the efferent stance of Rosenblatt. The second and the third orientation highlight two different approaches focussing on the reading experience and, therefore, do not plainly correspond to the aesthetic stance of Rosenblatt. In respect to our framework, we can observe that the first orientation is similar to T3 (and partly to T2), while the second and the third orientation present similarities with T1. As Rosenblatt, also Hunt and Vipond observed that in the concrete act of reading the three different orientations overlap.

Also Thury and Friedlander (1996; cf. Argenton & Messina 2000: 133) dealt with the strategies readers put into effect in order to build the mental representation or in order to understand the meaning of literary texts.<sup>87</sup> According to them, such strategies are essentially three. The first one consists in focussing the attention on the content (what the text talks about). The second one consists in focussing the attention on the plot and on the characters. These two first reading strategies are activated at a first level of the meaning building process. At a more mature level, a third strategy is activated, which consists in focussing on the author's purposes and on the stylistic and thematic devices by means of which these purposes are achieved. On the base of their research Thury and Friedlander identified three main approaches (stances) to reading literature, each one of which is related to a factor. The first one is related to the "student reader factor" and it consists in the approach of a student who reads literature paying attention to the author's purpose and to the exploration of the thematic and stylistic materials, but also who feels the characters' emotions. The second one is the "expert reader factor", who reflects on the author and the text and who connects the thematic material to her/himself. The third one is the "metalevel reader", who consists in a reader who presents both the characteristics of the student reader and of the expert reader, but who "is more focused on the self-conscious role of reader as a reader" (1996: 437). Thury and Friedlander's first approach present similarities with our T2.

In our framework, we start from the observation that the act of reading entails two levels, namely an operational level and a semantic-cognitive level. In fact, in order to read a text, on the one hand, the reader has to manipulate the artefact. In the case of a book s/he has to turn the pages, s/he needs to move within the text backward and forwards, s/he needs to skip forward, s/he needs to keep trace of interesting passages (to bookmark or to highlight important passages), s/he needs to consult the index, s/he needs to be aware of the portion of text s/he read, s/he has to take the reading up from the point s/he stopped it previously, s/he has to make annotations, etc. In the case of a hypertextual transposition s/he needs to perform the same operations. However, because of the fact that the electronic text is not accessible through sense (Cantoni & Di Blas 2002: 137-138), the reader can perform these operations only through signs explicitly provided to

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<sup>87</sup> Thury and Friedlander 1996 use the term "meaning" (they speak of "meaning making" or "coherence making") and not the term "significance".

this purpose in the hypertextual transposition. On the other hand, the reader has to understand the literary text (what the literary text narrates, what the narrated story means to her/him) and the other added materials (what they explain and their relationship to and purpose in respect to the literary text). Reading strategies have to do with both these levels. They allow the reader to manage these two levels of reading in order to reach the final goal in accomplishing the major task. Therefore, for instance, they allow the reader to answer questions such as “Which contents the reader has not to miss? Which are the most important contents for her/him? Which is the function of the added materials? How (in which order) has the reader to explore the application’s contents? Which aspects of the added materials are the most important to her/him?”

### 3.1.3.2 Previous studies on the issue of reading strategies in hypermedia

The importance of reading strategies in hypertexts emerged very early in hypertext studies as the reverse of the medal of the cognitive problems experienced in hypertext’s navigation. Although, thanks to the “liberation” from linearity generally characterizing printed texts, hypertext allows to make available a lot of information and to present several aspects of a given topic (without constraining the author to make a choice and without preventing the reader to access to more information), cognitive overload and getting lost have been immediately recognized as major problems inherent in this new textual form (cf. Conklin 1987).<sup>88</sup>

In order to find solutions to these problems, the results of the research in the field of text’s comprehension immediately gave rise to important questions as to the way in which hypertext’s contents were read and understood. Scholars tried to verify the validity of the findings about linear text reading and comprehension in the case of hypertext (mainly referring to Kintsch model of comprehension; cf. Kintsch 1988). Thus, studies on reading strategies adopted by users in order to deal with the fragmented and networked structure of hypertext already appeared at the beginning of hypertext’s spreading out. As an example we mention here (without pretending to be exhaustive) the study by Davida Charney (1987). There, the focus is set on the effect different strategies, adopted by the user for ordering different subtopics of a given topic, have on the deepness and soundness of the knowledge users acquired by means of the hypertext. In presenting their design principles and cognitive design issue for creating

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<sup>88</sup> Cognitive overload consists in the fact that during the navigation, besides reading and understanding the application’s contents, the user has to perform an additional effort of information processing, in order to make the most adequate choices for the continuation of her/his navigation and in order to deal with the artifact itself. Getting lost consists in disorientation problems; at a given point of the navigation the user no more knows where s/he is and, therefore, how s/he has to move from that point on (Conklin 1987).

hyperdocuments, Thüring, Hannemann and Haake (1995) noticed that different types of hypermedia applications encourage different reading strategies. Applications appearing as “browsable databases” are “better suited to support unconstrained search and information retrieval”, while applications that essentially consist in electronic documents are “more adequate for tasks requiring deep understanding and learning” (1995: 57). On the base of two empirical studies in which undergraduate students were required to study a topic either through a linear text or through a hypertext, Diana Dee-Lucas (1996: 73-107) showed that hypertext content overviews and hypertext’s structure have an effect on the development of effective study strategies and text representations. More precisely, Dee-Lucas’s experiments proved that “providing structure in a hypertext overview can enhance its usability by facilitating unit selection” (86) and that “overview structure also facilitated the development of text review strategies when readers did not have a specific learning goal” (87). Besides,

The results of this research indicate that providing more structure in a hypertext facilitates the development of efficient and effective study strategies. Readers with the more segmented hypertext went directly to the most specific task-related units in studying the text, and were less likely to select irrelevant units than readers with the less segmented hypertext. These readers also became more efficient with experience in using the hypertext, decreasing the number of units selected with repeated use of the overview. Additionally, readers with the more segmented overview had no difficulty completing both learning tasks, whereas readers of the less segmented overview did not always locate the definitions for the information location task (97).

However,

Because structure increases study efficiency, readers are less likely to encounter related nontarget content when using highly structured overviews (...) Thus, the greater efficiency with more structured overviews can result in less breath of learning by reducing the range of text content read (104).

Also Peter W. Foltz (1996: 109-136) carried out two empirical studies, on the base of which he showed that hypertext’s readers mainly employed the same reading strategies as linear text’s readers. Coherence building is the essential guiding principle of these reading strategies. In fact,

Despite the differences in the text formats, in the previous experiments, subjects used strategies to navigate the texts in a coherent manner. The similar approaches to reading the text resulted in similar amounts of text comprehension for the

different text formats. For navigating the linear text, subjects merely relied on the linear order of the text for following the coherent path. For the hypertexts, subjects relied on additional constraints in the text such as the map and node titles which signalled the structure of the text. These signals served as guides for locating additional nodes that would flow coherently with the previously read nodes (126).

Beyond the remarkable findings of these empirical studies, which prove that reading strategies constitute a key-aspect of hypermedial fruition, it is necessary to develop a model capable of accounting for the impact all the elements of the application, as well as their intertwining, have on such reading strategies. A more comprehensive formalization is required, which casts light on the relationship among all these different elements.

### **3.1.4 How devices represent reading strategies**

#### 3.1.4.1 The concept of reading strategy representation

If we consider contents, devices and tools we detected in the analysis of the hypertextual transpositions taken on as examples (cf. paragraph 1.3.2) in the perspective of the act of reading and understanding the literary text, we notice that the presence or the absence of a given content, device or tool influences the way the reader approaches the literary text. The presence of a given device instead of another, the absence of a given content or tool has an impact upon how the reader will manage the two levels entailed in the act of reading and on how s/he will reach the final goal of her/his navigation, that is, the literary text's comprehension. Even more, there are cases, in which the success of the act of reading the literary text in hypertextual transpositions strictly depends on the presence of some contents, devices or tools.

We provide here some examples. In DC3, the "I Canti" collection centre is an index that displays all the cantos of the Inferno. To each canto corresponds an icon with a detail of the image that will appear at the bottom left corner of the literary text screen. Rolling over each icon, information about the place and the time the canto takes place is displayed at the bottom of the screen. This information also appears when the reader rolls over the point representing a given canto in the navigation bar (there to each canto corresponds a "point" link). In this way, when entering the text of a given canto, the reader already got essential contextual information.



Fig. 86 – DC3 – When rolling over one of the icons corresponding to the different cantos or on one of the point indicating these cantos in the navigation bar, information about the place and the time the canto takes place is displayed at the bottom of the screen (cf. detail on the right).

In M3, the reader accesses to the text of the play through an index that distinguishes acts and scenes. Here, the complete index (the one that is usually printed at the beginning of a printed edition of the play) is divided in two hierarchical layers: first, the reader chooses the act s/he wants to access (main collections) and, second, s/he chooses the scene (members). Therefore, when accessing the text, the reader does not have a complete overview on all its parts. This also happens because, on the collection centre of an “Act ...” collection, scrolling menus are used. Therefore, the reader has to move forward and backward. The access to the scenes belonging to this act is not presented on a unique page.<sup>89</sup>

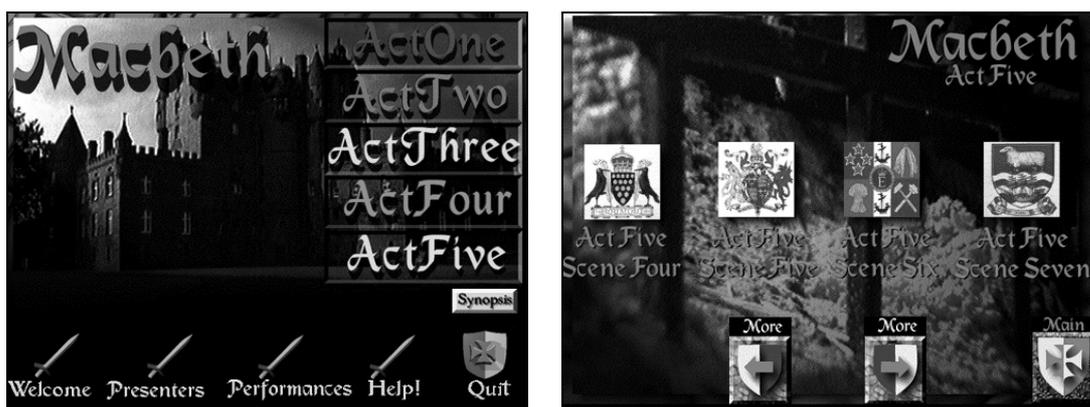


Fig. 87 – M3 – Homepage, where the first layer of the access to the text of the play is offered, and collection centre of the “Act Five” collection, where the second layer of the access is offered with scrolling menu.

<sup>89</sup> The scrolling menu pattern can be used in order to display the members of a given collection when the number of members is high and the screen space is limited (cf. “www.welie.com”, <http://www.welie.com/patterns/scrolling-menu.html>).

In the same hypertextual transpositions, once the reader is within the text of a given scene, no device is available allowing her/him to browse the text non-sequentially. The reader is induced to browse it sequentially, moving forward and backward through the arrows links.

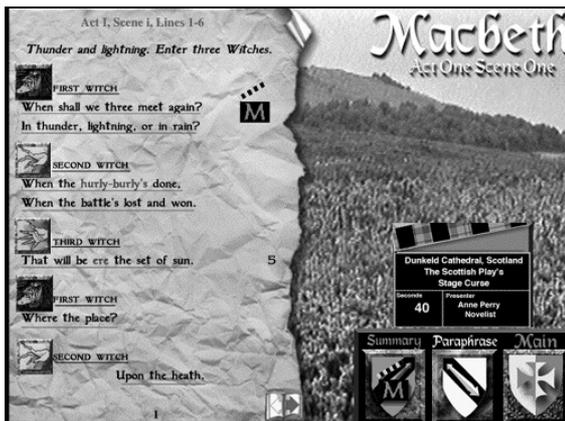


Fig. 88 – M3 – Text of the play screen, where only the possibility to move forward and backward through the arrows links is offered.

In M1, MD2 and M2 the access link to the literary text collection is highlighted. On M1 and MD2's homepage the access link to the text of the play collection is placed at the centre of the hexagon summarizing all the possible choices (cf. fig. 5). On M2's homepage the access link to the text of the play collection is in bold fonts. This fact brings this access link to the reader's attention and makes it a privileged choice.

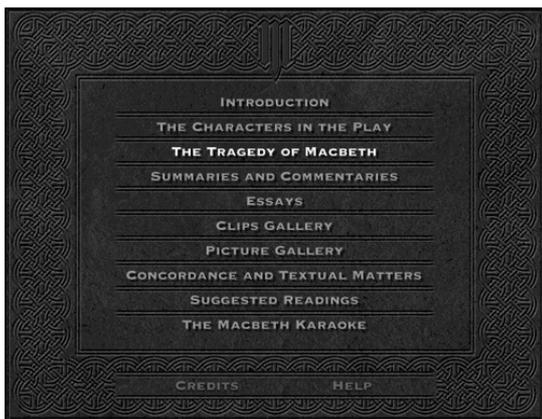


Fig. 89 – M2 – The access link to the text of the play collection is in bold font.

The reason for which the presence of a given device instead of another can have an impact upon the act of reading and the comprehension of the literary text is that each device, tool, content, as well as the intertwining among them allows the reader to reach sub-goals of her/his final goal and to accomplish subtasks of her/his major task. In other

words, they contribute to the performance of a reading strategy. The presence of a given content, device or tool instead of others contributes to the performance of a given reading strategy in that it induces the reader to adopt this reading strategy and not another one. In this sense, these contents, devices or tools are signs in respect to the reading strategy they induce. In other words, they represent given reading strategies.

For instance, in some of the considered hypertextual transpositions there are devices that summarize the place and the date of and the main characters involved in the part of the narration the reader is reading. Besides, in the same hypertextual transposition and in others, there are devices that visualize the place where the event narrated in the part of the literary text the reader is reading happens. Both these types of devices contribute to the representation of a reading strategy that consists being aware of the spatial and temporal coordinates of the events narrated in a given part of the literary text. In the considered hypertextual transpositions it is also possible to detect the presence of maps and schemes, plot-lines, synopsis and summaries. They are very different devices. However, they all contribute to the representation of a reading strategy that consists in gaining an overview on the whole narrated story. Together, these two reading strategies representations (the one that consists in being aware of the spatial and temporal coordinates of the events narrated in a given part of the literary text and the one that consists in gaining an overview on the whole of the narrated story) contribute on their turn to the representation of a reading strategy that consists in situating the part of the literary text the user is exploring within the whole of the narration.

High-level reading strategy	Low-level reading strategies	Devices	
Situating the part of the literary text the user is exploring within the whole of the narration	Being aware of spatial and temporal coordinates of the events narrated in a given part of the literary text	Place, date, time and main characters are displayed on each text screen	When on the text pages [DC3, M1]
			Before entering the text pages (behaviour anticipation pattern) [DC3]
		Visualization of the place of the narrated event	Map with the indication of the place that corresponds to the narrated events [M2 interactive maps]
			3D View [DC1]
			Screen backgrounds [M1, M3]
	Illustrations of narrated scenes [DC1, DC2, DC3]		
	Gaining an overview on the whole narrated story	Easy access to maps and schemes from the literary text screens [DC2, DC3, O1 (collection centre of “Incontri”)]	
		Easy access to a plot-line from the literary text screens [M1, MD2]	
		Easy and immediate access to a synopsis [M1 (from each text screen), M3 (already on the homepage, before the reader enters the literary text screens), MD2 (from each text screen), RJ1 (already on the homepage, before the reader enters the literary text screens)]	
		On the literary text screens, access to the summary of the part of the literary text to which the page the reader is exploring belongs [DC2, DC5, H1, M3, RJ1]	
On the literary text screens, access to descriptions of the place where the narrated events happen [DC5]			
On the literary text screens, access to summaries of the other parts of the literary text [H2 (even if it is less direct because the reader moves to another collection), M1, M2, MD2, O1 (already on the homepage and before entering the text!)]			
The division of the text of a given part among several different screens follows a semantic criterion, that is, it aims at reflecting the sense of the text (not a fixed number of verses per screen, but narrated episodes) [DC3, H2]			

Fig. 90 – Hierarchy of the representation of the high-level reading strategy “Situating the part of the literary text the user is exploring within the whole of the narration”

As this example shows, the concept of reading strategy is hierarchical. Different levels of reading strategies representations can be identified. The single devices detected in the considered hypertextual transpositions represent reading strategies that deal with a very precise and partial aspect of the two levels entailed by the act of reading. We can define them low-level reading strategies. Then, a combination of low-level strategies represents high-level strategies, that is, reading strategies that deal with more comprehensive aspects of the two levels entailed by the act of reading. Each high-level reading strategy allows the reader to accomplish a subtask of her/his major task and, therefore, it allows the reader to reach a sub-goal of her/his final goal (thus progressing toward it). Each low-level reading strategy corresponds to a particular aspect of this subtask, which allows the reader to accomplish a particular aspect of the corresponding sub-goal.

All the detected contents, devices and tools can be classified according to the low-level and the high-level reading strategy they represent. Through this classification we obtained the picture of an ideally complete representation of reading strategies (cf. Appendix 3). In fact, not all the detected devices are present in all the hypertextual transpositions we considered in the analysis. Consequently, not all the reading strategies are (fully) represented in all the considered hypertextual transpositions. However, this complete classification and this picture are useful in order to highlight essential aspects of how the act of reading the literary text takes place in hypertextual transpositions.

#### 3.1.4.2 Studies related to the issue of reading strategy representation

Previous studies in computer semiotics investigated the structure and the elements of hypertexts and hypermedia with the purpose of highlighting what they represent to users and, subsequently, which user-application interaction they establish. Semiotic engineering (De Souza 1993; De Souza et al. 1999; Prates, De Souza, Barbosa 2000; Prates, Barbosa, De Souza 2000), which has been developed since 1993, is one of the most relevant ones. Semiotic engineering tries to cast light on the relationship between “design intentions (that emerge in the process)” and “perceived meanings (that derived from the product)” as to the user interface (De Souza et al. 2001). Thus, icons and messages constituting the user interface are studied as signs and the interaction between user and interface as a process of sign’s interpretation. On this base a method for the evaluation of the communicability of user interfaces has been elaborated. This method focuses on what is being said by the interface signs a user is supposed to interpret (Prates, De Souza, Barbosa 2000).

(...) the degree to which a user will be able to successfully interact with an application and carry out his tasks is closely related to whether he understands the

designer's intentions and the interactive principles that guided the application's design (Prates, Barbosa, De Souza 2000)

In the same line Andersen (1990a) highlighted the semiotic-communicative aspects of hypertext structure's design, pointing out that a different sequence of nodes and links communicates a different message and that, therefore, the designer has to make conscious choices as to the hypertext's structure in order to convey the "right" message.

A similar perspective has been developed in recent studies on printed texts, such as the study of Delin and Bateman (2002), where a framework for the analysis and critique of multimodal (that is, comprising pictures and text) printed documents was elaborated. The organization of contents on the page and the page layout are investigated in order to highlight their appropriateness in respect to what the document's author aimed at communicating and in respect to the reader's possibility to recognize the author's intention. The starting assumption was that "a successful layout is one that observes rhetorical structure" (141) and that "document presentation is a structured goal-driven activity which relies on the implicit communication of relationships that need to be recognized as intended by the author" (144). As a result "documents can be critiqued, and presumably improved, by looking at the ways in which their visual appearance either fails to signal these levels of structure, or actively violates them" (141). Similar approaches can be found in the field of editorial theory, where aspects of the books and texts layout are investigated as to their contribution to the text's understanding and interpretation (cf., for instance, Bornstein & Tinkle 1998).

Findings on the topic of representation in relationship to the (hyper)text-reader interaction are, therefore, already remarkable. However, it is still needed to develop an overall model of the representations present in the application. It is not enough to focus on the user interface. Nor is it to consider problems of interpretation of single signs. It is essential to cast light on how the reader will approach the application's contents consequently to the presence in the application of a given device instead of another.

### **3.1.5 Description of reading strategies represented in hypertextual transpositions**

The results of the analysis of the seventeen considered hypertextual transpositions we reported at paragraph 1.3.2 and in Appendix 2 allowed us to identify the contents, devices and tools that have an impact upon the act of reading, that is, that facilitate and sustain the reader in performing a given reading strategy. We classified these contents, devices and tools according to the sub-goal and/or the subtask they allow the reader to reach. Through this complete classification, we identified nine different high-level

reading strategies within five main categories, as well as a series of low-level reading strategies for each of them, which can be represented in hypertextual transpositions.

The five categories correspond to different aspects that are characteristics of the hypertextual form and of the use of hypertextual transpositions. Category 1 (to which belong reading strategies 1.1 and 1.2) has to do with the physical fragmentation which characterizes hypertext in general. Since contents are physically fragmented and several different reading orders are possible (cf. paragraph 1.1.3), it is possible that the reader encounters difficulties in coherently relating the contents of two connected nodes. Category 2 (to which belong reading strategies 2.1 and 2.2) has to do with the semantic-cognitive fragmentation, which can derive from the physical fragmentation. Category 3 (which regards reading strategy 3.1, 3.2 and 3.3) deals with different focuses the reader can have during the act of reading, namely the literary text, the literary work (not only the text, but also its visual and/or acoustic representations) and the added materials. Reading strategy 4 refers to the problem of immersion, which, as we highlighted at paragraph 3.1.1, is considered to be an essential aspect of literary reading. Reading strategy 5 deals with the reader's possibility to freely navigate and manipulate the hypertextual transposition's contents.

Several of these reading strategies correspond to comprehension needs that are widely acknowledged in the field of hypertext studies and hypermedia design. For instance, some of them recover Thüning et al.'s cognitive design issues for creating hyperdocuments (1995: 60).

In the following pages we will describe each reading strategy, also by pointing out its place in the complete hierarchy. In order to show the importance the representation of these reading strategies has in a successful navigation of a hypertextual transposition, we will provide examples (although only for some of them) of elements or aspects detected among the seventeen analyzed hypertextual transpositions that prevent (or make it difficult to) the reader to perform a given reading strategy. Examples are drawn from Appendixes 2 and 3. Besides a description of the problem, illustrative screen snapshots and details of the most interesting elements of the screen will be provided.

<b>High-level reading strategy</b>	<b>Description</b>
<i>1.1.) Situating the different application's parts and elements within the whole physical structure of the application.</i>	It is important for the reader to get oriented within the application, that is, to understand which is the position and the relationship of the part s/he is exploring in respect to the whole. This strategy aims at grasping the relationship part-whole all along the reader's navigation, thus developing a coherent representation of the hypertext as a whole. As results of Dee-Lucas's experiments on the effect hypertext overviews on study strategies proved (1996), the development of such a coherent representation is essential to (hyper)text's comprehension. In terms of Kintsch model of comprehension, this corresponds to the development of a macrostructure (cf. Foltz 1996: 115). This does not happen automatically (and, often, even not easily) in hypertextual transpositions, because of the contents' fragmentation in lexias and because of the impossibility to access to the hypertextual transposition directly through our senses.
<b>Low-level reading strategies</b>	<b>Description</b>
<i>1.1.1) Understanding one's own current position within the whole.</i>	In order to succeed in situating the different application's parts and elements within the whole physical structure of the application (that is, in order to perform 1.1), it is important for the reader to understand where s/he is, that is, which is the position and the relationship of the page s/he is exploring in respect to the whole. This need is considered an essential aspect of user's orientation also in Thüning at al., who underlined that "In general, such orientation cues should enable readers: <ul style="list-style-type: none"> <li>• To identify their current position with respect to the overall structure;</li> <li>• To reconstruct the way that led to this position; and</li> <li>• To distinguish among different options for moving on from this position" (1995: 59).</li> </ul>
<i>1.1.2) Understanding how to perform a given operation.</i>	In order to perform 1.1, it is important for the reader to quickly and clearly understand the function and the working of the tools and devices s/he encounters all along her/his navigation.
<i>1.1.3) Finishing the exploration of a given path before exploring something else.</i>	In order to perform 1.1 (particularly, in order to perform a coherent reading), it is often important for the reader not to jump continuously among different contents, but to stay on a given content and to consume it completely. <sup>90</sup>
<i>1.1.4) Being aware of the passage from one type of content to another.</i>	In order to perform 1.1 (particularly, in order to correctly understand the relationship of one content to the other), the reader has to be aware of the fact that by clicking on a given link, s/he will enter another type of content (a content with a different function in respect to the one s/he was previously exploring).
<i>1.1.5) Distinguishing and recognizing the different available types of contents.</i>	In order to perform 1.1 (particularly, in order to correctly understand the relationship of one content to the other), the reader has to recognize contents of different types and contents of the same type.

<sup>90</sup> It has to be noted that Foltz's empirical studies showed that hypertext readers "expressed interest in reading all the text in one area of the hypertext before moving on to other areas" (Foltz 1996: 124).

In DC5 the active reference pattern is not applied. As we already explained at paragraph 1.2.2, the active reference pattern consists in maintaining “an active and perceivable navigational object acting as an index for other navigational objects (either nodes or sub-indexes). This object remains perceivable together with target objects, letting the user either explore those objects or select another related target” (Hypermedia Design Patterns Repository, <http://www.designpattern.lu.unisi.ch/index.htm>). The absence of such a device makes it difficult for the reader to perform reading strategy 1.1.1, that is, to understand her/him current position within the whole application. On the hypertextual transposition’s pages no indication is provided about the collection to which the page the reader is currently exploring belongs and no tool summarizing the whole structure of the hypertextual transposition is present. Therefore, once the reader accesses to a page, s/he can easily get disoriented about her/his position within the whole of the application.



Fig. 91 – DC5 - No indication is provided about the collection to which the page the reader is currently exploring belongs.

In M2 an audio file with the recitation of the play (acoustic representation of the text) is provided. However, this file is “hidden”. In order to activate it, the reader has to click on the text of the play (then, the playing of the audio file will automatically start from the point correspondent to the passage of the text on which the reader clicked). Nowhere (except than on the “Help” page) this is explained to the reader (no sign on the text of the play screen indicates this possibility) and, therefore, it is hard for her/him to discover and to perform this operation. In other words, at least as to this aspect of the navigation, it is difficult for the reader to perform reading strategy 1.1.2.

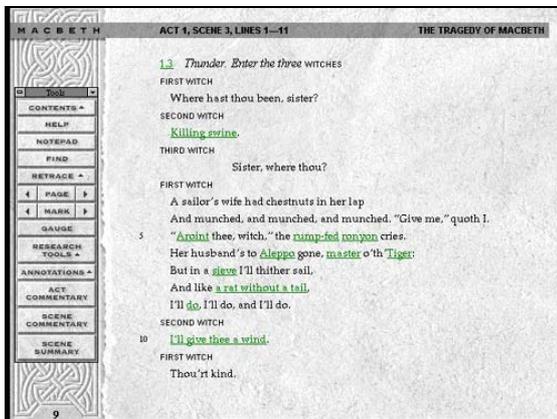


Fig. 92 – M2 - No sign on the text of the play screen indicates that the audio file can be activated and how to do it.

In MD1 annotations the reader can access to from the literary text screens contain several embedded links, leading to other (thematically or logically related) annotations. Therefore, the reader can easily pass from one annotation to another one, and, since links are embedded, s/he can easily do it even before finishing reading the first annotation s/he accessed to. Thus, s/he continuously changes path, without coming to the end of any of the accessed annotations. This can result in a difficulty of performing reading strategy 1.1.3.

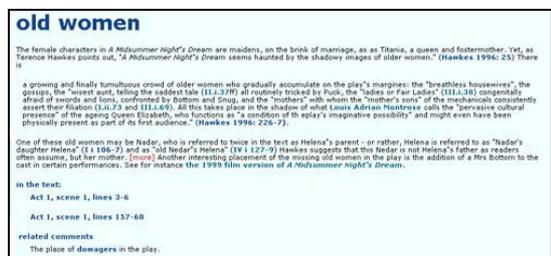
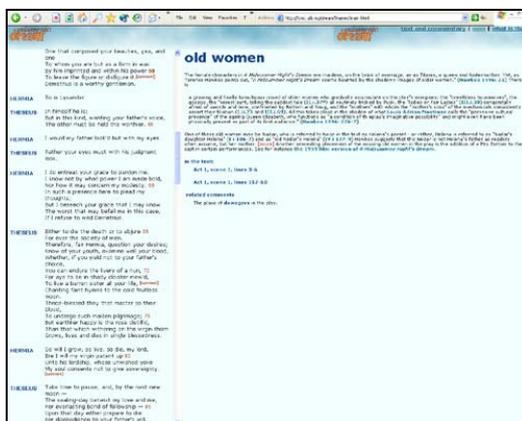


Fig. 93 – MD1 – Annotations the reader can access to from the literary text's screens contain several embedded links, leading to other (thematically or logically related) annotations.

<b>High-level reading strategy</b>	<b>Description</b>
<i>1.2) Situating the part of the literary text the user is exploring within the whole physical structure of the literary text.</i>	The clear perception and understanding of the size of the literary text and of its structure constitutes an important aspect of text comprehension. <sup>91</sup> However, in hypertextual transpositions this understanding does not happen automatically (and, often, even not easily), because of the contents' fragmentation in lexias and because of the impossibility to directly access to the artefact through our senses. This reading strategy allows the reader to perform a subtask similar to the one performed by 1.1, but within the more precise realm of the literary text. 1.2 does not refer to the application as a whole, but only to the literary text. It has to be noted that this reading strategy is valid both in the (usual) cases in which the division of the literary text in the hypertextual transposition reproduces the original division of the literary text and in the (rare) cases in which the literary text in the hypertextual transposition is further divided (as it is in H2, where the episode of the ramparts narrated at I, 4 and 5 is divided in seven segments, cf. Appendix 2).
<b>Low-level reading strategies</b>	<b>Description</b>
<i>1.2.1) Gaining an overview of the physical structure of the literary text.</i>	In order to perform 1.2, it is important for the reader to acquire an overview on the whole structure of the literary text, before entering and reading a specific part of the literary text. This provides her/him useful hints for the reading (cf. description of reading strategy 1.1).
<i>1.2.2) Keeping in mind this overview.</i>	In order to perform 1.2, it is important for the reader to maintain the overview upon the whole structure of the literary text during the act of reading.
<i>1.2.3) Being aware of the part (chapter, canto, etc.) of the literary text to which the currently explored screen belongs.</i>	In order to perform 1.2 (particularly, in order to maintain the orientation within the whole structure of the literary text), it is important for the reader to remember which part of the literary text s/he is currently reading.
<i>1.2.4) Being aware of one's own position within that part.</i>	In order to perform 1.2 (particularly, in order to maintain the orientation within the whole structure of the literary text), it is also important for the reader to maintain the orientation within the part of the literary text s/he is currently exploring. Since it is quite usual that a given part of the literary text is displayed on several screens (and not on a single scrollable screen), it is important for the reader to get oriented within the screens composing that part. The reader has to know if s/he is at the beginning, in the middle or at the end of a given part of the literary text. In printed editions this can be easily done by turning the pages and looking where the end of the chapter or paragraph is. In hypertextual transpositions if the reader does this, there is the risk that s/he gets lost.

<sup>91</sup> Thüring et al. (1995) underline that helping the reader in identifying the major components of the hyperdocument and the way in that these constitute its overall structure play an essential role in increasing the global hypertext coherence, thus supporting the construction of a mental model of the hyperdocument itself (cf. Thüring et al. 1995: 58-59).

In H1 the reader accesses to the text of the play through the index, which provides an overview on the whole physical structure of the play. However, once the reader entered a given scene, the index is no more visible. In order to have a look at it, the reader has to step back or to click on the link “Trama dell’opera”.<sup>92</sup> This situation is similar to the usual situation the reader finds in a printed edition. There, the index is made available at the beginning or at the end of the book and, in order to consult it during the act of the reading, the reader has to leave the page s/he was reading and to turn the pages backward or forward till s/he finds it (the index cannot be viewed simultaneously with the literary text). However, because of the more mediated access to the electronic text (cf. paragraph 0.1.3), in the hypertextual transposition this operation of moving back and forth can provide a higher degree of disorientation, thus making difficult for the reader to perform reading strategy 1.2.2.

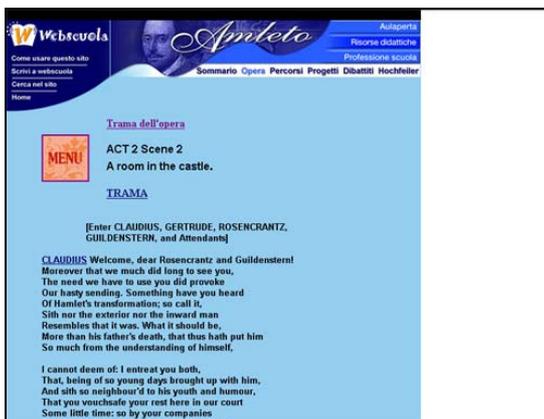


Fig. 94 – H1 - Once the reader entered a given scene, the index is no more visible.

In M3 and RJ1, the text of each scene is displayed on several different screens, which the reader can browse sequentially (forward or backward) thanks to the arrows links. At the top of each text of the play screen, indication of the number of the act and of the scene to which that screen belongs and of the numbers of the lines of the portion of text displayed on that screen is provided. However, no indication is provided about how many lines the whole scene comprises. Therefore, it is difficult for the reader to understand if s/he is at the beginning, at the middle or at the end of a given scene. It is difficult for her/him to perform reading strategy 1.2.4.

<sup>92</sup> By the way, it has to be noted that the anchor “Trama dell’opera” can be misleading for the reader, who will expect to access to the plot of the play and not to the index.

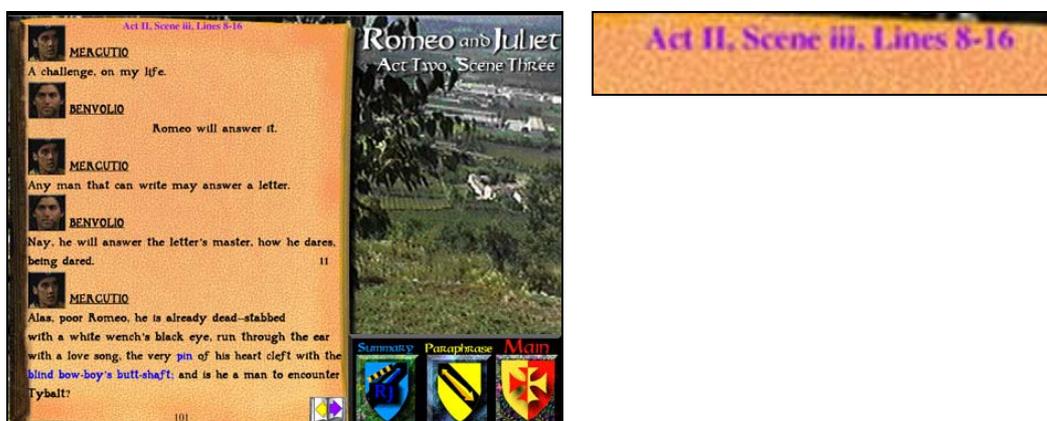


Fig. 95 – RJ1 - No indication is provided about how many lines the whole scene comprises.

High-level reading strategy	Description
2.1) <i>Situating the part of the literary text the user is exploring within the whole of the narration.</i>	In order to build a coherent comprehension of the literary text, it is essential for the reader to perceive the relationship of what is narrated in a given part of the literary text with the whole narration. This is another aspect of the reader’s need to develop a coherent representation of the text as a whole, that is, to develop a macrostructure (cf. description reading strategy 1.1). <sup>93</sup> This does not happen automatically (and, often, even not easily) in hypertextual transpositions, because the physical fragmentation to which the literary text undergoes can lead to a semantic-cognitive fragmentation of the literary text itself.
Low-level reading strategies	Description
2.1.1) <i>Being aware of the spatial and temporal coordinates of the events narrated in a given part of the literary text.</i>	In order to perform 2.1, when entering a given part of the literary text, it is essential for the reader to have in mind the setting where what it is narrated in that part takes place. Often this does not happen automatically (and, often, even not easily) in hypertextual transpositions, because the reader can choose to read the different parts of the literary text in an order different from the canonical order established by the author of the literary text.
2.1.2) <i>Gaining an overview on the whole narrated story.</i>	In order to perform 2.1, it is important that the reader acquires the understanding of the whole. This is an essential element of text comprehension and of a thorough comprehension of that part of the literary text (cf. description of reading strategy 1.1). This is true at the level of the physical structure of the literary text (see 1.2), but also at the semantic and cognitive level.
2.1.3) <i>Being aware of the</i>	In order to perform 2.1 (particularly, in order to acquire a

<sup>93</sup> Douglas’s experiment on multiple readings of a short story revealed that the first strategy a reader adopts when faced to a fragmented story is to articulate “some concept of what the work looked like as a whole, as what van Dijk called a ‘macrostructure’, a global view of the narrative’s themes and meaning” (1992: 6).

<i>relationship among different elements of the narrated story.</i>	coherent overview on the whole narrated story), it is important for the reader to understand the relationships existing among different elements of the narrated story (among different characters, among characters and places, among events, among events and places, etc.).
<i>2.1.4) Keeping in mind previously mentioned narrative elements.</i>	In order to perform 2.1 (particularly, in order to understand what is narrated in a given part of the literary text), it is often essential to know (and to remember) what was narrated in previous parts (events, characters or places).

In DC4, once the reader accesses to the text of a given canto, no indication is provided about the place (the part of the *Inferno*) in which the events narrated in that canto happen and about the temporal coordinates (the moment – day and hour – of Dante’s journey in which these events happen). If we take into consideration printed editions, we notice that several annotated editions of the Divine Comedy introduce each canto by pointing out the cerchio and the girone in which the events narrated in that canto take place and, also, the moment in which they occur (cf. Alighieri 1985). This need is even more acute in hypertextual transpositions, which are based on the presupposition that the reader can start her/his reading at any point of the literary text. A reader who accesses a canto in DC4 cannot benefit of such information and, therefore, s/he will encounter difficulties in performing reading strategy 2.1.1.

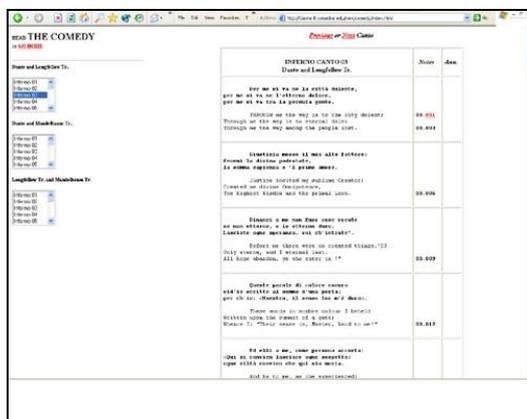


Fig. 96 – DC4 - Once the reader accesses to the text of a given canto, no indication is provided about the place (the part of the *Inferno*) in which the events narrated in that canto happen and about the temporal coordinates (the moment – day and hour – of Dante’s journey in which these events happen).

Among the rich contents of LM1 there is no summary or scheme of the whole plot of Mary Shelley’s *The Last Man*. The reader can easily access to and read the different chapters, but s/he cannot have an overview on the whole narrated story. This reproduces the situation we find in printed editions (especially, not annotated ones, where only the literary text is provided). However, because of the particular presupposition upon which hypertext is based (cf. paragraph 1.1.3), in hypertextual transpositions the usefulness of

such an overview is high. The reader who begins her/his act of reading starting from chapter 8 needs a tool in order to situate it within the whole of the narration and, thus, recovering the narrative elements which Mary Shelley's takes for granted in this chapter. This is an example of difficulty in performing reading strategy 2.1.2.

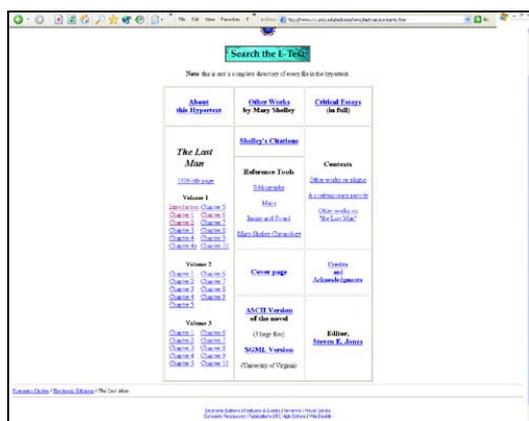


Fig. 97 – LM1 - No summary or scheme of the whole plot is provided.

High-level reading strategy	Description
2.2) <i>Integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to.</i>	Since the aim of the added materials is to help the reader in understanding the literary text's significance, it is important for the reader to understand the relevance of a given annotation or added material in respect to the literary text and to integrate the knowledge it provides with the meaning of the (passage of the) literary text to which it refers.
Low-level reading strategies	Description
2.2.1) <i>Being aware of the kinds of available added materials and annotations.</i>	In hypertextual transpositions several different kinds of annotations and added materials are included and the user can read them in a mixed order. In order to understand their relevance in respect to the literary text and in order to integrate information conveyed by added materials and the meaning of the literary text (in order to perform reading strategy 2.2), the reader has to recognize the different kinds of available added materials and annotations (their different function and raison d'être in respect to the literary text). S/he has to know or to infer of which type is the added material s/he is reading. The problem recovers the need of evaluation we described at paragraph 1.2.3.
2.2.2) <i>Understanding to which precise portion of the literary text a given added material refers to.</i>	In order to perform 2.2 (particularly, in order to integrate the information conveyed by added materials to the meaning of the literary text), the reader has to understand to which part of the literary text a given added material refers.
2.2.3) <i>Understanding the semantic motivation of the correlation between a given portion of the literary text and a given added</i>	In order to perform 2.2 (particularly, in order to adequately integrate information provided by added materials and the meaning of the literary text), it is essential that the reader understands their contribution to the clarification of the

<p><i>material.</i></p> <p><i>2.2.4) Relating information provided by added materials to the literary text.</i></p>	<p>literary text's significance.</p> <p>In order to perform 2.2 (particularly, in order to integrate information provided by added materials and the meaning of the literary text), it is important for the reader to have the possibility of reading them in parallel and to shift from the reading of one to the reading of the other without losing one of the two. This reading strategy recovers the issue of the respect in hypertextual transpositions of the principle of spatial juxtaposition, usual in printed editions (cf. paragraph 1.1.2).</p>
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In DC5 all the added materials present the same layout. This feature, combined with the absence of the active reference pattern (cf. above), makes difficult for the reader to understand the difference existing among the different added materials, particularly the different aspects of the literary text's significance they aim at clarifying. In other words, it is difficult for the reader to perform reading strategy 2.2.1.

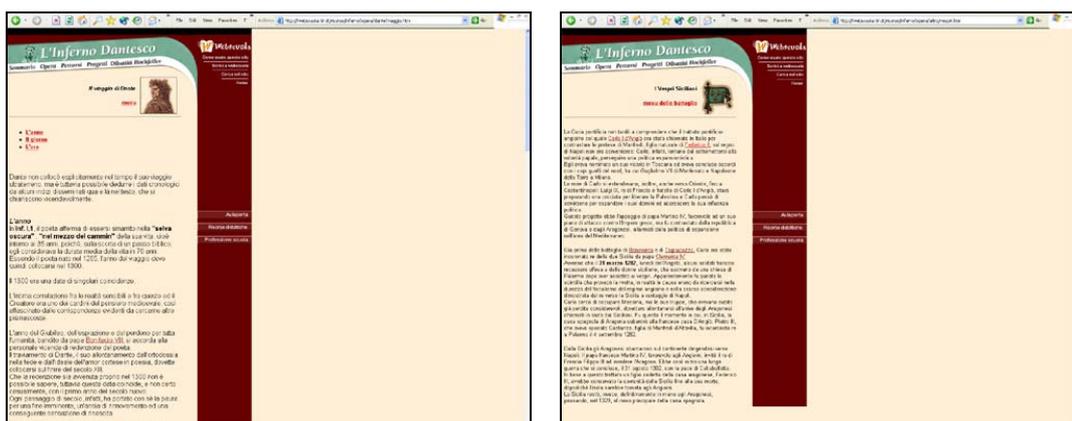


Fig. 98 – DC5 - All the added materials present the same layout.

In MM1 several added materials are accessible from the literary text's screens. The reader can distinguish their different functions thanks to the different anchors of the links providing access to them. Some of these added materials (particularly, words' and expressions' definitions and questions useful for reflections on the play) are displayed in a frame set at the right-low corner of the screen. The modality allows the reader to read them in parallel to the passage of the text of the play to which they are linked. Others (particularly, essays, folio comparisons and exercises) substitute the text of the play in the window. This prevents the reader to see simultaneously both the text of the play and the added material. It prevents to read them parallel to the passage of the text of the play to which they are linked, thus performing reading strategy 2.2.4.

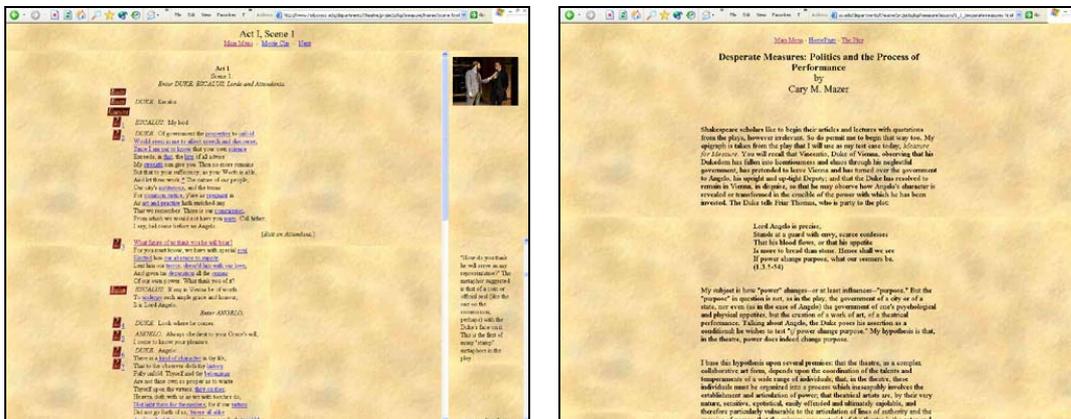


Fig. 99 – MM1 - Some of the added materials are displayed in a frame set in the right-low corner of the screen. Others substitute the text of the play in the main window.

High-level reading strategy	Description
3.1) <i>Paying attention to the literary text.</i>	Since the literary text is the core of hypertextual transpositions (the content in function to which all the other hypertextual transpositions' contents stand) and since the main user's goal is the literary text's comprehension, it is essential for the reader to pay enough attention to it (by reading it and relating to it all the other materials).
<b>Low-level reading strategies</b>	<b>Description</b>
3.1.1) <i>Accessing the literary text collection.</i>	In order to for the reader to perform 3.1, it is important that s/he accesses (possibly easily and frequently) the literary text's collection.
3.1.2) <i>Distinguishing and recognizing literary text and added materials.</i>	In order to adequately perform reading strategy 3.1 (particularly, in order to perceive the literary text's centrality in respect to all the hypertextual transposition's contents), the reader needs to clearly recognize the literary text and distinguish it from all the other added materials.
3.1.3) <i>Keeping the attention's focus on the literary text.</i>	As we highlighted when dealing with the reader's essential need to encounter the literary text, the understanding of the literary text requires immersion (cf. paragraph 1.2.3). In order to be immersed and, therefore, to read the literary text in the most adequate way (thus performing 3.1), the reader has to stay on the literary text.
3.1.4) <i>Reading the literary text following the order proposed by its author.</i>	Since the reading of the literary text requires immersion and since the modality of reading the text from the beginning to the end following the canonical order established by its author is a modality that sustains such immersion, in order to perform strategy 3.1, it is important for the reader to read the literary text sequentially from the beginning to the end.
3.1.5) <i>Staying on the literary text till the end of the wished reading.</i>	In order for the reader to perform reading strategy 3.1, it is important to stay on the literary text till the end of the wished reading and not running away from it, thus beginning the exploration of new paths.

On the homepage of H1 different choices (access links to different kinds of contents) are proposed to the reader. Among them there also is the access to the text of the play. All the available choices look the same (their anchor has the same layout). The access to the text of the play is not brought to the reader's attention. Therefore, it can easily happen that the reader begins exploring all the available contents without or before reading the text of the play, that is, without performing reading strategy 3.1.1.



Fig. 100 – H1 – All the choices offered on the homepage look the same; none of them is emphasized.

As we described above, in LM1, once the reader accesses to a given annotation from the literary text's screen, s/he finds several other links leading her/him to other annotations. They are one-way links. As noticed at paragraph 1.3.2.2 ("Navigation among different added materials"), in LM1 the reader's distance from the literary text is not controlled. No explicit link is made available in order for her/him to come back to the literary text's screen s/he was previously reading. In order to perform this operation s/he has to use the dynamic back of the browser. This does not invite the reader to perform reading strategies 3.1.3 and 3.1.5.

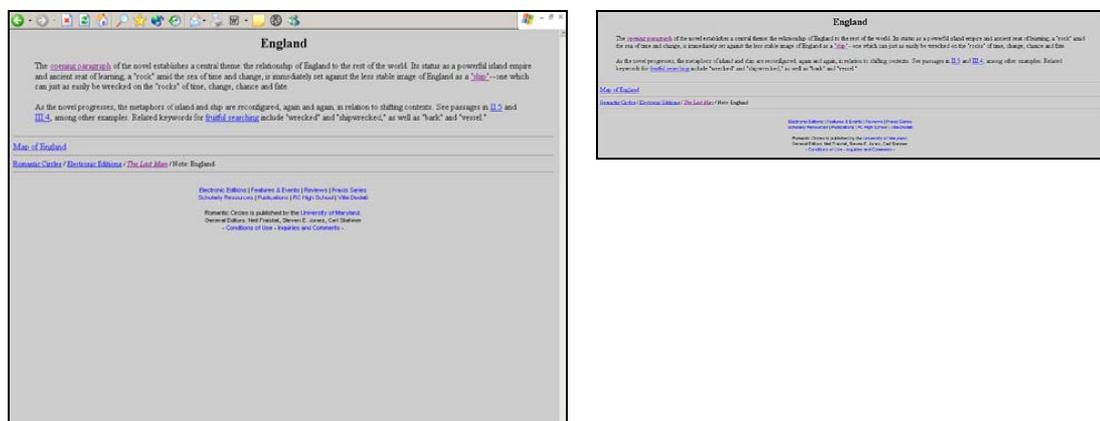


Fig. 101 – LM1 – No explicit link is made available in order for the reader to come back to the literary text screen.

<b>High-level reading strategy</b>	<b>Description</b>
<i>3.2) Consuming all the essential representations of the literary work.</i>	Some of the texts that are part of literature require to be represented (on stage, for instance, for theatre). There are audio and visual aspects that are part of them (of their significance), but that are not adequately represented in the written text. In order for the reader to have a complete reading experience and to reach a full literary text's comprehension, it is important for her/him to consume not only the verbal written text, but also its essential visual and/or acoustic representation.

H1 is a hypertextual transposition of a play. Visual and acoustic representations are essential in order to acquire a complete knowledge of a play. Nevertheless, in H1 no representational element is included. Aspects related to the representation of the play are presented through essays. This makes difficult for the reader to perform reading strategy 3.2.

<b>High-level reading strategy</b>	<b>Description</b>
<i>3.3) Exploring further information.</i>	Added materials and annotations are important in order for the reader to acquire a deeper knowledge about different aspects or elements of the literary text and, therefore, in order to fully grasp step by step the significance of the literary text. To this purpose a wide and rich exploration of the various contents of the hypertextual transposition is essential to the reader.
<b>Low-level reading strategies</b>	<b>Description</b>
<i>3.3.1) Accessing added materials about all the different aspects of the literary text.</i>	In order for the reader to perform 3.3 (thus acquiring a complete literary text's comprehension), it is essential that added materials dealing with all the different aspects of the literary text are made available in the hypertextual transposition. It also is essential that the reader accesses to them.
<i>3.3.2) Widely and deeply exploring the added materials.</i>	In order to perform 3.3 (thus acquiring a full literary text's comprehension), it is important for the reader to acquire a deep and wide knowledge of all its different aspects. Therefore, it is essential to her/him to widely and deeply explore the available added materials.

DC4 is rich from the contents' point of view. Numerous added materials dealing with all the different aspects of the literary text's significance are made available (cf. description of DC4 in Appendix 2). However, no precise reading path (for instance, according to the different possible perspectives on the literary text or according to the different themes present in it) is proposed and added materials are not organized in such a way that a reader can identify them. It is up to the reader to access and explore the

added materials s/he considers more relevant for the literary text’s comprehension and to choose the order in which it is the most worthwhile to explore them. On the literary text’s screens no indication is provided about added materials that could further clarify elements or aspects of the canto displayed on that screen. In this way the reader is not sustained in performing reading strategy 3.3.2.

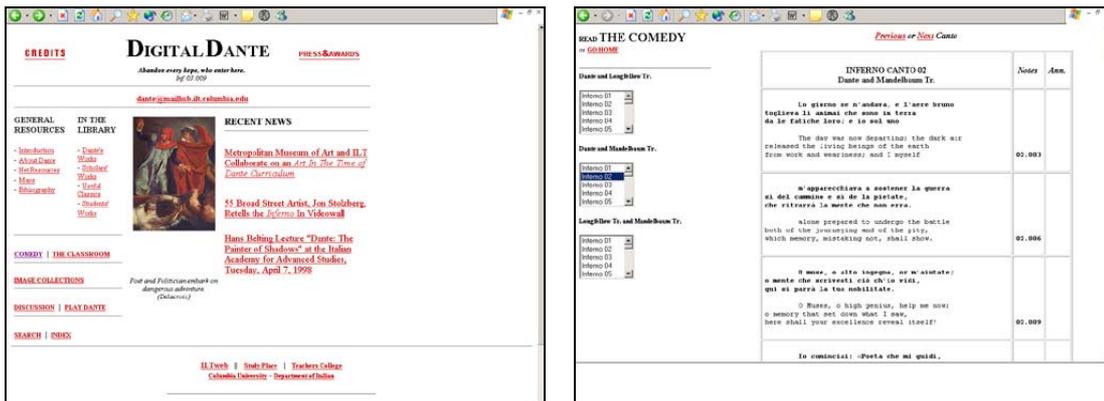
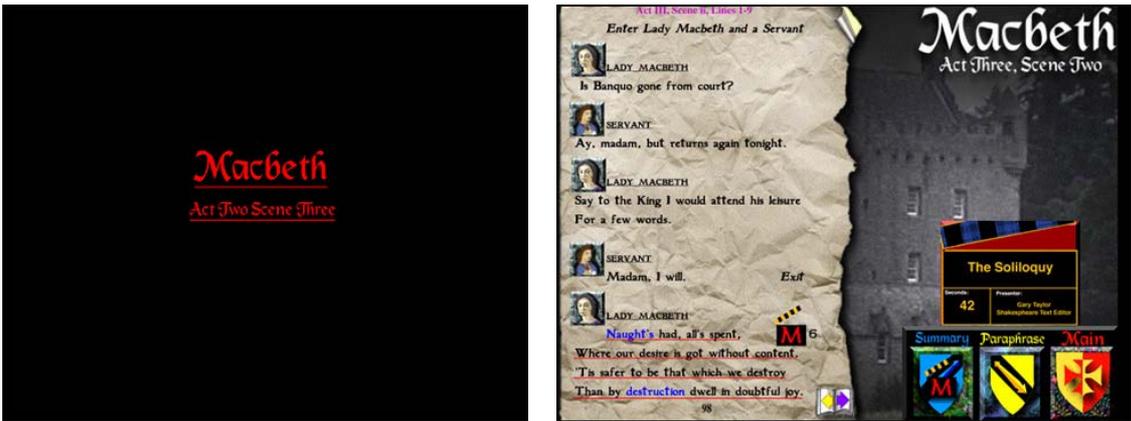


Fig. 102 – DC4 – Rich contents are provided, but no reading path is proposed; on the literary text screens there is no indication of the most relevant added materials.

High-level reading strategy	Description
4) <i>Getting immersed in the reading experience.</i>	In order for the reader to fully comprehend the literary text, it is important for her/him to get immersed in the reading experience (cf. paragraph 1.2.3 and 3.1.1). It is important that s/he experiences all the application’s elements and contents as parts of a coherent and flowing whole. Therefore, in our view, “seamless” refers to the absence of interference in this process of immersion.
Low-level reading strategies	Description
4.1) <i>Relating and integrating with the literary text its visual and acoustic representations (consuming visual and acoustic representations in relationship to the literary text).</i>	In order for the reader to acquire a complete knowledge of the literary work and in order for her/him to experience all the application’s elements and contents as parts of a coherent and flowing whole (thus performing reading strategy 4), s/he has to integrate the audio and visual contents related to the performance of the literary text with the literary text itself.
4.2) <i>Not getting distracted by the artefact itself.</i>	In order for the reader to get immersed in the reading experience (thus performing reading strategy 4), it is important for her/him to focus upon the application’s contents, without getting distracted (without paying too much attention) to the elements of the application constituting the application’s layout (that is, to the signs necessary for the navigation or for the presentation of the contents present on the screens).
4.3) <i>Not getting distracted by the operations entailed by the act of reading.</i>	In order for the reader to get immersed in the reading experience (thus performing reading strategy 4), it is important for her/him to focus upon the application’s contents,

	without getting distracted (without investing too much attention) in the choices s/he has to make in order to go on in the navigation. <sup>94</sup>
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In M3, when accessing to the text of a given scene, a big title with the number of the act and the number of the scene automatically appears on the screen. The background of the screens containing the text of the play is composed of two parts (two frames): the left part (where the text is reproduced) imitates a page of an old book and the right part (where unembedded links are available) reproduces a landscape that is meaningful in respect to the part of the play presented in the left frame (it reproduces the setting of a given portion of the text; in fact, this background changes within a same scene). When the reader clicks on the arrow links allowing her/him to browse the text sequentially, the noise made by turning a page of a book is reproduced. Besides, at the beginning of each video clip the animated slide appears, announcing “The Globe Theater presents Macbeth”. All these devices highlight the steps the reader accomplishes in the act of reading and, in this sense, they support the reader’s orientation, by sustaining her/him in the performance of reading strategies 1.1.4, 1.1.5 and 1.2.3. However, as we already noticed at paragraph 1.3.2.2 (“Distinction of the different available contents”), they also distract the reader’s attention from the play’s contents, from the narration and focus it on the artefact itself. They are “against” a seamless interaction and they make it difficult for the reader to perform reading strategy 4.2. Such devices are never used in printed editions and, therefore, their presence constitutes an essential difference of hypertextual transpositions in respect to printed editions.



<sup>94</sup> In fact, as Foltz (1996: 119) pointed out, “Hypertexts also cause an additional processing load by making the reader responsible for navigating the text. Skilled reader, who can process the text automatically, will not have as much interference from the controlled processing task of having to make choices of where to go as they read. Readers with poor reading skills are using a lot more controlled processing and thus will likely have a greater amount of interference from the additional task of navigating the text. This will not let them generate as many hypotheses about the text as they read it, making it harder to integrate the information”.



Fig. 103 – M3 – A title appears when entering the text of a given scene; the left frame of the text of the play screen reproduces the page of an old book; when activating a video clip, an animated slide appears, announcing “The Globe Theater Presents Macbeth”.

Several anchors of links in H1 are not transparent in respect to their semantics. This requires the reader a big effort of interpretation in order to perform the right navigational choices and in order to understand the function the added materials s/he reaches through these links has. Sometimes anchors of links performing a same function are not different.<sup>95</sup> For instance, in the section “Percorsi”, usually the anchor of the link leading to the text of the play is constituted by an unembedded word “Testo” placed above a drawing of a book (below the same book the word “Trama” works as anchor for the plot page). However, on path 2 “Il teatro nel teatro” the embedded link “teatro nel teatro”, included in the first two lines of the introductory text, also leads to the referred scene of the play. This useless synonymy risks to throw the reader into confusion. In fact, since till now the reader learnt that the link that leads to the text has a different anchor, when facing this anchor, s/he thinks to another possible target, even if the target “text of the play” would be the most relevant and the most coherent in respect to the logic of the content of the new sign of the hypertext. Therefore, this synonymy induces the reader in drawing a useless and wrong inference. The confusion is also induced by the fact that the meaning of the expression “teatro nel teatro” (the expression constituting the anchor) does not coincide with the target. The object to which most obviously this expression refers to is not the text of the play, but the stylistic theatrical device to represent a play within a play. In order to understand that the target is the text of the play, the reader has to draw a further inference. Confusion can also derive from the embedded anchor “testo originale” placed on the same page. In this case the meaning of the linguistic expression constituting the anchor lets the user think that the target will be the text of the play. On

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<sup>95</sup> This means that the consistency principle identified by Clement Mok as one of the main criteria to evaluate a successful interaction in multimedia context is not respected. This fact implies that also the *Vorhersagbarkeit* is lacking in this application (cf. Eppler 1999: 138).

the contrary, the reader is lead on the page “I testi teatrali”. This target is relevant in respect to the whole paragraph in which the anchor “testo originale” is included, not in respect to the expression “testo originale” alone. Or the reader can understand the relevance only once s/he read the text of the target. Therefore, in this case, it would be better to set an unembedded link side to the all paragraph and to use a different anchor (it would also be possible to transform the all paragraph in an embedded link). All these possible confusions about the links’ semantics and function make it difficult for the reader to perform reading strategy 4.3.

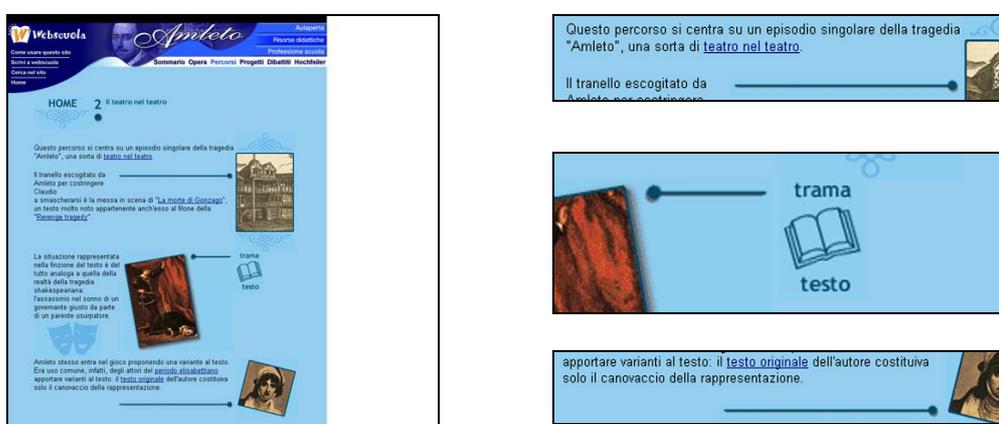


Fig. 104 – H1 – Embedded links “teatro nel teatro” and “testo originale” can confuse the reader.

High-level reading strategy	Description
<p>5) <i>Investigating the literary text according to “personal” needs or questions.</i></p>	<p>In order for the reader (especially, for an expert reader) to reach a full literary text’s comprehension, it is important to have the possibility to explore the literary text and the application’s contents in looking for answers to “personal” needs and/or questions. When designing and implementing a hypertextual transposition, authors make available given contents and given navigational possibilities, which correspond to a given interpretation of the literary text. The fact that only certain links are available (only certain semantic associations) can limit the user’s investigation of the literary text. This can be helpful (and even essential) in the case of novice readers (who, first of all, need to be guided), but when the reader acquires (or already possesses) a high level of knowledge of the literary text, s/he needs a wide navigation’s freedom in order to go deeper in the literary text’s comprehension. S/he needs to investigate new aspects of the literary text, aspects that have not been made explicit by the authors. In fact, we do not have to forget that “As a reader responds to a specific passage of literature, the feelings, ideas, memories, or literary allusions that help to shape understanding cannot be modelled in advance by links coded into the text” and that “No hypertext system currently available can effectively represent individual responses of this kind, whether they depend</p>

	on literary comparisons, memories, or the other personal sources involved in reading a literary text” (Miall 1999b).
<b>Low-level reading strategies</b>	<b>Description</b>
<i>5.1) Retrieving information or passages of the literary text useful as to one’s need or question.</i>	In order to investigate the literary text according to personal reading paths (thus performing reading strategy 5), the reader can need to go back to previously read passages or information, which s/he remembers to be relevant in respect to her/his present need. Besides, in order to investigate the literary text according to personal reading paths (thus performing reading strategy 5), it is important for the reader to have the possibility to browse the literary text in a non-sequential way.
<i>5.2) Visualizing the literary text in the most suitable way in respect to one’s needs or questions.</i>	In order to investigate the literary text according to personal reading paths (thus performing reading strategy 5), it can be important for the reader to have the possibility to visualize the literary text in a more suitable way (for instance, visualizing in parallel the original text and a given translation or visualizing only a restricted part of the literary text on the screen or, on the contrary, visualizing the whole text of a given chapter or scene on a single screen).
<i>5.3) Building new thematic paths through the literary text.</i>	In order to investigate the literary text according to personal reading paths, it is important for the reader to have the possibility to visualize or to keep trace of thematic paths not explicitly represented in the structure of the hypertextual transposition.
<i>5.4) Establishing new relationships between the available added materials and the literary text, relationships that fit better to one’s need or question than the relationships made explicit in the application.</i>	In order to let the reader investigate the literary text according to her/his personal needs or questions (thus performing reading strategy 5), it is important for the reader to easily establish semantic relationships (between different passages of the literary text, between literary text and added materials or among different added materials), which are new and different from the ones which are made explicit in the hypertextual transposition.

In DC3 the text of each canto is displayed on several screens and the user passes from one page to the other thanks to the arrows links (s/he does not need to scroll up and down). Tercets constituting a meaningful passage of the text are displayed together on a single screen. This means that the criterion for the division of the text among the different screens usually is not a fixed number of verses per screen, but the narrated episodes (the sense of the text). This is very helpful for the reading in order to understand the structure of the narrated story, thus, performing both reading strategies 2.1.2 and 2.1.3. However, this is the only possibility the reader has to visualize the literary text. The reader cannot perform reading strategy 5.2. It can happen that the reader needs to have an overview upon the whole text of a given canto (for instance, because s/he wants to compare different passages of it or to look for regularities in it). In this case this modality of displaying the text will not be adequate.

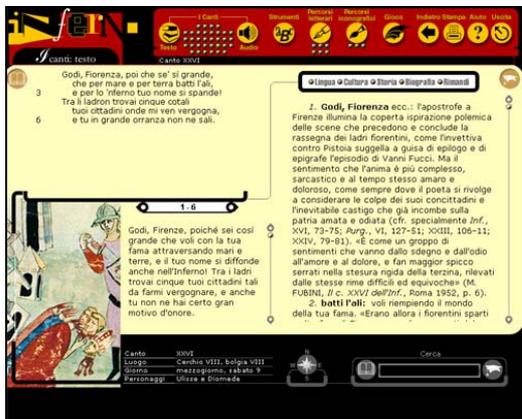


Fig. 105 – DC3 – Only one modality is provided in order to display the literary text.

In M3 no search tool is made available and even not facilities (such as bookmarks) allowing the reader to highlight and keep trace of given passages of the text of the play or given added materials. The reader can only access the text of the play and consume the added materials related to it, but s/he cannot create reading paths others than the ones which have been made explicit by the authors of the hypertextual transposition. Therefore, it is difficult to the reader to perform reading strategy 5.3 and (because of the absence of search tools) also reading strategy 5.1.

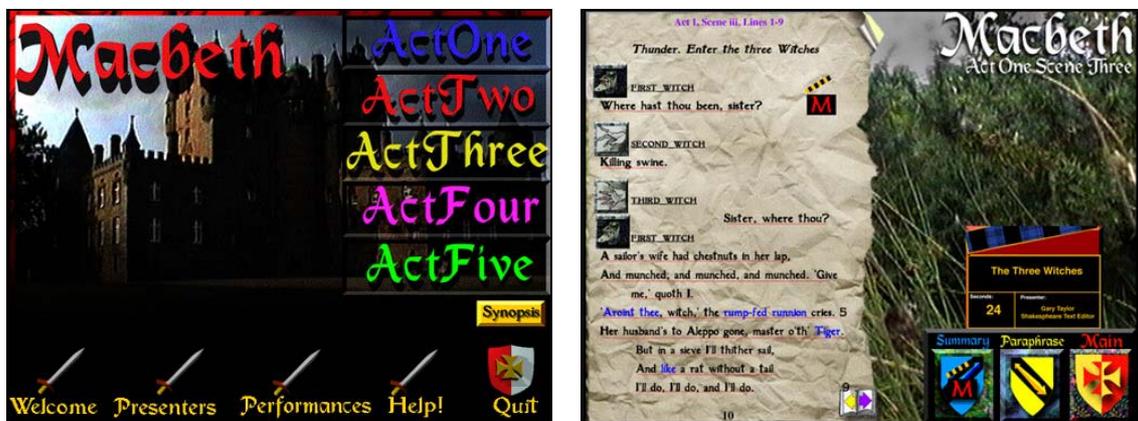


Fig. 106 – M3 – The reader can only access to the text of the play and consume the added materials related to it, but s/he cannot create reading paths others than the ones which have been made explicit by the authors of the hypertextual transposition.

It is possible that a given content, tool or device contributes at the same time to the representation of more than one low-level reading strategy. The different low-level reading strategies a same device represents can belong to a same high-level reading strategy. For instance, the 3D View device present in DC1 contributes to represent two different low-level strategies (2.1.1 “Being aware of spatial and temporal coordinates of

the events narrated in a given part of the literary text” and 2.1.3 “being aware of the relationship among different elements of the narrated story”) within the high-level strategy 2.1 “situating the part of the literary text the user is exploring within the whole of the narration”. By making the structure of the narrated story clear and evident to the reader, the division of the text of a given part among several different screens according to a semantic criterion (not a fixed number of lines per screen, but faithfulness to the narrative structure of the narrated episodes) contributes to represent both low-level reading strategies 2.1.2 “gaining an overview on the whole narrated story” and 2.1.3 “being aware of the relationship among different elements of the narrate story” within the high-level strategy 2.1 “situating the part of the literary text the user is exploring within the whole of the narration”. Frames and pop-up windows contribute to represent two different low-level strategies within the high-level strategy 2.2 “integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to”. Frames contribute to represent both 2.2.1 “being aware of the kinds of available added materials and annotations” and 2.2.4 “relating information provided by the added materials to the literary text”, while pop-up windows contribute to represent both 2.2.2 “understanding to which precise portion of the literary text a given added material refers to” and 2.2.4 “relating information provided by the added materials to the literary text”. Concordances contribute to represent two different low-level strategies (5.1 “retrieving information or passages of the literary text useful as to one’s need or question” and 5.3 “building new thematic paths through the literary text”) within the high-level strategy 5 “investigating the literary text according to a ‘personal’ need or question”.

It is also possible that the low-level reading strategies a same device contributes to represent belong to different high-level reading strategies. It is the case of:

- “return to the text” and “automatic back to the text”: they contribute to represent both the low-level strategy 1.1.3 “finishing the exploration of a given path before exploring something else” belonging to the high-level strategy 1.1 “situating the different application’s parts and elements within the whole physical structure of the application” and the low-level strategy 3.1.5 “staying on the literary text till the end of the wished reading” belonging to the high-level strategy 3.1 “paying attention to the literary text”.
- “guided search possibilities”: it contributes to represent both the low-level strategy 2.1.3 “being aware of the relationship among different elements of the narrated story” belonging to the high-level strategy 2.1 “situating the part of the literary text the user is exploring within the whole of the narration” and the low-level strategy 3.3.2 “widely and deeply exploring the added materials” belonging to the high-level strategy 3.3 “Exploring further information”.
- “automatic displaying of images”, “direct access to elements related to visual and/or acoustic representations of the literary text” and “possibility to view at the

same time”: they contribute to represent both the high-level strategy 3.2 “consuming all the essential representations of the literary work” and the low-level strategy 4.1 “relating and integrating with the literary text its visual and acoustic representations” belonging to the high-level strategy 4 “getting immersed in the reading experience”.

- “screen backgrounds”: it contributes to represent both the low-level strategy 2.1.1 “being aware of spatial and temporal coordinates of the events narrated in a given part of the literary text” belonging to the high-level strategy 2.1 “situating the part of the literary text the user is exploring within the whole of the narration” and the low-level strategy 4.2 “not getting distracted by the artefact itself” belonging to the high-level strategy 4 “getting immersed in the reading experience”.
- “synchronized frames”: it contributes to represent both the low-level strategy 2.2.2 “understanding to which precise portion of the literary text a given added material refers to” belonging to the high-level strategy 2.2 “integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to” and the low-level strategy 4.3 “not getting distracted by the operations entailed by the act of reading” belonging to the high-level strategy 4 “getting immersed in the reading experience”.
- “possibility to combine different added materials in order to compare them”: it contributes to represent both the low-level strategy 3.3.2 “widely and deeply exploring the added materials” belonging to the high-level strategy 3.3 “exploring further information” and the low-level strategy 5.3 “building of new thematic paths through the literary text” belonging to the high-level strategy 5 “investigating the literary text according to ‘personal’ needs or questions”.
- “sophisticated search possibilities”: it contributes to represent both the low-level strategy 2.1.3 “being aware of the relationship among different elements of the narrated story” belonging to the high-level strategy 2.1 “situating the part of the literary text the user is exploring within the whole of the narration” as well as the two low-level strategies 5.3 “building new thematic paths through the literary text” and “retrieving information or passages of the literary text useful as to one’s need or question” belonging to the high-level strategy 5 “investigating the literary text according to ‘personal’ needs or questions”.

### **3.1.6 A model for the act of reading literary texts in hypertextual transpositions**

#### 3.1.6.1 Definition of the model

Given the above-described hierarchy of reading strategies representations, the act of reading the literary text in a hypertextual transposition can be conceptualized in a model describing it as the result of the combination of various reading strategies represented by contents, devices or tools. This model will highlight which combination of reading strategies representations is the most adequate in respect to each one of the three possible user's task. Therefore, it can be used in order to check the adequacy of reading strategies representations detected in a given hypertextual transposition and in order to support designers' choices about contents, devices and tools that need to be included in a given hypertextual transposition. It can support designer's choices as to the creation of conditions of an adequate comprehension of the literary text's significance. It will highlight the relationship existing between different contents, devices and tools. Thus, it will describe the overall structure of the second order representation present in hypertextual transpositions, pointing out, on the one hand, the advantages and the peculiarities of hypertextual transpositions and, on the other hand, the reasons of the difficulties readers can encounter when reading the literary text in a hypertextual transposition.

More precisely, the act of reading the literary text in a hypertextual transposition can be conceptualized as a pyramid, the vertex of which is the literary text's comprehension. In fact, as we said above, this is the final goal of the reader's navigation. The user's major task (namely reading, studying and researching the literary text) coincides with the perimeter of the pyramid. The reaching of the vertex within a given perimeter is allowed by a combination of reading strategies represented in the hypertextual transposition. Therefore, the pyramid surface coincides with the combination of represented reading strategies. The reaching of the text comprehension depends on the representation of the combination of reading strategies, which is the most adequate considering the major task the user has to accomplish.

Therefore, schematically, the act of reading the literary text in a hypertextual transposition appears as it follows:

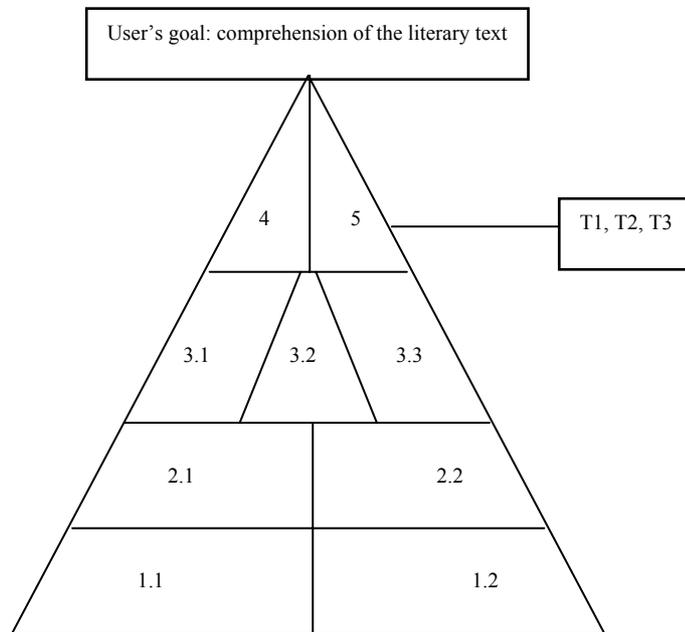


Fig. 107 – Model of the act of reading the literary text in hypertextual transpositions.

Among the different represented high-level reading strategies, there is not a hierarchical relationship. The representation of a given high-level strategy does not strictly depend on the representation of another high-level strategy. In this sense, the position of the high-level strategies within the pyramid is interchangeable. However, in order for the reader to reach the goal of her/his reading, all the strategies have to be represented in an appropriate way in respect to the major user's task. If one of the strategies is bad represented, this will weaken also the functioning of the well-represented strategies.

Although no hierarchical relationship exists among the different represented high-level reading strategies, 1.1 and 1.2 lay at the base of the pyramid, since they are the strategies that help the reader to cope with the physical fragmentation, which is one of the most fundamental origins of all the other problems of hypertext reading. For instance, it is because of it that the semantic-cognitive fragmentation becomes more acute in hypertext.<sup>96</sup>

<sup>96</sup> There also is a level 0 of the pyramid, which is its ground. It is constituted by the fact that in hypertextual transpositions information is organized in bits and no more as printed characters. This means that there is a difference as regards the significant, the material of the representation. This level affects the perception of the representation by the user. However, we will not thoroughly examine this aspect in this work.

The importance of each high-level strategy depends on the major user's task. If the major user's task is reading the literary text, strategies 3.1 ("paying attention to the literary text") or 4 ("getting immersed in the reading experience") are important, while they are less important if the major user's task is studying the literary text or researching the literary text. Therefore, if the major user's task of a given hypertextual transposition is "reading the literary text", it is essential that reading strategies 3.1 and 4 are widely and clearly represented. If the major user's task is studying the literary text, strategies 2.2 ("integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to") and 3.3 ("exploring further information") will be important and, therefore, their wide and clear representation within the application will be essential. If the major user's task is researching the literary text, strategy 5 ("investigating the literary text according to 'personal' needs or questions") and their adequate representation will be important.

#### 3.1.6.2 Examples of applications of the model

Applying this model to the hypertextual transpositions we analyzed, considerations can be made as to the adequacy of the represented reading strategies in respect to the major user's task. In the following we provide some examples.

M3 is an example of hypertextual transposition in which the reading strategies that, according to our model, are important as to its main user's task, are adequately represented. The intended audience of M3 is constituted of the category of readers in general. This information is not precisely provided; however, in the video presentation by the CD-Rom producer included in the "Welcome" collection, it is stated that this hypertextual transposition will be fascinating for the computer users of any age. The main user's task corresponding to the category of readers in general is "reading the literary text". Therefore, according to our model, the adequate representation of reading strategies 3.1 and 4 plays an essential role as to the achievement of the final goal. In fact, in M3 we detected the presence of several devices contributing to the representation of reading strategy 3.1. We noticed that on the homepage the access link to the text collection is placed in a privileged position and that this link occupies a big part of the screen. These two devices contribute to the representation of the low-level reading strategy 3.1.1 ("accessing the literary text collection"). In added materials and literary text different fonts and layout are used. This is a device contributing to the representation of the low-level reading strategy 3.1.2 ("distinguishing and recognizing literary text and added materials"). On the literary text screens a device is present (arrows links) that allow the reader to browse the different pages in a sequential way and that, thus, contributes to represent low-level reading strategy 3.1.4 ("reading the literary text following the order proposed by its author"). When accessing to added materials, the

reader either finds an evident “return” link bringing her/him back to the text or s/he is automatically brought back to the literary text screen. These are devices contributing to the representation of low-level reading strategy 3.1.5 (“staying on the literary text till the end of the wished reading”). In M3 numerous are also the detected devices contributing to the representation of reading strategy 4. Direct access to the visual representation of the literary text (film video clips) is provided on the literary text screen correspondently to the passage of the text represented in the video clip. This is a device contributing to the representation of low-level reading strategy 4.1 (“relating and integrating with the literary text its visual and acoustic representations). Besides, screen backgrounds representing places or objects relevant to the literary text are provided, as well as background music and sounds accompany the user’s navigation. Thanks to their accordance with the theme of Macbeth these elements contribute to represent low-level reading strategy 4.2 (“Not getting distracted by the artefact itself”).

In DC4 – a hypertextual transposition the intended audience of which is (implicitly) indicated as being composed of students (cf. paragraph 1.3.2.3 and Appendix 2) – reading strategies 2.2 and 3.3 are very weakly represented. As to reading strategy 2.2, we found only two devices (namely, the positioning of the anchor link side to the portion of the literary text it refers to and the displaying of the original literary text and of the English translation of the same page) that weakly contribute to represent respectively low-level reading strategies 2.2.2 (“understanding to which precise portion of the literary text a given added material refers to”) and 2.2.4 (“relating information provided by the added materials to the literary text”). As to reading strategy 3.3, no devices contributing to represent the correspondent low-level reading strategies has been observed. On the contrary, we detected in DC4 the presence of devices contributing to represent reading strategy 5. They are the explicit representation of the non-sequential reading strategy (which contributes to the representation of the low-level reading strategy 5.1 “retrieving information or passages of the literary text useful as to one’s need or question”), the possibility to choose how to display the literary text (which contributes to the representation of the low-level reading strategy 5.2 “visualizing the literary text in the most suitable way in respect to one’s need or questions”) and the low number of semantic associations between text and added materials (which contributes to the representation of the low-level reading strategy 5.4 “establishing new relationships between the available added materials and the literary text, relationships that fit better to one’s need or question that the relationships made explicit in the application”). According to our model, reading strategy 5 is important in applications in which the major user’s task is “researching the literary text”. Therefore, what happened in DC4 is that, being the students composing its intended audience higher education students (DC4 is a part and a tool of the Department of Italian studies of Columbia University), that is, students who are supposed to look for deep and personal study, the major user’s task

shifted from one in which students need to be guided to one in which users are supposed to be autonomous.

M2 is a hypertextual transposition in which no information is provided as to the intended audience (cf. paragraph 1.3.2.3). Therefore, it is difficult to identify the main user's task. However, it is interesting to note that, by observing which reading strategy is more strongly represented, it is possible to understand which user's task is supported at the best. For instance, as to reading strategy 2.2 (which according to our model is important in relationship to the user's task "studying the literary text"), in M2 we find only devices that represent the correspondent low-level reading strategies in a weak way. They are the spatial juxtaposition between links and passage of the text to which they refer and highlighting of the part of the text to which a link refers to after the reader clicked on it (both representing low-level reading strategy 2.2.2 "understanding to which precise portion of the literary text a given added material refers to") and the use of pop-up windows, which represents both low-level reading strategy 2.2.2 and low-level reading strategy 2.2.4 ("relating information provided by added materials to the literary text"). Interesting devices representing reading strategy 3.1 (which, according to our model, is important for the accomplishment of the user's task "reading the literary text") are present. On the homepage the link to the text collection is graphically striking (device contributing to represent low-level reading strategy 3.1.1 "accessing to the literary text collection"). Added materials are displayed in "secondary" parts of the screen, namely in pop-up windows (device contributing to represent low-level reading strategy 3.1.2 "distinguishing and recognizing literary text and added materials"). The possibility to hide annotations is provided (device contributing to represent low-level reading strategy 3.1.3 "keeping the attention's focus on the literary text"). Within the literary text collection arrows links allowing the reader to browse the different pages of the literary text in a sequential way are provided (device contributing to represent low-level reading strategy 3.1.4 "reading the literary text following the order proposed by its author"). However, the most strong presence is that of devices representing reading strategy 5. Concordances and sophisticated search tools (namely, a tool allowing to search for the occurrence of any word of the text, according to different criteria, such as its first/last/previous/next occurrence in the currently explored part of the text, the list of all its occurrences, as well as the context in which they occur, within that part or in all the parts of the text) are offered to the reader in order to retrieve given elements or passages of the text (low-level reading strategy 5.1 "retrieving information of passages of the literary text useful as to one's need or question") and in order to allow her/him to identify new paths through the application (low-level reading strategy 5.2 "building new thematic paths through the literary text"). The possibility to set bookmarks (which also contributes to represent low-level reading strategy 5.2) is provided. Semantic associations between literary text and added materials are rare and collections organize added material according to the type. These are both devices contributing to the

representation of the low-level reading strategy 5.4 (“establishing new relationships between the available added materials and the literary text”). It seems, therefore, that the user’s task the accomplishment of which is supported at the best in M2 is T3 “researching the literary text”.

These three examples of application of the model of the act of reading the literary text in a hypertextual transposition show that a relationship of more or less accentuated adequacy can be observed between the user’s task (that, we remind, can be derived from the application’s intended audience, cf. paragraph 3.1.1) and the reading strategies represented by the different contents, devices and tools present in the application. The existence of a relationship between user’s task and reading strategies representations implies that when the adequacy is low, it becomes more difficult for the reader to accomplish the major task and to achieve the literary text comprehension and the habit-change. For this reason, on the base of this model, owing to the foreseen target audience and on the foreseen major task to be accomplished, designers should take care that the most adequate reading strategies are represented.

### 3.1.6.3 Conflicts among reading strategies

Designers often have to choose among contents, devices and tools representing different reading strategies. Not all of them can be simultaneously represented, because some of them clash. Conflicts can arise among different high-level reading strategies, among low-level strategies belonging to high-level strategies having a different importance for different user’s tasks, but also among low-level strategies belonging to high-level strategies having the same importance for a given user’s task. Conflicts arising among different high-level reading strategies can quite easily be solved by means of a more complete representation of the most important reading strategy and a less complete representation of reading strategies which are secondary in respect to a given user’s task. High-level reading strategies representations are not mutually exclusive. For instance, in M2 the high-level reading strategy 5 (“investigating the literary text according to a “personal” need or question”), which is important in relationship to T3, is strongly represented: concordances, sophisticated search possibilities, possibility to set bookmarks, low number of semantic associations between text and added materials and collections organizing added materials according to the type are all devices representing low-level strategies contributing to represent the high-level strategy 5 (cf. Appendix 3). However, this does not imply that interesting devices contributing to represent other high-level reading strategies, which are important as to T1 and T2, are not present. For instance, in M2 (and only there) we detected an interesting device for the representation of 3.1 (“paying attention to the literary text”), namely the possibility to hide annotations on the text of the play screens for “keeping the attention’s focus on the literary text”

(3.1.3). Also we detected the presence of devices such as arrows links allowing the reader to browse the text of the play sequentially (representing 3.1.4 “Reading the literary text following the order proposed by its author”) and as the displaying of added materials in “secondary” parts of the screen (representing 3.1.2 “distinguishing and recognizing literary text and added materials”).

Examples of conflicts arising among low-level strategies belonging to high-level strategies having a different importance for different user’s tasks are numerous. It is, for instance, the case of the low-level strategy 3.3.1 “accessing added materials about all the different aspects of the literary text” and the low-level strategy 3.1.3 “keeping the attention’s focus on the literary text”. The first contributes to the representation of the high-level strategy “exploring further information”, which is important in T2, while the second contributes to the representation of the high-level strategy “paying attention to the literary text”, which is important in T1. Other examples are:

- The low-level strategy 2.2.3 “understanding the semantic motivation of the correlation between a given portion of the literary text and a given added material” clashes with the low-level strategy 5.5 “establishing new relationships between the available added materials and the literary text, relationships that fit better to one’s need or question than the relationships made explicit in the application”. 2.2.3 belongs to the high-level strategy “integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to”, which is important in T2, while 5.5 belongs to the high-level strategy “Investigating the literary text according to a ‘personal’ need or question”, which is important in T3.
- The low-level strategy 2.2.4 “Relating information provided by added materials to the literary text” (particularly, the device “access to the added materials from the text’s screens”) clashes with the low-level strategy 3.1.3 “keeping the attention’s focus on the literary text”. 2.2.4 belongs to the high-level strategy “Integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to”, which is important in T2, while 3.1.3 belongs to the high-level strategy “Paying attention to the literary text”, which is important in T1.
- The low-level strategy 3.1.4 “reading the literary text following the order proposed by its author” clashes with the low-level strategy 5.1 “accessing the most relevant parts of the literary text”. 3.1.4 belongs to the high-level strategy “paying attention to the literary text”, which is important in T1, while 5.1 belongs to the high-level strategy “investigating the literary text according to a ‘personal’ need or question”, which is important in T3.
- The low-level strategy 3.3.2 “widely and deeply exploring the added materials” clashes with the low-level strategy 5.4 “retrieving information or passages of the literary text useful as to one’s need or question”. 3.3.2 belongs to the high-level

strategy “exploring further information”, which is important in T2, while 5.4 belongs to the high-level strategy “investigating the literary text according to a ‘personal’ need or question”, which is important in T3.

Examples of conflicts arising among low-level strategies belonging to high-level strategies having the same importance for a given user’s task are less numerous. However, they can occur. It is for instance the case of the low-level strategy 4.3 “not getting distracted by the operations entailed by the act of reading” (which comprises the possibility of “automatic displaying of the content of annotations and added material”) and the low-level strategy 3.1.3 “keeping the attention’s focus on the literary text”. Both the high-level reading strategies these two low-level reading strategies contribute to represent are important in T1. However, one cancels out the positive effect of the other.

In all these cases a decision is necessary. To make a decision means to support the representation of a strategy instead of another. This decision can be made only in relationship to the user’s task. It is necessary to decide which user’s task is the most important one for the application and therefore must be supported as strongly as possible. However, also technological constraints can play an important role.

### **3.1.7 The need of reading strategies representations in hypertextual transpositions**

To a certain extent, reading strategies representations are also present in printed editions of literary texts. In this sense, they are not exclusive of hypertextual transpositions. Some contents, devices or tools representing reading strategies are also present in printed editions of literary texts (see, for instance, indexes). However, there, mainly their presence remains implicit. On the contrary, their importance in hypertextual transpositions is higher, since their non-representation can prevent readers from an effective act of reading. In other words, we can say that in hypertextual transpositions reading strategies that are usually implicit when reading the literary text in a printed form, have to be made explicit, that is, they have to be represented.

This need of representation of reading strategies is the feature that differentiates hypertextual transpositions from printed editions of literary texts. This need comes from the combination of two main characteristics of hypertext we described at paragraph 1.1.3: the physical fragmentation of contents and the particular presupposition of hypertext. Since contents are fragmented and since no canonical reading order is presupposed, the reader needs more explicit devices in order to build the coherence during the act of reading. In a printed edition such elements are implicitly present on the base of the presupposition that the reader will begin her/his act of reading from the beginning of the text towards its end. The reading strategy in the case of a printed text is taken for granted, while in a hypertext (more specifically, in a hypertextual

transposition) it is not, since there this presupposition drops. This could be due to a cultural problem. But it could also be a technological one.

The fact that this explicitation is, at least for some aspects of the hypertextual transposition, necessary and essential is demonstrated by the fact that the non-explicitation of given reading strategies creates an obstacle that prevents the reader to put this reading strategy into effect. It is for instance the case of the use of scrolling menus<sup>97</sup> in the text's collection of M3. They prevent the reader to have an overview upon the content of the collection and, therefore, upon the position of a given scene in respect to the whole. The same can be said for the division in two layers of the access to the text in M1 (but in a weaker measure, since there the overview on the content of each act is available) and for the centre of the collection "Commedia" in DC2. A second example is offered by the fact that in M3, after having entered the text of a given scene, the non-sequential reading strategy is obstructed (no tool is available to browse another part of the text). The same happens in RJ1. This would never happen in a printed edition. There, the non-sequential reading strategy is not represented, but its non-representation does not prevent the reader to carry it out. A third example is offered by the representation of the sequential reading strategy. In MD1 once the reader entered the literary text collection only the possibility to move forward in browsing the literary text is represented. This prevents her/him to move back, to previous pages. This is absolutely impossible in a printed edition. Similarly, as we already pointed out at paragraph 1.3.2.2 ("Design patterns"), in M3 and RJ1 browsing the text sequentially is possible only within the text of a given act. Once the reader reaches the end of the act, s/he is automatically brought back to the homepage where s/he has to choose another act and another scene, even if s/he just wants to continue her/his reading in a sequential way. This is impossible in a printed edition. In MD1 both the possibilities to go back sequentially and to browse the text non-sequentially are prevented. In order to browse the text non-sequentially, the reader is obliged to go back to the collection centre where the index is available. The index is not displayed on the text page. These two preventions constitute important differences in respect to printed editions. In fact, in printed editions these two possibilities are not represented, but they are even not prevented. The reader can accomplish them despite the fact that they are not represented. On the contrary, in this site, because of the fact that these possibilities are not represented the reader cannot accomplish them.

In hypertextual transpositions the performance of reading strategies depends on their representation within the artefact, while in printed editions, mainly, reading strategies are independent on their representation within the artefact. It is interesting to note that this is an aspect that demonstrates that the reader can be freer in a printed text than in hypertext. In this sense, hypertextual transpositions have a more mediated nature.

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<sup>97</sup> Cf. note 89.

However, it has to be noted that also in hypertextual transpositions there are implicit reading strategies. It is for instance the case of reading strategies suggested by automatically activated elements of the application (2.3.7).

Finally, it is interesting to note that in printed editions we will not find different representations owing to the major user's task. In a printed edition only a privileged path is represented. One of the potentialities of new technologies consists in the possibility to adapt the representation to the user scenario. In hypertextual transpositions not only the text organization is considered, but the text organization for a given subject. Therefore, the user scenario becomes part of the text's organization.

### **3.1.8 Design patterns for representation of reading strategies**

The particular features of hypertext (particularly, the contents' fragmentation in nodes and the new presupposition upon which it is based, cf. paragraph 1.1.3) can constitute obstacles to an adequate performing of the above described reading strategies. The explicit representation of these reading strategies constitutes a means by which such obstacles can be overcome. In this sense, reading strategies can also be defined as ways to cope with problems arising during the reading of the literary text in hypertextual transpositions because of the hypertextual form. Therefore, the concept of reading strategy presents interesting similarities with the concept of design pattern used in the field of hypermedia design.

A design pattern "describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over" (Alexander et al. 1977 quoted in Garzotto, Paolini, Bolchini & Valenti 1999). As reading strategies, design patterns can be identified at different levels of abstraction. The design pattern identified at one level can be a refinement of the design pattern identified at an upper level of abstraction.<sup>98</sup> This means that design pattern can have a hierarchical structure as reading strategies representations have.

Given the similarity of these two concepts, reading strategies can be defined in terms of design patterns. Correspondently to each reading strategy, a design pattern can be identified, the aim of which is to overcome the difficulties preventing readers from

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<sup>98</sup> "A design problem can be dealt with at different levels of abstraction. For a museum information point, for example, we could say that the problem is 'to highlight the current main exhibitions for the casual visitor of the site.' Alternatively, at a different level of abstraction, we could say that the problem is 'to build an effective way to describe a small set of paintings in an engaging manner for the general public.' Yet at another level we could say that the problem is to 'create an audio-visual tour with automatic transition from one page to the next.' The third way of specifying the problem could be considered a refinement of the first" (Garzotto, Paolini, Bolchini & Valenti 1999).

adequately performing reading strategies. As the above-described model of the act of reading a literary text in a hypertextual transposition, they can provide sustain to designers as to the creation of conditions for an adequate comprehension of the literary text's significance.

We will describe such patterns following the requirements of design pattern definitions: for each pattern it is necessary to define a name, the problem it addresses, the solution it offers and examples of actual uses of the pattern (Garzotto, Paolini, Bolchini & Valenti 1999)<sup>99</sup> Examples are provided at appendixes 2 and 3.

As some of the reading strategies we identified recover Thüring at al.'s cognitive design issues for creating hyperdocuments (cf. paragraph 3.1.4), their correspondent design patterns recover some of Thüring at al.'s design principle (cf. 1995: 59).

<b>High-level design pattern</b>	<b>Description</b>
<i>1.1) Sustaining the reader's orientation within the formal, physical structure of the application as a whole.</i>	<p>Problem: in hypertextual transpositions the satisfaction of the reader's need of getting oriented within the application (that is, of understanding which is the position and the relationship of the part s/he is exploring in respect to the whole) can be prevented by the contents' fragmentation in lexias and by the impossibility to access to the hypertextual transposition directly through our senses. This constitutes a general problem of hypertexts (not a specific problem of hypertextual transpositions), arising from the physical fragmentation that characterize their structure. In hypertext research this problem is referred to as "informational shortsightedness" (Storrer 2002: 109).</p> <p>Solution: to offer supports to user's orientation during the navigation within the application. As Storrer (2002: 10-11) proposes, structure overviews (mainly, web views or site maps) can contribute to the solution, because they help the reader in estimating the structure and the size of the application and in identifying the main entry points and the structural backbone of the hyperdocument. However, also other different solutions have been detected in hypertextual transpositions (cf. Appendix 3).</p>
<b>Low-level design patterns</b>	<b>Description</b>
<i>1.1.1) Making explicit the current reader's position within the whole.</i>	<p>Problem: because of the above-described reasons, it is difficult for the reader to understand where s/he is, that is, which is the position and the relationship of the page s/he is exploring in respect to the whole.</p> <p>Solution: to represent the path the user accomplished, its relationship to the rest of the application and the reader's current position within this path.</p>

<sup>99</sup> The definition schema of a pattern should also include a list of related patterns (which however is optional) and a discussion of any aspect that can be useful for better understanding the pattern. In our case, the list of related patterns is pointed out by the hierarchy of low-level and high-level reading strategies representations highlighted in the tables at Appendix 3.

<p><i>1.1.2) Making explicit to the reader how s/he can perform a given operation.</i></p>	<p>Problem: user's disorientation within the application can derive from her/his disorientation about the function and the working of the available tools and devices. Solution: to explain (to make explicit) the function of the available tools and devices.</p>
<p><i>1.1.3) Making the reader finishing the exploration of a given path before exploring something else.</i></p>	<p>Problem: user's disorientation within the application can derive from frequent jumps among different parts of the application. The reader follows the links available on the screen s/he is reading, thus interrupting the fruition of a given part and passing to another part, which substitutes the previous one on the screen. Solution: to avoid that the fruition of a new content necessarily requires or automatically implies abandoning the content the user was exploring. The use of the design pattern of information factoring sustains the performance of the related reading strategy.</p>
<p><i>1.1.4) Making the reader aware that s/he is passing from the literary text to the added material.</i></p>	<p>Problem: user's disorientation within the application can derive from the fact that the reader does not realize that, by clicking on a given link, s/he will enter another type of content (a content with a different function in respect to the one s/he was previously exploring). Solution: to warn the reader about her/his step toward a different content.</p>
<p><i>1.1.5) Making the different kinds of content visually recognizable.</i></p>	<p>Problem: user's disorientation within the application can derive from confusion about the included different kinds of contents. Solution: to distinguish the different kinds of contents of the hypertextual transposition, making the distinction visually recognizable.</p>

At paragraph 1.3.2 (when summarizing the results of our analysis of hypertextual transpositions) we already described some of the devices and tools providing solutions for the above-described design patterns. For instance, we noticed the interesting use of the audio device made in M1. There, within the text of the short essays of the "Themes" collection or at their end links to passages of the text of the play, which are interesting in relationship to the content of the essay, are provided. However, when clicking on these links, the reader is not brought to the correspondent text of the play's screen, but s/he activate an audio file that allows her/him to listen to the recitation of the interesting passage. In this way, the reader does not jump between different parts of the application. S/he can access to the interesting passage without abandoning the fruition of the essay. This device constitutes an interesting example of solution for design pattern 1.1.3.

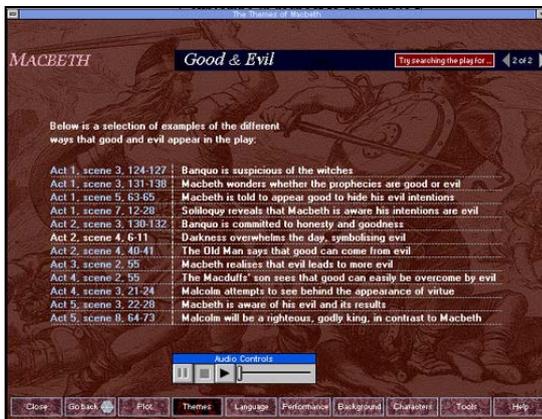


Fig. 108 – M1 – The audio device allows the reader to access to the interesting passages of the text of the play without interrupting the fruition of the added material.

Another interesting solution for this design pattern can be found in M2. There, in order to present the added materials, which are supposed to be the ones the reader needs to consult while reading the play, the information factory pattern (cf. paragraph 1.3.2.2, “Design patterns”) is used. Therefore, when the reader browses the essays about collation and casting or the commentaries and summaries from the tool box (and not from the main collections of the homepage) starting from a text of the play screen, the text of these essays appears in floating windows overlapping with the page of the text of the play. Also additional commentaries included in these essays are displayed in this way. Thus, these contents are displayed within the context of the text of the play. The reader explores them without losing trace of the path s/he was previously following (the reading of the text of the play).

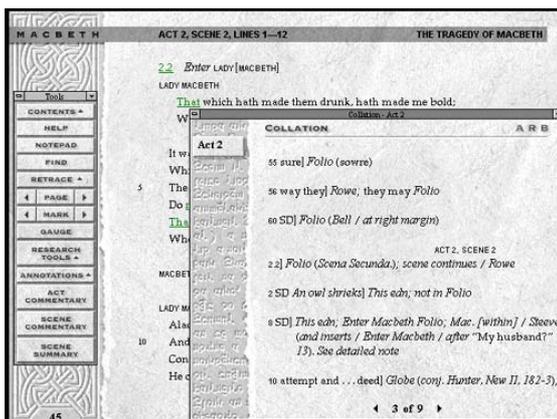


Fig. 109 – M2 – The collation essay appears in a floating window.

In DC2 an interesting device is used in order to make the reader aware that s/he is passing from the added material to the literary text (design pattern 1.1.4). In this hypertextual transposition, as we already pointed out at paragraph 1.3.2.2 (“Accessibility

of the literary text starting from the added materials”), when the reader finds on a given annotation a link to an interesting passage of the literary text, this passage is displayed in a new pop-up window. In this pop-up window a link is available allowing the reader moving to and displaying in the main window (instead of the added material the user was reading) the literary text’s screen containing this passage. In this way, the access to the interesting passage of the literary text starting from annotations is not direct. There is an intermediate step that allows the user reading the passage s/he needs to read without leaving the literary text screen s/he is exploring and which makes the reader aware that s/he is accessing the literary text (cf. also the sentence “Click On Link To Display Lines in Main Poem Browser”).

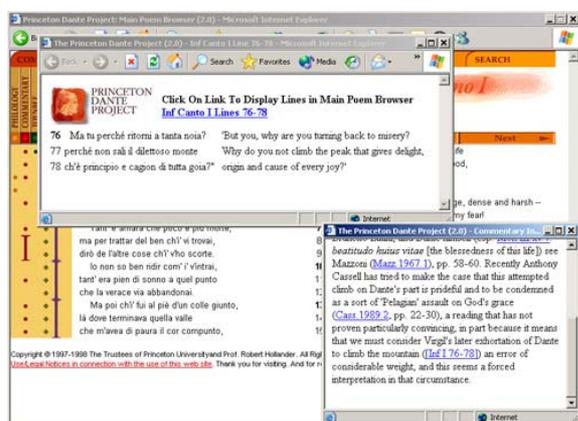


Fig. 110 – DC2 – The passage of the literary text which is interesting in respect to a given added material is not directly displayed in the main window, but in a new pop-up window.

High-level design pattern	Description
1.2) <i>Sustaining the reader's orientation within the whole physical structure of the literary text.</i>	Problem: the satisfaction of the reader's need of getting oriented within the physical structure of the literary text (division of the text in chapters, acts or scenes, cantos, etc.) can be prevented by the contents' fragmentation in lexias and by the impossibility to access to the hypertextual transposition directly through our senses. It can also be difficult for the reader to perceive the size of the literary text. Solution: to make the physical, formal structure of the literary work immediately perceptible. Partly the solution consists of structures overviews (Storrer 2002: 11) of the literary text.
Low-level design patterns	Description
1.2.1) <i>Visualizing the physical structure of the literary text (before entering the literary text itself).</i>	Problem: because of the medium and because of the type of contact the user can establish with the hypertextual transposition (that is, because of the impossibility to access the literary text through our senses), it can be difficult for the reader to perceive or to represent in her/his mind the overall physical structure of the literary text. Solution: to represent the physical structure of the text,

	making it visually perceivable before entering the literary text itself.
<i>1.2.2) Constantly visualizing the physical structure of the literary text (after having entered the literary text).</i>	Problem: after having entered a given part of the literary text, it is important for the reader to maintain the overview upon the whole structure of the literary text. Solution: the representation of the whole structure of the literary text has to be constantly available and accessible.
<i>1.2.3) Constantly indicating the number or title of a given part of the literary text.</i>	Problem: after having entered a given part of the literary text, it can happen that the reader forgets which part it is. This fact can cause disorientation and prevent the reader from making aware choices of her/his further navigational steps. Solution: to represent the current reader's position within the whole of the literary text, indicating on the screen the number or title of the part of the literary text s/he is currently exploring. It is interesting to note that this problem is also present in printed annotated editions and that also there a similar solution has been adopted. For instance, in many printed editions the number or title that identifies a given part of the literary text is printed in the header of each page.
<i>1.2.4) Indicating the size of the part the reader is currently exploring.</i>	Problem: the impossibility to access to the literary text through our sense and the risk to get lost during the navigation can prevent the reader to understand which is her/his position within a given part of the literary text (that is, to understand if s/he is at the beginning, in the middle or near the end of that part). Solution: to indicate the size of the part of the literary text the reader is exploring.

Solutions to problems related to design patterns 1.2.1 usually consist in displaying the index of the literary text and in using it as access tool to the different parts of the text itself. As we underlined at paragraph 1.3.2.2 (“Access to the literary text”), these devices provide solutions in reproducing a common practice of printed annotated editions. For instance, in DC1, once the reader chooses the “Inferno” link on the homepage, s/he gets a screen divided in three frames. In the left frame the index of the literary text is displayed. This device provides solution also to problems related to design patterns 1.2.2 and 1.2.3. In fact, the left frame always remains available. Thus, the reader can constantly visualize the physical structure of the literary text. Besides, the anchor of the link leading to canto the reader is currently exploring (the text of which is displayed in the right frame) is highlighted. In this way, the number of the part of the literary text the reader is exploring is always indicated.

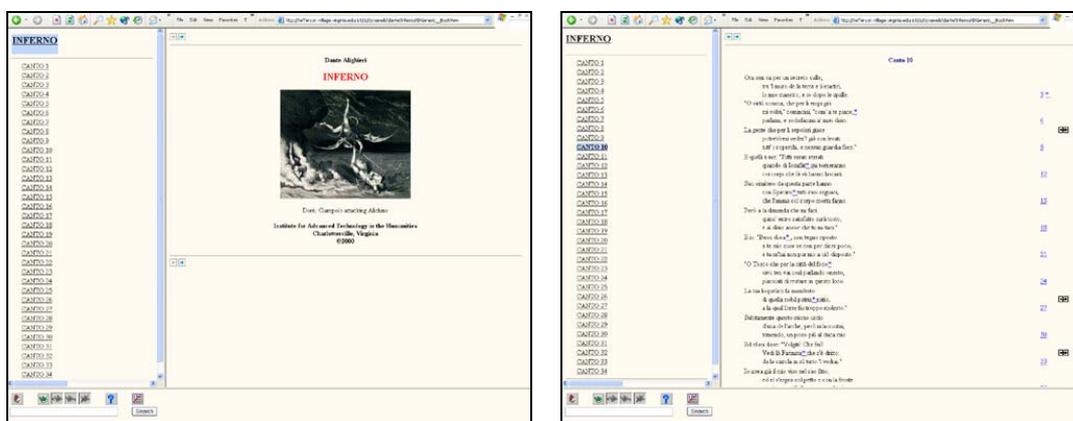


Fig. 111 – DC1 – When entering the literary text's collection, the index is made available; it remains available in the left frame and the part the reader is currently exploring is highlighted.

Also the scene navigator, made available in M1 (and which we already described at paragraph 1.3.2.2, “Access to the literary text”), is an interesting device providing solutions to problems related to design patterns 1.2.2 and 1.2.3. At the bottom of each text of the play's screen a bar, divided in segments corresponding to the acts and scenes composing the play, is displayed. This device allows the reader to constantly visualize the physical structure of the play, while reading it. Besides, since the segment corresponding to the scene to which the screen the user is currently exploring belongs is highlighted in red, the user always knows her/his position within the whole of the play.



Fig. 112 – M1 – The scene navigator, available at the bottom of each text screen.

In other hypertextual transpositions solution for design patterns 1.2.2 and 1.2.3 is provided by the presentation in the navigation bar of a detailed anchor for the access link to the literary text's collection. It is the case of DC3. There, in the navigation bar a link to each single canto (the anchor of which is a point) is provided and the point corresponding to the canto the reader is currently exploring is highlighted.



Fig. 113 – DC3 – In the navigation bar, a detailed anchor to the literary text’s collection is available; in it the point corresponding to the canto the reader is currently exploring is highlighted.

High-level design pattern	Description
2.1) <i>Sustaining the reader’s orientation within the whole of the narration.</i>	<p>Problem: The physical fragmentation to which the literary text undergoes can prevent the reader from perceiving the relationship of what is narrated in a given part of the literary text to the whole narration.</p> <p>Solution: to represent the wholeness of the literary text, in making available devices recalling and allowing the reader to recover it.</p>
Low-level design patterns	Description
2.1.1) <i>Indicating the spatial and temporal coordinates of the events narrated in a given part of the literary text.</i>	<p>Problem: in a hypertextual transposition the reader can choose to read the different parts of the literary text in an order different from the canonical order established by the author of the literary text. Therefore, it can happen that the reader enters a given part of the text, but s/he does not have in mind the setting where what it is narrated in that part takes place.</p> <p>Solution: to provide information about the setting where the narrated events take place on each text screen (mainly, this has to do with the indication of the spatial and temporal coordinates).</p>
2.1.2) <i>Providing easy and direct access to the representation of the whole narrated story.</i>	<p>Problem: because of the physical fragmentation of the literary text and because of the situation described at 2.1.1, a given part of the literary text can be read as abstracted of the rest of the narration. This can prevent the reader from gaining an overview on the whole of the narrated story.</p> <p>Solution: to represent or summarize the whole of the narration and to make this summary (this representation) easily and constantly accessible to the reader.</p>
2.1.3) <i>Making explicit the relationships among different elements of the narrated story.</i>	<p>Problem: because of the physical fragmentation of the literary text and because of the fact that the reader can choose to read the different parts of the literary text in an order different from the canonical order established by the author of the literary text, it is possible that the reader is not able to</p>

	<p>recognize and understand which is the relationship among different elements of the text (events and places, events and characters, different characters, different places, etc.).</p> <p>Solution: to include in the hypertextual transposition devices making these relationships explicit, in summarizing or representing them.</p>
<p><i>2.1.4) Possibility to retrieve information about previous mentioned narrative elements.</i></p>	<p>Problem: because of the fact that the literary text at the centre of the hypertextual transposition presupposes a given canonical reading order, while the hypertextual transposition presupposes the possibility to read the different parts of the hypertext in several different orders, it is possible that, while reading a given part of the literary text, the reader encounters elements the knowledge of which is taken for granted. For instance, a given character is mentioned, a given fact or a given place. It is also simply possible that the reader forgot some previous narrative elements. This problem is a consequence of what Angelika Storrer called “lack of a fixed text sequence” (2002: 10) and it affects the dynamic coherence during the act of reading. “[Hence,] while composing a subtopic in a hypertext node, the author does not know for certain which information the reader will have processed so far, which of the possible referents will have been introduced, and which of those references will be accessible in the reader’s current focus of attention” (2002: 10).</p> <p>Solution: to constantly provide the possibility to retrieve information about previous narrative elements.</p>

Interesting solutions to problems related to design pattern 2.1.1 can be found in DC1, DC3 and O1. In DC1 a dynamically generated VRML visualization of Dante’s Inferno is accessible from the homepage. It allows the reader to have a complete view on the Inferno and also to visualize “distribution, density, and proximity of various references in Dante’s text (such as all mentions of biblical people, or all references to mythical places)” (The World of Dante, <http://jefferson.village.virginia.edu/hell/>). Thus, it also provides a solution to problems related to design pattern 2.1.3.

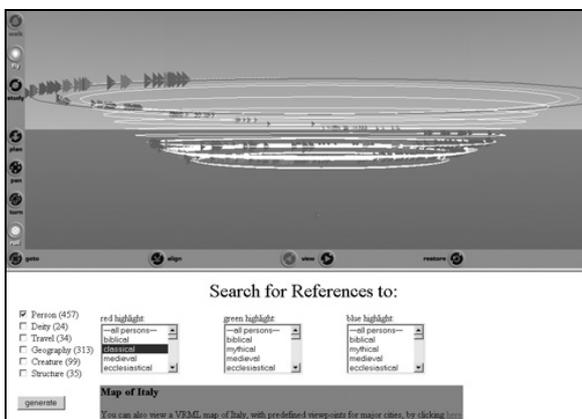


Fig. 114 – DC1 – 3D View of Dante’s Inferno (with the distribution of classical persons).

In DC3, as we already explained at paragraphs 1.3.2.2 (“Design patterns”) and 3.1.3.1, when rolling over the icon of the literary text’s collection centre, corresponding to each canto, the reader gets at the bottom of the page information about the events narrated in that canto (place, date, time and main involved characters). This possibility remains available also once the reader entered a given canto. In fact, the same information is provided when rolling over the anchors representing the different cantos in the upper navigation bar.



<b>Canto</b>	<b>XXV</b>
<b>Luogo</b>	<b>Cerchio VIII, bolgia VII</b>
<b>Giorno</b>	<b>mezzogiorno, sabato 9</b>
<b>Personaggi</b>	<b>Vanni Fucci, Caco</b>

Fig. 115 – DC3 – The possibility to roll over the icon representing the different cantos in the upper navigation bar and thus get information about the events narrated in that canto is provided also once the reader entered the literary text.

The “Incontri” collection centre of O1, consisting of a map representing Odysseus’ journey, allows the reader to visualize where the narrated events take place. Since this map (as we already highlighted at paragraph 1.3.2.1, “Impact of multimediality on contents”) corresponds to the Odyssey’s fabula, it also constitutes an interesting solution for the representation of the whole of the narrated story related to design pattern 2.1.2.

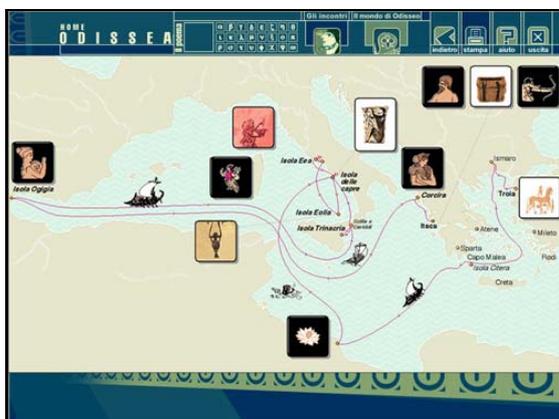


Fig. 116 – O1 – Map constituting the “Incontri” collection centre.

High-level design pattern	Description
<p>2.2) <i>Sustaining the reader in integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to.</i></p>	<p>Problem: Because of the physical fragmentation of the literary text and of the contents of the hypertextual transposition, the particular presupposition of hypertext (that does not prescribe a canonical order for reading the contents) and also because of the higher deal of information available in a hypertextual transposition (owing to which the problem of the reader’s choices becomes more important), the relevance of a given annotation or of a given added material in respect to the literary text can be unclear to the reader. This difficulty constitutes another aspect of the semantic-cognitive fragmentation.</p> <p>Solution: to sustain the understanding of this relevance (and, therefore, of the cognitive integration of annotations and added material and literary text), in manifesting as clear as possible the relationship between added material and annotations and the literary text through different means.</p>
Low-level design patterns	Description
<p>2.2.1) <i>Distinguishing the different kinds of added materials or annotations.</i></p>	<p>Problem: Because of the high deal of information the reader can access to in the hypertextual transposition and because of the easiness with which the reader can pass from one type of added material to the other, the reader can get confused about the type of a given added material and, therefore, about the function it has in respect to the literary text.</p> <p>Solution: to represent the distinction among the different kinds of materials, making it visually recognizable.</p>
<p>2.2.2) <i>Manifesting as precisely as possible the physical correlation between a given added material and the literary text.</i></p>	<p>Problem: Because of physical fragmentation of contents (owing to which contents appear on the screen, and can be understood, as autonomous elements), it is possible that the precise reference of a given added material to the literary text is unclear.</p> <p>Solution: to manifest as precisely as possible the physical correlation between a given added material and the literary text.</p>

<p><i>2.2.3) Manifesting the semantic correlation between a given added material and the literary text.</i></p>	<p>Problem: Anchors of hyperlinks providing access to added materials can be opaque at the semantic level. Therefore, the reader cannot understand the semantics of the correlation between a given added material and the literary text. However, the understanding of this correlation is essential to the reader. The reader can infer it, but this entails a risk of misunderstanding. MLA guidelines underlined that “the links themselves should include information to indicate their scholarly purpose and to facilitate searching by category (e.g. source)” (MLA 1997). Solution: to manifest as precisely as possible the semantic motivation of the linkage between a given added material and the literary text.</p>
<p><i>2.2.4) Providing the possibility of viewing simultaneously (in parallel) text and added material.</i></p>	<p>Problem: during the navigation path within the hypertextual transposition different contents succeed one to the other on the screen. It can happen that the visualization of a given content prevents the reader to continue viewing the previous one. Since added material and annotations aim to comment (to better explain) the literary text, this visual separation does not help the reader in integrating the added material and the passage of the literary text it refers to. Besides, we are accustomed to different situations in printed editions, where the spatial contiguity among literary text and annotations sustains this integration. Solution: to make possible to view simultaneously (in parallel) the text and the added material.</p>
<p><i>2.2.5) Making the added materials accessible from the literary text screens.</i></p>	<p>Problem: in a hypertextual transposition the reader can start her/his navigation from content different from the literary text and s/he can consume the added material even independently on the literary text. This can render the integration of the added material to the literary text more difficult for the reader. Solution: to make the reader access to the added material from the literary text.</p>

In several hypertextual transpositions frames are used in order to distinguish among different kinds of added materials or annotations (that is, in order to provide a solution for design pattern 2.2.1). It is for instance the case of DC3, where on each literary text’s screen frames are used in order to distinguish among Natalino Sapegno’s annotations, image related to the displayed portion of the literary text and the literary text’s paraphrase (cf. fig. 115).

In the left frame of the literary text screens of DC2 different links providing access to different kinds of added materials and annotations are available. Besides providing a solution for design pattern 2.2.1 (thanks to the use of different colours for different kinds of materials), they also provide a solution for design pattern 2.2.2. In fact, as we already pointed out at paragraphs 1.3.2.2 (“Manifestation of the relevance of added materials to the literary text”) and 2.2.3.1, the anchors of these links have a different shape according to the part of the literary text the material they provides access to relates to. The shape of

the anchor signals to which part of the literary text the link refers to. More precisely, if the material the user will access through a given link relates to a single verse, the anchor has a point shape. If this material relates to a group of verses, the anchor is a bar that embraces the interested group of verses.



Fig. 117 – DC2 – Anchors can have a point shape or a bar shape owing to the part of the literary text the correspondent links refer to.

In M3 and RJ1 another solution is provided to the same problem in relationship to the links providing access to words' and expressions' definitions on the text of the play's screens. As we described at paragraph 1.3.2.2 ("Literary text presentation"), there, the words to which the definition refers are highlighted in blue and the definition (in red) substitutes these words on the screen directly within the text of the play; just by rolling-over the synonyms or paraphrase appear at the place of the link. In this way the reader can easily integrate the explanation with the rest of the text. It is interesting to note that this device represents an advantage of hypertextual transpositions in respect to the book technology. Such a device is impossible in printed editions.

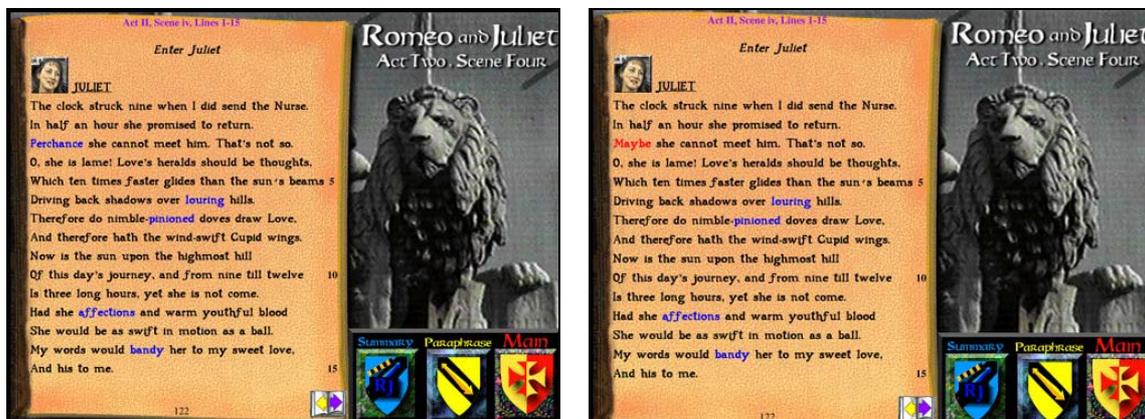
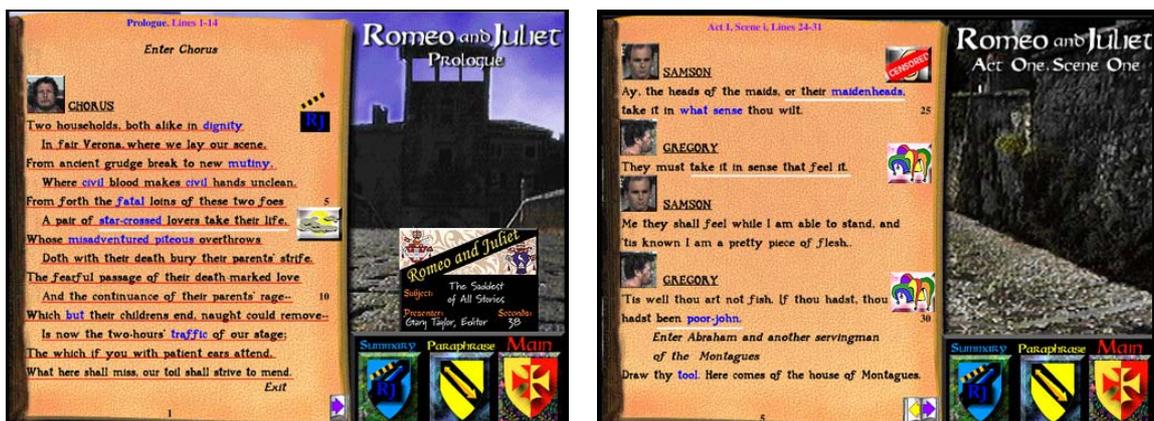


Fig. 118 – RJ1 – The definition ("maybe") of the word "perchance" at line 3 substitutes the link's anchor within the text of the play.

In M3 and RJ1 also an interesting device constituting a possible solution for design pattern 2.2.3 is available. There, the anchor of certain links, available on the text of the play's screen, manifests the meaning of the link itself. They represent the motivation of the relationship established between a given passage of the literary text and the added material to which they provide access. In RJ1 four types of links belong to this category. Their anchors are all icons, namely the drawing of a clapperboard, on which the initials of the names of the main play's characters are present ("RJ" clapperboard link), the drawing of a sun, which is partly darkened by clouds, and of a music track (foreshadowing link), the drawing of an ear upon which a label with the word "censored" is set and of a voice saying "Nasty!" (censored link), the drawing of a forefinger placed on the mouth in order to mean silence and of a music track and a voice saying "I love him" (confession link), the hat of a jester and of the sound of a drum roll (jester's hat link). They all related a given passage of the text of the play to the paraphrase page (exactly the same s/he will access clicking on the link "Paraphrase"). However, these anchors point out the feature (mainly, it is a stylistic feature) owing to which the passage of the text side to which the link is set is interesting. Namely, the "RJ" clapperboard link provides access to the video clip representing the passage of the play side to which it is set, the foreshadowing link points out passages of the text where there is a presage, the censored link points out passages of the text where a double meaning or a nasty allusion is present, the confession link point out passages of the text where the theme of the sacrament of confession appears, the jester link points out passages of the text where ironic cues are present.



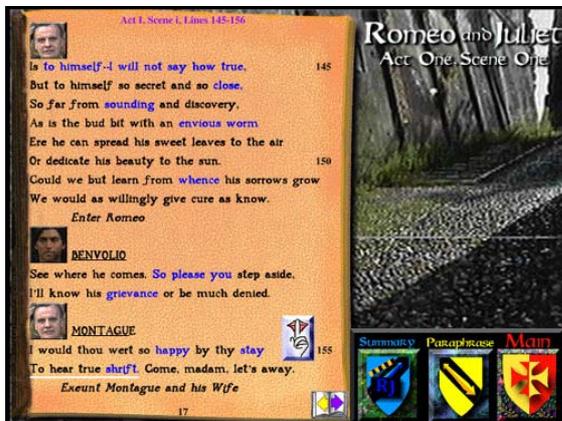


Fig. 119 – RJ1 – “RJ” clapperboard, foreshadowing, censored, confession and jester’s hat links.

High-level design pattern	Description
3.1) <i>Bringing the literary text to the reader’s attention.</i>	Problem: it has to be avoided that, because of the particular presupposition of hypertext and because of the physical fragmentation, the reader explores all the parts of the hypertextual transposition except for the literary text or without relating all these parts to the literary text. Solution: to make available the access to the literary text as frequently, as clearly and as easily as possible.
Low-level design patterns	Description
3.1.1) <i>Making the access to the literary text privileged.</i>	Problem: because of the several different available choices, the reader’s attention can be attracted by all the other hypertextual transposition’s contents, neglecting the literary text itself. Solution: to highlight the access link to the literary text, rendering it a privileged choice among all the other possibilities.
3.1.2) <i>Differentiating literary text and added materials.</i>	Problem: Because of the several different contents available in the hypertextual transposition, the literary text can be neglected and considered simply as one of these different contents. This fact can prevent the reader from perceiving the centrality of the literary text itself. Solution: to represent the distinction between literary text and added material, making it visually perceivable.
3.1.3) <i>Presenting the text free of added materials.</i>	Problem: Because of the presence of hyperlinks on the literary text’s screens, it is possible that the reader is distracted from her/his attention to the literary text itself and that s/he runs away from it. Thus, s/he begins to explore further material about the literary text, but s/he will omit to reading the text itself. Solution: to make the hyperlinks, providing access to information and explanations of the different aspects of the literary text, as unobtrusive and discrete as possible.
3.1.4) <i>Explicitly representing the sequential reading strategy.</i>	Problem: Because of the particular presupposition upon which hypertext is based and because of the physical

	<p>fragmentation of the literary text in the hypertextual transposition, the performance of the sequential reading modality can be difficult. It can be not evident to the reader how to perform it.</p> <p>Solution: to provide evident devices and tools allowing the reader to adopt the sequential reading strategy.</p>
<p>3.1.5) <i>The added material brings the reader's attention to the literary text.</i></p>	<p>Problem: Once the reader follows a link bringing her/him to further information about a given aspect or element of the literary text itself, s/he can find there other links bringing her/him to further information about this particular aspect or element or to other topics related to it. Thus, it can happen that the reader begins to explore a theme or topic, interrupting (or even without beginning) the reading of the literary text itself.</p> <p>Solution: to provide on the added materials pages an evident possibility to browse to the literary text pages.</p>

As we pointed out at paragraph 1.3.2.2 (“Access to the literary text”), in the majority of the analyzed hypertextual transpositions the access to the literary text is highlighted. This can be done in different ways. For instance, in H2 the access link to the text of the play’s collection is graphically striking. In fact, its anchor is constituted by an animated icon. Besides, this link is constantly proposed on the other main collection centres, not only in the navigation bar (as all the other links for accessing the main collections are), but also in the right part of the screen. In this way, it is presented to the reader as a privileged choice, thus providing a solution for design pattern 3.1.1.

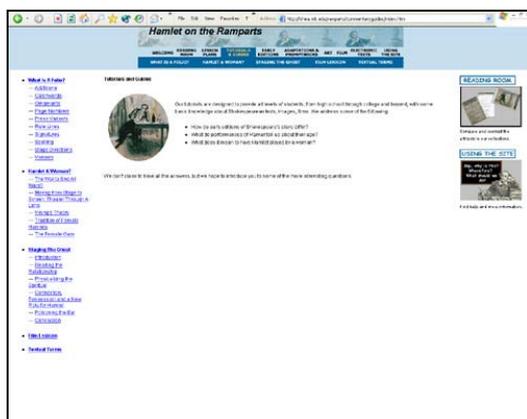


Fig. 120 – H2 – The access to the “Reading room” is proposed not only in the navigation bar, but also by means of the animated icons on the left side of the screen.

Design pattern 3.1.5 is systematically applied in M3 and RJ1. There, as we already underlined at paragraph 1.3.2.2 (“Navigation among different added materials”), all the links available on the text of the play screens are double-way. Therefore, when accessing any of the available added materials from the text of the play screens, either a “Return to

the text” link is provided or the reader is automatically brought back to the text of the play’s screen (this always happens at the end of a video clip’s fruition).

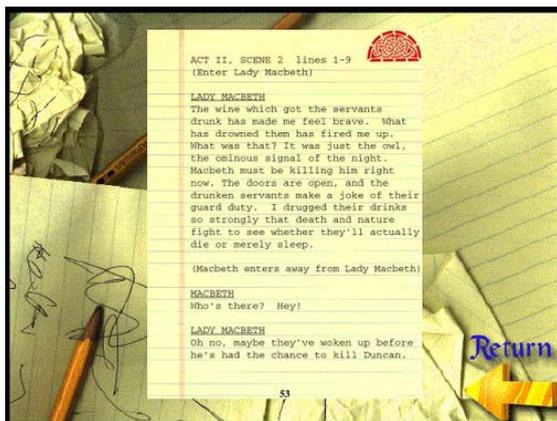


Fig. 121 – M3 – On the paraphrase page an evident “Return” link, leading the reader back to the text of the play, is provided.

As we already underlined at paragraph 1.3.2.2 (“Design patterns”), in almost all the analyzed hypertextual transpositions the literary text’s collection is organized as a guided tour. This means that arrows links or next/previous links, allowing the reader to browse the text back and forth in a sequential way, are available. These links constitute an application of design pattern 3.1.4.



Fig. 122 – MM1 – Next/previous links allow the reader to browse the text of the play in a sequential way.

Another more particular application of design pattern 3.1.5 can be found in DC2 (on the homepage of which the links “Inferno”, “Purgatorio” and “Paradiso” provide access to the beginning of each cantica) and in M1 (where the possibility “From the beginning” is offered in the filtered access to the text of the play).



Fig. 123 – DC2 – Links “Inferno”, “Purgatorio” and “Paradiso” on the homepage.

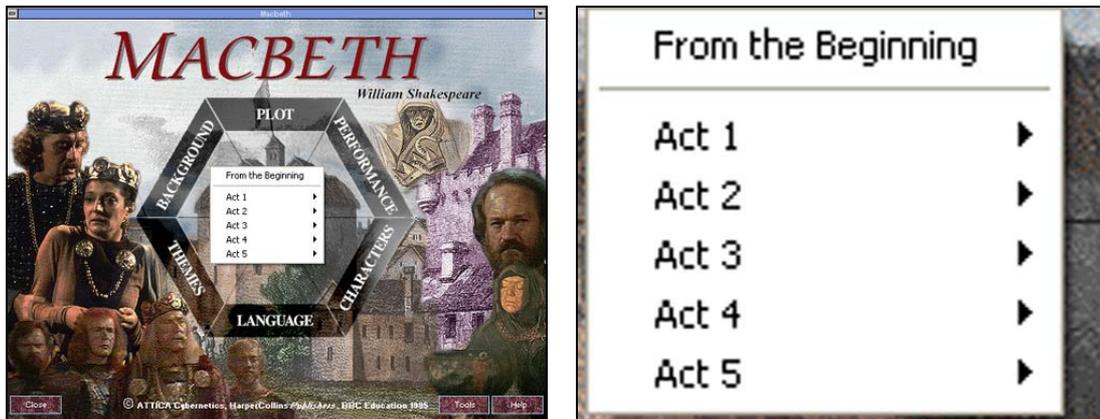


Fig. 124 – M1 – “From the beginning” possibility.

High-level design pattern	Description
3.2) <i>Bringing the reader’s attention to all the essential representations of the literary work.</i>	<p>Problem: Because of the contents’ fragmentation and because of the reader’s freedom of navigation, it is possible that the reader does not access to the visual and/or acoustic representations, which are essential to a full literary text’s comprehension.</p> <p>Solution: to make available and easily accessible from the literary text these audio and visual representations.</p>

A complete and effective application of design pattern 3.2 can be found in M1. There, as we already described at paragraph 1.3.2.2 (“Automatically activated elements”), when the reader accesses to the text of the play, the audio file with the recitation and (when available) the video clip of the filmic representation of the displayed passage of the play are automatically activated. If the reader does not intervene, the text is automatically browsed according to the progression of the audio file. Also the update of the images of

the characters on stage in the scene, the text of which is displayed in the left frame, is automatic.



Fig. 125 – M1 – The video clip is automatically activated.

When the acoustic and/or the visual representations of the literary text have to be accessed and activated by the reader (instead of being automatically displayed and activated), we have a weaker application of design pattern 3.2. It is for instance the case of O1, where the reader has to enter another main collection in order to access both to the video clips with the filmic representation of the literary text (the reader has to choose the “Incontri” collection) and to the audio files with the reading aloud of some excerpts of it (the reader has to choose the collection “Brani audio” of the “Il mondo di Odisseo” collection of collections).



Fig. 126 – O1 – Video clips have to be accessed from the “Incontri” collection and audio files from the collection “Brani audio” of the “Il mondo di Odisseo” collection of collections.



When entering the text of a canto, images, paraphrase and Sapegno’s annotations (related to the passage of the canto presented on that screen) are displayed per default (cf. fig. 115).

Applications of design pattern 3.3.2 are for instance the guided search possibilities offered in M1 at the end of each essay presenting a main theme of the play (cf. paragraph 1.3.2.2, “Search tools”) and the thematic reading paths proposed in the “Percorsi” collection of DC5.



Fig. 128 – M1 – Guided search possibilities.

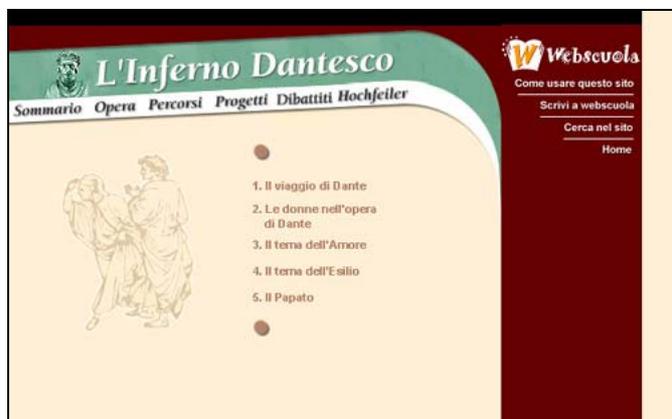


Fig. 129 – DC5 – “Percorsi” collection.

<b>High-level design pattern</b>	<b>Description</b>
<i>4) Supporting a seamless experience.</i>	<p>Problem: While the understanding of the literary text requires the immersion of the reader's attention, when reading it in a hypertextual transposition, the reader can be distracted by the choices s/he has to perform in order to navigate in a coherent way or by the cognitive effort required by the need to process and understand different kinds of information and to relate them one to the other. Once more, the reader can fall in the trap of cognitive overhead (Conklin 1987).</p> <p>Solution: to make the reading experience in the hypertextual transposition as seamless as possible, making available devices that sustain the reader in easily relating the different available materials and in avoiding to invest too much attention in navigational choices.</p>
<b>Low-level design patterns</b>	<b>Description</b>
<i>4.1) Providing immediate access and support to the integration with the literary text of visual and audio contents that are essential for an adequate reading and comprehension.</i>	<p>Problem: Owing to a given structure of the hypertextual transposition, it can be difficult for the reader to relate the literary text and the contents devoted to the visual and/or acoustic representations. Thus, it is difficult for the reader to integrate them with the literary text.</p> <p>Solution: to make available devices that relate or that allow the reader to easily relate the audio and visual contents and the literary text.</p>
<i>4.2) Making the layout level cooperating to the representation of the literary text's narration.</i>	<p>Problem: the presence on the page of signs necessary for the navigation or for the presentation of the contents makes the reader aware of the constant process of metareading s/he has to perform when navigating. This fact can distract the reader from the focus on the literary text and application's contents, that is, from the immersion in the literary text.</p> <p>Solution: to make the layout of the hypertextual transposition pages as much as possible coherent with the theme of the literary text. In this way the signs necessary for the navigation or for the presentation of the contents cooperate to the representation of the literary text narration. Instead of distracting the reader from the narration, they help her/him in understanding it. It is something similar to the use of interface metaphors in order to build the reference frame, essential for the reader in order to build the text coherence (Storrer 2002: 12).</p>
<i>4.3) Providing immediate access to the added materials.</i>	<p>Problem: the necessity to make choices at a metareading level in order to access the added materials (cognitive overhead, see Conklin 1987) distracts the reader from the operation of cognitive integration of these materials with the literary text or with other added materials.</p> <p>Solution: to make the access to the added material as immediate as possible.</p>

Applications of design pattern 3.2 also constitute applications of design pattern 4.1. In fact, the more the access to the visual and/or acoustic representations of the literary text

and their integration with the literary text is immediate, the more the reader's fruition will be seamless.

In M3 screens backgrounds and some links' anchors cooperate to the representation of the literary text's narration, thus applying design pattern 4.2. There, the backgrounds of the screens containing the text of the play are composed of two parts (two frames): the left part (where the text of the play is reproduced) imitates a page of an old book and the right part (where unembedded links are available) reproduces an object, a place or a scene emblematic in respect to the portion of text contained in the left frame. Besides, within the text of the play, at each cue the portrait of the speaking character is available. It consists of a drawing and it constitutes the anchor of the link bringing the reader to the correspondent character's description.

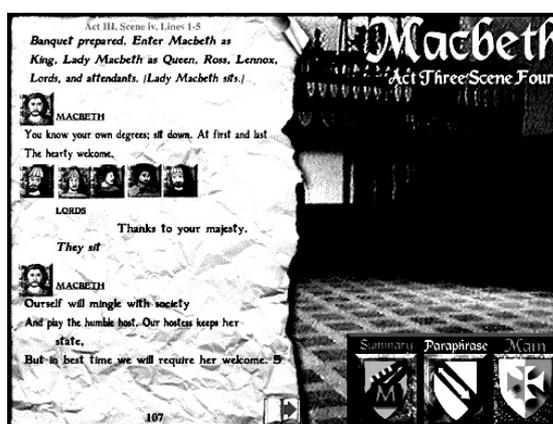


Fig. 130 – M3 – Screen backgrounds and links' anchors cooperating to the representation of the literary text.

The above-described automatic displaying of the content of annotations and added materials we detected in DC3 and its automatic synchronization in respect to the progression of the reading of the literary text are a good example of solution for design pattern 4.3.

High-level design pattern	Description
5) Supporting the investigation of the literary text according to "personal" reader's needs or questions.	Problem: In implementing hypertextual transpositions choices are made as to the contents and the navigational possibilities to be offered. These contents and navigational possibilities reflect a given interpretation of the literary text's significance. The non-availability in the hypertextual transposition of given devices and facilities can limit the reader's freedom in navigation, thus preventing the reader (especially, the expert reader) to look for answers to "personal" needs and questions about the literary text. The possibility to explore the hypertextual transposition according to new criteria is

	<p>important for the reuse of the application.</p> <p>Solution: to make available devices allowing the reader to easily follow new reading paths, reading possibilities that remain unexpressed in the reading paths explicitly represented in the hypertextual transposition.</p>
<b>Low-level design patterns</b>	<b>Description</b>
<i>5.1) Making possible free retrieving of information or passages of the literary text according to personal criteria.</i>	<p>Problem: Because of the big deal of information and contents available and because of the risk of disorientation coming from the physical fragmentation of the contents, it can be difficult for the reader to retrieve interesting passages of the literary text or information. Besides, because of the physical fragmentation and because of the non-accessibility of the electronic text through our senses, it can happen that the reader cannot move freely without being disoriented.</p> <p>Therefore, it can be difficult to her/him to easily jump in between different non-contiguous parts of the literary text.</p> <p>Solution: to make available tools and devices that easily allow the reader to retrieve previously read passages or information. Besides, to explicitly represent the possibility to browse the literary text non-sequentially, making available an apposite device.</p>
<i>5.2) Making the displaying form of the literary text customizable.</i>	<p>Problem: Usually, in hypertextual transpositions, only one mode of presentation of the literary text is available. This fact can prevent the reader to visualize the literary text in the way which is the most suitable to her/his needs or questions.</p> <p>Solution: to make available devices and tools that allow the reader to change the literary text's presentation on the screen, in order to allow her/him to choose the one that better suits her/his need.</p>
<i>5.3) Visualizing new thematic paths through the literary text.</i>	<p>Problem: If given appropriate devices or tools are not made available, the reader can be prevented of visualizing and keeping trace of thematic paths not explicitly represented in the structure of the hypertextual transposition, which however are important in order to answer to her/his "personal" needs or questions.</p> <p>Solution: to make available devices and tools that allow the reader to point out or to trace thematic connections among different passages of the literary text or among different added materials.</p>
<i>5.4) Leaving up to the reader the understanding of the semantic relationship between added materials and literary text.</i>	<p>Problem: If the semantic relationships (between different passages of the literary text, between literary text and added materials or among different added materials) that are made explicit in the hypertextual transposition are very narrow and precise, the reader can be too much conditioned by them, thus being unable to establish new semantic relationships.</p> <p>Solution: to organize the hypertextual transposition's content mainly by types, in order to allow the reader to retrieve the information that is interesting to her/him, without needing to follow an already established semantics. The hypertextual transposition will be more similar to a database where the reader can retrieve the information s/he needs.</p>

As we already underlined at paragraph 1.3.2.2 (“Search tools”), search tools are important devices in order to study the literary text, in order to browse it in a non-sequential way following some personal interest and, thus, in order to find passages relevant in respect to this interest. In this sense, they provide solutions for design pattern 5.3 and 5.1. The above-described guided search possibilities offered in M1 are an example of possible solution. Other kinds of search tools can be found in other hypertextual transpositions. For instance in D1 and DC1 search possibilities allowing the reader to retrieve places and characters are made available (for DC1, cf. paragraph 1.3.2.2, “Search tools”).



Fig. 131 – D1 – Search tools for places and characters.

A different kind of device providing a solution for design pattern 5.3 can be found in H2. As we already pointed out at paragraph 1.3.2.2 (“Navigation among different added materials”), in the “Reading room” collection of this hypertextual transposition a wide use of (semantic) links is combined with the use of frames. In this collection it is possible to compare, two by two, practically all the available versions of the literary text and all the added materials. The screen is divided in two frames: in the one at the left the text of the play is displayed, while in the one at the right the reader can choose to display any of the added materials included in the hypertextual transposition and relevant in respect to the portion of text currently displayed in the left frame. Therefore, the reader can create new combinations at each fruition, thus visualizing new reading paths through the text of the play.

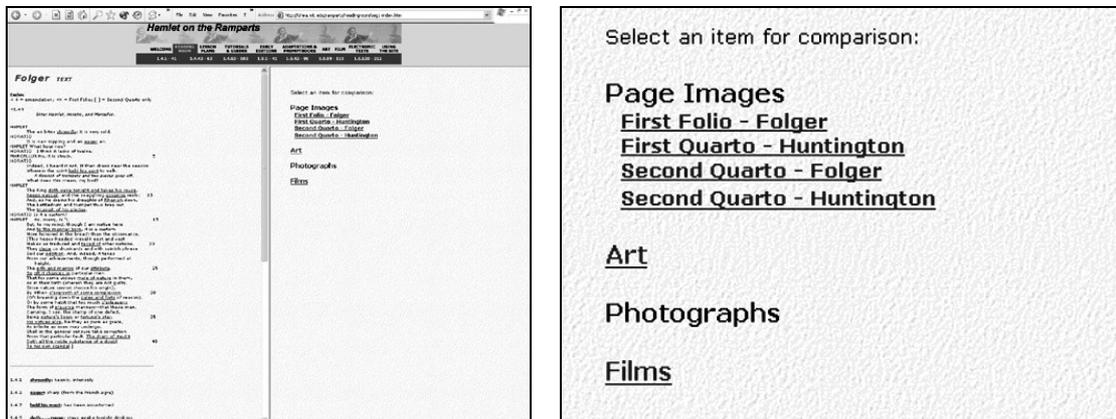


Fig. 132 – H2 – “Reading room” collection’s screen and detail of the added materials the reader can display in the right frame.

As we observed at paragraph 1.3.2.2 (“Use of cognitive contexts created by collections”), in some hypertextual transpositions collections gather the different added materials by type and not by their semantic relationship to the literary text. This use of the cognitive context created by collections corresponds to an application of design pattern 5.5. In fact, since this classification stresses the type of each added material, the specific semantic relationship each added material has in respect to a given passage of the literary text has to be inferred by the reader. This happens for instance in DC2, where the main collections are “Commedia”, “Minor works”, “Search”, “Lectures”, “Multimedia” (the collections of which are “Images”, “Italian audio”, “English audio”, “Maps & Diagrams”, “WWW Resources”, “Required plugins”) and “Project Info”.

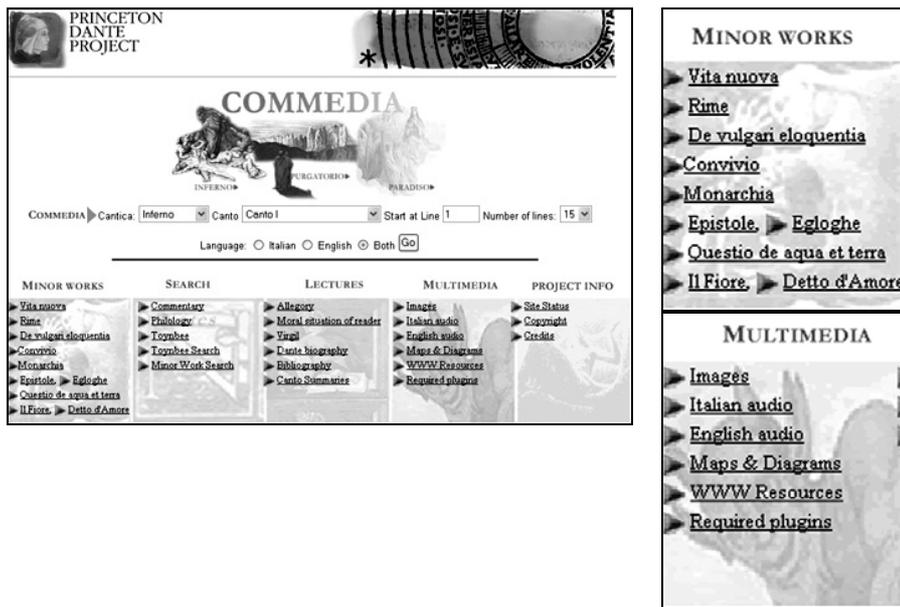


Fig. 133 – DC2 – Collections organize the added materials by type.

## 3.2 The crucial point of hyperlink's interpretation

As the most “traditional” definitions of hypertext show,<sup>100</sup> hyperlinks constitute an essential part of hypertext. They are “responsible” for multilinearity (cf. paragraph 1.1.3) and, therefore, their presence introduces a new challenge in the act of reading and interpreting, a challenge that is absent in the act of reading and interpreting other kinds of text. In fact, in hypertext, the reader jumps in between various parts of contents (the nodes, the lexias). Hyperlinks mechanically allow these jumps, but they also constitute a critical point at the interpretation's level.<sup>101</sup> When clicking on a link, in fact, the user has to understand, on the one side, which the relationship between the node of departure (which in W2000 terminology is called “source”) and the node of arrival (which in W2000 terminology is called “target”) is and, on the other side, which the relationship between the anchor (the perceptible part of a link) and the target is. Links are signs of a connection between two nodes, that is, between two constitutive elements of the hypertext.

Links are an important element of the second order representation constituted by reading strategies representations. In fact, one of the aspects constituting the above-described reading strategies is the access to given contents (for instance, the access to the literary text itself – both from the homepage and from the added materials' screens –, the access to visual devices summarizing the narrated story, the access to indexes and

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<sup>100</sup> Here are some examples of “traditional” definitions of hypertext. “Con ‘ipertesto’ intendo scrittura non sequenziale, testo che si dirama e consente al lettore di scegliere; qualcosa che si fruisce al meglio davanti a uno schermo interattivo. Così come è comunemente inteso, un ipertesto è una serie di brani di testo tra cui sono definiti legami che consentono al lettore differenti cammini” (Nelson 1990 quoted in Bettetini, Gasparini & Vittadini 1999: 2). “Hypertext embodies this idea, for everything in hypertext depends upon linkage, upon connectivity between and among the various elements in the system. Linkage, in hypertext, plays a role corresponding to that of sequence in conventional text. A hypertext link is the electronic representation of a perceived relationship between two pieces of material, which become nodes once the relationship has been instantiated electronically. That is, the link *simulates* the connections in the mind of the author or reader; and it is precisely because the electronic link is only a simulation that problems will arise” (Slatin 1990: 877). “We can define Hypertext as the use of computer to transcend the linear and fixed qualities of the linear text. Unlike the static form of the book, a hypertext can be composed, and read, non-sequentially; it is a variable structure, composed of blocks of text (or what Roland Barthes terms *lexia*) and the electronic link that join them” (Delany & Landow 1994: 3). “Whether realized on microfilm or in computer memory, a hypertext consists of topics and their connections (...)” (Bolter 2001: 35). “*Hypertext* A method of organizing and presenting text in the computer. Textual units of various sizes are presented to the reader in an order that is determined, at least in part, by electronic links that the reader chooses to follow” (Bolter & Grusin 1998: 272).

<sup>101</sup> David Miall (1998b: 170-171) identifies in the problem of link, one of the central problems of hypertext. He points out that the link constitutes a ‘rupture’ in the hypertext and, reviewing the terms some of the most known hypertext theorists used to define the link, he shows that there still is some confusion about this issue. He underlines that the main problem the link introduces in reading is its arbitrariness, its lack of predictability.

overviews on the whole literary text structure, the access to added materials, the access to visual and/or acoustic representations of the literary text). Therefore, in order for the reader to adequately perform a given reading strategy, it is necessary that the access to such contents appears meaningful to her/him. In other words, it is essential for her/him to grasp the semantics of the hyperlink, to understand to which content the link provide access. For instance, in order to adequately perform reading strategy 2.1.2 (“Gaining an overview on the whole narrated story”), it is necessary for the reader to access a map, a scheme or a text summarizing the story. The link available on the literary text’s screen and leading the reader to this map, scheme or text plays an important role in manifesting this possibility.

Besides, we have to consider that in hypertextual transpositions different types of link are made available. Each of them has a specific semantic content. Different instances of a same type of link usually are included in the hypertextual transposition and the reader repeatedly encounters them all along her/his navigation. Therefore, understanding the semantic related to each type of link allows the reader to become acquainted with certain systematic semantic relationships, ruling the overall organization of the hypertextual transposition’s contents. In other words, the reader becomes acquainted with rules lying at the base of the application. The knowledge of these rules is essential in order for her/him to perform the adequate reading strategy. The performance of the adequate reading strategy depends on a regularity that the reader can perceive only in observing the signs made available by the author/designer. The presence and the discovery of this regularity allow the reader to use the signs in an appropriate way and, thus, to perform the most adequate reading strategy. The reader has to understand the second order representation and an essential step toward this understanding consists in the discovery of the hyperlinks’ regularity.<sup>102</sup>

As a reverse of the medal the consciousness as to the process of interpretation hyperlinks entails can be useful to designers in order to make appropriate choices.

### **3.2.1 Different approaches to the study of hyperlinks**

Since links are an essential part of hypertext structure, in hypertext and hypermedia studies it has been considered important to understand what kinds of different links the

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<sup>102</sup> The concepts of links and second order representation have already been related one to the other by other scholars. For instance, Francisco J. Ricardo (1998) observed that hypertext links have a meaning and communicative intentions on their own (not only in relationship to the lexias they interconnect) and, thus, they create a parallel text (a paratext), which is superposed to the text constituted by the content of the lexias and which becomes a reading on its own. Ricardo proposed a methodology for analyzing descriptors of the links of a given hypertext at the purpose of describing this paratext, which constitutes a second order representation.

designer can employ. Starting from an analysis of links used in some hypermedial applications built for text-oriented fields of research (namely, Classics and Religious studies; among the considered applications there is for instance the Perseus Project, cf. Perseus Digital Library, <http://www.perseus.tufts.edu/>), Steven J. DeRose (1989) proposed a link's taxonomy based on the identification of the different structural relationships the link establishes between two nodes. He distinguished extensional versus intensional links and, within these two main categories he further identified different kinds of relationships. Within extensional links he distinguished relational (associative or annotational) links versus inclusive (sequential versus taxonomic) links. Within intensional links he distinguished vocative (implicit or isomorphic) links versus retrieval links. DeRose identified fundamental categories of possible relationships between nodes, even if new devices and tools appeared in the successive developments of the hypermedial technology, thus providing new solutions for linking, which required an arrangement of the classification.

Recently, on the base of the different kinds of navigation links allow to the user, Anders Fagerjord (2001) proposed another link's classification, within which he distinguished navigational links, presentation links and relation links.

Navigational links give an overview of the whole hypertext by dividing it into categories. Hence, like sememes in a semiotic code, their logic is positional: a reader will deduce what probably is contained in a section not just by relating the signifier of the link anchor to its usual signified, but by considering what other categories there are (...) Presentation links are links used to display the next or previous page of the text, to start a movie, and other controls of the display of the current text body (...) They are similar to page turns in a book: necessary to proceed in the text, but not formative to the text's structure (...) Presentation links are essentially linear (...) The third kind of link is the relational link, which is a jump to another place in the hypertext that is related in some way or another to the present page or paragraph. Their logic is that of association (Fagerjord 2001: 12-13).

The issue – central in respect to our description of reading strategies and of the second order representation – of the user's interpretation of the link has also recently been tackled by some scholars. Starting from a pragmatic point of view, Bern Wingert (1999) underlined that every link creates in the user an expectation that the target has to fulfill. In the same line Susan Pajares Tosca (2000) outlined a basic rule of link's working: "every links communicate a presumption of its own optimal relevance". Starting from a more logical point of view, Licia Calvi (2000) sketched a link's classification based on the different logical reasoning's processes required by links. She

identified three different links' categories: deductive links, abductive links and a-logical links.

Linking can be:

- *Deductive*, including both temporal and spatial linking, when it makes explicit the (temporal and spatial) span between two nodes;
- *Abductive*, when it requires building default conjectures to understand the logical connection between the elements involved;
- *A-logical*, in all other cases, when linking does not seem to follow any explicitly logical strategy (Calvi 2000: 219).

Starting from a semiotic perspective, Uwe Wirth wondered if and how the Peircean concept of abduction can be applied to navigation in the World Wide Web and, particularly, to the working of hyperlinks. Wirth reflects on the common belief (coming from Vannevar Bush's idea of Memex) that navigation in hypertext and in the World Wide Web proceeds by association. Starting from Peirce's consideration that

inference has at least two elements: 'the one is the suggestion of one idea by another according to the law of association, while the other is the carrying forward of the asserting element of judgement, the holding for true, from the first judgment to the second' (CP 4.55) (Wirth 2002: 165)

Wirth wonders "how can 'links of association' be transformed into 'links of argumentation'?" (2002: 165). He suggests that cognitive links cannot be only associative, but that they have to be abductive and that "an 'abductive link' is creating a new idea by transforming associations in a virtual argumentation and integrating it as a result of a 'cognitive click' into a larger system" (2002: 166).

### **3.2.2 Description of hyperlink as a sign**

In order to detail the process of link's interpretation, it is essential to go deeper into the description of the structure of the "link" sign, particularly in the description of its meaning. "Hyperlink" signs are composed of an anchor (the perceptible part of the link, its strategy of manifestation) and of a function, which is the signified, the meaning. But within the link's meaning it is necessary to distinguish two layers. Indeed, the function of the link consists of two different aspects. First, the link is a proposal, an invitation, of the author for the continuation of the communication. It is an indication (provided by the author to the reader) of the possible further directions of the communication. Second, this proposal of the author contains a promise of relevance. This is the particular feature

of the new hypertextual sign. Its meaning is composed of two aspects: the link is a sign which stands for an invitation, for a proposal and, at the same time, for a promise of relevance.

The presence in the link's meaning of this promise of relevance and the need to respect it has already been identified at the beginning of hypertext studies. In fact, the first of George P. Landow's rules of hypertext's rhetoric states that "Hypertext links condition the user to expect purposeful, important relationships between linked material" (Landow 1987: 332). Susan Pajares Tosca investigated it from a pragmatic point of view, concluding that "every link communicates a presumption of its own optimal relevance" (Pajares Tosca 2000: 78-80). This promise of relevance corresponds to the two messages that, according to Mark Bernstein, have to be transmitted to the user by the link's anchor: "(...) we need to interweave two messages within the small space of a single link anchor: 'why the destination follows coherently (and dramatically) from the current context' and 'why readers ought to pursue this link'" (Bernstein 2000: 216).

Referring to the Peircean classification of signs, we can say that the anchor is an index in respect to the first aspect of the link's meaning. The presence of a link is always manifested by a perceptible, graphical, change in the text (in the content displayed on the screen). It can be an underlining, or a different colour in the writing, a different colour in the background, a button-shape border or a change of the cursor's shape. These graphical changes signal the presence of a physical spatial path from the source to the target. In this respect, the link is an indexical sign: it indicates the presence of a connection between source and target, the presence of an author's invitation.

Other scholars noticed the presence in hyperlinks of such indexical aspect. Karin Wenz pointed it out, arguing

What is the effect of connection from a semiotic point of view? Following Peirce, connection has two possible functions: connection effected by contiguity is the basis of the indexical sign. One segment points to the other. This is the principle of anaphora and of hypertextual instructions. They point to other nodes which are related in a causal way (Wenz 1997: 580).

Fagerjord (2001: 14) underlined that, from a semiotic point of view, the links present a double aspect and that the first of these two aspects is the signalling of the presence of the link. He acknowledged an indexical aspect in the link, which is however embodied in the cursor, not directly in the anchor. Wirth (2002: 166) further specified the definition of hyperlink as an index. Referring to Peirce's distinction between "genuine" and "degenerate" indexes,<sup>103</sup> she observes that in some respects a hyperlink is a degenerate

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<sup>103</sup> "(...) the *Index*[. Here] is a reactional sign, which is such by virtue of a real connection with its object. Then the question arises is this dual character in the Index, so that it has two elements, by virtue of the one serving as a substitute for the particular object it does, while the other is an involved

index, since it refers, like a pointing finger, to a yet invisible document and since it functions like a proper name without signification. In some other respects, a hyperlink is a genuine index; it is like a weather cock, a true symptom (cf. Peirce 1935-1966: 7.628), since it is part of an existential relation, namely the causality of ‘electronic anchoring’ between the anchor and the linked document.

However, we observe that an anchor is not only composed of such indexical elements. It always entails also a word, a linguistic expression, a number, a diacritic sign, a drawing, an image, etc. In other words, besides visual elements manifesting the indexical aspect, the anchor includes another sign that can be in itself an index, an icon or a symbol. For instance, a word within a text in the node can be the anchor for a link (in this case, we have an embedded link). This anchor is constituted not only of the underlining, but also of the symbolic sign, which (according to Peirce’s classification of signs) the word is. Therefore, as a whole, the anchor of a link is an indexical, an iconic or a symbolic sign to which some indexical visual elements are attached in order to transform the indexical, iconic or symbolic sign in an indication for the user of the existence of a possible continuation of the navigation. As it happens for many other signs,<sup>104</sup> the link is a complex sign and, consequently, the anchor is a complex signifier.

The task of the incorporated indexical, iconic or symbolic sign is to manifest the semantic relationship between source and target by the manifestation of the semantic relationship between the anchor and the target.<sup>105</sup>

### 3.2.3 The special nature of hyperlink’s interpretation

How does the reader’s understanding of the relationship between source and target and between anchor and target take place?

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icon that represents the representamen itself regarded as a quality of the object – or is there really no such dual character in the index, so that it merely denotes whatever object it happens to be really connected with just as the icon represents whatever object it happens really to resemble? Of the former, the relatively genuine form of Index, the hygrometer, is an example. Its connection with the weather is dualistic, so that by an involved icon, it actually conveys information. On the other hand any mere land-mark by which a particular thing may be recognized because it is as a matter of fact associated with that thing, a proper name without signification, a pointing finger, is a degenerate index” (Peirce 1935-1966, 5.75).

<sup>104</sup> “It should be clearly understood, finally, that it is not signs that are actually being classified, but more precisely, aspects of signs: in other words, a given sign may – and more often than not does – exhibit more than one aspect, so that one must recognize differences in gradation. But it is equally important to grasp that the hierarchic principle is inherent in the architecture of any species of sign” (Sebeok 1994: 21).

<sup>105</sup> Also Wirth (2002) underlined the presence in hyperlink of a symbolic aspect (side to the indexical aspect). “A link is symbolic, since it constitutes an arbitrary relation between the visible region and the linked node. It is a ‘frozen conjecture’, storing an arbitrary contiguity” (166).

Traditionally (since 1945 when Vannevar Bush first conceived hypertext) it is said that this takes place in an associative way.<sup>106</sup> But what does association mean? Approaches in textual linguistics showed that the understanding of the meaning of a text is much more than the juxtaposition of sentences, paragraphs, chapters and that the understanding of meaning rises from the understanding of the logical-argumentative relationships among the parts of the text (Rigotti 1993). The same can be said for hypertext. But, in order to cast light on how this understanding takes place, we have to clarify how the user interprets the link, which kind of interpretation process s/he carries out in front of a link. In fact, not all the links are equal: they can be manifested in very different ways that can make the understanding of the relationship between source and target and between anchor and target more or less easy and clear. Therefore not all links require the same interpretation's process. The understanding of the different possible processes of link's interpretation will cast light on a central aspect of the act of reading in hypertextual transpositions. Such processes are strictly related to one of the central issues of hypertext studies, namely the associative principle of hypertext's working, which (as some scholars pointed out, cf. Dillon 1996, Miall 1998 and Wirth 2002) is often just taken for granted.

### 3.2.3.1 Processes of sign interpretation

Following Peter Schulz's semiotic framework (2000), we assume that the link (as all other signs) is an indicator the author (or the designer) provides to the user-reader in order to lead her/him in the process of understanding and interpretation.

In front of a sign, three different processes of interpretation are possible: an indexical process, an iconic process and a symbolic process. The indexical process is based on the recognition of a causal relationship between the sign and its object. It is the process allowing a doctor to interpret red spots on skin as sign of measles. The iconic process is based on the recognition of an associative relationship between the sign and its object. It is the process allowing a passenger to interpret a draw of a crossed out pig on a dinner plate as food appropriate to Muslims. The symbolic process is based on the knowledge of the rules of use of a certain sign. It is the process allowing an English-speaking person to interpret "Bye!" as a parting salutation. Despite of the fact that the terminology reminds on Peirce's classification of signs (within three categories, namely indexes, icons and symbols), there is no mandatory correspondence between the kind of sign and the interpretation process it requires. As we will exemplify later on, it is possible, for

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<sup>106</sup> "When Vannevar Bush launches the influential idea of the 'memex' in his 1945 article 'As We May Think', it is a library ordered by association, like the human mind, rather than hierarchy. In this library, any record can be part of a number of 'trails'; the libraries have 'a mesh of associational trails running through them'" (Fagerjord 2001: 12).

instance, that an iconic sign requires a symbolic process of interpretation or a symbolic sign requires an iconic process of interpretation.

### 3.2.3.2 Processes of hyperlink interpretation

Because of the particular nature of the link's meaning, the user, in interpreting links, always has to apply at the same time two of these three different processes of interpretation: one in order to identify the link as an invitation, a proposal, and another one in order to understand its relevance. These two different processes of interpretation are not elaborated in separate moments, in sequence. They are interlaced. Usually the first one is not problematic, it is almost automatic, while the second one is difficult, it is the one where misunderstandings can occur. This complexity of the process of link's interpretation is one of the sources of the difficulties the reader encounters when reading hypertext.

The process of interpretation the user accomplishes in order to understand the aspect of author's invitation of link's meaning (that is, in order to understand the indexical aspect of the anchor), is an indexical one, based on causality: since at this point of the hypertext there is an anchor, there also is an author's proposal for the continuation of the communication.

The aspect of the link's meaning corresponding to the semantic relation (which is an important element of link's relevance) can be interpreted through an iconic or a symbolic process of interpretation. It is interpreted by an iconic process, when the sign included in the anchor let the user infer the target and its relevance in respect to the source, thanks to the recognition of an association between anchor and target. It is interpreted by a symbolic process when the sign included in the anchor let the user infer the target and its relevance in respect to the source, thanks to the user's knowledge of some rules valid in the application. But it can also happen that the relevance cannot be inferred, because the indexical, iconic or symbolic sign incorporated in the anchor is not adequate. In such cases, what remains, is just the first aspect, the indexical one. The user clicks on such a link only because s/he trusts the author who, setting this particular link, states that a continuation of the navigation in this direction is possible and worthwhile. S/he just employs an indexical process of interpretation. What is interesting is that the promise of relevance is in any case supposed. Despite the fact that the indexical, iconic or symbolic sign included in the anchor is opaque, this presupposition does not fall. On the contrary, it is because of the existence of this presupposition that the user can trusts the author despite the opacity of the anchor.

The nature of the sign composing the anchor and the nature of the interpretation's process of the link can be different. For instance, if the anchor is composed by a symbolic sign, the required process of interpretation is not necessary a symbolic one: it

is possible to find anchors composed by symbolic signs which give rise to an iconic or indexical process of interpretation.

### **3.2.4 Semiotic analysis of hyperlinks**

In the following we will provide some examples of analysis of hyperlinks' interpretations, in applying the above-described framework. The examples are drawn from some of the seventeen analyzed hypertextual transpositions. We will concentrate on hyperlinks available on the literary text's screens. The reason of this choice resides not only in the need of limiting the number of analyzed links, but also in the fact that this links are those which most directly relate (and contribute to integrate) information provided by added materials to the literary text.

In the analysis of each link we will first outline the elements that compose the anchors, the kinds of signs the anchor includes according to Peirce's classification in index, icon and symbol. Secondly, we will define which kind of interpretation process the user has to carry out in order to understand the link's meaning, particularly in order to understand the relationship existing between anchor and target, thus understanding the promise of relevance of the target in respect to the source. The presence of the indexical process of interpretation, necessary to interpret the aspect of proposal of the link's meaning, is taken for granted and, therefore, not underlined, except when it is the mainly one.

Therefore, in the description of the following examples we will distinguish two levels of the sign. First, we will describe the representational level, which deals with the relationship between sign and object. Second, we will describe the cognitive process of its interpretation. These two levels are both constitutive of the sign. Only considering both of them we can adequately account of the semiotic nature of the sign. However, in order to clarifying how this semiotic nature works, it is useful to distinguish them.

#### **D1) The Decameron Web**

Only one kind of link is available on the literary text's screens (cf. fig. 134). Its anchor is the paragraph's number. It includes, therefore, an indexical sign (the number is an index in respect to the paragraph). In fact, here the indexical aspect is dominant. The semantic relation is opaque. What is meaningful for the user is just the fact that the number indicates a paragraph, that it is underlined and that, therefore, it indicates the presence of a possibility to pursue the navigation. The user can't infer what s/he will find. Only after s/he once clicked on this link, s/he learns that s/he obtains the Italian (if s/he was reading the English) or the English (if s/he was reading the Italian) version of

the text (in a new window). From this moment on the process of interpretation becomes symbolic (the user knows the rule).

On the pages of the additional materials available in the other sections of the application (with historical, literary, etc., information about the Decameron and its subject), links are available that allow the user to jump to the literary text (cf. fig. 135).<sup>107</sup> Their anchors include an indexical sign: the number of the day and the number of the novel according to the classic reference modality for Decameron. At the first time the reader has to interpret such a link, the required process of interpretation is iconic: the user proceeds by association (“since these reference numbers are links, I expect to jump on the text of the correspondent novel”). The successive times the process of interpretation becomes indexical: the anchor functions as a pointer.

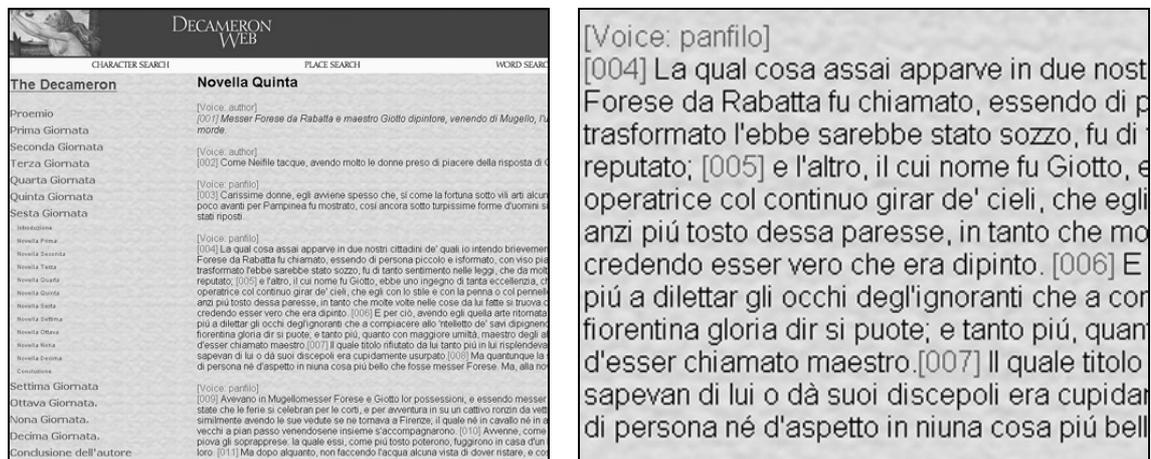


Fig. 134 – D1 – Literary text screen and detail of the paragraph number link.

<sup>107</sup> We are here considering hyperlinks that are not directly on the literary screen. They are however strongly related to it.

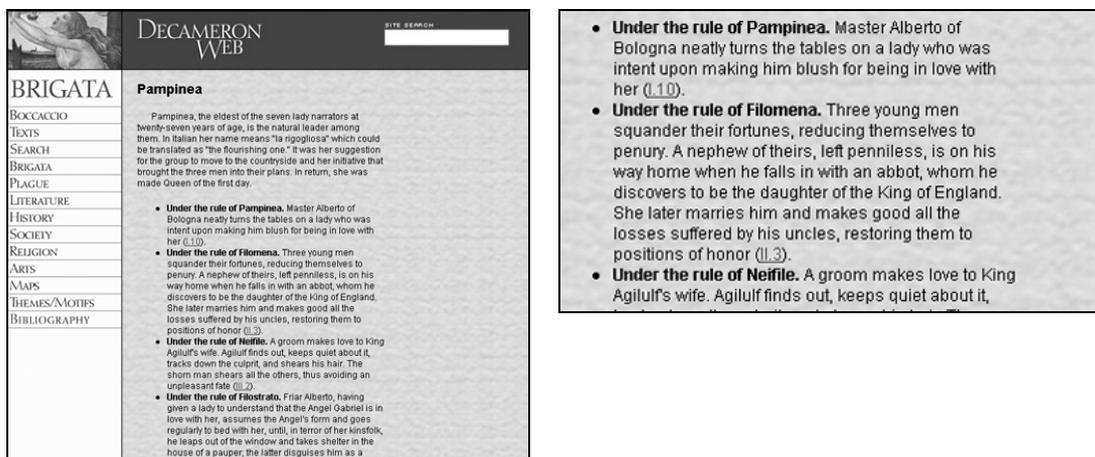


Fig. 135 – D1 – Example of added materials screen and detail of links leading to the literary text's screen.

## DC1) The World of Dante

Three different kinds of link are available on the literary text's screens (cf. fig. 136).

- **Asterisk links:** The anchor includes a symbolic sign (the asterisk), but the indexical aspect prevails. The semantic relationship between anchor and target (and, therefore, also between source and target) is not manifested and it remains obscure. What is meaningful for the user is only the fact that there is a sign indicating the presence of a link. The user cannot infer what s/he will find. Only after s/he once tried following this link, s/he learns that, by rolling-over, s/he obtains in a pop-up window the encoded information (set of tags) identifying (according to the encoding system adopted in this hypertextual transposition) the element of the literary text at the side of which the asterisk is set. From this moment on, the process of interpretation is a symbolic process (the user knows the rule). The encoded information contained in the target is rather obscure. It is useful for literary text's searching purposes. Besides, as we saw at paragraph 2.3.3, it can help the reader in identifying the meaning of some words or expressions.
- **Number of verse links:** The anchor includes an indexical sign (the number is an index in respect to the verse). In fact, here the indexical aspect is dominant. The semantic relationship between anchor and target (and, therefore, also between source and target) is not manifested and it remains obscure. What is meaningful for the user is only the fact that the number identifies a verse, that it is underlined and that, therefore, it manifests the presence of an author's proposal for the continuation of a relevant and interesting navigation. The user cannot infer what s/he will find. Therefore, at the first time, the required process of interpretation is

indexical. Only after the user once tried following the link, s/he learns that, by rolling over, the English translation of the tercet, side to which the link is set, is displayed in a pop-up window. From this moment on, the process of interpretation is symbolic (the user knows the rule).

- Arrow links: Their process of interpretation is divided in two steps. The anchor includes an iconic sign: an arrow placed upon two rectangles showing that the direction is from the first rectangle to the second, which visually represent the user's shift within the hypertext (from the literary text towards something else). It is interpreted through an iconic process of interpretation (association between the drawing and the fact that the user will move somewhere out of the text). Subsequently, the process of interpretation becomes symbolic. The semantic relationship manifested by this anchor is the movement from the text toward something else at the text's side. At this first step the nature of this "something else" is not manifested. This signification of the link is made clearer by the expression "exlink", which appears in a label when rolling over the anchor and which, once more, makes clear that this link entails a user's movement outside the literary text. Then, there is a second step: when clicking on the iconic sign of this first anchor, a new anchor appears in the low frame. It consists of an underlined word, namely the name of the category of information to which the link leads. The anchor includes, therefore, a symbolic sign and the process of interpretation is iconic. On the base of the meaning of this symbolic sign, the user associates a possible category of targets. The aim of the anchor is to let the user know what kind of information s/he will reach by clicking the link. The semantic relationship is based on the knowledge of the kind of information the user will get and on the fact that this information will be pertinent to the passage of the text where the link is set: "About this point there is an illustration, etc." The process of interpretation is iconic: the user expects an association between the meaning of the words (the meaning of the anchor) and the target. But, as a matter of facts, during the reading process, s/he discovers that such links always lead to one or more illustrations. Only one category of information is related to this link, namely illustrations. Therefore, the information brought by the link will no more be "which kind of information is available?", but "how many illustrations are available for this text passage?" Therefore, the indexical aspect of the anchor becomes dominant and the process of interpretation becomes symbolic (the user knows the rule).

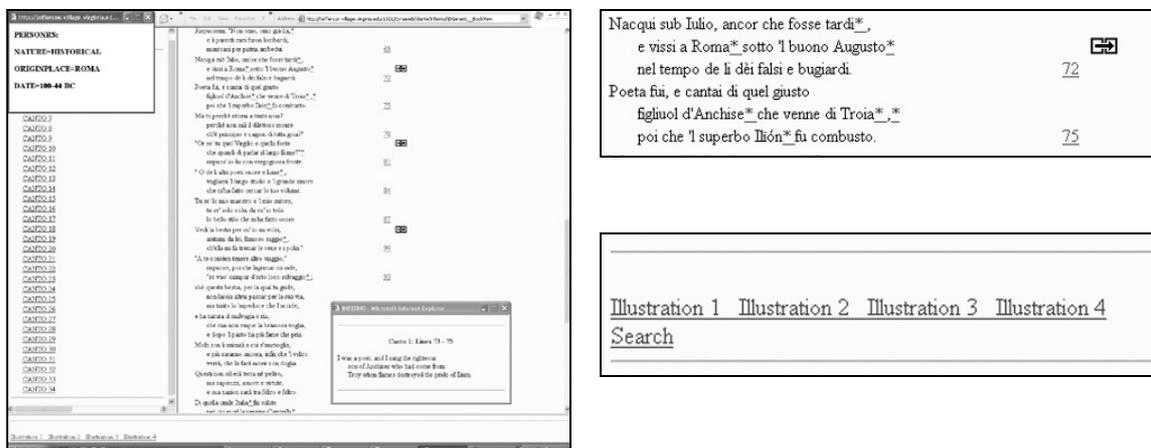


Fig. 136 – DC1 – Literary text screen, detail of the three different kinds of available links and detail of the links constituting the second step of the access to illustrations from the arrow links.

## M2) Macbeth – Voyager

On the text of the play's screens three kinds of links are available (cf. fig. 137):

- Scene's number links: The anchor consists of the number identifying the scene, the text of which is currently displayed on the screen, and which is set on the first screen of each scene. It is an embedded anchor, consisting of an index (the number indicates the scene). It is cryptic. It can be interpreted only through an indexical process of interpretation. In fact, the user cannot infer what s/he will find at the other side of the link before clicking on it (s/he cannot infer the semantic relationship between anchor and target). By clicking on it in trusting the author, the reader learns that through it s/he access to information about the setting of the scene. Once the reader learnt this rule, the process of interpretation becomes symbolic.
- Underlined words or expressions: The anchor is composed of underlined words, that is, of symbolic signs to which indexical elements, signaling the presence of the link, are added (these, too, are embedded anchors). However, the process of interpretation is iconic. In fact, the user supposes the existence of an association between the words composing the anchor and the link's target. S/he infers that, by clicking on that link, s/he accesses to some definition or further explanation about these words. The possibility to easily draw such an inference relies on the well-known practice of footnotes in literary annotation.
- Daggers links: The anchor consists of the drawing of a dagger, that is, of an iconic sign. However, it is cryptic in respect to the link's meaning. At least at the first time s/he sees it, the user can interpreted it only through an indexical process of interpretation. By considering the iconic sign composing the anchor,

s/he cannot infer which target the link provides access to. Afterwards, once s/he learnt that clicking on it s/he is led to linguistic and cultural explanations of the passage of the text, side to which the link is set, the process of interpretation becomes symbolic. Daggers links provide the same information underlined words and expressions links provide, but in relationship to broader portions of the text.

Clicking on any point of the text of the play, it is possible to activate the audio file with the play recitation. This link is “hidden”. Its presence is indicated only by the cursor’s hand-shape, which can induce the user to try clicking on the base of an indexical process of interpretation. Once the user learnt the rule, the access to the audio file will happen thanks to a symbolic process of interpretation.

The access to the tools box is also hidden and manifested to the reader only by the cursor’s hand-shape.

At the bottom of the left frame, on some pages, there is a link allowing the reader to access to video clips of different filmic transpositions of the play. The anchor is composed of a drawing of a piece of film. It is therefore an icon and it is also interpreted through an iconic process of interpretation (the user draws an association between the icon constituting the anchor and the kind of target the link provides access to).

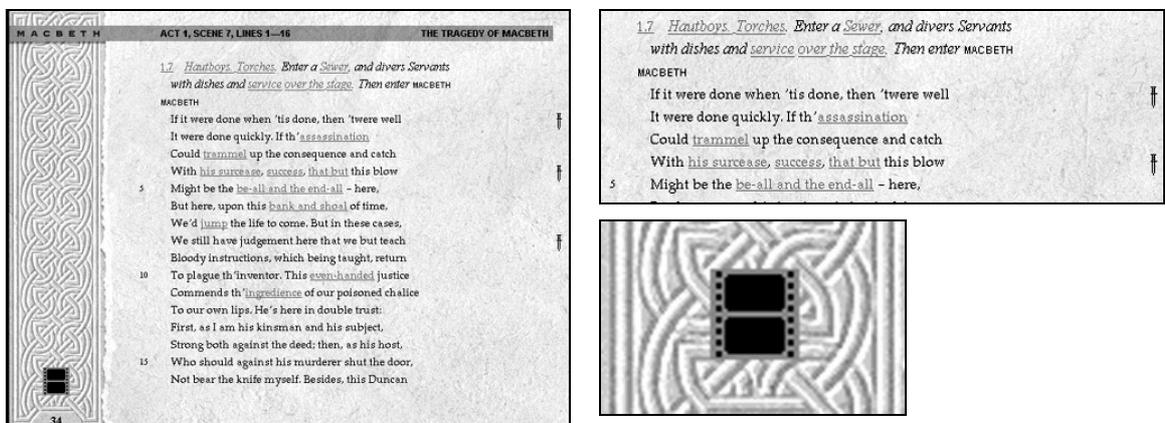


Fig. 137 - M2 – Text of the play screen and details of the available links.

### **M3) Macbeth – Bride Digital Classic**

On the text of the play’s screens, the following links are available (cf. fig. 138):

- Character’s image: The anchor consists of a small drawing of the speaking character (placed side to her/his name at each one of her/his cues). Therefore, it consists of an icon. It is not clear to which kind of information the link will provide access. However, the user expects that it will be something related to the

character represented on the image. Therefore, at least at the first time the reader accesses to it, the anchor is interpreted through an iconic process of interpretation (association between the character represented on the image and the subject of the information provided by the anchor). Subsequently, it is very likely that the process of interpretation becomes symbolic (the user learns a rule and interprets the link in applying it).

- Page number link: This link provides access to the characters collection centre (from where the user can access to the description cards of all characters). It is a “hidden” link; no sign allowing the user to recognize it as a link is present. Elements that usually manifest the indexical aspect of the link are absent. The anchor is composed of a number, which is an index in respect to the displayed text’s page. No semantic relationship exists between the anchor and the target. The user cannot foresee what s/he will find by clicking on it. S/he clicks only applying an indexical process of interpretation. Then, s/he will learn that, by clicking on this link, s/he accesses to the collection of the characters’ descriptions. From this moment on, the process of interpretation becomes symbolic.
- Blue-colored words or expressions: It is an embedded anchor, which is composed of blue-colored words, that is, of symbolic signs to which indexical elements (their different color in respect to the rest of the text), signaling the presence of the link, are added. However, the process of interpretation is iconic. In fact, the user supposes the existence of an association between the words composing the anchor and the link’s target. S/he infers that s/he will find some definition or further explanation about these words. Such an inference relies on the well-known practice of footnotes in literary annotation.
- “M” clapperboard link: The anchor is composed of a drawing of a clapperboard, on which the initials of the name of the main play’s character (which also constitute the title of the play) appear. Through an association, the user infers that, clicking on that link, s/he accesses to the video clip representing a sequence of the play (iconic process of interpretation). Subsequently (once the user verified the correctness of such inference and, thus, learnt a rule), the process will be symbolic.
- Bytes link: The anchor is composed of a drawing of a magnifying lens, which is iconic in respect to the idea of looking from closer to something. Thanks to this association (that is, thanks to an iconic process of interpretation) the user relates it to the concept of more detailed information. Clicking on it, s/he is led to the paraphrase page, at the bottom of which a “Byte” note is provided. This note provides explanations of some expressions in relationship to main themes of the play and general explanation about themes and characters or it points out intratextual references.

In the left frame of the text of the play's screens, some other links are available:

- Clapperboard link: The anchor is iconic. In fact, it is composed of a drawing of a clapperboard, on which information are provided about a given subject, the name of a given presenter and a given length of time. By association (that is, through an iconic process of interpretation), it lets the reader infer that the link's target is a video clip, in which the named presenter explains in the indicated time the indicated subject.
- Summary link: The anchor consists of a drawing of arms, upon which the "RJ" clapperboard is reproduced and above which the label "Summary" is set. It should be iconic in respect to the link's target. However, the iconicity is not clear and immediately understandable to the reader, who infers which the target should be only on the base of the label "Summary". Therefore, as a matter of facts, this anchor works as a textual one (the drawing accomplishes only an ornamental function, even if we don't have to forget that it contributes to the representation of reading strategy 4.2, cf. paragraph 3.1.4; as a matter of facts, it works as an index pointing out the presence of a link). Thanks to the label "Summary", by association (that is, through an iconic process of interpretation), the reader understands that, clicking on this link, s/he accesses to the summary of a given part of the play (it is not immediately clear which part). Once the reader understood this rule, the process of interpretation becomes symbolic. The presence of the drawing of the RJ clapperboard on the arms should probably suggest to the reader that the summary is provided in the form of a video clip.
- Paraphrase link: The anchor consists of a drawing of arms, above which the label "Paraphrase" is set. It should be iconic in respect to the link's target. However, the iconicity is not clear and immediately understandable to the reader, who infers which the target will be thanks to the label "Paraphrase". Therefore, as a matter of facts, this anchor works as a textual one (the drawing accomplishes only an ornamental function, even if we don't have to forget that it contributes to the representation of reading strategy 4.2, cf. paragraph 3.1.4; as a matter of facts, it works as an index pointing out the presence of a link). Thanks to the label "Paraphrase", by association (that is, through an iconic process of interpretation), the reader understands that, clicking on this link, s/he accesses to the paraphrase of a given part of the play (presumably, the paraphrase of the page currently displayed in the right frame). Once the reader understood this rule, the process of interpretation becomes symbolic.
- Main link: The anchor consists of a drawing of arms, above which the label "Main" is set. It should be iconic in respect to the link's target. However, the iconicity is not clear and immediately understandable to the reader, who infers which the target will be thanks to the label "Main". Therefore, as a matter of facts, this anchor works as a textual one (the drawing accomplishes only an

ornamental function, even if we don't have to forget that it contributes to the representation of reading strategy 4.2, cf. paragraph 3.1.4; as a matter of facts, it works as an index pointing out the presence of a link). Thanks to the label "Main", by association (that is, through an iconic process of interpretation), the reader understands that, clicking on it, s/he will access to the main menu of the application. Once the reader understood this rule, the process of interpretation becomes symbolic.

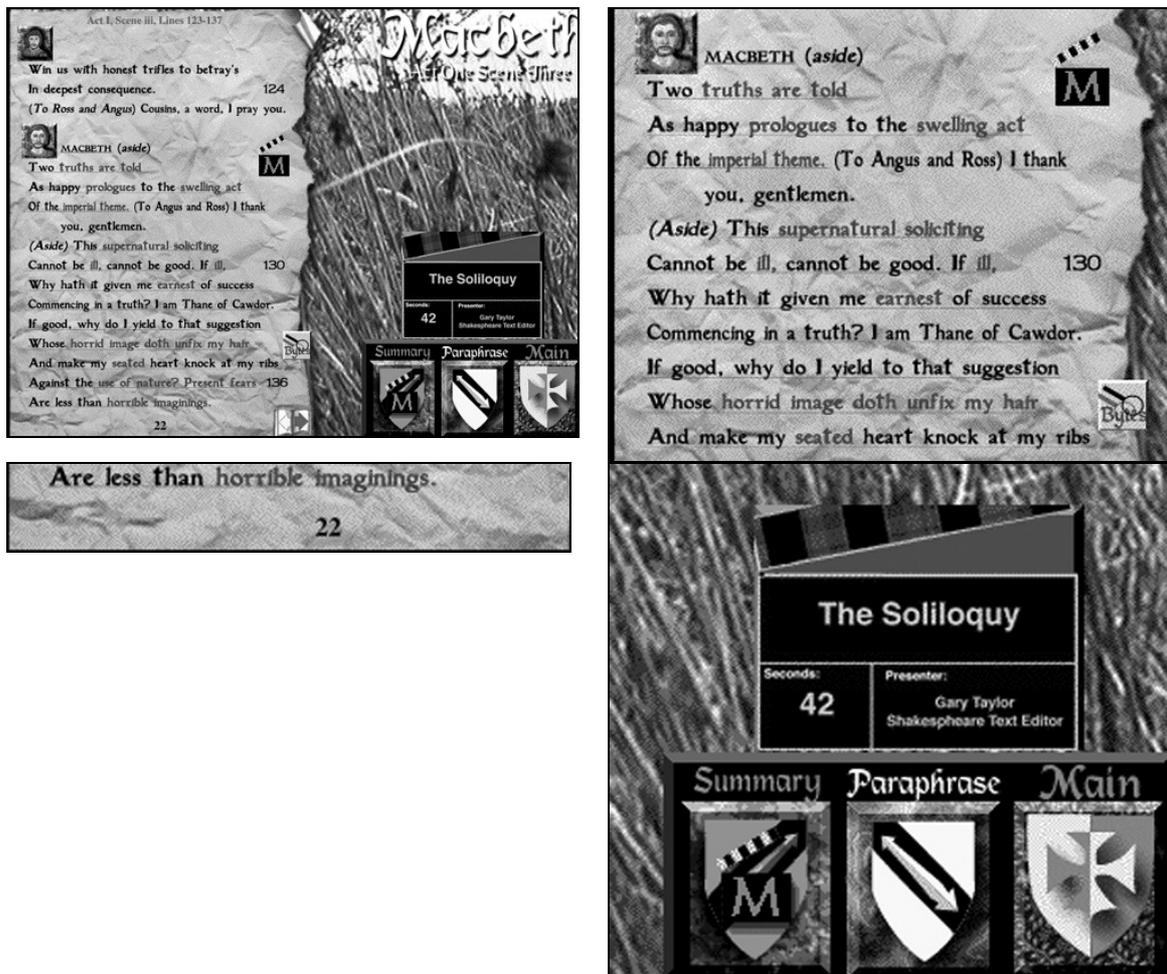


Fig. 138 – M3 – Text of the play screen and detail of the available links.

### MM1) Interactive Shakespeare

Different links are available on the text of the play's screens (cf. fig. 139):

- "Essay", "exercise", "folio" links: Their anchor includes a word, that is, a symbolic sign, whose aim is to let the user know the category of information

they provide access to. The relevance (the fact that this information is pertinent to the passage of the text where the link is set) is presupposed. We can paraphrase the link's meaning as "About this point there is an interesting essay/exercise/folio". The process of link's interpretation is iconic and it is allowed by the fact that the user knows the meaning of the words "essay", "exercise" and "folio". Knowing the meaning of these words the user associates a category of possible targets. Nevertheless, s/he infers the type of target s/he will get, not the meaning of the target in itself.

- "Question mark" links: The question mark stands for "question". It is a symbolic sign. However, the anchor is interpreted through an iconic process: the question mark is associated to the presence of a question in the target.
- "Number" links: The anchor consists of a number placed at the side of each question mark. In itself, this number is a symbol, but it can also be an index. However, it is not clear for the user what this index indicates. Also its semantic relationship to the target remains obscure. What is meaningful for the user is only the fact that the number is underlined (it indicates the presence of an author's proposal) and that therefore, clicking on it, s/he is supposed to find something interesting and relevant. The indexical aspect is dominant. When the user tries to follow the link, s/he finds out that it leads to the question, exactly as the "question mark" link does. At this point the user understands that the number refers to the numeration of the questions and that the anchor includes an indexical sign (the number is an index in respect of the question). Only after the user understands that the link leads to the questions and that the number refers to the numeration of questions, s/he is able to interpret the other links of the same kind. From this moment on, the link is interpreted through a symbolic process (the user knows the rule).
- Underlined words or expressions: The anchor consists of underlined words. Therefore, it includes a symbolic sign. Clicking on these anchors, the user accesses to word's or expression's meaning, paraphrase or information about sources. The semantic relationship between anchor and target is inferred by the fact that the anchor is a linguistic sign and as such it has to have a meaning. The user supposes that following the link, s/he will find an explanation of this meaning. The process of interpretation is iconic (the user expects an association between the meaning of the symbolic sign and the target) and it relies on the well-known practice of footnotes in literary annotation.
- Asterisk links: The asterisk is a symbolic sign, but the indexical aspect here prevails. In fact, the semantic relationship between anchor and target is not manifested. What is meaningful for the user is only the fact that there is a sign, which indicates the presence of a link. The user cannot infer what s/he will find by clicking on it. Only after s/he once tried following the link, s/he learns that

s/he obtains information about the passage the asterisk refers to. From this moment on, the process of interpretation is symbolic (the user knows the rule), but the semantic relationship remains obscure. In fact, it is not clear which is the difference in respect to the underlined word link.

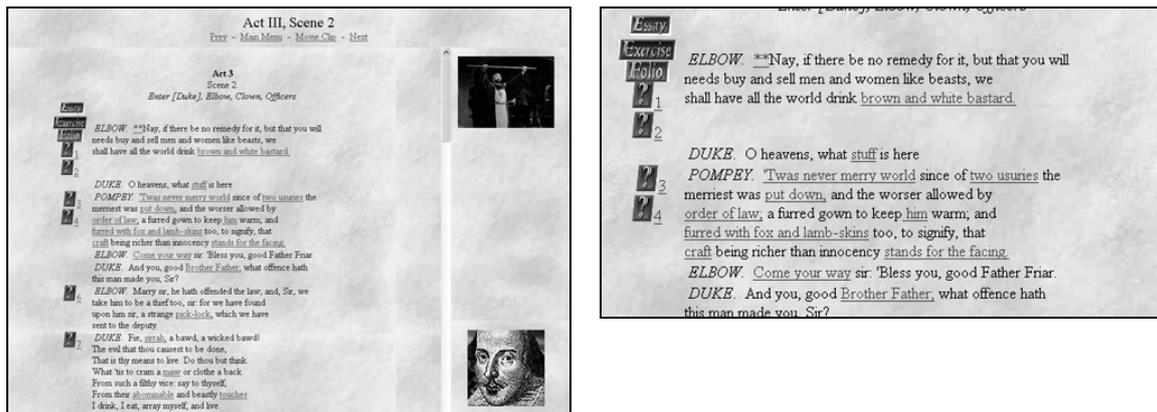


Fig. 139 – MM1 – Text of the play screen and detail of the available links.

## RJ1) Romeo and Juliet, Bride Digital Classics

Links in RJ1 are very similar to links in M3 (cf. fig. 140 and 141). There are characters' images (photographs, drawings as it is in M3) links, page number links, blue-colored words and expressions links, "RJ" ("Romeo and Juliet") clapperboard links, clapperboard links (for explanatory video clips), summary links, paraphrase links and "Main" links.

Instead of the Bytes links we found in M3, in RJ1 a series of links indicating the presence of a given rhetorical or stylistic trait in the text of the play are present. Their anchors are composed of a visual element (a drawing) and of an acoustic element (music, sounds, voice pronouncing a given word), which are both iconic in respect to the trait of the text they aim at pointing out. They point these traits out to the reader's attention. Such links are:

- Jester's hat link: The anchor is composed of a drawing of the hat of a jester and of the sound of a drum roll. In themselves, both the drawing and the sound are icons. Jester and drum rolls are usually associated to amusement and, thanks to this common association (that is, thanks to an iconic process of interpretation), the user infers that the target should have to do with something funny or ironic. When clicking on it, the user is led on the paraphrase page (exactly the same page s/he accesses to by clicking on the link "Paraphrase"). There, an arrow points out the modern English translation of the passage, side to which the link is set. By reading that passage in modern English, the reader should be able to

understand the irony it contains. Therefore, it is not that the target's content in itself consists in something funny or ironic, but that it contributes to bring the reader's attention on something funny or ironic contained in the text of the play.

- Foreshadowing link: The anchor is composed of a drawing of a sun, which is partly darkened by clouds, and of a music track. Both the drawing and the music can be associated to something clear that is being darkened (they are icons in respect to this idea). Thanks to this association (that is, thanks to an iconic process of interpretation), the user infers that the target must have to do with something not clear and which is getting worse. When clicking on it, the user is led on the paraphrase page (exactly the same page s/he accesses to by clicking on the link "Paraphrase"). At the bottom of that page, a note explains the presage that is hidden behind the passage of the text, side to which the link is set. Therefore, it is not that the target's content in itself consists in something mysterious, but that it contributes to bring the reader's attention on "hidden" future events contained in the text of the play.
- Censored link: The anchor is composed of a drawing of an ear upon which a label with the word "censored" is set and of a voice saying "Nasty!" Both the drawing and the expression "Nasty!" can be associated to double meanings (they are iconic in respect to the idea of double meanings). Thanks to this association (that is, thanks to an iconic process of interpretation), the user infers that the target must have to do with nasty allusions. When clicking on this link, the user is led on the paraphrase page (exactly the same page s/he accesses to by clicking on the link "Paraphrase"). There, an arrow points out the modern English translation of the passage side to which the link is set. By reading that passage in modern English, the reader should be able to understand the text's allusion. Therefore, it is not that the target's content in itself consists in double meanings or nasty allusions, but that it contributes to bring the reader's attention on double meanings or nasty allusions contained in the text of the play.
- Confession link: The anchor is composed of a drawing of a forefinger placed on the mouth in order to mean silence and of a music track and a voice saying "I love him". Both the drawing and the sounds can be associated to the secret of the love between Romeo and Juliet (they are icons in respect to it). Thanks to this association (that is, thanks to an iconic process of interpretation), the user infers that the target must have to do with such a secret. When clicking on it, the user is led on the paraphrase page (exactly the same page s/he accesses to by clicking on the link "Paraphrase"). At the bottom of that page, a note explains the reference to and the use of confession expressed in the passage of the text side to which the link is set. After having accessed some of these confession links, the reader understands that they provide access to explanations about a theme of the play, namely how characters use and understand the sacrament of confession.

Therefore, the target contributes to bring the reader's attention on a central narrative device and theme of the play.

In all these four cases the iconic sign composing the anchor is interpreted through an iconic process of interpretation. However, once the reader accesses to the target, the anchor turns out to be not an icon in respect to the target itself, but an index in respect to a rhetorical, stylistic, narrative or thematic trait of the text, that is of the source. The target's function is only instrumental in respect to the anchor: it aims at providing to the reader a tool to understand the indexical function of the anchor in respect to the source. Here the anchor is a sign in respect to the source, not in respect to the target. For instance, the function of the jester's hat link is to indicate that a given passage of the original text is ironic and the fact that the link leads the user to the paraphrase can be explained only by the fact that reading the paraphrase makes easier for the reader to understand the irony. In fact, if the original text were in modern English, it won't be necessary to bring the reader to another part of the hypertextual transposition. It would be enough to indicate the point where irony is present. The icon of the jester's hat won't be in this case the anchor of a link, but simply a sign, an index that focuses the reader's attention on a given passage of the original text.

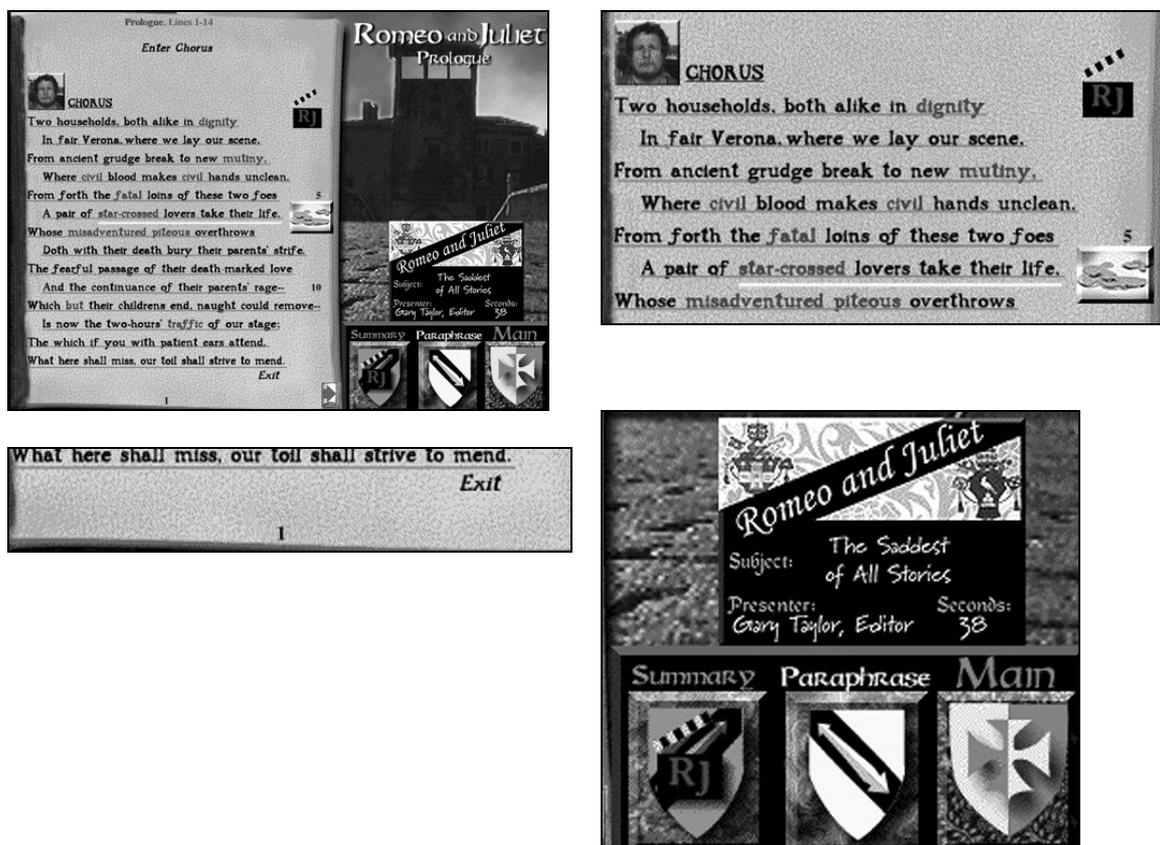


Fig. 140 – RJ1 – Text of the play screen and detail of the available links.

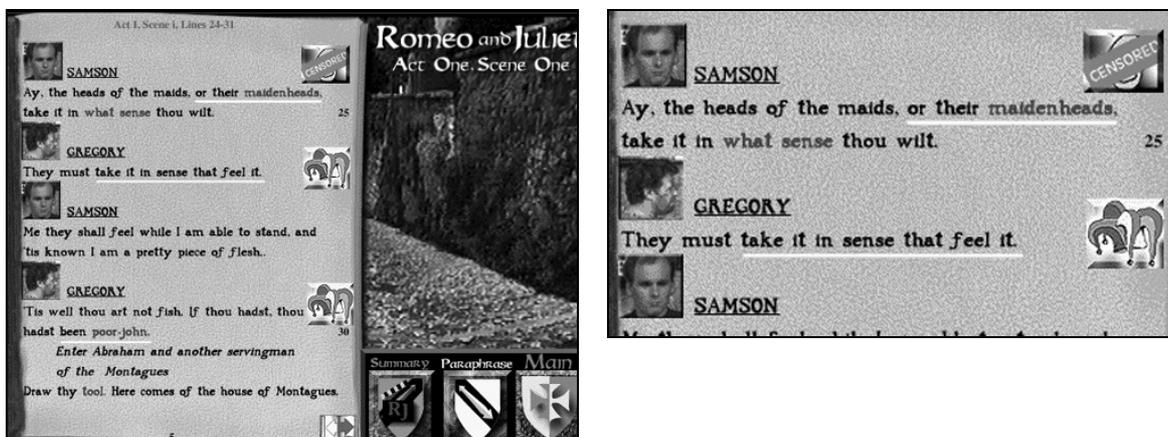


Fig. 141 – RJ1 – Text of the play screen and detail of the available links.

### 3.2.5 The risks of hyperlinks' interpretation

The analyzed examples allow us to draw some interesting conclusions at two levels. First, some constants can be identified with respect to the kind of signs used as anchors, that is, as to the representational level of the structure of the “hyperlink” sign. Second, some interesting observations can be outlined about the frequency of the use of the different three kinds of interpretation processes in respect to the link’s promise of relevance, that is, about the level of the cognitive interpretation of the “hyperlink” sign. As we will see in the following, at both levels, the analyzed examples suggest that hypertextual transposition’s authors use certain strategies aiming at reducing the risk of misunderstanding and avoiding the interruption of the user’s navigation. They tend to choose devices that ensure the understanding of the promise of relevance, thus ensuring the adequate performance of given reading strategies on the part of the user. This happens, on the one side, through the use of indexes or symbols in anchors. On the other side, since the interpretation’s process related to the promise of relevance is difficult for the reader and risky for the author, very often this process of interpretation tends to be reduced to an indexical or symbolic process of interpretation based on best practices already proofed and in force in the printed form of texts’ editions.

#### 3.2.5.1 Which sign for the anchor?

Iconic signs are rarely included in the anchors of links available on the literary text’s screens. The majority of the anchors include symbolic signs (mainly words or expressions) or indexical signs. Exceptions are the “arrow” link of DC1 and, moreover, hyperlinks available on the text of the play’s screens of M3 and RJ1. As it is particularly

shown by the iconic anchors of RJ1, the use of iconic signs as links' anchors can entail a problem of interpretation and understanding. In fact, iconic signs present the same features of images we described at paragraph 2.1.5. Because of their semantic richness, images are open to different interpretations. Therefore, misunderstandings can occur in interpreting them. Similarly, misunderstandings can occur in the interpretation of iconic signs contained in link anchors. As we noticed in analyzing links available on the text of the play's screens of RJ1, these iconic signs should be interpreted through an iconic process, that is, through the recognition of an association existing between anchor and target. Because of the openness the interpretation of such signs entails, it can be difficult for the reader to univocally identify the association to which the designer was thinking when setting that link. As a consequence the user is not enabled to predict which target s/he will find. This problem has been explored (as to signs used in the user interface) within the semiotic engineering approach (cf. De Souza 1993; De Souza et al. 1999).

Symbolic signs are in themselves interpreted through a symbolic process of interpretation (the user must know the rules of the use of these words or numbers). However, from the analyzed examples it emerges that the link (its relevance, the semantic relationship between anchor and target) is interpreted through an iconic process: the user expects an association between the meaning of the symbolic sign and the target, association that should clarify the semantic relationship existing between source and target. The large use of symbolic signs in anchors seems to suggest that language is the best means to manifest this semantic relationship. Several questions could be asked by reflecting on this observation, particularly as to its reasons. We may wonder if this large use of symbolic signs in anchors has to be related to the fact that the analyzed applications are all dedicated to texts (namely, literary texts) or if it has to be related to the central role language plays in knowledge communication. A statement of De Souza (1993: 760) about the different role of textual and iconic elements in the user interface provides us with a starting point for an answer:

The value of words in conveying complex abstract meanings and the value of pictures and graphics in being rapidly recognized and often more economically represented on loaded screens has been repeatedly invoked in technical and commercial literature.

Icons in the user interface normally stand for actions. Links used in hypertextual transpositions (particularly, those present on the literary text's screens) are usually not actions; they generate a relation, "a complex abstract meaning" and, therefore, according to De Souza's statement, they accomplish their function better through words, that is, through symbolic signs.

Concerning this issue, it is interesting to note that what enables the reader to interpret summary, paraphrase and main links in M3 and RJ1 are the symbolic signs included in the anchor, not the “pretended iconic” ones.

Several anchors of links used in the hypertextual transpositions include indexical signs, such as the number of the verse or of the paragraph. Most of them reproduce a modality to refer to passages of texts that is usual in literary studies. On the base of this similarity to a well-known practice, these anchors prove to be reliable for the user, in spite of their semantic opacity. The user interprets them through an indexical process of interpretation, which subsequently (when the user discovers that the link follows the usual rules in text’s presentation in printed form) becomes a symbolic one.

However, it is interesting to observe that, owing to the change of the medium (from print to digitalized form) the use of these practices is a little bit transformed. Let us consider, for instance, DC1. Usually, in printed Italian-English editions of the Divine Comedy the English text is presented parallel to the Italian one. In the original Italian text verses are numbered three by three, while the correspondent lines of the translation are not numbered. Therefore, the verses’ numbers of the Italian text do not work as reference sign for the correspondent translation. The manifestation of the correspondence between Italian and English text relies on the juxtaposition in space.<sup>108</sup> D1 provides another example of this change of usual practice owing to the technological change. There, the number of the paragraph is used in order to allow the user to access the translation (from Italian to English or from English to Italian). But, first of all, the usual practice with prose works is to present only the translated text.<sup>109</sup> Secondly, in the Vittore Branca’s Decameron edition (which is used in D1) the paragraphs numbers work just as reference signs for quotation of passages of the text.<sup>110</sup> Therefore, in the application a usual, in literary studies classical practice (numbering paragraphs) is used for a different and new purpose (to offer to the reader the possibility to switch between original text and translation).<sup>111</sup>

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<sup>108</sup> There also are translations in prose that respect the spatial correspondence tercet by tercet or period by period, but that don’t reproduce the structure in verse of the Italian text. Cf. as an example Alighieri 1939 and Alighieri 1973. In respect to spatial juxtaposition, Karin Wenz observed that “Links in hypertexts are like spatial contiguity in other media” (1997: 580).

<sup>109</sup> Since it is prose, it is not considered as essential (as, on the contrary, it is for poetry) to see in parallel the original text and the translation. For prose, the original words of the author are considered to be less constraining.

<sup>110</sup> For comments about the text (placed in the footnotes), other reference numbers are inserted in the literary text.

<sup>111</sup> As to the issue of the comparison between usual reference’s practice in printed editions and in electronic ones, it is interesting to observe that in printed poetic texts verses are numbered only three to three or five to five in a regular way. Not all the numbers of the verses, for which a comment is provided, are showed. The user reads the text. If s/he doesn’t understand or if s/he wants to deepen into the comprehension of a given verse or a passage, s/he looks if at the bottom of the page there is a footnote. Often, in a poetic text in electronic form it happens differently, as for instance texts of the “Representative Poetry online” database demonstrate. There, the number of all verses is showed and

As to the issue of the presence of indexical signs in the links' anchors, the analyzed examples reveal two further interesting aspects. First, it emerged that when iconic signs included in the anchor do not succeed in making clear their iconicity, they end up to work as indexes (it is the case of the arms included in the anchors of summary, paraphrase and main links of M3 and RJ1). Second, it emerges that anchors can work as indexes in respect to the source (as it is in RJ1).

### 3.2.5.2 Avoiding risky processes of interpretation

Despite this recourse to already proofed best practices, the analyzed examples show that in each application a specific language is used. Its presence is for instance demonstrated by the fact that, considering the above-described examples, we remark that a same anchor can stand for different meanings in different hypertextual transpositions. It is for instance the case of the asterisk, which in MM1 is the anchor of a link providing comments about the text, while in DC1 it is an anchor of a link providing access to tags referring to encoded information. As it occurs in any language, within a given hypertextual transposition, synonymy-phenomena may occur when two or more different strategies of manifestation have the same meaning and lead on the same target. It is the case of the "question mark" link and of the "number" link in MM1 (they both provide access to questions about the narrated story that should help the reader in going deeper into the play's comprehension) and of the the different access links to the text the play, available on the pages of the "Percorsi" collection, in H1 (cf. paragraph 3.1.4, reading strategy 4.3). It is also the case of the paraphrase and bytes links in M3 and of the paraphrase and the jester's hat, foreshadowing, censored and confession links in RJ1. All these links provide access to the same paraphrase page.<sup>112</sup>

In order to be able to correctly interpret the links, it is essential for the user to know this application language. The learning of this language corresponds to the discovery of the regularity ruling the overall organization of the hypertextual transposition's contents,

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the number of the verses, for which a comment is provided, is underlined (it is transformed in an anchor). In the printed text, no anchor points out the presence of a comment. Given this fact, in a certain sense we can say that the reader is much freer in a printed text than in an electronic one.

<sup>112</sup> However, considering this particular case at a deeper level, we notice that the synonymy is only apparent. It is true that all these links lead to the same target. But, their meaning is not exactly the same, because the information contained in the target and answering the promise of relevance entailed by the link is different. In fact, when accessing to the paraphrase page from the jester's hat, foreshadowing, censored or confession links, the relevant information for the reader is not the paraphrase as a whole, but the arrow or the note provided on that page and pointing out the trait of the text present in the passage, side to which the link is set. The actual object of the "link" sign is precisely this arrow or this note. On the contrary, when accessing to the paraphrase page from the paraphrase link, the relevant information is the paraphrase in itself. The paraphrase as a whole constitutes the object of the "link" sign.

that is, with the learning of the rules that enable the user to perform the adequate reading strategies. But the user does not know this language and these rules a priori: s/he has to learn them, little by little, during the hypertextual transposition's fruition. The acquisition of the competence of the language will make easier and surer the abduction the user has to draw for the link's interpretation. Therefore, in many cases the adopted processes of interpretation for a given link change during the navigation: at the beginning they are indexical or iconic and then they become symbolic. The transformation of iconic processes of interpretation into symbolic one is a usual phenomenon in communication (Schulz 2000) that can be explained exactly by the addressee's knowledge of the rules of the used language.

Besides the transformation of indexical and iconic processes in symbolic ones, in the analyzed examples it is possible to observe that some links, which at the beginning are interpreted through an iconic process, subsequently are interpreted through an indexical one (for instance, the links in the additional materials of D1). During the hypertextual transposition's fruition, therefore, indexical and iconic processes tend to prevail.<sup>113</sup>

Indexical and symbolic processes are those in which the risk of misunderstanding about the promise of relevance is lower. In fact, in the indexical process the semantic relationship is never manifested. The relevance is just presupposed and the user trusts this presupposition. In the symbolic process the user simply applies a rule. The iconic process, instead, is the riskiest one. It requires the user to carry out an abductive reasoning in order to identify the right association. But, because of the non-compresence of author and user during the hypertextual navigation, the probability of occurrence of misunderstandings about this association is high. The author sets a given link in order to make the user establish a given association, but s/he cannot be sure that the user will identify the association s/he intended. Being aware of such a risk, the author tries to avoid to the user the recourse to iconic processes of interpretation and s/he tries to set links that require the other two processes. Authors tend to assure the success of the user-application interaction, by setting links requiring easy (almost mechanic) processes of interpretation, preferring linking strategies, which are sure at a communicative level. One of the means authors dispose at this purpose is the exploitation of already proofed best practices.<sup>114</sup> For instance, the underlined words or expressions links of MM1 exploit a common practice in literary criticism: in this field it is a usual situation the fact that in the footnotes different kinds of comment are given and the fact that the reader cannot predict which kind of comment s/he will find.

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<sup>113</sup> Already Peirce noted that diachronically signs progress from icons and indexes toward symbols (cf. Chandler 2002: 44-45).

<sup>114</sup> The importance of the exploitation of already existing and proofed codes is underlined in user interfaces design, too. For instance, it constitutes one of the four semiotic principles semiotic engineering proposes as guidelines to designers. "UIL [User Interface Layout] signs should be systematically coded and deeply embedded in the user's culture" (De Souza 1993: 766).

The important role played by the second order representation constitutes an essential new factor of the act of reading a literary text in hypertextual transpositions. The role the second order representation plays in printed annotated and illustrated editions is not that central, although it should not be neglected. Its importance in hypertextual transpositions introduces new conditions for the success of the act of reading the literary text. In fact, the second order representation consists of the representation of given reading strategies. According to the reading strategies that are actually represented in a given application, the reading takes place in a specific and determined way. The reading strategies representation that are present in a given application can be more or less appropriate in respect to the reader's goal and task. Thus, the problem of the adequacy of the second order representation arises and it constitutes, together with the avoidance of misunderstandings as to the use of the "understanding by seeing" maxim (we developed in the second part), a condition for the success of the act of reading the literary text in hypertextual transpositions. On its base, we elaborated a model of this act, which can be a tool for designers, who have to make choices as to the contents' organizations, devices and tools to be included in the application.

Even if the care the designer provides as to the adequacy of the second order representation to include in the application is essential as to the creation of the conditions for the success of the act of reading the literary text in hypertextual transpositions, the working of the second order representation highly depends on the reader's inferences as to the meaning of the contents' organizations, devices and tools available in the application. The correct interpretation of hyperlinks constitutes an important step of this inferential process. Being hyperlink a complex sign, also the process of interpretation that the sign requires is complex. Currently (at least in the hypertextual transpositions we assumed as examples) the reference to the practices of reading and annotation that are the most common and well-known in the field of literary studies constitutes a key-element for assuring the success of such complex process of interpretation.



## 4 Conclusions

### 4.1 Summarizing the results of our work

The main goal of our work was the identification of the new factors the transposition of a classical literary text in a hypertextual form brings in the act of reading the literary text and of the new conditions this transposition introduces for the literary text's comprehension. Essentially, three new factors and conditions emerge from the analysis of hypertextual transposition on the base of the checklist presented at Appendix 1: they are (a) the major quantity of included added materials, (b) the increased exploitation of the logic of representation, and (c) the important role of the second order representation.

In the first part of our work we defined the essential features of hypertextual transpositions. On a general level, as we described in chapter 1.1, this category of hypermedial applications is characterized by the fact that at the core of the application stays the literary text. To the electronic version of the literary text a hypertextual transposition entails, several other materials (which are various, both from the point of view of their contents and from the point of view of the medium through which they are provided) are added. The function of these added materials is to sustain the reader in the comprehension of the literary text. All these materials stand in function of the literary text itself. As we pointed out at paragraph 1.1.2, this fact does not constitute a big difference in respect to printed annotated or illustrated editions of literary texts. Also in these artefacts (which are the artefacts through which we are used to read a literary text) the literary text occupies a central position and around it several annotations, texts or images are added, with the aim of casting light on the literary text's significance. In a certain sense, we can consider hypertextual transpositions as a new modality for providing annotated and illustrated editions. Elements of similarity between hypertextual transpositions and printed annotated editions emerged also as to the presence of non- (or multi-)linearity (cf. paragraph 1.1.3), which is often claimed to be a peculiar feature of the hypertextual form. Also printed annotated editions entail aspects of non-linearity, namely owing to the presence of annotations and comments in footnotes. Therefore, our reflection traced elements of continuity between printed annotated editions and hypertextual transpositions.

However, beyond these similarities, a closer analysis of some concrete examples of hypertextual transpositions allowed us to identify, at a more specific level, some particular features of hypertextual transpositions; some features that are not completely absent in printed annotated editions, but the presence (or absence) of which plays a more essential role in hypertextual transpositions. These are precisely the features that introduce new factors in the act of reading and new conditions as to the possibility for the reader to grasp the literary text's significance. As a closer comparison of

hypertextual transpositions and printed editions let emerge (cf. paragraph 1.1.3 and 3.1.6), these factors and conditions are mainly related to the organization of the text in the hypertextual transposition, to the representations that the artefact entails. In our work, they have been identified thanks to an analysis (described in chapter 1.2) that tried to take into account all the aspects involved in the act of reading a literary text in hypertextual transposition, by considering together widely acknowledged criteria for judging the reliability of information (principles of the information evaluation quality and web content analysis), the use in hypertextual transpositions of essential elements of the structure and design of hypermedia (principles of the field of hypermedia design) and peculiar characteristics of the act of reading a literary text (principles coming from hermeneutics and empirical studies of reading and literature).

The first new factor of the act of reading the literary text in a hypertextual transposition derives from the possibility new technologies easily offer to include a major quantity of materials for illustrating and explaining (aspects of) the literary text. In some of the considered hypertextual transpositions we observed, for instance, the increased quantity of essays about different topics related to the literary text. This feature of hypertextual transpositions constitutes a possibility of casting light on or going deeper in more numerous aspects of the literary text's significance, thus providing to the reader the possibility of a richer presentation of the literary text. It makes possible to sustain the reader in a thorough comprehension of the literary text's significance and in a richer reading experience by providing her/him a more thorough exposition of the text. However, the presence of a major quantity of materials also means that, while reading, the reader has to process more materials and, therefore, that the inferential process s/he has to accomplish in order to understand the literary text and the function all these materials have in respect to it, is more demanding. It can require supplementary efforts and, only if the reader succeeds in carrying it out adequately, the act of reading the literary text succeeds without disorientation or confusion (cf. paragraph 1.3.2.1).

The consideration of the contents included in the hypertextual transposition from a semiotic point of view let emerge the second central new factor of the act of reading the literary text in hypertextual transpositions, namely the logic of representation. From the results of the analysis of the concrete examples of hypertextual transpositions, this logic appeared to be one of the essential characteristics of hypertextual transpositions. It is for instance reflected in the major importance granted to the illustration and explanation of the aspects of the literary text that can be presented in a visual form or modality. Namely, we observed in the analyzed hypertextual transpositions that narrative aspects such as characters or places, as well as aspects related to visual and/or acoustic representations of the literary text, are more widely developed than philological aspects (cf. paragraph 2.1.1). To the clarification of this logic we devoted the second part of our work, starting from a description of this logic (chapter 2.1), then considering some examples of representations (mainly drawn from DC1; chapter 2.2) and finally reflecting

on its benefits and limits (chapter 2.3). The goal of the logic of representation is to make the literary text more directly experiential to the reader. This is obtained by widely employing the modality of the demonstratio ad oculos of denotata, that is, by employing a deictic modality for clarifying the different aspects of the literary text. This is the core of what we called the “understanding by seeing” maxim. This maxim brings interesting benefits, which can be resumed in the possibility to approach the literary text in a more experiential way. Thanks to the importance attributed to the knowledge of denotata, the logic of representation (through the application of the “understanding by seeing” maxim) introduces the reader to a more experiential knowledge of the text and, as we underlined at paragraph 2.1.3, such knowledge is essential for human understanding. The examples drawn from DC1 and discussed in chapter 2.2 show that the “understanding by seeing” maxim works and that images can cast light on elements of the literary texts in various ways (according to the class they belong). In this sense, images possess a high potentiality of representation in relationship to the literary text and its significance. Fundamentally, the working of the “understanding by seeing” maxim leans on the relationship of correspondence between image’s and text’s content (the importance of which is highlighted in the Text-Bild-Schere norm; cf. paragraph 2.3.2).

However, as the examples presented at paragraph 2.2.3 show, the introduction of this new factor in the act of reading entails also some risks as to the reaching of a complete comprehension of the literary text. Basically these risks consist in the possibility of misunderstanding between editor (author/designer of the hypertextual transposition) and reader as the interpreter of the meaning of the image. The meaning of the image (what the image represents) depends on its relationship to the literary text. In other words, it coincides with the function of the image in the clarification of the literary text’s significance. The semantic richness and the openness to different interpretation that characterize images as signs have to be delimited in order for the reader to take advantage from the presence of the image for the comprehension of the literary text’s significance. This delimitation derives from the consideration of the image in relationship to the literary text (cf. paragraph 2.2.1). Moreover, it also highly depends on reader’s inferential processes. An inferential process always entails risks of misunderstanding as to the conclusions to which it leads. Therefore, in the case of the use of images in hypertextual transpositions, misunderstanding can arise as to the function of the image. As we described at paragraph 2.3.3, these misunderstanding can have different origins. They can derive from technological aspects or from cognitive-semantic aspects. Semantic origins are the more severe ones. They can depend on the relationship existing between text and image (weak correspondence or reference to a too narrow element of the text). They can depend on the image’s presentation (photographs or inadequate captions can stop the reader to secondary meanings). But they can also depend on “reader’s features”, namely her/his prior knowledge and her/his capacity to observe and read images and to draw more or less rich inferences. If the two former

possible origins can be “controlled” in the design and implementation of the hypertextual transpositions, the latter one constituted a variable, which is more difficult to control. As we described all along chapter 2.3, the presence of a representation (especially of an image) in connection to (a passage of) the literary text does not automatically bring a better comprehension of that (passage of the) literary text. In fact, on the one side, as we just reminded above, the reader can be stopped to the literal sense, which, however, does not coincide with the deep literary text’s significance. On the other side, the understanding of the function of the representation in respect to the literary text can require complex inferences and interpretive processes from the part of the reader. The access to the more experiential knowledge (the knowledge of denotata) does not go without a considerable inferential effort in order to understand the relationship existing between representations and literary text and in order to go beyond the more immediate literal meaning. However, the non-arising of misunderstanding in the images’ interpretation constitute an essential condition for the comprehension of the literary text’s significance.

The third central new factor of the act of reading the literary text in a hypertextual transposition appeared to be its strict relationship to what we called the second order representation. We described this third factor in part 3. From the analysis of the hypertextual transpositions emerged the presence in hypertextual transpositions of elements that have an impact on the way in which the literary text is approached and that represent different possible reading strategies. The representation of these reading strategies constitutes a representation which is superposed to the literary text, which is in itself also a representation (cf. paragraph 2.1.1). The act of reading in hypertextual transpositions, the way it takes place, is determined by the second order representation, by the reading strategies that are actually represented in the application. The reading happens differently according to the second order representation included in the application. It is for instance the case of the use of one-way or double-way links. As we described at paragraph 3.1.8 (design pattern 3.1.5), double-way links invite the reader to finish to the reading of the content s/he was exploring before clicking on that link by going back to it. One-way links, on the contrary, induce the reader to go on with a new content (cf. paragraph 3.1.5, reading strategy 3.1.5). The presence of one device instead of the other on the screens of the added materials accessible from the literary text screens can make a difference as to the continuity and the completeness of the reading of the literary text. If double-way links are present, the reader is invited to go back to the literary text after the consumption of the added material, while if links are one-way s/he is invited to go on for a new content. As this brief example shows, the presence of given devices can facilitate the reader’s access to the literary text’s significance, but it can also make it more difficult. If these devices are not properly used, the reader is just confronted with an increased number of choices s/he has to perform as to the way in which s/he has to approach the literary text without succeeding in approaching it in an

adequate way. This means that in hypertextual transpositions some approaches to the literary text (the possibility to perform given reading strategies) strictly depend on their representation with the artefact. It goes different in printed annotated or illustrated editions, where aspects of second order representation can be recovered (let us think of the function of indexes or callout for footnotes), but where several operations or approaches do not depend on the representation within the artefact. For instance, as we underlined at paragraph 3.1.7, the reader can browse the text sequentially independently on the representation of the sequential reading strategy. The reason of this difference between hypertextual transpositions and printed annotated editions resides in the more mediated nature of the electronic text (cf. paragraph 1.1.3). As we described in chapter 3.1, the possibility for the reader to have a successful reading experience highly depends on the reading strategies representation provided in the application. The second order representation plays an essential role in determining the way in which the reader approaches the literary text. Besides, it demands to the reader a further interpretive effort. It requires the reader to understand the meaning and the function of the contents' organizations, devices and tools provided in the artefact and this understanding also consists in an inferential process. The reader has to understand which reading strategies the application suggests at the best and which signs within the application allow her/him to perform them. Given the power the second order representation has, we consider it an essential point as to the evaluation of the quality of the application, that is, as to the creation of conditions for an adequate comprehension of the literary text's significance. Therefore, we elaborated a model of the act of reading a literary text in a hypertextual transposition (cf. paragraph 3.1.6), which takes into consideration the second order representation as well as the essential concepts of reader's goal and task (which are directly related to the application's target audience, cf. paragraph 3.1.2). This model can serve as a tool for improving the design and the implementation of the application by sustaining the choices designers have to make as to the devices to include in the application. In other words, as we exemplified at paragraph 3.1.6.2, it provides an overall picture of the reading strategies representation, which can help the designer in solving the conflicts that, as we described at paragraph 3.1.6, can arise among devices representing different reading strategies. Sustain to designers can also be provided by the fact that, as we exposed at paragraph 3.1.8, for each reading strategy it is possible to identify a design pattern that provides a re-usable solution for coping with the problems arising in the act of reading because of the characteristics of hypertext.

Sustain can also be provided by the consciousness as to the process of interpretation hyperlinks (which are central elements of the second order representation) require. The analysis of hyperlinks made available on the literary text screens of some hypertextual transpositions we developed in chapter 3.2 highlighted some interesting aspects. Thanks to the adopted semiotic framework (identifying two different levels within the meaning of the "hyperlink" sign), this analysis showed that often designer's choices are guided by

the attempt to manage the risk of misunderstanding by using signs that are easily interpretable, both at the representation and at the cognitive level. This is the most “plain path”, but it also is the less innovative one. In the major part of the analyzed hyperlinks, the implicit reference and the exploitation of the best practices commonly used in printed annotated editions for the organization of the text constitute the base for the shaping of the hypertextual transposition (cf. paragraph 2.2.5.1). It is for instance the case of the asterisk link, which in MM1 is set side to given words or expressions and leading to different types of information about that passage. The anchor is opaque from a semantic point of view. What sustains the reader’s interpretation of such a link is the possibility to refer to the practice of footnotes used in printed annotated editions. According to this practice, the presence of a callout of a footnote set side to a given word or expression of the literary text indicates the presence of an interesting and useful explanation of that word or expression. Therefore, once again, we discovered an element of continuity between hypertextual transpositions and printed annotated editions. If it is true (as it appears from our work) that essential differences exist between printed annotated editions and hypertextual transpositions and if hypertextual transpositions introduce new factors and conditions in the act of reading the literary text, we do not have to forget that these differences do not constitute a rupture or a subversion. The reference to the practice of printed editions often constitutes the base upon which designers try to control precisely the appearance of the new factors and conditions introduced by the hypertextual form.

The essential logic of representation (and the correspondent “understanding by seeing” maxim) and the presence of factors that can require a higher inferential effort on the part of the reader (namely, the need to process and relate to the literary text’s significance a higher deal of materials, the need of understanding the function of the included representations in respect to the literary text’s significance and the need of the reader to perform an adequate reading strategy) are two forces that work simultaneously in hypertextual transpositions.<sup>115</sup>

The new factors and conditions that arise in the act of reading a literary text owing to its transposition in the hypertextual form derive from the larger impact the artefact has on this act in respect to what happens in printed annotated and illustrated editions. The ways in which contents are organized in the artefact and the choices made as to the contents, tools and devices to include highly determine how the text is read. Whether this is an intrinsic characteristic of hypertextual transpositions or it derives from a cultural problem of adaptation (we are not yet accustomed to such kind of artefacts) has to be verified in time. However, considering hypertextual transpositions and printed annotated and illustrated editions from a synchronic perspective, given the current situation of

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<sup>115</sup> This observation recovers Bolter & Grusin’s idea (1999) that remediations of all kinds arise from a tension between immediacy and hypermediacy.

reading practices, this appears the most evident trait of the act of reading in hypertextual transpositions.

Therefore, the above-described new conditions appearing in hypertextual transpositions for an adequate taking place of the act of reading the literary text (namely, the non-arising of misunderstandings as to the function of the included representations and the adequacy of the represented reading strategies in respect to the reader's goal and task) can be resumed in the need of asking the reader for an inferential effort as reduced as possible as to the interpretation of the signs included in the artefact. The artefact has to be as transparent as possible.<sup>116</sup>

The hypertextual transposition's transparency depends on intrinsic characteristics of the technology, but it also highly depends on the designer's choices. Therefore, the identification of the new factors and conditions of the act of reading a literary text in a hypertextual transposition has implications as to the design of hypertextual transpositions. As a consequence, the organization of the artefact deserves much accuracy and carefulness on the part of the designer. Of course, the decisive factor remains the reader and its capacity of drawing inferences. Also in front of a bad hypertextual transposition, a brilliant reader can read and understand the literary text. However, generally speaking, since (as we described at paragraph 1.1.4) the act of reading can be defined as an interaction taking place between the reader and the text, the accuracy reserved to the organization and presentation of the artefact is important in order to set favourable conditions for the success of the interaction.

## 4.2 Further perspectives

In the present work we developed a conceptual framework for the understanding of the working of the act of reading a literary text in hypertextual transpositions. As we specified at the beginning of chapter 1.2, in the phase of analysis of the concrete examples of hypertextual transpositions, we adopted a methodology similar to heuristic evaluation, the most commonly adopted deductive method of inspection of applications of the field of web usability. On the contrary, in the successive phase, when reconstructing the reading strategies representations present in the considered applications, we adopted an inductive method, which led us from the observation of given devices to the identification of the reading strategy they represent in respect to the reader's goal and task. As said, this combination of methods proved to be useful in order to identify new factors and conditions the hypertextual form introduces in such act.

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<sup>116</sup> Again, this observation has similarities with the concept of immediacy developed by Bolter & Grusin (1999).

However, this conceptual framework could be further developed and specified through empirical studies. As we observed in several passages of our work, empirical studies on reading strategies in hypermedial applications and empirical studies of reading and literature are well-established practices. If related to the conceptual framework we elaborated, the combination of these two point of view (observation of reading strategies adopted by users when navigating in a hypermedial application and empirical observation of general aspects of the act of reading a literary text) could give birth to a more sharpened understanding of how the act of reading the literary text in hypertextual transpositions takes place and, more generally, of constitutive aspects of the act of reading itself. Through an empirical study it would be possible to test the impact and the effectiveness reading strategies representations have on the literary text comprehension. It would allow to verify if, when and how an adequate representation of reading strategies can improve that comprehension. To a more sharpened understanding of the conditions of such effectiveness could also contribute the consideration of concrete and varied reader's situations. In fact, in the empirical research we are imagining, the reader will be at the centre. Her/his characteristics and needs will be considered from close. This would lead to a further specification of the concepts of user's goal and task. In fact, precise goals and tasks users have in concrete situations of use of hypertextual transpositions would be taken into account, thus providing a more detailed description of reading strategies users adopt in these situations. In this way, on the base of the general model of the act of reading the literary text in hypertextual transpositions we proposed, it would be possible to describe more specific situations, thus providing further sustain to designer's choices.

This development of our conceptual framework would be useful in order to undertake the study of hypermedial applications according to a dialogic perspective. The interaction between the reader and the hypertextual transposition can be conceived as a dialogue. However, in the current available applications, this dialogue is limited because the range of possible "turns" of the application and of the user is restricted. Maybe, it cannot be otherwise. However, the specification of the reading strategies involved in precise situations of use of hypertextual transpositions could provide important hints for the improvement of the relevance of the application's and user's turns in the dialogue constituted during the act of reading.

Another important contribution to a further development of our conceptual framework could derive from the verification of its validity as to other kinds of hypermedial applications. In comparing the hierarchy of reading strategies detected in hypertextual transpositions and the model elaborated on its base, with models arising from the application of our framework to other categories of hypermedia (that is, hypermedia that entail a – more or less – different user's goal and task), we would understand and identify the "universal" aspects and characters of the framework and the aspects and characters that, on the contrary, are strictly related to the peculiarities of

hypertextual transpositions. This is the research stream we began to investigate on the base of the results of the present work (cf. Mazzali-Lurati & Schulz 2003).

Another interesting stream of research to be investigated (at least, it would be interesting to verify its practicability) is the clarification of the relationship between reading strategies representation and text encoding. Text encoding is an important field of investigation as to the use of new technologies for literary studies (cf. Hockey 2000). Beside the original goal of creating electronic versions of literary texts that can be shared all over the world, the aim of the research carried out in this field is the production of electronic materials for literary studies that can be re-used for different goals and for different kinds of manipulation of the text by different users. TEI (Text Encoding Initiative, <http://www.tei-c.org/>) is the most important international consortium in this field, which elaborated guidelines for text encoding in SGML and, now, in XML (cf. TEI website). On the base of our conceptual framework it would be useful to verify if it is possible to include reading strategies representations in the information encoded in the text and in the application. That is, it would be interesting to verify if specific tags for the encoding of different reading approach to the text, according to different user's goals and tasks could be identified.



## 5 Appendix 1: Checklist for the analysis of hypertextual transpositions

- 1) Content and possible activities and interactions
  - 1.1) Annotations and added material
    - 1.1.1) Is it clear what materials are included in the hypertextual transposition?
    - 1.1.2) Does the hypertextual transposition focus on a particular aspect of the literary work? Which contents does this hypertextual transposition include?
    - 1.1.3) Is there a print equivalent to the Web page? If so, is it clear if the entire work is available on the Web?
    - 1.1.4) If there is a print equivalent to the Web page, is it clear if the Web version includes additional information not contained in the print version?
    - 1.1.5) Narrative aspects of the literary text.
    - 1.1.6) Linguistic and stylistic aspects of the literary text.
    - 1.1.7) Aspects related to the literary text history.
    - 1.1.8) Representations of the literary text.
    - 1.1.9) Are there annotations to the literary text?
    - 1.1.10) Are there essays?
    - 1.1.11) Which media are used for added materials dealing with narrative aspects of the literary text?
    - 1.1.12) Which media are used for added materials dealing with linguistic and stylistic aspects of the literary text?
    - 1.1.13) Which media are used for added materials dealing with aspects of the literary text history?
    - 1.1.14) Which media are used for added materials dealing with representations of the literary text?
  - 1.2) Possible activities and interactions

Are reader's utilities available? Which operations can the reader perform on the literary text?

    - 1.2.1) Is it possible to search the literary text?
    - 1.2.2) Is it possible to view simultaneously literary text and added material?

- 1.2.3) Is it possible to compare different versions of the literary text or different added materials?
- 2) Tools available to clients for accessing 1
  - 2.1) Annotations and added material
    - 2.1.1) Collections (how is the material organized?)
  - 2.2) Literary text
    - 2.2.1) How can the reader access to the literary text?
    - 2.2.2) Is the access to the literary text privileged?
    - 2.2.3) How is the content of the literary text collection structured?
    - 2.2.4) Is the literary text presented on a page clear of links?
    - 2.2.5) Are anchors of the links on the literary text embedded or unembedded?
    - 2.2.6) How can the reader navigate within the literary text collection? How can s/he browse the literary text?
  - 2.3) Organization of the added materials in respect to the literary text
    - 2.3.1) Is the differentiation between literary text and added material (or between different added materials) signalled in some ways?
    - 2.3.2) Which information or added materials are directly accessible from the literary text screens?
    - 2.3.3) Are added materials accessible only from the literary text or independently on the literary text?
    - 2.3.4) Do added materials always provide access to the referred passages of the literary text?
    - 2.3.5) Which semantic links are available?
    - 2.3.6) Are links one-way or double-way?
    - 2.3.7) Are there automatically activated elements?
    - 2.3.8) How precisely is the relationship between the referred passage of the literary text and the added material signalled?
  - 2.4) Possible activities and interactions
    - 2.4.1) How can the reader search the text?
    - 2.4.2) How can the reader view simultaneously the literary text and the added materials?

- 2.4.3) How can the reader compare different texts or different added materials?
- 2.5) General aspects of the navigation
  - 2.5.1) Is the active reference pattern used?
  - 2.5.2) Is the behaviour anticipation pattern used?
  - 2.5.3) Is the information factoring pattern used?
  - 2.5.4) Is the guided tour pattern used? Are supports to user's orientation present?
- 3) Clients accessing 1
  - 3.1) Is there in the considered applications a page that explicitly gives information about the intended audience?
  - 3.2) Which is the intended audience?



## 6 Appendix 2: Analysis of hypertextual transpositions

### D1) The Decameron Web

- 1.1.1) The “More about the project” page in the “The Project” collection provides information about coverage. It informs the reader about the fact that “the new electronic environment and its tools enable us to revive the humanistic spirit of communal and collaboratively ‘playful’ learning of which the *Decameron* itself is the utmost expression. Through a creative use of technology, our project provides the reader with an easily accessible and flexible yet well-structured wealth of information on the literary, historical and cultural context of the *Decameron*, thus allowing a vivid yet rigorously philological understanding of the past in which the work was conceived. At the same time, our project is meant to facilitate the creative expression of a multiplicity of perspectives which animate our contemporary readings”. Besides, the site “can provide its beneficiaries with a sort of specialized bookshelf or mini-library generated from and existing alongside a reading of Boccaccio’s masterpiece. This mini-library or virtual encyclopedia includes the text in its established critical edition (Branca), sources, translations, annotations and commentaries, bibliographies, a growing selection of critical and interpretive essays, as well as visual and audio materials. These resources are all hypertextually linked and complemented by a variety of analytical tools and search engines meant to make your exploration of the site easy and rewarding”.
- 1.1.2) The hypertextual transposition doesn’t focus on a particular aspect of the literary text. It aims to highlight all the possible interesting aspects of it.
- 1.1.3) Some of the added materials have been created expressly for this hypertextual transposition. However, most hypertextual transposition contents are drawn from previous existing printed sources. Especially essays consist of excerpts of already existing works. The source is always indicated. The electronic text (an XML-encoded version) is based on Vittore Branca’s Einaudi edition (1992).
- 1.1.4) –
- 1.1.5) Narrative aspects are developed. More precisely, an entire collection is dedicated to the presentation of the members of the brigata; a collection is dedicated to the plague (that is, to the historical setting of the narration) and another one is dedicated to history;<sup>117</sup> one is dedicated to maps of the world of Decameron; one is dedicated to themes and motives. Some essays in the “Literature” collection of collections are dedicated to the frame story (that is, to the structure of the work) and in the collection “Narratology and Structural Exegesis” there are structural analysis of some *tales*. Summaries of the

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<sup>117</sup> It has to be noted that in the case of Decameron the historical setting of the narration and the historical context of the text production coincide.

- various *novelle* are provided in the presentation of the members of the brigata. Essays about music in the Decameron are also available.
- 1.1.6) Words' or expressions' definition are not provided, even not paraphrase and intratextual references. Two English translations are included in this hypertextual transposition: the one by J.M. Rigg (1921, first printed 1903) and the one attributed to John Florio (1620). The first one is accessible in relationship to the original Italian text, while the second one is not related to the Italian text. Some essays in the "Literature" collection are dedicated to the *novella* genre. On the contrary, the language of the text, its style(s) and metrical and rhetorical aspects are not developed.
- 1.1.7) One of the main collections is dedicated to the author's biography. Several collections are devoted to the context in which the text was written ("History", "Society", "Religion" and also the essay "Medieval Attitudes Towards Literature" in the "Literature" collection). The essays of the collection "Literary Relations" are dedicated to sources, authorship and influences of the Decameron on successive works. In the "Themes/Motives" collection an essay about Indian echos in the Decameron is available. Philological aspects (variants or different editions of the text) are not addressed. However, concordance is available. The possibility to listen to some ballads, well known at Boccaccio's time, is provided.
- 1.1.8) In the "Arts" collection essays about pictorial representations and illustrated editions of the Decameron (particularly, of the *novella* of Nastagio degli Onesti) are available. Besides, in the same collection essays about and clips drawn from Pasolini's film based on the Decameron are available.
- 1.1.9) On the literary text no annotation is provided.
- 1.1.10) The major part of the added materials consists of short essays.
- 1.1.11) Generally speaking, added materials dealing with narrative aspects of the literary text consist of written texts. Some images are added to them, but the core of the content is conveyed by the verbal text. On the contrary, in the case of maps, images are the main means for conveying the content. This is valid also for the map illustrating the trade routes that brought the plague to Europe. Audio and video devices are not used.
- 1.1.12) All the added materials dealing with linguistic and stylistic aspects consist of verbal written texts.
- 1.1.13) Generally speaking, added materials dealing with aspects of the literary text history consist of verbal written texts. Some images are added to them, but the core of the content is conveyed by the verbal text. Audio and video devices are not used, except for audio files to listen to excerpts of Francesco Landini's compositions.
- 1.1.14) An important part of added materials dealing with representations of the literary text consist of verbal written texts. Only two images of illustrations of the *novella* of Nastagio degli Onesti are available. Video clips from Pasolini's filmic adaptation of the Decameron are available, as well as essays explaining it. Essays about music and the Decameron are available.
- 1.2.1) It is possible to search the text.

- 1.2.2) No possibility to view simultaneously the text and the added material or different added materials is offered. Different contents substitute one to the other on the screen. On the “Texts” collection center the reader is advised that in future s/he will be able to view simultaneously, on a same screen, the Italian and the English texts.
- 1.2.3) No possibility to compare.
- 2.1.1) “Boccaccio” (collection) > chronology of Boccaccio’s life, divided in two parts (members).  
 “Texts” (collection) > Italian text (collection > tales, members), Rigg’s English translation (collection > tales, members), Florio’s English translation (collection), Concordances (member), Characters search (search engine), Geographic locations search (search engine), Words search (search engine), Corbaccio (collection), Elegia di Madonna Fiammetta (collection).  
 “Search” (search engine) > Advanced Site Search (search engine), Text Search (search engine).  
 “Brigata” (collection) > presentation of each member of the brigata (members). It has to be noted that these presentations don’t look exactly the same for each character. In some of them, there is just a presentation of the character and a summary of the novels s/he narrates (also a link to them is provided). This is not historical material. In others, the presentation is more detailed and there are references (and links) to text passages where the characteristics of the character are described or brief essays on the topics of his/her novels or on his/her particular importance or role. For others, there also are links to other sections of the hypertext where some essays about this member are available. For some of them, there are bibliographical references.  
 “Plague” (collection) > bibliographical references to go deeper into this topic (members).  
 “Literature” (collection) > various essays (members).  
 “History” (collection) > various essays (members).  
 “Society” (collection) > various essays (members).  
 “Religion” (collection) > various essays (members).  
 “Arts” (collection) > various essays (members).  
 “Maps” (collection) > maps of places quoted in the Decameron (members).  
 “Themes/Motifs” (collection) > various essays (members).  
 “Bibliography” (collection) > different lists of bibliographical references (members).
- Collections correspond to different semantic aspects of the work. Therefore, they contribute to clarify the different aspects of the literary text significance.
- 2.2.1) Once the reader accesses the “Texts” collection, s/he has to choose if accessing to the Italian text or to the English translation (the possibility to view both simultaneously will be provided, but it is still not available). Then, s/he is led at the index of the work. There, s/he has to choose, first, a giornata and, second, a novella. It has to be noted that the index is organized in two hierarchical levels. Only the division in giornate is automatically displayed, while the division of each giornata in tales is made available only as

- expansion of each giornata link. For this reason the reader doesn't have a complete overview on the physical structure of the play. However, it has to be said that, in the case of the Decameron, the reader can easily visualize it, once s/he knows that each giornata consists of ten tales. The index remains available in the left frame, once the reader enters the text of a novel.
- 2.2.2) The access to the literary text collection is not privileged. On the homepage the access link to the "Texts" collection looks like the other access links and it is not placed in a particularly evident position.
- 2.2.3) Members of the literary text collection are the 100 tales. In the collection center tale are grouped in giornate. That is, the literary text is divided in giornate and in tales. This division corresponds to the traditional Decameron structure. The text of each tale is displayed on a same screen. Therefore, in order to read it completely, the user has to scroll up and down.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Links on the literary text have unembedded anchors (they are placed within the literary text, but their anchor doesn't coincide with parts of the literary text itself). Their anchor coincides with the number of the paragraph and they lead to the English translation (in the case the reader chose the English translation, they lead to the Italian original text).
- 2.2.6) In order to browse the literary text, the user has to choose a giornata and then a tale in the text collection center. No link leading the reader directly at the literary text beginning (at the Proemio) is provided. Once the reader entered a tale, s/he can browse on sequentially thanks to the arrow link placed at the bottom of the text screen. However, s/he can proceed only forward (not backward). The reader can also browse the literary text non-sequentially by choosing a novel in the index of the work, which remains always available in the left frame of each literary text screen.
- 2.3.1) The change of displayed content is signaled only through the fact that a given content substitutes the previous one on the screen. No striking graphical difference has been introduced between literary text and added material or among different added materials.
- 2.3.2) From the literary text screens it is possible to access to the English translation (to the Italian text if the reader started her/his navigation from the English translation), through the paragraph number links or through the apposite links "English Text" placed in the upper frame. Besides, it is possible to access to various search tools and to the "Texts" collection center (also these links are placed in the upper frame). The title of the part of the text the reader is exploring is displayed at the top of the literary text frame (therefore, it is no more visible when the reader scrolls down in order to read the text). The index remains available in the left frame. For each paragraph of the text also the tag "Voice" is visible. It informs about who (which member of the brigata) is narrating that paragraph.
- 2.3.3) The English translation/Italian text is the only added material that can be accessed only starting from the literary text screens. All the other added materials are accessible independently on the literary text, starting from the

- correspondent collections.
- 2.3.4) When in the added material a reference to a novel of the Decameron or to a passage of it is present, a link is available that allows the reader browsing this novel or this passage. Usually, this link has an embedded anchor. However, not all the added material refers precisely to a given passage or to a given novel. Some added material refers to the whole Decameron in general.
- 2.3.5) Semantic associations have been created between Italian text and English translation, between added material (in particular, essays) and Italian text correspondently to the referred passages of the literary text and between different essays. However, they are not many.
- 2.3.6) Generally speaking, links are one-way. This fact risks to create some disorientation or confusion in the reader's navigation, because s/he easily changes path without having the possibility (or without being invited) to go back and finishing the reading of the content s/he was previously exploring. Links between Italian text and English translation represent an exception. There, once the reader is on the English translation, an evident "back" link is provided. It invites the reader to continue her/his previous reading.
- 2.3.7) No automatically activated element is present.
- 2.3.8) On the literary text the relationship between passage of the Italian text and passage of the English translation is signaled by the anchor position. The relationship between the added material and the literary text is signaled by the reference to the giornata and the tale. As regards semantic associations between different essays, the relationship is signaled by the embedded anchor of the link.
- 2.4.1) Different possibilities are offered in order to search the text. The reader can choose the "Search" collection on the homepage. From the "Search" collection center, s/he can access to three different search possibilities: first, a full text search on the site or on the literary text (through the fields available in the upper frame); second, an advanced search on the site; third, a text search (on the SGML-encoded text of the Decameron and, in future, also of some Boccaccio's minor works) that allows retrieving places, characters or words. However, the third possibility doesn't work (404 page). This possibility is also proposed on the "Texts" collection center and it is also directly accessible from the literary text screens (an apposite link for the search of the different elements – places, characters, words – is available at the top of each literary text screen). On the "Texts" collection center also the access to concordance is available. Concordance in itself is another available search tool. The search field in the upper frame is available on every page of the site. The places search is also proposed on the "Maps" collection center.
- 2.4.2) –
- 2.4.3) –
- 2.5.1) The active reference pattern is applied. In fact, at the bottom of each screen a navigation tool appears that summarizes the steps the user accomplished in order to reach the page s/he is currently exploring, that signals her/his current position and that allows her/him stepping back at the different levels of the

navigation. As regards the literary text, the active reference pattern is not fully applied. In fact, on the literary text screens, the index of the work remains available in the left frame. There, the link corresponding to the giornata to which belongs the novel the reader is exploring remains expanded. Therefore, the reader can always know in which giornata s/he is. However, the novel s/he is currently exploring is not highlighted in this expansion.

- 2.5.2) The anticipation behaviour pattern is not applied.
- 2.5.3) The information factoring pattern is not applied.
- 2.5.4) The text collection is organized as a guided tour. However, this guided tour can proceed only in one direction (forward). No support to user's orientation is provided, unless the fact that, since the index of the work remains available in the left frame, the reader can visualize her/his position at the level of the giornate and, generally, within the whole text. Also some essays are organized as guided tours (cf., for instance, "The Decameron and Music" in the "Arts" collection). Supports to user's orientation are not provided.
- 3.1) The page "More about the project" in "The Project" collection informs about the intended audience.
- 3.2) "Intended primary beneficiaries of the project are college and high school teachers and students, but independent readers and scholars interested in the *Decameron* itself or aspects of it that are related to their specific areas of interest will benefit from it, regardless of their geographic location or institutional affiliation. Our group and classroom at Brown University will serve as the gateway to a virtual community of readers and students of the *Decameron* who are engaged in a variety of didactic and scholarly pursuits and as a forum for discussions of their methodologies and critical perspectives" ("More about the project" in "The Project" collection). The inclusion of the English translation lets us suppose that the iste is thought for people that are not Italian native-speakers and that are probably English native-speakers.

#### Remarks

It has to be noted that this site includes several external links. Their destination is always carefully indicated.

A "New" section is available on the homepage.

It has to be noted that on the homepage this site is defined as hypermedia archive.

#### **DC1) The World of Dante**

- 1.1.1) The overview page provides information about two of the main contents of this hypertextual transpositions, namely encoded information and visual materials.
- 1.1.2) Both the possibility to carry out precise and accurate searches on the literary text and the visualization of Dante's Hell seem to be the main focusses of this hypertextual transposition. The focus is not on a complete comment and explanation of the literary text.

- 1.1.3) There is not a direct print equivalent to this hypertextual transposition. However, the major part of the available visual materials is drawn from illustrated editions of the Divine Comedy or from its iconographic tradition. The “Credits” page detailedly informs about this.<sup>118</sup> It also informs about the edition from where the Italian literary text and the English translation are drawn. “The Italian text is a reproduction of the text edited by Giorgio Petrocchi and published by Mondadori (Milan, Italy, 1966-67; 2<sup>nd</sup> ed., Florence, Le Lettere, 1994) for the Edizione Nazionale of the works of Dante sponsored by the Società Dantesca Italiana”. The text used for the English translation is “*The Divine Comedy of Dante Alighieri. Inferno*, trans. Alan Mandelbaum (New York, Bantam Books, 1980, rpt. 1988)”.
- 1.1.4) –
- 1.1.5) As regards narrative aspects, only characters and places are dealt with. A map of the hell and a dynamic 3D view of it are provided.
- 1.1.6) The English translation by Alan Mandelbaum is available. No words’ or expressions’ definitions or paraphrase are available. Intratextual references can be retrieved through search engines, but they are not explicitly signaled to the reader. Stylistic aspects are not developed.
- 1.1.7) Aspects related to the text history are not developed. Therefore, also no philological aspect is developed. Only one version of the Divine Comedy (the one by Giorgio Petrocchi) and only one English translation (the one by Alan Mandelbaum) are presented.
- 1.1.8) Illustrations of several scenes of the *Inferno* are made available (“traditional” illustrations by Doré and Botticelli and from Vellutello’s illustrated edition). There also are photographs and reproductions of drawings or paintings representing not a whole scene, but single precise elements of the literary text

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<sup>118</sup> “The reproduction of the 17th century painting, *An Allegorical Portrait of Dante*, artist unknown, is used by permission of the National Gallery of Art (Washington, DC). The copyright to the illustration of the map of Hell is held by Lindsay McCulloch. Publication (print or electronic) or commercial use of this drawing is strictly prohibited. Other illustrations on this publication were taken from the following books: *Dante con l'esposizione di Christophoro Landino, et di Alessandro Vellutello* (Venice: Marchio Sessa, 1564). Vellutello commissioned the engravings for his commentary. The identity of the artist of these illustrations, which first accompanied Alessandro Vellutello’s 1544 commentary to the Commedia, is unknown. Abbreviated as Vellutello in captions. *Dante Alighieri's Inferno from the Original by Dante Alighieri and Illustrated with the Designs of Gustave Doré* (New York: Cassell Publishing Company, 1890). Abbreviated as Doré in captions. *La Divina Commedia di Dante con commenti secondo la scolastica*, ed. Gioachino Berthier (Friburgo, Switzerland, 1892). Abbreviated as Berthier in captions. *La Divina Commedia illustrata nei luoghi e nelle persone*, ed. Corrado Ricci (Milan: Hoepli, 1921). Abbreviated as Ricci in captions. Pistelli, Emenegildo. *Per la Firenze di Dante* (Florence: Sansoni, 1921). Abbreviated as Pistelli in captions. Photographs: Unless otherwise indicated, all photographs in this publication were taken by Deborah Parker. Additional photos were provided by Stefano Albertini (bas-relief of Virgil), Peter Armour (Arnolfo del Cambio, Boniface VIII), Federica Capoferri (Brescia), Andrea Ciccarelli (Pine Cone, Papal Gardens, St. Peter’s), Amy di Pasquantonio (panoramic view of Rome from dome of St. Peter’s), John Dobbins (Mt. Etna), Giuliana Farnoli (Canova, Perseus with the Head of the Medusa), Arthur Field (waterfall formed by the Acquacheta River), Jennifer Haraguchi (Mt. Etna), and Tom Lukas (Carpeaux, Ugolino; Rodin, Ugolino and his Sons).”

- (characters, places, objects).
- 1.1.9) No annotation is included in this hypertextual transposition.
  - 1.1.10) No essay is included in this hypertextual transposition.
  - 1.1.11) Added materials dealing with characters and places consists of images (photographs or reproductions of drawing or paintings) and of tags for encoded information that allow the reader to solve the meaning of given circumlocutions or periphrases contained in the literary text and to have some further information on them through the categories in which they have been classified.<sup>119</sup> The map of the hell consists of the reproduction of a schema that can be explored detaildly. The 3D view consists of a “dynamically generated VRML visualization of Dante’s *Inferno*” that shows “the distribution, density, and proximity of various references in Dante’s text” (“3D View” collection).
  - 1.1.12) The English translation is a written verbal text. Intratextual references can be retrieved through search engines.
  - 1.1.13) –
  - 1.1.14) Representations of the literary text consist of static images. Available static images are scenes illustrations by different artists, photographs,<sup>120</sup> maps<sup>121</sup> and other kinds of illustrations<sup>122</sup>. Some of the images recur. The same image is used to comment different passages of the original text. Each time such an image is displayed again. There is no reference to the previous use of the same image (like, on the contrary, it would probably happen in a printed annotated edition). This is an element that lets us suppose that the user can start and stop her/his reading where s/he wants. The presupposition that led

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<sup>119</sup> “Detailed below are the editorial guidelines used to tag the *Inferno* in this initial stage of the markup. Generally, passages pertaining to persons, geographical sites on Earth and in Hell, mythical creatures, deities, architectural and artistic structures, and Dante's and Virgil's travel through Hell have been tagged. These essentially material features constitute a tractable body of data that span the entire length of the canticle. Generally these features have been tagged when mentioned by their conventionally recognized proper or standard name (e.g. Minos, Satan, Styx, Virgil) and by various devices of language such as circumlocution, epithets, apostrophes, patronyms, matronyms, and toponyms. Hence a character such as Farinata has been tagged not only when he is mentioned by his proper name, but also when Dante refers to him as *quell'altro magnanimo* ("that great-hearted one") (*Inf.*10.73). Similarly, circumlocutions designating geographical sites such as the description of the swamp of Styx as *questo tristo ruscel* ("this sad stream") (*Inf.*7.102) have also been tagged and identified under the river's regularized form of Styx” (“Overview” page).

<sup>120</sup> *Inferno* I, 71; I, 79; III, 11; VI, 62; VII, 62; IX, 52; X, 26; X, 32; X, 48; X, 91; XIII, 9; XIII, 146; XIV, 56; XV, 62; XV, 78; XVI, 9; XVI, 100; XVII, 59; XVII, 64; XVIII, 32; XVIII, 122; XIX, 17; XIX, 18; XIX, 53; XIX, 114; XX, 68; XXI, 38; XXI, 41; XXI, 48; XXI, 95; XXIII, 95; XXIV, 138; XXVI, 1; XXVI, 100; XXVII, 29; XXVII, 41; XXVII, 45; XXVII, 86; XXVII, 94; XXIX, 109; XXX, 65; XXX, 73; XXX, 74; XXX, 77; XXX, 78; XXXI, 40; XXXI, 59; XXXI, 136; XXXII, 120; XXXIII, 23; XXXIII, 29; XXXIII, 71; XXXIV, 62.

<sup>121</sup> *Inferno* V, 97; VI, 62; X, 26; XVI, 9; XX, 93; XXIII, 142; XXVII, 49; XXXI, 136; XXXII, 123; XXXIII, 151.

<sup>122</sup> *Inferno* VII, 62; IX, 112; X, 47; X, 50; XII, 120; XIII, 9; XIII, 143; XIII, 146; XV, 30; XV, 78; XVI, 9; XVII, 55; XVII, 59; XVII, 63; XVII, 64; XVII, 73; XVIII, 29; XVIII, 32; XVIII, 122; XXI, 7; XXI, 29; XXI, 41; XXIII, 95; XXIV, 144; XXVI, 1; XXVII, 29; XXVII, 46; XXVII, 102; XXVIII, 17; XXX, 73; XXX, 74; XXXI, 59; XXXII, 120.

the design is that the user is not obliged to read the whole site (this is important for the issue of hypertext unity). Not all the Doré's illustrations are used in this site (in White's edition more illustrations are present).

- 1.2.1) It is possible to search the text.
- 1.2.2) Thanks to the use of pop-up and floating windows it is possible to view simultaneously the Italian text and the English translation or the Italian text and the encoded information (tags). However, it is not possible to view simultaneously the different images related to a same verse or the text and the images.
- 1.2.3) No possibility to compare.
- 2.1.1) "Overview" > introductory page  
"Inferno" > "Canto I", "Canto II" ... "Canto XXXIV"  
"Search" > search page  
"3D View" > tool for 3D visualization of Dante's *Inferno*  
"Map of Hell" > page with the map of the hell (with a frame to explore details)  
"Help" > help page  
"Credits"  
Therefore, in fact, there is only one collection, namely the "Inferno" collection, which includes different members (the different cantos). The other links available on the homepage don't correspond to collections. They simply lead to single pages.
- 2.2.1) The different cantos can only be accessed through the index appearing in a left frame, once the reader accesses the "Inferno" collection.
- 2.2.2) The access to the literary text collection is not strongly privileged. On the homepage the link providing access to it looks exactly the same as the other available links. However, the link of the literary text collection is placed at the "second position", after the link to the "Overview" page.
- 2.2.3) Members of the literary text collection are cantos. The literary text is divided in cantos. The text of each canto is displayed on a unique screen. Therefore, the reader has to scroll up and down in order to read the text.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Links on the literary text pages are unembedded. Even if their anchors are set within the text (as it is for asterisk links), they don't coincide with parts of the literary text.
- 2.2.6) In order to browse the literary text, the user has to choose a canto in the index displayed in the left frame. When s/he is in a given canto, s/he has to scroll up and down in order to read the whole text of the canto. In order to pass to a new canto, s/he has to choose it in the index displayed in the left frame or s/he can move to the previous/next canto through the arrow links.
- 2.3.1) The difference between the literary text and the added material is signaled by the fact that the added material appears in pop-up windows. The difference between the different kinds of added material is signaled by a different anchor of the links that give access to it and by the fact that each added material is displayed in a different new or pop-up window.

- 2.3.2) From the literary text it is possible to access (beside the Italian text) to the English translation, images and encoded information (tags). The number of the canto the reader is exploring appears at the top of the literary text screen. But, since in order to read the text the reader has to scroll up and down, at a certain point of the reading act, this title is no more visible. However, in the index available in the left frame, the title (number) of the activated canto remains highlighted.
- 2.3.3) English translation, images and tags (that, as a matter of fact, represent almost the totality of the added materials) are accessible only from the screens of the literary text. English translation and tags are displayed just by the reader's rolling over the correspondent link. The map of the hell is the only added material that cannot be accessed from the literary text. It is completely separated from it.
- 2.3.4) The added materials are displayed only starting from the literary text. Besides, they are displayed either in a new window or in a pop-up or floating window. Therefore, there is no need to provide access to the literary text (better said: the access to the literary text is automatically provided or it is never loose). The map of the hell doesn't give access to the literary text.
- 2.3.5) Links between literary text and added material (text and English translation, text and encoded information, text and images) are semantic associations. Therefore, all the added material (except for the map of the hell and for the 3D View) has to be accessed through semantic associations.
- 2.3.6) Links are one-way. The added materials contain no link to the literary text, but, because of the pop-up, floating and new windows, this is not necessary.
- 2.3.7) There is no automatically activated element.
- 2.3.8) The relationship between the referred passage of the literary text and a given added material is signaled by the spatial juxtaposition of the anchor of the link that give access to this added material in respect to the passage of the text this material refers to. The use of pop-up windows also contributes to the manifestation of the correlation (the two elements the reader has to correlate are simultaneously present on the page).
- 2.4.1) Different possibilities of searching are offered. In the left frame of each literary text screen, a field for a full text search is available. Clicking on the "binoculars" icon, it is possible to access to a page that, beside the usual full text search tool, offers more sophisticated search opportunities ("Search references by type"). This search tool is also accessible from the homepage, independently from the literary text. Also the 3D View is a search tool. However, it offers a further potentiality in respect to the normal search tool, since it relates the searched parts of the literary text to the "Inferno" geography. This helps the reader in understanding the relationship of the part to the whole of the narrated story.
- 2.4.2) The English translation appears in pop-up windows and tags of encoded information appear in floating windows. Therefore, the user can always see them and, simultaneously, the correspondent passage on the same screen. The images appear in a new window. This fact is a shortcoming in that the user

cannot see them simultaneously with the text. However, since the image appears in a new window, the user doesn't lose the part of the literary text s/he was reading and s/he can easily go back to it. Besides, this solution allows the user to see images in a bigger size (which is essential in respect to some of them in order to understand what it is illustrated).

2.4.3)

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2.5.1)

The active reference pattern is not applied. After the user entered a collection (mainly, the literary text collection), no information is provided as to the path s/he followed to get there. However, in this application such a pattern is not essential, since the only veritable collection is the “Inferno” collection and since the user can reach the contents in a very direct way (after one or two clicks).

2.5.2)

Within the “Inferno” collection the behaviour anticipation pattern is applied. Rolling over each button, the reader gets a label explaining the meaning of the button (what will s/he get when clicking it). However, this doesn't happen for the links available on the literary text. For instance, the asterisk anchor of the link that gives access to the encoded information is semantically opaque. Only rolling over the anchor of the link that leads to images, the reader gets a label. However, this label is not semantically transparent. It is “exlink”: the reader warned that, clicking on it, s/he will in some ways leave the text.

2.5.3)

No application of the information factoring pattern.

2.5.4)

The literary text collection is organized as a guided tour. The reader can browse to the previous or next canto thanks to the arrows links available at the top and at the bottom of the literary text frames. Supports to user's orientation are provided. In fact, when rolling over the arrows links, a label appears with the number of the canto to which this link provides access.

3.1)

Some information about intended audience is given in the “Overview” page.

3.2)

“*The World of Dante* offers a hypermedia environment for the study of the *Inferno*. This project is designed to appeal to the different purposes of a wide range of readers, not simply those with scholarly interests” (“Overview” page). However, in some ways, students constitute a privileged target: “*The World of Dante* seeks to make this remarkable universe more accessible to students of the poem” (“Overview” page). The inclusion of the English translation lets us suppose that the site is thought for people that are not Italian native-speakers and that are probably English native-speakers.

### Remarks

“This copy of the *Inferno* is also accompanied by a wide variety of visual material (...) Yet the plethora of contemporary natural, architectural, geographic allusions which constitute Dante’s material world are unfamiliar to most readers. The World of Dante seeks to make this remarkable universe more accessible to students of the poem. To this end we have compiled and will continue to assemble photographs, engravings, and illustrations of many of the geographical sites and structures named in the poem. Unlike certain illustrated editions of the *Comedy*, which often contain only one illustration or photo of a site, The World of Dante often furnishes multiple views. This project is ongoing, and it will take more time to assemble images of geographical sites mentioned in the *Inferno*. All the images have been keyed to specific line numbers. It is important to remember that these images are not what the text represents primarily: they are used by Dante in representing something else (...) In addition to photographs of various geographical sites, The World of Dante also includes images of family crests, reconstructions in the form of engravings of some of the towns to which Dante alludes in the *Inferno*, among them Florence, Bologna, Lucca, Rimini, which depict the towns with the city walls intact as they would have been in the Middle Ages, reproductions of manuscript illuminations, and black and white images of various structures and places scanned from books now in the public domain (...) Finally, The World of Dante provides illustrations culled from the *Comedy*'s rich iconographic tradition”.

### **DC2) Princeton Dante Project**

- 1.1.1) Both the homepage and the “About PDP” page provide information about materials included in the hypertextual transposition. “It will include the text of the poem in both Italian and English, an Italian voice recording of the poem, the Doré and Nattini<sup>123</sup> illustrations for the *Inferno*, and historical, philological, visual, and interpretive footnotes. It will also include access to the Dartmouth Dante Project (an on-line database of Dante’s commentators, from the 1320s to the present), as well as to other Dantean resources on the Web, current (e.g. Berlin, Columbia, Notre Dame, Virginia) and future” (“About PDP” collection).
- 1.1.2) This hypertextual transposition seems to aim to illustrate and explain the literary text as widely and completely as possible.
- 1.1.3) There is no print equivalent to this hypertextual transposition. Although some of the contents are drawn from already existing editions or works (the “Credits” page provides information as to them), several added materials have been created expressly for this hypertextual transposition by Robert Hollander (commentary, philological notes and lectures). Particularly, Robert Hollander prepared a new English translation of the text. Also Italian and English readings have been recorded expressly for this site. As regards the electronic version of the literary text, “the text of the *Divina Commedia* is that edited by

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<sup>123</sup> Nattini’s illustrations date of the 1920s (Barricelli 1992: 49).

Giorgio Petrocchi and published by Mondadori (Milan, Italy, 1966-67; 2nd ed., Florence, Le Lettere, 1994) for the Edizione Nazionale of the works of Dante sponsored by the Società Dantesca Italiana. (...) This text is an exact replica of the Petrocchi text; its only divergence occurs in the form of its punctuation, which accords with American rather than Italian usage. The text was copied ca. 1985 by personnel of the Dartmouth Dante Project using a Kurzweil Data Entry Machine at Dartmouth College” (section “About PDP”).

- 1.1.4) –
- 1.1.5) Narrative aspects are not widely and systematically developed. Canto summaries are available, as well as some images of characters or places and Toynbee’s definitions of some of them. The “Maps and Diagrams” collection (in the “Multimedia” collection) deals with the geographical and historical setting of the work.<sup>124</sup> Maps of Italy, Tuscany and Florence are available. On some of them links to Toynbee entries and to passages of the original text are provided. Besides, also diagrams of the journey and of the earth according to Dante’s view (without links to commentaries or to the original text), genealogical tables and tables of mentioned characters (without links to commentaries or to the original text) are provided.
- 1.1.6) Words’ or expressions’ definitions and paraphrase are not provided. Instead, the English translation is available. Intratextual references can be retrieved thanks to search engines. More stylistic aspects (use of different styles, metrical and rhetorical remarks) are not systematically developed. Generally speaking, they are included in the “Commentary” and “DDP” annotations, mixed with other kinds of comments. However, in the “Lectures” collection an essay on allegory is available.
- 1.1.7) Dante’s biography is available in the “Lectures” collection. Also the electronic texts of Dante’s minor works are available. Comments about sources and echos can be found in the “Commentary” annotations. These annotations as well as the entries of DDP report comments of previous editors or commentators of the Divine Comedy. As regards more strictly speaking philological aspects, on the literary text screen philological annotations are available. They expose and explain different possible variants of a given word or expression.
- 1.1.8) Illustrations by Gustave Doré and Amos Nattini are provided. When accessing them from the collection « Images », a form for filtered access (with different fields with predefined values for each field) allows the reader to choose which images s/he wants to view (which author, which cantica, which canto and which lines). Besides, two external links to site that presents other images about the Divine Comedy are provided (Das Dante-Jubiläum im Jahr 2000 and the Digital Dante Image Collection). On this same form for filtered access also a short presentation of the photographs collection of Dantean sites by Vittorio Alinari is presented. However (as it is also pointe

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<sup>124</sup> As it is for the Decameron, we should remember that partially the historical and geographical settings of the work coincide with the geographical and historical context in which the work has been produced.

out in this short presentation), they are not accessible to the public. They can be accessed only by subscription. Also the audio files with the aloud reading of the whole work in Italian and with the aloud reading of some parts of the work in English are available.

1.1.9) Several different kinds of annotations are available on the literary text screens:

- Philology: comments about different variants of the original text and about different choices made by different text editors.
- Commentary: notes that comment a word, an expression or an entire passage of the original text; as it is in printed annotated editions, considerations of different kinds are mixed in a single commentary; it is possible to find commentary of other scholars, considerations about the language and the syntax, considerations about themes and images, considerations about intertextuality (references to sources, to other texts of the same author where the same theme or image or word, etc. can be found).
- Toynbee: notes that correspond to encyclopedic or glossary entries; there always is a brief entry with a link to a long entry, where the subject of the short entry is explained with more details; both entries include links to passages of other works of Dante where the subject of the entry recurs; there also are links to other entries related with the one the user is reading (especially in the long entries) or to texts of other scholars whose comments are reported in these entries; reference to all the passages of the Divine Comedy where the same theme or the same image recurs; all these entries are drawn from *A Dictionary of Proper Names and Notable Matters in the Works of Dante* by Paget Toynbee (1968), Oxford University Press.
- DDP: entries and notes associated with a given line included in the Dartmouth Dante Project, which reports the commentaries of all the Divine Comedy's commentators.
- Audio: recitation of the poem in Italian.
- Images: reproduction of the illustrations of Gustave Doré and of Amos Nattini; there also are some photographs drawn from the site "The World of Dante" (example: Inferno X, 32: photographs of the statue of Farinata degli Uberti; Inferno X, 47-48 e 50)<sup>125</sup>.

1.1.10) Available essays coincide with members of the "Lectures" collection. They are essays about some topics related to the Divine Comedy. These essays have footnotes. They also contain references to quoted passages of the literary text or to commentaries or notes on the text. There also are links to notes and commentaries included in the DDP. Among these essays there is Dante's biography and Robert Hollander's bibliography (in PDF format; bibliography of the "materials referred to in Robert Hollander's commentaries and

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<sup>125</sup> These images are set at the same point as they are in *The World of Dante*. At least it seems to be like this if we consider the example of Inferno X, 32.

- lectures”). The essays of the section “Lectures” are disposed on the screen exactly as it is an essay on a printed page: the text with footnotes. The difference in respect to an essay in a printed form is constituted by the possibility to access the original text. However, this possibility is supplied in printed essays by the transcription in a footnote of the referred passage of the original text.
- 1.1.11) Narrative aspects of the literary text are developed through written verbal texts (canto summaries and Toynbee’s definitions) and static images. The latter can be photographs, reproductions of paintings or engravings, maps and diagrams (schemas of Dante’s hereafter and tables with family trees).
  - 1.1.12) Linguistic and stylistic aspects of the literary text are developed by means of verbal written texts. Also search engine contributes, in making possible the retrieving of intratextual references.
  - 1.1.13) Aspects of text history are developed by means of verbal written texts.
  - 1.1.14) Representations of the literary text consist of static images (reproductions of engravings or paintings illustrating scenes of the Inferno) and audio files.
  - 1.2.1) It is possible to search the literary text and also to retrieve annotations and added material.
  - 1.2.2) It is possible to view simultaneously the literary text and the annotations or added materials.
  - 1.2.3) No possibility to compare.
  - 2.1.1) « Commedia » > each canto in a given language (Italian or English) is a member of this collection.  
 « Minor works » > Vita nuova, Rime, De vulgari eloquentia, Convivio, Monarchia, Epistole, Egloghe, Quaestio de aqua et terra, Il Fiore, Detto d’Amore (members). Texts of Dante’s minor works with a very brief introduction.  
 « Search » > Commentary, Philology, Toynbee, Toynbee search, Minor works search. It has to be noted that all these links give access to the same search tool (except for Minor works search). Therefore, they don’t represent different members and « Search » is not a collection, but just a page.  
 « Lectures » (collection) > Allegory (member), Moral situation of reader (member), Virgil (member), Dante biography (member), Bibliography (member), Canto Summaries (collection) (> Canto I ... Canto XXXIV; members).  
 « Multimedia » (collection) > Images (collection ) (> Doré, Nattini, Alinari, external links; members), Italian audio (collection) (> Inferno Canto I ... Paradiso Canto XXXIII; members), English audio (collection) (> some pieces of cantos of the Inferno; members), Maps & Diagrams (page that gathers different maps and diagrams, member), WWW Resources (six addresses to other sites about Dante are indicated; member; the site Hell’s Home is not available on the net), Required plugins (technical information about the plugins the user has to use in order to have a good navigation within the site, member).  
 « Project Info » (collection) > Site status, Copyrights, Credits (members).

- 2.2.1) The complete index of the work is displayed nowhere. Only when expanding the possibilities of choice corresponding to each field of the device that allows the reader to access the literary text, the reader can see an index of the work. Also when s/he is in the electronic version of the literary text, the reader finds a « Table of content » link, which however gives access to the same access device. However, another possibility to access the literary text is available. On the homepage three links are available that lead at the beginning of each one of the three cantiche (« Inferno », « Purgatorio », « Paradiso »). In the navigation bar on each screen a link « Commedia » is available and clicking on it, the reader finds the same three links.
- 2.2.2) The access to the literary text is privileged. On the homepage the links and the fields that allow the reader to access to it occupies the top central part of the screen. They occupy almost half of the screen. Besides, a form for filtered access is immediately available to the reader in order to choose the part of the text s/he wants to read as well as the language in which s/he wants to read it.
- 2.2.3) Members of the literary text collection are cantos. The literary text is divided in cantos. The text of each canto can be displayed on a single screen or on several screens. It is up to the reader to decide this. If the text is displayed on several screens, the reader browses among them thanks to the arrows links.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) All the links on the literary text are unembedded. They are set at the left side of the text. Their anchor has a different color according to the kind of information they give access to.<sup>126</sup>
- 2.2.6) In order to browse the literary text, the reader has two different possibilities. First, s/he can choose the canto s/he wants to start with through the form for filtered access on the homepage. S/he can also choose the language and the quantity of lines per screen. Therefore, s/he can choose if displaying the text of the canto on several screen (and therefore browse forth and back between different screens in order to read the text) or if displaying it on a single screen (and therefore scroll up and down in order to read the text). Second, s/he can choose the cantica s/he wants to read through the correspondent link on the homepage. Once s/he is within the text, s/he can page from a canto to the other and also from a cantica to the other through the arrows links (the same allowing the reader to page among the different screens of a given canto).
- 2.3.1) The difference between literary text and annotations is very clearly manifested by two elements. Annotations appear in a pop-up window and they have a different font in respect to the literary text.

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<sup>126</sup> It is interesting to observe that the use of different colors to mark different parts of the text was a common practice in writing technology already in the eleventh century. At about the middle of that century a series of innovations changed the organization of the written page: “Gradatamente le glosse prendono il sopravvento: dal commento di un’esposizione altrui si passa all’esposizione di un argomento in cui siano incorporati e ordinati i pareri altrui, sia pro che contro. Ne deriva un nuovo ordinamento grafico della pagina, ora articolata in capitoli numerati preceduti da un sunto schematico del contenuto; all’interno del capitolo colori differenti di inchiostro evidenziano le differenti parti (esposizione dell’argomento, obiezioni, risposte)” (Colombo & Eugeni 1996: 56).

- 2.3.2) From the literary text the reader can access to all the different kinds of commentaries and annotations: philology, commentary, Toynbee, DDP, audio, images. Only the Italian audio is directly accessible from the literary text (always, even when the reader chooses to display only the English translation). Besides, s/he can access to a summary of the canto s/he is reading, to the search tool, to the table of content. On the contrary, Minor works, Lectures and Multimedia resources (except for images and Italian audio) can be accessed only through the navigation bar. On each literary text screen the number of the canto to which it belongs is indicated.
- 2.3.3) Annotations are accessible only from the literary text (except if the reader accesses to a precise point of them through the search tool). Images and Italian audio files are accessible both from the literary text or from the « Multimedia resources » collection on the homepage, while the English audio files are accessible only from the « Multimedia resources » collection. All the other added materials (minor works, lectures and maps & diagrams) can be accessed only independently on the literary text, starting from the correspondent collection.
- 2.3.4) The access to the literary text from the added material is not always possible. For instance, in the lectures not for all the mentioned passages of the Divine Comedy a link is available to access to them. No link to the literary text is provided on minor works screens. There is no link to the literary text from the Italian audio and from the English audio in the “Multimedia Resources” section. There are few links to the literary text from the “Maps and Diagrams”. The same is true for other collections of the « Multimedia resources » collection. For instance, in the case of images of illustrations of scenes of the Divine Comedy, the line the image refers to is transcribed, but no access from the image to the literary text is provided. The problem doesn’t exist in the case of annotations and added material accessible directly from the literary text, since this material always appears in pop-up windows that overlap with the literary text (they don’t substitute the literary text on the screen). However, when the access to a referred passage of the literary text is provided, an interesting device is used. The referred passage is displayed in a new pop-up window. In this pop-up window a link is available (and also a sentence that explains this possibility, cf. 2.5.2) that allows the reader moving to and displaying in the main window (instead of the content the user was reading) the literary text screen containing this passage. When the user clicks on a link which is a reference to a passage of the original text, this passage is displayed in the window; on the same window there is a link that allows the user to access the passage in the electronic version of the original text. Therefore, original text and commentaries and notes are not directly connected. There is an intermediate step that allows the user reading the passage s/he needs to read without leaving the literary text screen s/he is exploring. However, the passage of the original text substitutes the essay in the same window.
- 2.3.5) All links bringing from the literary text to the different kinds of annotations

- (philology, commentary, Toynbee, DDP, audio, images) are semantic associations. The same can be said for the (few) links to passages of the literary text available on the added materials and for the links connecting the window where the precise referred passage of the literary text is displayed and the page of the text collection to which this passage belongs.
- 2.3.6) The problem doesn't exist for annotations and added material directly accessible from the literary text, since they appear in pop-up windows. As to the added material accessible only from the navigation bar, links are one-way. If the reader is reading the literary text and s/he chooses to access to added material available in other main collections, the new content will substitute the literary text on the screen. At this point no explicit link will be available in order to bring the reader back to the point of the literary text s/he was reading.
- 2.3.7) No element is automatically activated.
- 2.3.8) On the literary text screens, the relationship between the referred passage of the literary text and the added materials is signaled by the position and the shape of the anchor of the links giving access to these added materials. If the material the user will access through a given link relates to a single verse, the anchor has a point shape. If this material relates to a group of verses, the anchor is a bar that embraces the interested group of verses. The use of pop-up windows also contributes to the manifestation of the correlation (the two elements the reader has to correlate are simultaneously present on the page).
- 2.4.1) The search tool allows the user to conduct a full text search (with the possibility to combine two different entries) on the text of the Comedy and on the text of Toynbee annotations. For annotations and commentaries, on the contrary, this tool only allows to retrieve annotations and commentaries related to a given canto or a given passage of a canto (not to conduct a search on the text of the annotations and commentaries). For Minor works another search tool is available. It allows to conduct a full text search (simpler in respect to the search possibilities offered for the Divine Comedy text search).
- 2.4.2) The possibility to view simultaneously the literary text and added materials is offered thanks to the use of pop-up windows. On the literary text screens the content of annotations appears in pop-up windows. The possibility to view simultaneously the original Italian text and the English translation is offered by displaying them as two columns of a same page.
- 2.4.3) –
- 2.5.1) The active reference pattern is not applied. After the user entered a collection (mainly, the literary text collection), no information is provided as to the path s/he followed to get there.
- 2.5.2) When the reader is on a given screen, rolling over the available navigational links, a label appears explaining (not always clearly or usefully, since often it just repeats the name of the link) their meaning. This device is more precise and more complete on the screens dedicated to the literary text. Also when the user has to make a choice within a collection, the anticipation behaviour pattern is in some ways applied. There, a short text explains to the reader what s/he has to do in order to access the desired content or in order to perform the

- wished operation and what s/he will get when doing it. This is the case for the search tool, the collection Canto summaries, images, Italian audio, English audio. In the case of the page « Maps & Diagrams » another kind of anticipation behaviour is applied. At the top of the page a sentence explains to the reader how s/he can visualize the images (« Click for larger image »). This kind of anticipation behaviour is also applied in pop-up windows that display a precise passage of the literary text an annotation was referring to in order to warn the reader about her/his moving from one literary text screen to another.
- 2.5.3) The information factoring pattern is applied only for added material directly accessible from the literary text. There, passages of the literary text are displayed in a different way in respect to how they are usually displayed on the literary text screens. In fact, this content is displayed in pop-up windows. When the text of the annotations contains a link to another passage of the literary text (a passage the text was referring to), the precise passage appears in another pop-up window and only at this point the possibility is offered to the reader to move to the text of the canto this passage belongs to. A sentence warns the reader about her/his jump from one canto to another. Besides, images and audio files are presented to the reader in a certain way, when s/he accesses to them from the pages of the literary text and when s/he accesses them from the « Multimedia » resources collection. When accessing images from the literary text screen, first a description card of the image (where also the precise passage of the literary text to which it refers is displayed) is proposed. There, the image is displayed in small size. Clicking on it, the reader can get it enlarged in a new pop-up window. When accessing the image from the « Multimedia » collection, the reader access to the form for filtered access.
- 2.5.4) The literary text collection is organized as a guided tour. The reader can browse to the previous or next screen of a given canto and to the previous or next canto or cantica thanks to the previous/next links available at the top of the literary text frames. Supports to user's orientation is provided. In fact, when rolling over the arrow links available at the top of the page, a label appears which reads "Move to the following location: Inf, Canto ..., Lines ...".
- 3.1) Nowhere information about the intended audience is provided in an explicit way.
- 3.2) The "About PDP" page informs the user that "The purpose of this project is to produce an annotated electronic text of Dante's *Comedy* for instructional and scholarly use (...) The aim of the project is to make serious study of Dante's great poem possible for students and amateur readers alike, of all levels of expertise and having various kinds of interest in the work, by means of a basic electronic edition that will make available many of the tools a reader of this text would want to have as an aid to understanding it". From this statement we can assume that all types of readers are part of the intended audience, but above all are part of it students and researchers. The inclusion of the English translation lets us suppose that the iste is thought for people that are not

Italian native-speakers and that are probably English native-speakers.

**DC3) La Divina Commedia: [L'Inferno] – Rizzoli New Media**

- 1.1.1) The initial animation “Visita guidata” presents the different contents of this hypertextual transposition.
- 1.1.2) The aim of this hypertextual transposition is to go deep into several different aspects of the literary text. It doesn't focus on a particular aspect. Rather, it aims at widen as much as possible the perspective on the literary text.
- 1.1.3) No print equivalent exists. However, both literary text and annotations reproduce Natalino Sapegno's edition of the Comedy (annotations are drawn from his annotated edition of the work). The other added materials (paraphrase, audio files with the aloud readings, “Strumenti”, “Percorsi letterari”, “Percorsi iconografici”) were created for this hypertextual transposition.
- 1.1.4) –
- 1.1.5) Narrative aspects are not systematically addressed. However, both before entering a given canto and once the reader is on the pages of a given canto, information is provided about the place and the time of the events narrated in that canto and about the main involved characters. Besides, the reader can access to glossaries about characters and places in the “Strumenti” collection. Some thematic aspects are developed in Sapegno's annotations, but not widely nor systematically. The contents of the sections “Percorsi letterari” and “Percorsi iconografici” develop themes of the literary text, but in a diachronic perspective.
- 1.1.6) Linguistic and stylistic aspects are widely addressed in Sapegno's annotations. Besides, on each literary text screen the paraphrase of the displayed part of the literary text is available. In the “Strumenti” collection a glossary of technical terms used in describing rhetorical aspects of the literary text is available.
- 1.1.7) Some of the aspects related to the text history are addressed in Sapegno's annotations. There, information about Dante's biography, the history of Dante's time and references to other works are provided in order to explain the meaning of passages of the literary text (therefore, they are provided in order to give linguistic explanations). The contents of the “Percorsi letterari” and “Percorsi iconografici” have to do with the history of themes of Dante's work all along the centuries (both as sources and echos). In the “Strumenti” collection maps, schemes, chronologies and family trees that address the geographical and historical context in which the literary text was produced are available.<sup>127</sup> Besides, references of all the existing commentaries to the Divine

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<sup>127</sup> Since partially the historical and geographical settings of the work coincide with the geographical and historical context in which the work has been produced, these materials also address the historical and geographical setting of the narrated story.

Comedy are available. No philological aspect is developed in this application. Only one edition of the Divine Comedy is made available (the edition by Natalino Sapegno).

- 1.1.8) On each page of the electronic text, at the bottom left corner, the reproduction of a painting or drawing representing a scene, a character or another element of the displayed passage of the literary text is made available. For each canto, an audio file with its aloud reading is available.
- 1.1.9) Annotations are available on each literary text screen. They are the reproduction of Natalino Sapegno's annotations to the Divine Comedy.
- 1.1.10) Short essays are available in the sections "Percorsi letterari" and "Percorsi iconografici".
- 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts, but also of schemes and diagrams. Verbal written texts are used in the annotations, in the glossaries about places and characters and in the sections devoted to themes. Also the information about the place, the date and the main characters involved in a given canto are provided by verbal written text. In the "Strumenti" collection maps, schemes and diagrams (that is, visual materials) are available.
- 1.1.12) Added materials dealing with linguistic and stylistic aspects consist of verbal written texts (annotations, paraphrase and definition of technical terms).
- 1.1.13) Added materials dealing with aspects of text history consist mainly of verbal written texts, but also schemes are provided in the "Strumenti" section. In the "Percorsi letterari" collection the excerpts of other texts where a Divine Comedy's theme can be found are provided. In the "Percorsi iconografici" collection also images of the commented paintings are provided.
- 1.1.14) Added materials dealing with representations of the literary text consist of static images reproducing paintings or other works of art and of audio files (for the recitation).
- 1.2.1) In the "I Canti: testo" collection it is possible to search both the literary text and the text of the annotations.
- 1.2.2) Text, paraphrase and annotations can be viewed simultaneously thanks to the use of frames. The contents of the "Strumenti" collection are displayed in a floating window that allows the reader to view them quite simultaneously with the literary text and annotations.
- 1.2.3) No possibility to compare (for instance, it is not possible to see and therefore to compare different members of the collection "Percorsi letterari" or "Percorsi iconografici").
- 2.1.1) "I Canti: testo" > "Canto I", "Canto II" (...) "Canto XXXIV"  
"I Canti: audio" > "Canto I", "Canto II" (...) "Canto XXXIV"  
"Strumenti" (collection) > "Personaggi", "Luoghi", "Termini", "Mappe", "Commenti", "Bibliografia", "Sitografia" (collections)  
"Percorsi letterari" (collection) > "Viaggio nell'aldilà", "Verso l'ignoto", "L'amore", "Le metamorfosi", "Il coraggio di scegliere", "La vita di Dante" (collections)  
"Percorsi iconografici" (collection) > "L'Inferno: un mondo alla rovescia", "I

demoni”, “Le città dell’immaginario” (collections).  
“Gioco”

- 2.2.1) The “I Canti” collection centre is an index that displays all the cantos of the Inferno. To each canto corresponds an icon with a detail of the image that will appear at the bottom left corner of the literary text screen. Rolling over each icon, information about the place and the time the canto takes place is displayed at the bottom of the screen. This information also appears when the reader rolls over the point representing a given canto in the navigation bar (there to each canto corresponds a “point” link). The reader accesses the text from this index or from the anchors in the navigation bar (that reproduces in a more succinte form the index).
- 2.2.2) The access to the literary text is only partially privileged. On the homepage the link to the collection “Canti” is the first to be presented (from the top to the bottom), but graphically it looks like the other links. Also in the navigation bar the icon that corresponds to the text occupies more room (but this is due to the fact that the cantos are more numerous than the members of the other collections), but graphically it looks like the links to the other collections.
- 2.2.3) Members of the literary text collection correspond to cantos. The text is divided in cantos. The text of each canto is displayed on several screens and the user passes from one page to the other thanks to the arrows links (s/he doesn’t need to scroll up and down). Tercets that form a meaningful passage of the text are displayed together. This means that, mainly, the criterion for the division of the text on several screens is not a fixed number of verses per screen, but the narrated episodes (the sense of the text). Cf. as an example, canto I, 67-78: Virgil’s answer to Dante is not divided in different screens, but it is maintained on a same screen.
- 2.2.4) The literary text pages are clear of links. The paraphrase and annotations correspondent to the displayed passage of the literary text are automatically presented in the appropriate frame.
- 2.2.5) –
- 2.2.6) In order to browse the text, the reader has to browse back and forth among the pages of a same canto thanks to the arrows links. When s/he wants to read the text of a different canto, s/he has to choose it directly in the navigation bar (where a succinte index of the literary text remains always available) or to go back to the collection centre of the collection “I Canti: testo”. In the navigation bar the “point” correspondent to the canto the reader is exploring is highlighted. This helps the reader in getting oriented and also in browsing in a sequential way. Browsing back and forth, image, paraphrase and annotations are synchronized with the displayed passage of the literary text. When reading annotations, the possibility is offered to highlight passages of them related to different topics (“Lingua”, “Cultura”, “Storia”, “Biografia”, “Rimandi”).
- 2.3.1) On each literary text screen literary text, annotations and paraphrase are distinguished by the fact that they are displayed in three different frames.
- 2.3.2) On each screen of the literary text the reader can access to the reproduction of

a painting or drawing that is meaningful in respect to the displayed passage of the text, paraphrase of this passage, annotations by Sapegno related to this passage (with the possibility to highlight parts of them related to different topics, cf. 1.4.2), search tool (both for the literary text and for the annotations), information about the canto, the place, date and time of the narrated events and the main involved characters, link that gives access to the collection “Mappe” of the main collection “Strumenti”. From the text it is not possible to access directly to audio files with the aloud readings. These files can only be accessed from the collection “I Canti: audio”.

- 2.3.3) Generally speaking, all the materials are accessible from anywhere thanks to the navigation bar. However, no special link (no semantic association) has been set in order to pass from the added materials to the literary text and vice versa. Annotations, image and paraphrase are accessible only from the screens dedicated to the text of the canto. They are even not accessible from the audio file with the aloud reading of the canto.
- 2.3.4) The displaying of annotations and paraphrase is always automatically synchronized in respect to the passage they refer to. On the contrary, the other added materials (“Percorsi letterari” and “Percorsi iconografici”) don’t provide access to the referred passages of the literary text. However, because of the particular kind of members these collections include (mainly, they present other works, they design a thematic path through works that followed the Divine Comedy), this feature would not be so important.
- 2.3.5) Semantic associations have been set only among the members of the “Strumenti” collection. In the other collections (namely, “Percorsi iconografici” and “Percorsi letterari”), the reader can pass from one entity to another entity of the same collection through navigational links and s/he can pass from one collection to the other through the navigation bar set in the top frame.
- 2.3.6) Semantic associations set among the members of the “Strumenti” collection are one-way links.
- 2.3.7) The image, the paraphrase and the annotations related to a given passage of the literary text are automatically displayed. The initial “Visita guidata” automatically starts when entering the CD-Rom. When listening to the audio files, the verse recited at a given moment is automatically highlighted in the text.
- 2.3.8) The relationship between a given passage of the text and the displayed image is not explicitly pointed out. However, the existence of a relationship is presupposed because of the spatial juxtaposition of this image to the passage. The same can be said for the paraphrase and for the annotations. Frames help in creating the spatial juxtaposition. The automatic synchronization of the frames content with the displayed passage of the literary text contributes to the signalling of the correlation.
- 2.4.1) The search tool available at the bottom of each literary text screen in the “I Canti: testo” collection is a full text search tool allowing the user to search for a word or an expression either the literary text or the text of the annotations.

The search is conducted on the entire literary text respectively on the whole text of the annotations (not just in the text of the canto the user is exploring). Results are displayed in a pop-up window and results entries are linked to the correspondent passages of the text. When clicking on one of the available links, the correspondent passage is displayed on the screen and the window remains available.

- 2.4.2) Text, paraphrase and annotations can be viewed simultaneously thanks to the use of frames.
- 2.4.3) –
- 2.5.1) The active reference pattern is only partially applied. It is applied when the user enters a collection. In this case, the point representing this collection in the navigation bar is highlighted.
- 2.5.2) The behaviour anticipation pattern is only partially applied. It is applied only to give information about collections. When the reader rolls over one of the point representing a collection in the navigation bar, the title of this collection is displayed. The same happens when the reader rolls over one of the icons that represent each collection in the collection centre of the collection of collections or in the bar for the navigation within the collection of collections displayed at the right bottom of the screen (when s/he is within a collection). Besides (and this is even more interesting), when the reader rolls over one of the points that represent the different cantos in the navigation bar, at the bottom of the screen, information about the number of the canto, the place, date and time of the narrated events, as well as the main characters, appears. This information is very important for the understanding of the position of that canto in respect to the whole narration.
- 2.5.3) The information factoring pattern is applied only for the content of the “Strumenti” collection: it always appears in a floating window.
- 2.5.4) The sequential paging within the text of a given canto is organized as a guided tour. Supports to user’s orientation are not provided.
- 3.1) No information is provided about the intended audience.
- 3.2) –

#### **DC4) ILTweb Digital Dante**

- 1.1.1) No page explicitly and directly informs the reader about the contents of the hypertextual transposition.
- 1.1.2) This site has a mixed nature. It contains a hypertextual transposition of the Divine Comedy, but it also is an archive of Dante’s works and a site that aims at presenting complete material about the poet and his entire work.<sup>128</sup> This mixed nature is one of the characteristics of many sites devoted to literary topics. It is both a value and a shortcoming. It is a value because many

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<sup>128</sup> On the homepage there is a section “Recent news”. This is quite unusual in hypertextual transpositions.

different materials are easily accessible for the user. It is a shortcoming because it weakens the aim of the site and imposes upon it a more generic structure (which is the result of the need to reconcile different user's interests). However, in this analysis I will focus upon the part of the site that corresponds to the hypertextual transposition.

- 1.1.3) No print equivalent exists. However, not all the contents have been produced expressly for this hypertextual transposition. Annotations are drawn from Longfellow's translated edition and from Mandelbaum's translated edition. Also images of the "Images collection" were not created explicitly for this hypertextual transposition. Electronic version of the other Dante's works or works useful for understanding the Divine Comedy seem to have been created for this site. The same can be said for the content of the "General resources" and "In the classroom" collections. It is not specified on which printed edition the electronic version of the literary text is based.
- 1.1.4) –
- 1.1.5) Narrative aspects are not systematically addressed. Only some hints about them are provided in Longfellow's notes and in the essays of "The classroom" collection. Maps available in the "General resources" collection describe the structure of Dantean hereafter. Some of the images of the "Image collections" reproduce places or monuments mentioned in the Divine Comedy.<sup>129</sup>
- 1.1.6) Two English translations are made available: the one by Longfellow and the one by Mandelbaum. Words' and expressions' definitions are not systematically provided (some of them are provided in Longfellow's notes). Stylistic aspects are addressed in some of Longfellow's notes, but not in a systematic way.
- 1.1.7) As regards the text history, in the "General resources" collection a very short biography of Dante is available. Both Longfellow's notes and Mandelbaum's annotations widely report intertextual references. "In the Library" collection contains electronic texts of other works of Dante and of other texts that have a relationship to the Divine Comedy. Historical and philological aspects are not developed. Visual reproductions of pages of manuscripts should be available, but the link doesn't work. Some of the images of the "Image collections" reproduce places or monuments not directly mentioned by or related to the literary text, but related to the general frame where the literary text was produced.
- 1.1.8) In the "Image Collections" collection reproductions of paintings, drawings or illustrations of scenes of the Divine Comedy by different artists are available. Some of them belong to the Divine Comedy iconographic tradition, while others are more recent and by less well-known artists. In this collection also photographs of different works of art or places in Italy can be found. They are not directly representations of the literary text. Rather, they are related to narrative aspects or to aspects of the text history (cf. 1.1.5 and 1.1.7).

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<sup>129</sup> There is for instance the pine, but here it is even more difficult to see the connection with the original text. See difference in respect to The World of Dante and PDP.

- 1.1.9) Annotations are available. In the comparison between the Italian text and the Longfellow's translation, Longfellow's notes are available. These notes contain some (but not many) stylistic comments, some (but not many) word's explanations, some (but not many) thematic explanations, many quotations from other texts. These quotations serve different possible purposes: to give someone else's interpretation of a given passage, to document cases of intertextuality (both as source and as echo), to show different developments of a same theme, to clarify some presuppositions of Dante's attitude and, therefore, some presuppositions of the literary text. In the comparison between the Italian text and Mandelbaum's translation, annotations containing references to passages of other texts that are sources for the annotated passage (intertextuality) are available. They do not correspond to Peter Armour's annotations of the same kind present in the printed annotated edition by Allen Mandelbaum.
- 1.1.10) Only few essays are available ("About Dante" in the "General resources" collection there is a very short essay and some other essays are available in "The Classroom" collection). The major part of the contents consist of the electronic version or digital version of objects and artifacts (cf. the presence of Dante's works, scholars' works, useful classics, students' work and image collection).
- 1.1.11) The few available added materials dealing with narrative aspects consist mainly of images (maps and images of places or monuments). Only some hints about narrative aspects are provided by verbal written text.
- 1.1.12) The few available added materials dealing with linguistic and stylistic aspects consist of verbal written texts.
- 1.1.13) Added materials dealing with text history consist mainly of verbal written text. Mainly, they consist of intertextual references. In the case of Mandelbaum's annotations, intertextual references are provided by giving direct access to the electronic version of the intertext. Some images are available (images of places and monuments). Some more should be available (images of pages of manuscripts), but as a matter of fact they are not accessible.
- 1.1.14) Added materials dealing with representations of the literary text consist of static images (reproduction of works of arts).
- 1.2.1) It is possible to search the literary text.
- 1.2.2) Only notes and annotations can be viewed simultaneously to the literary text. All the other contents of the application cannot.
- 1.2.3) No possibility to compare.
- 2.1.1) "General Resources" (collection) > Introduction (member), About Dante (member), Net Resources (collection > Dante Studies, Medieval Studies, The Classics, Italy Resources, members), Maps (collection > various maps, members), Bibliography (collection > For Dante Studies, Publisher's Information, Summary Information, members).  
 "In the Library" (collection) > Dante's works (collection > various works, members), Scholars' works (collection > various works, members), Useful

classics (collection > various works, members), Students' works (collection > various works, members).

"Comedy" (collection) > Dante and Longfellow Tr. (collection, > cantos, members), Dante and Mandelbaum Tr. (collection, > cantos, members), Longfellow Tr. and Mandelbaum Tr. (collection, > cantos, members).

"The Classroom" (collection) > various proposals for activities in classroom (members).

"Image Collections" (collection) > Gustave Doré (collection > Inferno, Purgatorio, Paradiso, collections > images, members), Sandro Botticelli (collection > Inferno, Purgatorio, Paradiso, collections > images, members), The New Life – Evelyn Pau (collection > images, members), Jennifer Strange (collection > presentation page and images, members), Art inspired by Dante (collection > images, members), Slides (collection > images, members), Salvador Dalí (*not accessible!*).

"Discussion" (*not accessible!*).

"Play Dante" (*not accessible!*).

"Search" > search engine.

"Index" (collection) > various items (members).

- 2.2.1) The reader can access to the literary text only through the drop-down menus on the collection center of the "Comedy" collection. However, there, the reader cannot easily visualize the whole index. In fact, it appears as a list that the reader has to scroll up and down in order to read it fully. Once the reader accessed to a given canto, the drop-down menus (and therefore the index) remain available in the left frame of the text page.
- 2.2.2) The access to the literary text is not privileged. In fact, the access link "Comedy" on the homepage looks like the other access links and it doesn't have a particular, striking position among them. Even, other access links ("General Resources", "In the library" and "Recent News") seem to be more privileged (they are more striking).
- 2.2.3) Members of the literary text collection are cantos. The text of the Divine Comedy is divided in cantos. Each literary text screen looks like a table. Each tercet is set in a cell in the first column on the left. First, there is the Italian tercet and below it there is the English translation from one of the two versions. The Italian text is in bold font, while the English translation is in normal font. When the two English versions are visualized, the version of Mandelbaum comes first and it is in bold font, while the Longfellow translation comes second and it is in normal font. In the second column of the table there is the verses' numeration. Some of this numbers are anchors for links to notes about the correspondent verse. In the third column links to annotations are available.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Links on the literary text (they can be links to Longfellow's notes or links to Mandelbaum's annotations) are unembedded. They are displayed in the right column of the table that contains the literary text. Their anchor is constituted of the verse number (which is red and underlined).

- 2.2.6) In order to browse the text of the Divine Comedy, the reader accesses to the “Comedy” collection from the homepage. Its collection center is constituted of drop-down menus, through which the reader chooses the canto s/he wants to access to and the combination of text and translations s/he wishes (Italian text/Longfellow’s translation, Italian text/Mandelbaum’s translation, Longfellow’s translation/Mandelbaum’s translation). When the reader accesses to a given canto, its text is displayed on a single page. Therefore, the user has to scroll up and down in order to read the text. At the top and at the bottom of the text page previous and next links allow the reader to browse the other cantos sequentially. This is also possible between cantos belonging to different cantiche. However, in this case, the text of the canto belonging to the new cantica (not the one the reader was already exploring) is displayed in a new window. Thanks to the fact that the drop-down menus through which the reader chooses the texts combination and the canto remains always available in the left frame, the reader can easily browse the text non-sequentially also after s/he entered the text. S/he can even jump from a texts combination to another.
- 2.3.1) The differentiation between literary text and Longfellow’s notes is clear thanks to the use of frames and thanks to the use of a different font. On the text pages the differentiation between the original Italian text and the translated text or between the two different translated texts is underlined by the use of a different font.
- 2.3.2) Only Longfellow’s notes or Mandelbaum’s annotations are directly accessible from the literary text. The number of the canto the reader is exploring is indicated at the top of the literary text transcription. Besides, the reader can view it because the drop-down menus through which s/he can choose the texts combination and the canto s/he wants to visualize remains available in the left frame. There, the title of the canto the reader is exploring remains highlighted within the possible choices corresponding to a given texts combination. The number of the canto is also repeated before the number of the verses (which appears in the right column of the text table).
- 2.3.3) Longfellow’s notes and Mandelbaum’s annotations are accessible only from the literary text, while all the other added materials (images, other works, maps, proposals for activities in classroom, etc.) are accessible only independently on the literary text.
- 2.3.4) Added material never provides access to the referred passages of the text of the Comedy.
- 2.3.5) No semantic association is consistently available.
- 2.3.6) Generally speaking, links are one-way. However, because of the (complete) lack of semantic association (lack of free navigation), this aspect is nomore very interesting.
- 2.3.7) When accessing to the literary text, a translation of it is always presented to the reader. It is not possible for her/him to access only to the Italian text.
- 2.3.8) As regards Longfellow’s notes and Mandelbaum’s annotations the relationship between the referred passage of the literary text and the added

material is signaled by the position of the anchor. The notes of the Longfellow's edition appear in the frame at the bottom of the page. The end of each note is indicated by the presence of a horizontal line. Every footnote contains different kinds of information, but these different kinds are not differentiated. Every footnote is like a continuum where different arguments are exposed. Since the different kinds of information are mixed in a same footnote, there is no different hyperlink (no different anchor) for different kinds of information. The links of the annotations of the Mandelbaum's edition lead to an electronic version of the referred passage of the source. This text appears in the window of the original text. It substitutes on the screen (in the central frame) the original text. Some of these links are even external links. Therefore, in the central frame appears a page of another site (it can even be the homepage of this site, not the page of this site that contains the referred text, see canto 7 Inferno for Boethius; also in Inferno 9 there is such an external link, but it gives a 404; idem Inferno 14, 19, 25, 28; Inferno 12, 26, external link that lead directly on the page that contains the referred text). Annotations are provided only for the Inferno (on the contrary, in the printed Mandelbaum's edition annotations are provided for all the three *cantiche*).

- 2.4.1) Starting from the homepage it is possible to access to a search tool. It allows a full text search on the three *cantiche* and on all the other contents of the application. It is not possible to search only the text or only the added material. Search results are displayed as a list that gives the links to the passages that contain the searched word or expression.
- 2.4.2) Longfellow's notes and Mandelbaum's annotations can be viewed simultaneously with the literary text thanks to the use of frames. The Italian text and the English translation or the two English translations can be viewed simultaneously by the fact that they are displayed on the same page.
- 2.4.3) –
- 2.5.1) No application of the active reference pattern (if not partially within the collection "In the library").
- 2.5.2) No application of the anticipation behaviour pattern.
- 2.5.3) No application of the information factoring pattern.
- 2.5.4) The text collection is organized as a guided tour. This fact allows the user to browse the text sequentially (imitating the act of turning pages of a book). No support to user's orientation is available (see Garzotto). However, since the text of each canto is displayed on a single screen, these supports are not so essential for user's orientation. The guided tour continues also between cantos belonging to different *canticas*. However, it has to be noted that, when browsing to the previous or next canto belonging to a different *cantica* through the previous/next links, the text begins to be displayed without frames in a new window.
- 3.1) No information about the intended audience is provided on the site.
- 3.2) However, considering the authors of the site (the Institute for Learning Technologies of Columbia University) and the presence of a collection called "The Classroom" and of another collection called "Students works", we can

suppose that students constitute the intended audience.

#### Remarks

Several links of this site don't work.

On the "Introduction" page of the "General resources" collection we find a definition of the site in terms of multimedia translation, which is similar to the concept of hypertextual transposition: "In essence, the Digital Dante Project is (or will be) a multimedia translation of *The Divine Comedy*. It is admittedly not a translation like the Mandelbaum, Sinclair, Singleton, or other, more traditional, text translations. Indeed, the Danteum, in this incarnation, is not even an "original" translation in that it relies entirely on the Longfellow translation for its English text of the *Commedia*. In our view, however, the Digital Dante Project does constitute a translation because it integrates (or will integrate) multimedia, as well as hyperlinked text commentary and other materials, into the reading of the *Commedia* in an innovative way -- a way not previously possible in non-digital media. The Digital Dante Project is essentially a twenty-first-century illumination -- one that intends to take advantage of the existing technical possibilities of our contemporary culture to create a viewpoint -- a twenty-first-century *dantisti* viewpoint -- of contemporary and historical culture, much like Dante's original work was (in addition to allegory) a thirteenth-century viewpoint of then contemporary and historical culture. The Institute believes that it is particularly appropriate that this prototype be developed using Dante's work, as Dante the poet well understood the power of images, the icons of a culture, and architectural spaces -- and these are among the elements with which we intend to construct the Digital Dante Project. It is important to note that we do not intend for this new form of multimedia presentation to supplant the "text" -- rather, we see it as an expansion of the concept of text -- an expansion enabled by new digital technologies to transcend some of the limitations of text in print. The Institute believes that networked digital technologies will increasingly make possible new forms of scholarly work that incorporate multiple forms of media (text, audio, video, and image) as well as hyperlinks within, between and among various resources, with the result that *construction* will join *deconstruction* as a valid form of literary criticism and comparative analysis. The Institute further believes that these technologies will increasingly enable, encourage, or even require, group collaborative efforts -- and that this "social construction" will itself become a means of scholarly production, much like scriptoria in an earlier age. We intend the Digital Dante Project to prototype such developments".

In the same page it is also said that the site is intended to be a "place for study". This lets us understand that the site will better support the "studying the literary text" and the "researching the literary text" user scenarios and not the "reading the literary text" user scenario.

**DC5) Webscuola – L’Inferno dantesco**

- 1.1.1) The “Sommario” page provides some information (even if very succinctly) about the coverage.
- 1.1.2) According to the “Sommario” page this hypertextual transposition focusses on symbols, events and characters related to Dantean hereafter.
- 1.1.3) No print equivalent exists. No explicit information is available about the origins of the comment and of the added material. However, it seems that it has been created expressly for this hypertextual transposition.
- 1.1.4) –
- 1.1.5) Narrative aspects of the literary text are developed. Characters’ descriptions, description of the place where the events narrated in each canto happen, structure of the work, plot, description of the time of Dante’s journey, descriptions of constellations and battles mentioned in the literary text are provided. For Beatrice and Virgil a wider and more complete description is available. The pages belonging to “Percorsi” collection address themes present in the literary text.
- 1.1.6) Linguistic and stylistic aspects are not adressed in this hypertextual transposition. No words’ or expressions’ definition, paraphrase or intratextual reference is signaled or developed. No explanation about the language, the style or the metric form is provided.
- 1.1.7) As regards aspects related to the text history, Dante’s biography and explanation of the historical context are provided. Criticism and philological aspects are not adressed.
- 1.1.8) Representational aspects of the Divine Comedy are not developed. Some images are available, but not in a organized and consistent way.
- 1.1.9) Annotations are not used.
- 1.1.10) Practically all the added materials consist of essays.
- 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts. Some images (for instance, characters’ portraits) are available, but not in a organized and consistent way. They just assume a function of ornament.
- 1.1.12) –
- 1.1.13) Added material dealing with aspects related to the text history consists of verbal written texts.
- 1.1.14) –
- 1.2.1) No possibility is offered to search the literary text.
- 1.2.2) No possibility to view simultaneously different contents of the application.
- 1.2.3) No possibility to compare.
- 2.1.1) [“Sommario”: it is the homepage].  
“Opera” (collection) > text of the Inferno (collection > Index of the cantos (collection > cantos, members), Index of the characters of the cantica (collection > characters, members), Index of the mentioned characters (collection > 4 collections > characters, members), Guide for the navigation, member), presentation of Dante (collection > different short essay about the political, social and historical situation at Dante’s time; short essay about

Dante's style; biography and text of his portrait by Boccaccio, members), presentation of Beatrice (collection > different short essays, members; biography and description of her relationship to Dante; there are some links to the original text; but few and not all the reference to the *Inferno* are linked), presentation of Virgilio (collection > different short essays, members; biography and description of his relationship to Dante; there are some links to the original text; but few and not all the reference to the *Inferno* are linked), description of other works of Dante (collection > different short essays describing each of the works that have to do with the Divine Comedy, members; two of these essays are devoted to the genesis and the interpretation of the Divine Comedy), description of the battles mentioned in the literary text (collection > a short essay for each battle, member), description of Dante's journey (member, essay explaining the year, the day and the time in which Dante's journey should take place, according to the indication disseminated in the literary text in all the three *cantiche*), maps (collection > three maps are available, members; two about Europe in the XIV century – Europa politica and rivers – and one about Italy in the XIV century – Italia politica), description of the constellations (collection > a short essay for each one of the constellations, members), Legenda dei simboli (member).

“Percorsi” (collection) > different thematic paths through the *Inferno* (members with semantic associations to passages of the literary text, descriptions of characters or descriptions of places).

“Progetti”: the link doesn't work!

“Dibattiti”: only a blank page appears.

“Hochfeiler” (member, page that presents Hochfeiler company).

Collections correspond to different semantic aspects of the work. Therefore, they contribute to clarify the different aspects of the literary text significance.

2.2.1) Once the reader chooses the collection “Inferno” in the collection of collections “Opera”, s/he gets the index of the cantos. From there s/he can access to the text. On each text page a link that brings the reader back to this index is available. It is very helpful for the reader's movements within the text. On the collection center of the collection “Inferno” another possibility is offered in order to access to the literary text. There, a link that brings the reader directly at the beginning of the first canto of the *Inferno* is offered. However, the anchor of this link is not semantically clear and transparent.<sup>130</sup>

2.2.2) The access to the literary text is privileged, but not immediately on the homepage. There, a whole collection is dedicated to the work (collection “Opera”). Then, on its collection center the link *Inferno* “blinks”. Besides, it is the only link in this collection center for which a label appears when rolling over (cf. 2.5.2). However, the fact that it is not possible to access to the literary text directly from the homepage makes this access not immediate. It is difficult to the reader to understand where this access is. The same can be said

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<sup>130</sup> This also happens for other links of this hypertextual transposition. Their anchor is meant to be iconic, but they are not clear. A legend is not always provided.

- for the fact that the reader reaches the text only after three or four steps (through the hierarchy of the collections).
- 2.2.3) Members of the literary text collection are cantos. The text of the *Inferno* is divided in cantos. The text of each canto is displayed on a single page. Therefore, the user has to scroll up and down in order to read it.
- 2.2.4) On the literary text page links are present. However, they are very few.
- 2.2.5) Links on the literary text pages are embedded, except for the link to “Argomento del canto” and the link that brings to the description of the part of the *Inferno* the narrated events happen. These two links are unembedded. It has to be said that the access to the place’s description is not clearly represented. The anchor of this link consists of an image of the scheme of the *Inferno*, but no other information is provided about where this link brings the reader. Embedded links are present correspondently to names of characters and they lead to characters’ descriptions.
- 2.2.6) In order to browse the text, the reader has to access to it from the “Opera” collection of collections and from its collection “Inferno”. There, s/he has to choose the collection “Indice dei canti”. On this index the reader chooses a given canto. Once s/he is on the text of the canto, s/he can proceed sequentially, browsing the previous or the next canto, thanks to the arrows links available at the top of the page.<sup>131</sup> S/he can also browse the text non-sequentially going back to the index thanks to the apposite link “Indice dei canti”, which is also set at the top of the page. From the collection center of the collection “Inferno” a link that brings the reader directly to *Inferno* I is available (it is the “libro” link). However, the meaning of its anchor is not clear. The reader has to read the “Guida per navigare” page, available on the same collection center, in order to discover this possibility. After having entered the text pages, the sequential browsing of the literary text is privileged. It is the one that is immediately available to the reader (while, in order to browse the text non-sequentially, s/he has to step back).
- 2.3.1) No graphical difference exists between literary text and added materials. The differentiation is signaled only by the substitution of the literary text by the comment. When the user clicks on a link, the information s/he is accessing substitutes the literary text on the screen. Therefore, there is no use of the spatial contiguity. The same happens also when the user clicks on other links. A new page always substitutes the previous one on the screen. This gives a feeling of discontinuity during the reading act.
- 2.3.2) From the literary text it is possible to access to characters’ descriptions, to the summary of the canto (“Argomento del canto”) and to a description of the part of the *Inferno* where the narrated events take place. After having accessed to the summary of a given canto, it is possible to browse sequentially

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<sup>131</sup> It has to be noted that, if the reader clicks on the “previous” arrow link when reading the first canto, s/he is brought back to the index of the cantos. This means that in this case the arrow link works as the dynamic back of the browser. This is a mistake (better said: it is an inappropriate use of this link)! On the first canto this link should not be available. The same can be said for the “next” arrow link on the canto XXXIV.

- the summaries of other cantos (however, after having browsed them, it is difficult for the reader to go back the canto s/he was reading). The number of the canto is displayed only at the top of the page.
- 2.3.3) Mainly the added material is accessible independently on the literary text. The canto summaries (“Argomento del canto”) and the place descriptions are accessible only from the literary text. Characters’ descriptions are accessible in both ways.
- 2.3.4) Generally speaking, the added material doesn’t provide access to the referred passages of the literary text. Only three exceptions can be found. The first one is the summaries (“Argomento del canto”): from these pages the access to the correspondent canto is always proposed to the reader. The second one is the thematic paths of “Percorsi”: from there, the possibility is given to access the referred passage of the literary text (even if this possibility is not constantly offered). The third one is the characters’ descriptions. At the top of each of them references of the passages of the literary text in which the character is mentioned are present as anchors of links. From the essays about constellations there is no link that leads to the literary text. Only, at the beginning of each essay, there is the transcription of the passages of the Divine Comedy in which the described constellation is mentioned. However, these quoted passages belong all to the two *cantiche* which are not direct subject of the site: “Purgatorio” and “Paradiso”. Therefore, these short essays about the constellations seem to be quite unrelated in respect to the *Inferno*, which is the focus of the site. From the maps there is no link, neither to the literary text nor to other essays. There is no direct link to the literary text from the description of Dante’s journey. There only is some link to some short essays “argomento del canto”, that summarize the events and the scenes of each canto and that are accessible from the literary text, and to some descriptions of characters. There is no direct link to the literary text from the description of the different battles. There is no direct link to the literary text from the description of the other works of Dante. There is no direct link to the literary text from the description of Dante.
- 2.3.5) Consistent semantic associations are provided for characters’ descriptions. They are available on the literary text, on other added material (see, for instance, the presentation of Beatrice, presentation of Virgil, presentations of other Dante’s works, descriptions of battles) and among different characters’ descriptions themselves. Also the link between a given canto and its summary (and viceversa) and the link between the text and the place description (and viceversa) are semantic associations. The same can be said for the links available on the thematic paths of “Percorsi”. Also among other different added materials semantic associations are provided, but not in a consistent way. See, for instance, links among descriptions of different Dante’s works, links among descriptions of different battles.
- 2.3.6) Generally speaking, links are one-way. Once the reader accessed to a new content, no link reminds her/him about the content s/he was exploring before. Exceptions are constituted by the double-way link between text and summary

- and by the links between text and place description. The fact that links are generally one-way easily makes the reader's navigation confused.
- 2.3.7) No automatically activated element is available.
- 2.3.8) The relationship between the referred passage of the literary text and the added material is only signaled through the embedded anchor of the link. The information the reader access to through the link refers to the portion of literary text that constitutes the anchor of the link.
- 2.4.1) –
- 2.4.2) It is not possible to view simultaneously different contents of the application, because, once the reader accesses to a given content, this content substitutes the previous one on the screen.
- 2.4.3) –
- 2.5.1) No application of the active reference pattern.
- 2.5.2) No application of the behaviour anticipation pattern, except for the appearance of the “*Inferno* text” label when rolling over the icon that allows the reader to access to the literary text in the “Opera” collection center.
- 2.5.3) No application of the information factoring pattern.
- 2.5.4) The text collection is organized as a guided tour, in which the reader can browse the different cantos sequentially. In this guided tour no support to the user's orientation is available. No other application of the guided tour pattern.
- 3.1) On the site there is no indication about the expected target.
- 3.2) Since it is part of Webscuola site, we can easily understand that the expected target is composed by pupils and schools. This site is one of the educational resources made available by the Webscuola site. Webscuola site is a portal that intends to serve teachers, pupils and schools' managers. Since both the literary text and the added materials are provided only in Italian, the intended audience is probably composed of Italian native-speakers.

## **H1) Amleto – Webscuola**

- 1.1.1) On the homepage (the “Sommaro” page) the hypertextual transposition contents are announced. They are:
- Dialogues and portraits of the characters (old reading of the most well-known scenes and study of the characters);
  - Unabridged text;
  - Historical context;
  - Theatre;
  - Author;
  - Paths that follow interdisciplinary in-depth studies.
- 1.1.2) Characters and theatre are the aspects upon which the hypertextual transposition focusses.
- 1.1.3) Since no source is indicated neither for the text of the play nor for annotations and essays, we can suppose that added materials have been created expressly for this hypertextual transposition. No already existing printed annotated

edition is at the base of this hypertextual transposition.

- 1.1.4) –
- 1.1.5) Narrative aspects of the literary work are addressed. Characters and plot are constantly and widely presented.
- 1.1.6) Linguistic and stylistic aspects of the play are not addressed. The unabridged text is available only in English, no translation is provided. Only in the excerpts contained in the subsection “Brani scelti” some footnotes with the Italian translation of words or passages are available.
- 1.1.7) Aspects related to the literary text history are addressed. In the section “Opera” the essays “Fonti del dramma”, “Biografia di Shakespeare”, “L’epoca” (that briefly describes the political situation of England at the end of the sixteenth-century; mainly, it presents Elizabeth the 1<sup>st</sup> and Jack the 1<sup>st</sup>) and “Cronologia del periodo storico” are available. Philological aspects are presented in the essay “Edizioni e datazioni” also included in the section “Opera”.
- 1.1.8) Aspects related to the representation of the play are presented in the essays “La ‘revenge tragedy’”, “I testi teatrali” (that briefly describes how texts of plays were used at Shakespeare’s times)<sup>132</sup> and “I teatri” of the “Opera” section. However, no representational element is included, except for some reproductions of paintings, engravings or drawings illustrating scenes of the play available in the characters’ description cards.
- 1.1.9) The text of the play is not accompanied with annotations. Only on the English excerpts of the “Brani scelti” collection annotations (with the Italian translation of words or passages) are automatically displayed at the right side of the literary text.
- 1.1.10) Practically all the added materials consist of essays.
- 1.1.11) Added materials dealing with narrative aspects consist mainly of verbal written texts. It is the case of the characters’ description cards and of the pages dedicated to the plot. Also some images are available, but they don’t convey essential messages as to the narrative aspects of the play. They consist of portraits of a character or reproduction of a scene of the play where a given character is involved on the page dedicated to her/him (accessible from the “Dramatis personae” collection of the “Opera” collection of collections or from the embedded links on the text of the play). No caption is available for the image. Therefore, it is difficult for the reader to understand what exactly the image represents and therefore which is its relationship to the description of the character.
- 1.1.12) The very few available added materials dealing with linguistic aspects consist of verbal written texts (footnotes with Italian translation of words or passages on the English excerpts contained in the “Brani scelti” collection).
- 1.1.13) Added materials dealing with the text history consist of verbal written texts.

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<sup>132</sup> “I testi dei drammi inizialmente non erano considerati opere letterarie, ma erano solo spunti per una elaborazione che avveniva dal vivo, sulla scena, mai uguale giorno dopo giorno (...) I copioni restavano proprietà della compagnia, che non aveva nessun interesse a diffonderli per evitare che compagnie rivali potessero appropriarsene. Furono invece i librai a scoprire un lucroso affare nella pubblicazione dei testi dei drammi di maggior successo” (“I testi teatrali”, Amleto – Webscuola).

Some images are available on the pages of these added materials, but their contribution to the explanation of the literary text significance is weak. Portraits of Elizabeth the 1<sup>st</sup> and of Jack the 1<sup>st</sup> are available on the page “L’epoca”.<sup>133</sup> On the page “Biografia” two images are available. Their aim seems to be to show places related to Shakespeare’s life.<sup>134</sup> However, nowhere it is explained what they exactly represent and, therefore, it is difficult to understand which kind of added information they intend to provide. They seem to have only an ornament function. For instance, at the level of the first paragraph “La gioventù”, parallel to the passage of the essay narrating Shakespeare’s birth, there is a photograph of a big house. The user can infer that this is the house where Shakespeare was born, but s/he cannot be sure of this, because no caption is available and because the parallel passage of the essay doesn’t mention the house. The other image is set parallel to the part of the essay about the change of theatre and the building of the Globe. Therefore, the user can more easily understand that what is represented in the image is the Globe.

- 1.1.14) Added materials dealing with representations of the literary text consist of verbal written texts. A photograph of Shakespeare’s signature on the page “I testi teatrali”. It has a relationship to the text of the brief essay (that is, with the issue of the authorship of the texts), not to the text of the play. However, it doesn’t explain something of this essay. It seems to have only a function of ornament. Illustrations of scenes of the play available on the characters’ description cards seem to aim at presenting a character. However, it happens that the scene they represent is not directly connected to the passage of the character’s description side to which the image is placed. Therefore, also these images end up by having only an ornament function (cf. description cards of Amleto, Polonio and Ofelia as examples).
- 1.2.1) No possibility to search the text is provided, except for using the “Find” tool of the browser.
- 1.2.2) No possibility to view simultaneously different part of the text of the play or different added materials.
- 1.2.3) No possibility to compare.
- 2.1.1) Sommario > Personaggi (collection), Testo integrale (collection > cantos, members), Contesto storico (member “L’epoca”), Teatro (member “I testi teatrali”), Autore (member “Biografia”), Percorsi (collection);  
Opera > Dramatis personae (collection), Trama e testo originale (collection), Brani scelti (collection), Edizioni e datazione (member “La tradizione del testo di Amleto”), Fonti del drama (member), La “revenge tragedy” (member), Le rappresentazioni (member), Biografia di Shakespeare (member “Biografia”), Opere non drammatiche (member), Opere drammatiche (collection), L’epoca (member), I testi teatrali (member), I teatri (member), Cronologia del periodo storico (collection);

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<sup>133</sup> They belong to the second class of images.

<sup>134</sup> Function of indication.

Percorsi > Amleto: persona e personaggio (collection), Il teatro nel teatro (collection).

Collections and members don't always have the same name. For instance, the collection "Personaggi" of the "Sommario" collection of collections and the collection "Dramatis personae" of the "Opera" collection of collections are the same, but there are named differently. The same happens with Sommario > teatro and Opera > I testi teatrali and with Sommario > autore and Opera > Biografia di Shakespeare. This changing of names creates confusion.

Collections correspond to different semantic aspects of the work. Therefore, they contribute to clarify the different aspects of the literary text significance.

- 2.2.1) In order to access to the text of the play the user has three different possibilities. First, s/he can click on the link "Testo integrale" of the "Sommario" page. Clicking on the embedded link "Testo integrale", the user is led on a page that presents the index of the play. Both the numeration of the scenes and the first words of the script of each scene are links. The first provides access to the plot of the scene, while the second provides access to the text of the scene. From the plot it is possible to pass to the text and from the text it is possible to pass to the plot. Second, the reader can access to the collection "Opera" and then click the link "Trama e testo originale". From both these starting points the reader accesses an index that allows her/him to access the different scenes of the play. Third, the reader can access the text from the two paths of the collection "Percorsi". In this case s/he accesses directly the part of the text that is relevant in respect to what is said in the path. In all the three possibilities in alternative to the access to the text, the access to the plot is available. The reader always has to choose to access to a given scene.
- 2.2.2) The access to the original text is not privileged. On the homepage (the "Sommario" page) the link providing access to the text of the play is an embedded link, which looks like the other links providing access to other collections. Therefore, it is more likely that the reader begins navigating in the hypertextual transposition without referring to the text of the play. S/he reads the added materials without making direct reference to the text of the play.
- 2.2.3) The electronic version of the text of the play is unabridged. Members of the text collection coincide with scenes of the play. The text is divided by scenes (as it traditionally is also in printed editions). The whole text of a given scene is displayed on a single screen. In order to move within the text of a given scene the reader has to scroll up and down.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Links on the literary text screens are both embedded and unembedded. Embedded links give access to the cards dedicated to the different characters. Unembedded links give access to the plot of the scene.
- 2.2.6) Once the reader browsed the text of a given scene, in order to pass to a different scene s/he has to go back to the index. No possibility is offered to browse sequentially the previous or next scene (no next/previous bottom is available on the pages of the literary text). This implies for the reader a

different operation in respect to browsing the pages of a book. It has to be noted that the anchor of the link that allows the reader to go back to the index is ambiguous. In fact, the expression “Trama dell’opera” can induce the reader to infer that s/he will be brought to the summary (plot) of the scene.

- 2.3.1) From the text of the play it is possible to access the plot of a given scene and the cards dedicated to characters involved in that scene. The differentiation between these contents is signaled by the substitution on the screen of the text of the play by the added material. The font of the text of the plot is the same as the font of the text of the play, while the font of the cards dedicated to the different character is different from the font of the text of the play. Therefore, mainly the differentiation is not graphically signaled but inferred by the way the content is presented. On the text of the play screens the reference number of the scene as well as the setting instructions have a bigger font in respect to the text of the play, while the instructions about the characters present on the scene have the same font as the text of the play.
- 2.3.2) From the text of the play it is possible to access to a summary of the scene the user is exploring and to the presentation cards of the characters that appear for the first time in that scene. It has to be noted that the criterion according to which the link to the characters presentation cards is made available is not very clear. In fact, for instance in I, 2 for “Horatio” this link is not made available the first time he appears, but at his second cue.
- 2.3.3) All the contents can be accessed directly from the homepage or through the “Percorsi” (also from the homepage). The majority of the content is not accessible from the literary text (only the plot and the characters’ description are).
- 2.3.4) From the plot it is always possible to access to the text of the play. From the characters’ cards it is always possible to access the parts of the text of the play including the first cues of each of them. In fact, clicking on the embedded link “Personaggi” on the “Sommario” collection, the user is led on the page “Dramatis personae”, which works like an index providing access to a page that describes the character and its role in the play and providing access to her/his first cues in each scene of the play. Therefore, there is a connection between these descriptions and the literary text. However, it is not clear why this possibility could be interesting for the reader. Besides, the anchor is not understandable. It is the icon of arms. Therefore there is no relationship between the anchor (the meaning of the sign used as anchor) and the target to which it provides access. For some secondary characters only this link is available (no description of them is provided). From the two paths of the “Percorsi” collection it is also possible to access to the commented passages of the text of the play. From the two paths there are direct connections to the text of the play. That is, these two short essays really aim at explaining the play. However, from the majority of the added materials included in the application no direct access to the text of the play is provided. From the page “I testi teatrali” there is no direct link to the text of the play. From the essays of the section “Opera” no link to the text of the play is provided.

- 2.3.5) The description of a character in the correspondent card contains embedded links that provide access to the descriptions of other characters. From the plot it is possible to pass to the text and from the text it is possible to pass to the plot. On the plot of each scene there are embedded links that provide access to the descriptions of the mentioned characters. On the page of the text there are links only correspondently to the first cues of some characters. These links give access to the descriptions of these characters. From the two paths there are direct connections to the text of the play. That is, these two short essays really aim to explain the play. In the two paths of “Percorsi” links to description of the mentioned characters are available. In the second path (“Il teatro nel teatro”) also some other link is available that leads to other short essays. These short essays are accessible from the section “Opera”, but not from the homepage. This is a mistake because the homepage should allow to access to all the contents, even if in a hierarchic way. Besides the text of the play, the section “Opera” contains many short essays about the play and its author. On each one of these essays links that lead to the descriptions of the mentioned characters or persons or to other essays are available. This structure is more similar to the structure of an edition that presents the literary text accompanied with several essays, not to an annotated edition. Also the text of some sonnets of Shakespeare is available. Generally speaking, in this hypertextual transposition semantic associations seem to be devoted to the access to characters descriptions. On the page “Biografia” some embedded links are available, correspondently to the names of some persons.
- 2.3.6) Links on the literary text pages are one-way. When moving from the literary text to the cards dedicated to characters, the reader doesn’t find a link bringing her/him back to the point s/he just left. It is different for the plot pages. There, a link “Testo” allows the reader to go back to the text of the scene s/he was reading.
- 2.3.7) No automatically activated element. Only on the English excerpts of the “Brani scelti” collection annotations (with the Italian translation of words or passages) are automatically displayed at the right side of the literary text. They are presented on the screen independently on the reader’s action (as it is in printed annotated editions).
- 2.3.8) In the case of this site this point only regards the relationship between the literary text and the characters cards. The relationship is signaled thanks to the embedded anchor. The link is available only for the first appearance of every character within a given scene. However (as said at 2.3.2), the criterion for the setting of this link is not really clear. Not for every character it is available and sometimes it is set correspondently to the first cue, other times correspondently to other cues.
- 2.4.1) –
- 2.4.2) Pop-up windows and frames are not used. New content substitutes the previous one on the screen. This fact prevents the reader to view different contents simultaneously.
- 2.4.3) –

- 2.5.1) Only the navigation bar indicating the main collections remains always available. Within the collections when the reader chooses an option, s/he doesn't see the other possibilities anymore. Therefore, the active reference pattern is not applied.
- 2.5.2) Only for the navigation tool bar with the main collections a tool-tip is provided. However, it is not useful because the tool-tip simply repeats the name of the collections. For all the other links there is no behaviour anticipation.
- 2.5.3) No application of the information factoring pattern.
- 2.5.4) The browsing of the literary text is organized as a guided tour. No support to user's orientation is offered. The paths of "Percorsi" consist of an expository text that presents to the reader different possible choices. Therefore, they are not real guided tours.
- 3.1) On the site there is no indication about the expected target.
- 3.2) Since it is part of Webscuola site, we can easily understand that the expected target is composed by pupils and schools. This site is one of the educational resources made available by the Webscuola site. Webscuola site is a portal that intends to serve teachers, pupils and schools' managers. Since the text of the play is presented only in English (no translation is provided) and since the added materials are all in Italian, the intended audience is likely composed of Italian native-speakers learning English.

#### Remarks

Authors work for Hochfeiler company. The authors don't seem to be particularly authoritative in the field of literary studies. They seem to be known only in Italy. The Hochfeiler product "La Divina Commedia" (by the same authors) is highlighted on the site of the Italian Dante Society. This is a sign of recognized quality.

No printed annotated edition seems to be at the base of this hypertextual transposition.

No indication about the used printed edition.

In this site it is possible to identify some features or devices that make the navigation and the orientation of the reader difficult:

- The first is the absence of spatial juxtaposition. Every new sign of the hypertextual transposition replaces the previous one on the screen. Therefore, it is more difficult for the user to see the connection among them.
- The second is the absence of a privileged access to the text of the play. Because of this absence it is possible for the reader to read the added materials without understanding their *raison d'être*.
- The third is the fact that each new sign (each part of the hypertext) present new links that lead the reader away from the activity (from the goal) s/he was trying to reach. One very concrete element that creates this risk is the fact that on the new page the reader reaches through the link no explicit way to go back to the previous page (and therefore also to the previous goal) is available. Many other new links are available, but not one that reminds the reader what s/he was doing, no one that creates a relationship between the new page and the previous one. This fact also accentuates the impression of disconnected elements.

- Sometimes the anchors for links with the same function are not coherent.<sup>135</sup> For instance, in the section “Percorsi”, usually the anchor of the link that leads to the text of the play is constituted by an unembedded word “Testo” placed above a drawing of a book (below the same book the word “Trama” works as anchor for the plot page). However, on the path 2 “Il teatro nel teatro” the embedded link “teatro nel teatro” included in the first two introductory lines also leads to the referred scene of the play. This useless synonymy risks throwing the reader into confusion. In fact, since the reader till now learnt that the link that leads to the text has a different anchor, when facing this anchor, s/he thinks to another possible target, even if the target “text of the play” would be the most relevant and the most coherent in respect to the logic of the content of the new sign of the hypertext. Therefore, this synonymy induces the reader in drawing a useless and wrong inference. The confusion is also induced by the fact that the meaning of the expression “teatro nel teatro” (expression that constitutes the anchor) doesn’t coincide with the target. If the reader applies an iconic process of interpretation, s/he will draw a wrong inference. Better said: the object to which most obviously this expression refers to is not the text of the play, but the stylistic theatrical device to represent a play within a play. In order to understand that the target is the text of the play, the reader has to draw a further inference (that goes beyond the most immediate relevance). Confusion can also derive from the embedded anchor “testo originale” placed on the same page. In this case the meaning of the linguistic expression that constitutes the anchor lets the user think that the target will be the text of the play. On the contrary, the reader is lead on the page “I testi teatrali”. This target is relevant in respect to the whole paragraph in which the anchor “testo originale” is included, not in respect to the expression “testo originale” alone. Or the reader can understand the relevance only once s/he read the text of the target. Therefore, in this case, it would be better to set an unembedded link side to the all paragraph and to use a different anchor (it would also be possible to transform the all paragraph in an embedded link).
- The hierarchy of the links is not always clear. For instance, the user never finds a link “Home”. S/he has to learn that, in order to go back to the homepage, s/he has to click on the link “Sommario” available in the top navigation bar. This is an unusual denomination for this link, but the reader learns this rule. However, when s/he is on the pages of the section “Percorsi”, this rule is belied. In fact, there, a link “Home” (the font of which is bigger than any other font on the same page) is available. Besides, we have to notice that the first page of the section “Percorsi” is not so different from all the other pages of the site, while one of the most evident characteristics of a homepage is the fact that it looks different. These facts together can confuse the reader and oblige him to carry out an explicit reasoning in order to understand, to be sure, which “home” it is.

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<sup>135</sup> This means that the consistency principle identified by Clement Mok as one of the main criteria to evaluate a successful interaction in multimedia context is not respected. This fact implies that also the *Vorhersagbarkeit* is lacking in this application (see Eppler 1999: 138).

## H2) Hamlet on the Ramparts – MIT

- 1.1.1) The homepage provides information about the hypertextual transposition coverage: “We aim to provide free access to an evolving collection of texts, images, and film relevant to Hamlet’s first encounter with the Ghost ([Act 1, Scenes 4 and 5](#)). To make the site more useful in the classroom, we include commentary and guides to all materials and detailed lesson plans written by expert teachers from around the country”.
- 1.1.2) This site is dedicated only to a segment of Shakespeare’s tragedy: the scene of the Ramparts (Act I, scene 4 and 5), that is the scene of the encounter of the prince Hamlet with the ghost of his father, encounter during which the ghost reveals to his son that he has been murdered by his own brother and asks his son to revenge him. This particular focus is announced on the homepage.
- 1.1.3) No print equivalent exists. The hypertextual transposition gathers materials coming from several different sources. The source is always indicated. Three different editions of the text of the play are made available: Folger edition, Arden edition and the 3-Text Hamlet edition.
- 1.1.4) –
- 1.1.5) Narrative aspects of the play are not addressed.
- 1.1.6) On the Folger edition text available in the “Reading room” footnotes explaining the meaning of words and expressions are provided. They are drawn from the Folger edition (as it is the text itself). In these annotations links are provided to other expressions related to the one to which the annotation is devoted. These links point out intratextual references. No translation of the original text is provided. Stylistic aspects are not addressed.
- 1.1.7) As regards aspects of the text history, the tutorial “What is a Folio?” (available in the “Tutorials & Guides” collection) introduces the reader to the philological topics of textual variants. So does the textual terms glossary available in the same collection. It is possible to browse early printed versions of Shakespeare's *Hamlet* (First Quarto - 1603, Second Quarto - 1604/5, First Folio - 1623). It is also possible to browse images of pages of different promptbooks, published versions of stage productions, published editions and adaptations of the text of the play. Besides, the electronic transcription of various modern editions is available: Folger Edition (electronic edition of 1992); Arden Edition (electronic edition of 1982); The Three-Text Hamlet (electronic edition 1991).
- 1.1.8) Reproductions of illustrations or other kinds of works of art reproducing moments and characters involved in the scene of the ramparts are provided. It is also possible to browse several film versions of Shakespeare's *Hamlet*, namely Burton’s (1964), Svend Gade’s (1920) and Forbes-Robertson’s (1913). As regards these films, it is possible to view the Ramparts Scene either in its entirety or via shorter clips linked to smaller segments within those scenes. In the “Tutorials & Guides” collection, tutorials that have to do with aspects of the play representation are present (“Hamlet a Woman?” and “Staging the Ghost”). In this collection, also a film lexicon is available.

- 1.1.9) Annotations are not used in this hypertextual transposition, except for the plain reproduction in electronic format of the footnotes included in Folger edition (cf. 1.1.6).
- 1.1.10) Only few essays are available (cf. contents of “Tutorials & Guides” collection; on the “Tutorials & Guides” page of the “Using the site?” collection some of them are defined as “tutorial/multimedia” essays). The major part of the contents consists of the electronic version of objects and artifacts.
- 1.1.11) –
- 1.1.12) Obviously, footnotes are provided by means of verbal written text. Intratextual references consist of direct access to the related passage of the text of the play.
- 1.1.13) Added materials dealing with aspects of text history consist of verbal written texts. This is valid for tutorials and for electronic transcriptions of different editions of the text. However, in the case of electronic transcriptions the verbal written text makes present the object itself. Also images play an important role as to images of the pages of different promptbooks, published versions of stage productions, published editions and adaptations of the text of the play.
- 1.1.14) Mainly, added materials dealing with representations of the play consist of static images and videos (films video clips). Partly, also verbal written texts are used in the available tutorials. However, the main used means is the visual one.
- 1.2.1) No possibility to search the text.
- 1.2.2) In the “Reading room” it is possible to view simultaneously different contents.
- 1.2.3) In the “Reading room” collection it is possible to compare, two by two, practically all the available versions of the text and all the added materials. This seems to be the main feature of this site.
- 2.1.1) [“Welcome”: it is the homepage; there, a “What’s new” section is available].  
 “Reading room” (collection) > “1.4.1-41”, “1.4.42-62”, “1.4.63-102”, “1.5.1-41”, “1.5.42-98”, 1.5.99-119”, +1.5.120-212” (7 segments of the scenes of the ramparts drawn from the Folger edition; members).  
 “Lesson plans” (collection) > 4 lesson plans (members).  
 “Tutorials & Guides” (collection) > 3 tutorials (members > different pages, components), 2 lexicons (members).  
 “Early editions” (collection) > First Folio (member > images of the pages of the First Folio, components), First Quarto (member > images of the pages of the First Quarto, components), Second Quarto Folger (member > images of the pages of the Second Quarto Folger, components), Second Quarto Huntington (member > images of the pages of the Second Quarto Huntington, components), Third Quarto (member > images of the pages of the Third Quarto, components).  
 “Adaptations & Promptbooks” (collection) > Davenant (member > images of the pages of Davenant, components), Johnson and Steevens (member >

images of the pages of Johnson and Steevens, components), Poole's Travestie (member > images of the pages of Poole's Travestie, components), Forrest's Promptbook (member > images of the pages of Forrest's Promptbook, components), Booth (member > images of the pages of Booth, components), Irving (member > images of the pages of Irving, components), Forbes-Robertson (member > images of the pages of Forbes-Robertson, components). "Art" (collection) > *Hamlet* Art 1700-1899 (collection > different images, members), Royal Shakespeare Company *Hamlet* Production Stills 1965-1992 (collection > different images, members).

"Film" (collection) > Richard Burton (member > different clips, components), Svend Gade (member > different clips, components), Forbes-Robertson (member > different clips, components).

"Electronic Texts" (collection) > Folger Edition (member), Arden Edition (member), 3-Texts Hamlet Edition (collection > 3 texts, members).

"Using the site" (collection) > one explanatory page for each one of the site main collections (members), page "Where to begin".

2.2.1) When the reader enters the "Reading room" collection, an index is available in order to access one of the seven different segments of the scene of the ramparts. However, this is a particular index. In fact, the division in seven segments does not correspond to the usual division of the text of the play. Therefore, the function of this index is not mainly to provide an overview on the whole structure of the work. Rather, it proposes to the reader a new fragmentation of the original text that should make it more easily understandable or that should make easier the study of the text. Once the reader entered the text of a given segment, this index remains available in the navigation bar. When the reader enters the text through the "Electronic texts" section, no index is available. The whole text of the scene of the ramparts is automatically displayed on a single screen.

2.2.2) On the homepage "Electronic texts" is a collection as others and its access link is not set in a particular position. However, the short welcoming text displayed on the homepage contains an embedded link that leads directly to the Folger edition. The presence of this link underlines that the scene of the ramparts is the core of the site, its central object. Besides, it has to be noted that on the collection center of each one of the main collections, the possibility to access the "Reading room" collection is underlined. In fact, the link providing access to this collection is not only proposed in the navigation bar, but it is also repeated on the right part of the screen (together with the link providing access to the "Using the site" collection).<sup>136</sup> This access link is the only one for which the corresponding icon is animated. This fact attracts the reader's attention. However, it is interesting to note that in the page "Where to begin" of the "Using the site" collection readers are not invited to start by accessing to (and, therefore, reading) the text of the play. If they are students, they are suggested to start from the tutorials and if they are teachers,

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<sup>136</sup> This also happens in the "Reading room" section itself. This is a mistake.

- they are suggested to start from the lesson plans.
- 2.2.3) Members of the “Reading room” collection are subepisodes of the scene of the ramparts. In fact, there, the text of the scene of the ramparts is divided in seven segments. The division is made according to a semantic criterion. In fact, the division stresses subepisodes of the episodes of the ramparts. For each segment the possibility is offered to compare the Folger edition with images of pages of his edition and of Huntington’s edition, with art, photographs and films. In fact, each segment is presented on a page composed of two frames. The text of Folger edition occupies the left frame; the right frame will be occupied by the element the user chooses. When the text is accessed through the “Electronic Texts” section, the whole text of the scene of the ramparts is presented on a same page. It is no more divided in segments. Therefore, the reader has to scroll up and down in order to read the text.
  - 2.2.4) Links are present on the text pages only on the text of the Folger edition, which is automatically displayed when the reader accesses the “Reading room”.
  - 2.2.5) On the Folger edition text links are embedded, while on the Arden edition and on the Three-text Hamlet texts no link is available.
  - 2.2.6) The text of the scene of the ramparts can be browsed in two different ways. First, when accessing to it from the “Reading room” collection, the reader chooses one segments. The text of this segment according to Folger edition is displayed in the left frame of the screen. This allows the reader to compare it with all the other contents of the application. In order to read the whole segment, the reader has to scroll up and down. In order to read another segment, the reader has two different possibilities. S/he can go back to the collection center and to choose the wished segment from the index (or choose it from the navigation bar, where the index remains available). S/he can also proceed in a sequential way thanks to the previous/next links available in the low frame. Second, when accessing to the text from the “Electronic texts” collection, the reader will get the entire text of the scene of the ramparts on a same screen. Therefore, in order to read it, s/he has to scroll up and down.
  - 2.3.1) In the “Reading room” the distinction among the different displayed contents is made through frames. The user can choose which content to display in each frame. However, per default, when entering one of the entities of this collection (one of the seven different segments of the text of the ramparts scene), in the left frame the text of the chosen segment according to the Folger edition is displayed. As regards annotations to the Folger edition (mainly, linguistic explanations accessible through the embedded links), the distinction is signaled by setting this information as footnote. The same happens when accessing the text of this edition through the “Electronic Texts” collection.
  - 2.3.2) When accessing the text of the play from the “Electronic texts” collection, on the text of the Folger Edition annotations with linguistic explanations can be accessed (they are displayed as footnotes). When accessing the other two

editions, only the text of the play is available. In the 3-Texts Hamlet Edition also the gaps of this edition in respect to Folger edition are signaled, as well as the signature of the pages of the original edition and the references of act, scene, line (for each line of the text). When accessing the text through the “Electronic Texts” collection, the reference number of the scene is indicated only at the top of the screen. When accessing the text of the play from the “Reading room” section, practically all the contents of the applications (annotations on the Folger editions, as well as added material contained in the other main collections) can be accessed and displayed in one of the two frames available on this page. The reference number of the segment is indicated in the low frame.

- 2.3.3) Annotations with linguistic explanations available on the Folger edition are accessible only from this text. All the other added materials are accessible both from the “Reading room” collection (in relationship to the text of the scene) and from their own collection (independently on the text of the scene).
- 2.3.4) Annotations on the Folger edition are organized and displayed as footnotes. However, the word or expression the annotation explains is repeated at the beginning of the annotation itself and, there, it is transformed in the anchor of a link bringing the reader back up to the line of the text the word or expression is used. At the end of each lesson plan a link is provided in order to access the full text. From the tutorials, the images of the pages of the early editions and of adaptations and promptbooks no access to the transcription of the text of the play is available. The same can be said for images of the collection “Art” and for the clip of the collection “Film”. However, for each image of the collection “Hamlet Art 1700-1899” and for each clip of the collection “Film” information about the passage of the text of the scene of the ramparts it refers to is provided.
- 2.3.5) No semantic association is available. The content of each collection has no direct link to the content of other collections (except for the “Reading room” collection, where the contents of all the other collections can be compared). Only in the “Reading room” section semantic associations have been set in order to display in the two frames contents that refer to the same segment.
- 2.3.6) Links providing access to annotations on the Folger edition are double-way (see 2.3.4). The commented words or expressions, which are repeated at the beginning of the text of the note (as usual in literary annotations), are anchors for a link bringing the reader back to the commented point of the text of the play. This double-way connection helps the reader in grasping the relationship between text and comment. Besides, it is used to bring the reader to other points of the original text where a similar expression is used (ex. 1.4.35 “nature’s livery”). For the same operation in printed annotated editions, we will probably find something like “see ...” and maybe accompanied by a comment such “for similar expression”. Navigational and access links are one-way. No semantic association has been consistently set up. When one is available, it is one-way. However, the new content appears in a new window. This helps the reader in keeping the track of the path s/he was following.

- 2.3.7) When accessing to the “Reading room” section, the text of Folger edition is automatically displayed in the left frame.
- 2.3.8) Links to linguistic explanations in Folger edition are embedded. Therefore, the anchor signals the portion of the text of the play to which the target of the link refers. However, the explanation appears in the same frame (it substitutes the original text) and it appears as footnotes in printed annotated editions do. As a consequence, for instance, the reader doesn’t see only the note related to the link s/he chose, but also the following notes. This is the same situation as in a printed annotated edition. There, too, the reader sees all the notes. But in a printed annotated edition s/he can see them simultaneously with the passage of the text they refer to. Therefore, the reader perceives these two different parts as parts of a same whole, while here, since one substitutes the other on the screen, s/he perceives them as two different parts. The relationship to the text of the images of the collection “Hamlet Art 1700-1899” is signaled by the fact that these images are grouped in the collection center according to the passage of the scene of the ramparts they refer to and by the fact that this passage is repeated as a title of each group. The situation is similar for the clips of the “Film” collection. For each clip, the passage of the text of the scene they refer to is repeated as their title. For the images of the pages of early editions, adaptations or promptbooks, the reference of the passage of the text each reproduced page contains is indicated as anchor of the link to the image itself in the collection center of the collection. Besides, the data page accompanying each image repeats the reference both in respect to Folger edition and in respect to Arden edition. This is also done for the images of the collection “Hamlet Art 1700-1899”. As regards lesson plans and tutorials, precise relationships to the text of the play are seldom signalled. In the “Reading room” section the added materials displayed in the two frames of the screen always refer to the same segment of the scene. If the reader chose the third segment, the correspondent text of Folger edition will be automatically displayed in the left frame. The added materials offered for displaying in the right frame will also refer to the third segment. Even if in the right frame, as the reader clicks on the link allowing her/him to choose which images s/he wants to see, there already is the passage of the text the images refer to, in the window where the images appear there also is a description of what exactly the image represents. This is very helpful for the reader in order to understand to relationship between the literary text and the image. It also helps the reader in understanding the meaning of images that are generic in respect to the text they should refer to (see first image referring to 1.4.1-41: “The air bites shrewdly”).
- 2.4.1) –
- 2.4.2) Thanks to the use of frames, in the “Reading room” collection it is possible to view simultaneously and to compare two by two all the contents of the hypertextual transposition. This facility is very interesting for the study of different editions or adaptations of the text, that is, for the study of philological aspects of the text. In the left frame only the transcription of one

of the different available editions or the images of the pages of them can be displayed, while in the right frame it is also possible to display images of the “Art” collection and clips of the “Film” collection. When clicking on one of the links available in the right frame, another frame appears at the bottom of the screen. In this frame two fields are available allowing the reader to choose what to compare in the two frames above.

- 2.4.3) Cf. 2.4.2.
- 2.5.1) The active reference pattern is only partially applied. In fact, when entering a collection, the link corresponding to that collection is expanded in the navigation bar. This helps the reader in remembering the collection s/he is in. However, the collection or the member s/he is visiting is not highlighted.
- 2.5.2) Generally speaking, the behaviour anticipation pattern is not applied. Only when an image is displayed, the sentence “Click on the image to enlarge it” provides information about how to better watch at the image and, therefore, also about what happens in performing the mentioned action.
- 2.5.3) The information factoring pattern is not applied.
- 2.5.4) Some guided tours are provided. The browsing of the different segments of the text of the scene in the “Reading room” collection is organized as a guided tour (cf. previous/next links). There, supports to user’s orientation are provided. In fact, the number of the segment the user is exploring as well as its position in respect to the seven segments (for instance, “4 of 7”) is always indicated. The same can be said for the images of the “Art” collection referring to a same topic or to a same passage of the text and for the images of the pages of early editions or of adaptations and promptbooks.
- 3.1) No specific page is dedicated to the intended audience. However, in the “Using the site” collection hints about the intended audience are given.
- 3.2) On the “Using the site” collection center two categories of users are mentioned, namely students and teachers. “Using the Site acquaints students and teachers with the materials provided throughout *Hamlet on the Ramparts*”. The same categories are mentioned on the page “Where to begin” of the same collection. The absence of a translation of the text of the play lets us suppose that the intended audience consists of English native-speaking students and teachers.

#### Remarks

There are external links, for instance to the sites of the libraries or databases from which the added material are drawn.

#### **LM1) The Last Man by Mary Wollstonecraft Shelley**

- 1.1.1) No page provides detailed information about the hypertextual transposition coverage. However, the page “Contents” contains the table of contents (it contains the list of the contents) and the page “About” provides information about the electronic version of the literary text, the available links and navigation possibilities, but also about the criterion according to which

- annotations have been created.
- 1.1.2) On the “About” page the editor informs the user that the aim of this hypertextual transposition is to give suggestions about the context, in order to help the reader to have a sense of history. “Shelley's novel is (to say the least) a highly intertextual work, a story woven into a complex fabric of citations, allusions, contexts, and echoes. My choice of hyperlinks, however, is deliberately selective, somewhat idiosyncratic, and is meant to be suggestive rather than exhaustive. Besides textual emendations, occasional expository notes offer context on topics from balloon flight to individual works of art. Hyperlinks will continue to accrete over time. But the goal is always to provide an array of possible connections, a sense of history, rather than an answer to every possible question” (“About” page). In the “About” page “studying the literary text” and “researching the literary text” are indicated as the most appropriate tasks to be accomplished with this application (the ones the application aims at supporting). “Onscreen reading, given present technology, is rarely easy. And reading a triple-decker novel onscreen is not something I expect many users to do, for now. Of course the HTML and ASCII texts may be printed out, and front-end configurations for both texts will vary widely. I expect this hypertext to be most useful, however, as a kind of supplement to reading the novel in print form. Someone reading the novel in a literature class, for example, could access in this e-text a cluster of three or four chapters they're concentrating on for a paper or the day's reading assignment. Then they could follow the links, read contextual and intertextual materials, run extensive searches, print out the ASCII chapters for further reading, and so on. In other words, they might want to treat this *hypertext* as a study guide and research tool, among other texts and tools, rather than as a self-contained ‘edition’ in the traditional sense” (“About” page).
- 1.1.3) No print equivalent exists. Both the electronic version of the literary text and annotations have been created for this hypertextual transposition. The electronic version of the literary text is based on the 1826 first edition. Original Mary Shelley's annotations are reproduced. “The text of the novel was produced from microfilm of a copy of the 1826 first edition now in the Charles Deering McCormick Library of Special Collections, Northwestern University. A Paris edition was published later in 1826 (in March by Galignani), and a two-volume American edition appeared in Philadelphia in 1833, but the first edition (London: Colburn, 23 January 1826) is both more authoritative and more significant, in terms of reception history, than either of these. The electronic text, therefore, is essentially a ‘diplomatic’ facsimile of that first edition of the novel--as it first appeared in the world, warts and all (it would appear that the novel was somewhat rushed into print by the publisher). Mary Shelley's own footnotes are keyed to asterisks, as in the first edition, but are found in hyperlinked files, rather than printed at the foot of each ‘page’” (“About” page).
- 1.1.4) –
- 1.1.5) Explanations about narrative aspects (characters, places and themes) are

provided in annotations, while not in a systematic way. Annotations also provide information about intratextual references highlighting the repeated occurrence or the development of given narrative aspects. They are also used in order to remind to the reader aspects of the story appearing in previous or following parts of the literary text. Main themes and main interpretations of the literary text are provided in essays. Maps of places where the story happens are made available and they are connected to annotations about these same places.

- 1.1.6) Linguistic aspects are not addressed. Words' or expressions' definitions are not provided. Translation of the literary text and paraphrase are not available. Stylistic aspects are not systematically addressed. Some hints can be found in essays.
- 1.1.7) As regards aspects dealing with text history, information about Mary Shelley's biography are provided in annotations (even if not in a systematic way; only events or aspects of her life helpful to the reader in understanding a given passage of the literary text are reported). However, a chronology of her life is provided in the "Reference tools" collection. The image of a portrait of Mary Shelley is available in the "Image and sound" collection. In the same collection the audio file of the "Creation" by Haydn (which seems to have inspired Mary Shelley as to *The Last Man*) is available. Different electronic versions of the literary text are provided, namely the ASCII Version and the SGML version. The image of the title page of the first edition is made available. Full texts (or excerpts) of some other Mary Shelley's works are also available, as well as excerpts (or full texts) of works of other authors where echos of Mary Shelley's *The Last Man* can be found, excerpts from other works on the plague, excerpts or full texts of other works on "the last man" and the full text of a parody of Mary Shelley's *The Last Man*. Some annotations on the literary texts point out intertextual references (sometimes also providing access to the full text of the intertext). Some textual annotations pointing out differences in punctuation between the electronic version and the 1826 first version of the literary text are available.
- 1.1.8) Aspects dealing with representations of the literary text are practically not addressed. In fact, only the reproduction of John Martin's painting "The Last Man" is provided as a representation of the main theme of the literary text. However, this painting is not directly based on Shelley's text. No direct illustration of Mary Shelley's text exists.
- 1.1.9) Annotations are provided on the literary text screens. Annotations are also linked among them (the user can pass from an annotation to another one). In annotations aspects related to different layers of the literary text can be mixed. However, usually each annotation has a main topic.
- 1.1.10) Some essays are provided. They are devoted mainly to main themes and main interpretations of the literary text. Besides the text of the essays, also files with the contents and messages posted during online discussions (which took place in 1997) on the same topics are available.
- 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts

- (annotations and essays), but also of images. Images are provided in annotations (together with the explanatory text). They are photographs or reproductions of paintings or engravings. In the “Maps” collection reproduction of geographical maps or maps in digital format are provided. Also links in themselves contribute to provide contents dealing with narrative aspects. This is the case of the links that point out intratextual references.
- 1.1.12) The very few added materials dealing with linguistic and stylistic aspects consist of verbal written texts (passages of essays).
- 1.1.13) Added materials dealing with the text history mainly consist of verbal written texts. Several of these texts consist of the electronic version of texts contributing to highlight the history of our central literary text. A few images are also provided. However, they are not systematically used to deal with such aspects of the literary text (consider the case of Mary Shelley’s portrait or the images of the title page of the first edition of the literary text). Also the audio file with the registration of Haydn’s Creation contributes to highlight the text origins.
- 1.1.14) Only one image (the reproduction of Martin’s painting) belongs to the category of added materials dealing with representations of the literary text.
- 1.2.1) It is possible to search the literary text.
- 1.2.2) No possibility to view contents simultaneously is provided.
- 1.2.3) No possibility to compare contents is provided.
- 2.1.1) On the table of contents page the following links are available:  
 “About this hypertext” > introductory page about the electronic version of the literary text, provided hyperlinks, navigation possibilities and uses of this hypertextual transposition.  
 “The Last Man” (collection) > 1826 title page, vol. 1 chap. 1 ... vol. 3 chap. 10 (members)  
 “Other works” (collection) > “Short fiction published in the *Keepsake*” (collection > “The false Rhyme”, “Ferdinando Eboli”, “The Mourner”, “The Mortal Immortal”, members), “?Rome in the First and Nineteenth Centuries” (member), “Mary Shelley’s letters” (member), “To Jane” (member)  
 “Shelley’s citations” (collection) > excerpts of different works by other authors, in which it is possible to find *The Last Man*’s echos (members)  
 “Reference tools” (collection) > Bibliography (member), Maps (collection > England, Windsor, Mediterranean Basin, members), Image and Sound (collection > different images and the audio file with the Haydn’s registration), Mary Shelley’s chronology (member)  
 “Cover page” (link to the hypertextual transposition cover page)  
 “—“ (collection)<sup>137</sup> > ASCII version (collection > volume I, volum II, volume III, members), SGML version (member)  
 “Critical essays” > six critical essays (members)  
 “Contexts” (collection) > “Other works on plague” (collection > excerpts of works by other authors dealing with the theme of the plague, members), “A

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<sup>137</sup> This collection has no name.

- contemporary parody” (member), “Other works on ‘The Last Man’” (collection > excerpts of works by other authors dealing with the theme of ‘the Last Man’, members)
- “Credits and acknowledgements” (member, page with credits and acknowledgements)
- “Editor Steven E. Jones” (access to his homepage).
- 2.2.1) On the “Contents” page the complete index of the literary text is provided. There, the reader has to choose the part of the literary text s/he wishes to read and click on the correspondent link. Once the reader enters a given part of the text, this index is no more available. In order to see it again, s/he has to go back to the “Contents” page.
- 2.2.2) The access to the literary text collection is privileged through different devices. Its contents are immediately and completely presented to the reader’s attention. The displaying of these contents occupies a bigger part of the screen in respect to the part occupied by other collections. The name of this collection (“The Last Man”) has a different font in respect to the names of other collections (it is in italic and it has a bigger size).
- 2.2.3) Members of the literary text collection correspond to chapters of the original version of the literary text. The text of a given chapter is provided on a single screen. Therefore, in order to read it fully, the reader has to scroll up and down. At the bottom of each page a link is available that brings the reader back at the top of the same page (link “Beginning of this chapter”). The presence of this link seems to emphasize the importance of this operation. In fact, it could be performed also by scrolling up, but the author decided that it was important to point it out (to make it explicit) to the reader.
- 2.2.4) Links are present on the literary text pages.
- 2.2.5) Anchors on the literary text screens are embedded. They coincide with words or expressions of the literary text. An exception is constituted by the asterisk links providing Mary Shelley’s annotations.
- 2.2.6) Once the reader chose a chapter of the literary text in the index provided on the “Contents” page, s/he can only move forward to the following chapter thanks to the link available at the bottom of the page (“Next chapter”). S/he cannot move backwards to the preceding chapter and s/he cannot move non-sequentially (choosing another part of the literary text). In order to perform these two operations, the reader has to go back to the index on the “Contents” page. To this purpose, beside the “Next chapter” link, the “Contents” link is provided at the bottom of the page.
- 2.3.1) Generally speaking, literary text and added materials or annotations are differentiated through the fact that screen backgrounds of their pages present a different color (blank on the literary text screens and grey on the added materials and annotations screens). However, in some added materials the screen background is blank, too (it is not clear why). For instance, added materials of the “Image and Sound” collection present a blank screen background (except for the page providing access to the audio files of Haydn’s Creation, which have a orange screen background). The same is

- valid for pages giving access to the ASCII and SGML version. Maps pages present a blue screen background. Mary Shelley's chronology presents a light blue screen background. So do pages of some critical essays (other pages have a blank screen background). Also in other collection the use of the screen background color is not always consistent (it is different among members of a same collection). At the bottom of each annotation text, the type of the annotation is explicitly indicated (textual note, note, quotation).
- 2.3.2) From the literary text the reader can access to annotations, to the following chapter and to the "Contents" page. Information about the number of the volume and of the chapter to which belongs the part of the literary text the user is exploring is provided, but only at the top of the screen. Therefore, when the reader scrolls down, s/he cannot see it anymore. Annotations can contain information addressing the different layers of the literary text significance (in annotations different kinds of information are mixed).
- 2.3.3) Annotations can be accessed only starting from the correspondent links on the literary text screens. Generally speaking, all the other added materials can be accessed only independently from the literary text (starting from the access link of the correspondent collections on the "Contents" page). However, for some of them access is provided also starting from annotations (annotations can contain links to other annotations). It is for instance the case of the access to maps or to other works (on the plague or on the "Last Man").
- 2.3.4) When in the added material an explicit reference to a passage of the literary text is present, access to this passage is provided. However, these references are not frequently provided. It can also happen that added materials provide access to other added materials.
- 2.3.5) Links bringing from the literary text to annotations are semantic associations. So are links available on annotations themselves and bringing the reader to other annotations or other added materials. This kind of semantic associations is frequently used in this hypertextual transposition. Semantic associations on annotations can also bring the reader to referred passages of the literary text or, in the case of intratextual references, to a given passage of the literary text to another passage.
- 2.3.6) Links are one-way. Once the reader left the literary text screen to access an annotation, in order to go back to the literary text screen s/he has to use the "back" of the browser. The same is true when the reader passes from an added material to another.
- 2.3.7) No automatically activated element is present.
- 2.3.8) The relationship between the referred passage of the literary text and the added material is signaled by the embedded anchor. Information provided by added material refers to the portion of the text that constitutes the anchor itself. The same is true for links among different added materials.
- 2.4.1) A search tool is provided on the "Contents" page. It is a simple full text search engine on the literary text. The access to this tool is emphasized on the "Contents" page. It looks like a button with a striking color background.
- 2.4.2) Frames or pop-up windows are not used. Therefore, it is not possible to view

simultaneously different contents. Only one exception is present. In the collection “Other works on plague” the member “Godwin versus Malthus” consist of a text by Godwin and a text by Malthus placed one side to the other thanks to the use of frames. The reader can scroll each of them separately.

- 2.4.3) –
- 2.5.1) The active reference pattern is only partially applied. At the bottom of each screen a navigation tool pointing out the different layers of the hierarchy to which this hypertextual transposition belongs is available. This hypertextual transposition is in fact part of the electronic editions produced by Romantic circles. However, the last step the reader accomplished in her/his navigation (which coincides with the choice of collection on the “Contents” page) is not detailed. Once the reader reached the hyperbase (the very content), s/he can only step back to the “Contents” page. Intermediate step back to the collection to which the hyperbase object s/he is exploring belongs is not provided.
- 2.5.2) The anticipation behaviour pattern is not applied. The “About” page provides information about how to navigate within the hypertextual transposition. But during the navigation itself no other help is provided to the user.
- 2.5.3) The information factoring pattern is not applied.
- 2.5.4) The literary text collection is organized as a guided tour. In fact, the reader can browse a chapter after another sequentially. However, s/he can only proceed forwards. S/he cannot go backwards. That is, the guided tour is provided only in one direction (which is the usual direction of the reading act). No support to user orientation is provided.
- 3.1) No page providing information about the intended audience is available.
- 3.2) The absence of a translation of the literary text lets us suppose that the intended audience is composed of English native-speakers. On the “About this hypertext” page an example of use of this hypertextual transposition by literature students is provided (cf. 1.1.2).

#### **M1) BBC Shakespeare on CD-ROM. Macbeth**

- 1.1.1) Some information about the hypertextual transposition coverage is available in the introduction of the “Contents” page of the “Help” collection: “The BBC Shakespeare CD-ROM (Macbeth) is a rich and exciting multimedia resource. At the heart of the CD-ROM is the full text, a complete audio recording of the play itself and video extracts from a recent BBC production. The play is enhanced by a wealth of supplementary background information”. However, this page is not easily or immediately accessible.
- 1.1.2) The aim of this hypertextual transposition seems to be the presentation of a complete experience of the play. Therefore, videos, images and audio files are used as means of presenting the text of the play. Besides, there also is the intention to offer a complete knowledge about the play (see the rich added materials).
- 1.1.3) No print equivalent exists. The “Credits” page lets us suppose that the

comment has been partly drawn from Kennedy's edition of *Macbeth* and it has been partly created for this hypertextual transposition. Textual notes and glossary of the CD-Rom are by R.B. Kennedy (that is, they are drawn directly from the printed annotated edition), while there are additional texts prepared by other scholars. The CD-Rom music theme was composed especially for this CD-Rom by Arne Richards (orchestration and mixing are by Gerald Garcia; see caption to the CD-Rom music theme in "Adaptations – Music and Dance" in the "Performance" collection). The audio version of *Macbeth* is drawn from HarperCollins AudioBooks, interviews from BBC Sound Archives. Videos are from BBC and they date of 1972, 1978, 1983, 1984, 1986 and 1989.

1.1.4)

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1.1.5)

Addressed narrative aspects are plot and plot-line, summaries (of the whole story, by act and by scene), themes (Fate, Good and Evil, Nature and Supernatural, Guilt and Conscience, Kingship and Ambition) and characters' presentation. On the text of the play pages screen backgrounds reproduce images of the landscape where the events narrated in the displayed part of the text take place. They change at each scene in order to reproduce the place and the atmosphere where, according to the text of the play, the story narrated in the scene happens. In some characters' descriptions a link "Note" is also available. It provides information about how the character has been performed in some performances. The background of each screen reproduces the photograph of an actor performing the character. In this way the reader can see a portrait of the character. For some characters some video clips are also available. They can be clips of documentaries, in which a useful explanation about that character is given (cf. Angus), or clips of the performance of the play, in which that character is particularly important (cf. Banquo). For some characters also some images are available (with different persons interpreting the character; they work like different possible portraits of the character; cf. for instance *Macbeth*). For some characters (cf. *Macbeth*) there also are audio files from sound archive, providing information, commentaries and descriptions of the character.

1.1.6)

Linguistic explanations are provided through the "question mark" and the embedded links on the text of the play (it has to be noted that these annotations also contain information that is not merely linguistic, but that we should widely define cultural or that explains or remembers to the reader the dynamics of the plot, the characters' strategies and relationships within the narrated story). No translation of the text of the play is available. As regards stylistic aspects, different aspects of the language of the play are exposed in the essays belonging to the "Language" collection.

1.1.7)

Addressed aspects related to the text history: sources of the play, critical opinions, Shakespeare's biography (all included in the "Background" collection). No philological aspect is developed in the added material.

1.1.8)

The essays included in the "Performance" collection expose topics and characteristics related to different representations of the play. Besides, on the

text pages, images, videos and audio files of a filmic representation of the play are available. These elements constitute the core of the application, together with the text of the play (“At the heart of the CD-ROM is the full text, a complete audio recording of the play itself and video extracts from a recent BBC production”, see page “Introduction” in the “Contents” of the “Help” collection). On the homepage a theme music accompanies the reader’s navigation.

- 1.1.9) Annotations are available on the text of the play. They appear in pop-up windows.
- 1.1.10) Several short essays are available. They also contain annotations with linguistic explanations of terms used in the essay (appearing in pop-up windows), explanatory video clips and audio files from interviews.
- 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts (summaries and characters’ presentations), but also of schemas (plot-line) and images (screen backgrounds). Essays on themes consist of verbal written texts (both for the very text of the essay and for the annotations to some words or expressions of it), but they also include static images (with captions), videos (expository video clips) and audio files (mainly, recorded interviews or presentations of an aspect of the topic). Their aim is to illustrate aspects of a given topic explained in the text of the essay. Some video clips or audio files are available in several different parts of the hypertextual transposition. In some characters’ presentations, besides static images, also film video clips are available. Often captions introduce new information. They don’t just say what the image represents. See as an example the caption to the reproduction of the Edwin Forrest as Macbeth portrait in “Actors and Acting” in the “Performance” collection: “The Englishman Macready went to New York in 1849 to play Macbeth in New York at the Astor Place Theater, Forrest’s fans rioted, 22 people were killed [Birmingham Shakespeare Library]”. Besides, an image can occur in more than one context (collection). However, images always have the same caption independently on the context in which they appear. Ex. image of Ellen Terry by Sargent in “Adaptations – Art” and in “Costume”.
- 1.1.12) Added materials dealing with linguistic and stylistic aspects consist of verbal written text (cf. annotations available on the text screens). Essays on language and stylistic aspects consist of verbal written texts (both for the very text of the essay and for the annotations to some words or expressions of it), but they also include static images (with captions), videos (expository video clips) and audio files. Their aim is to illustrate aspects of a given topic explained in the text of the essay.
- 1.1.13) Added materials dealing with aspect of the text history consist of verbal written texts. However, they also include static images (with captions), videos (expository video clips) and audio files (mainly, recorded interviews or presentations of an aspect of the topic). Their aim is to illustrate aspects of a given topic explained in the text of the essay.
- 1.1.14) Added materials dealing with representations of the play mainly consist of

film video clips, audio files and static images. Static images are photographs of characters present at any point of the text (photographs of actors playing a given character in a given performance or photographs of performances of the main scene narrated in the correspondent text).<sup>138</sup> Also verbal written texts are used as to the presentation of general aspects of these representations in the short essays of the “Performance” collection. As the other essays, they also include static images (with captions), videos (expository video clips) and audio files (mainly, recorded interviews or presentations of an aspect of the topic). Their aim is to illustrate aspects of a given topic explained in the text of the essay. Different uses of the audio device: recitation (not only aloud reading, but also noises), recitation of segments of the text of the play in relationship to themes or other comments (it has the function to make available, present, the original text), sound archive (with interviews about different topics related to the play), music (basic theme music of the CD-Rom, music or sounds planned in the script or clips of music inspired or related to the play).

- 1.2.1) It is possible to search for words or expressions in the text of the play.
- 1.2.2) It is possible to view simultaneously the text and some added material.
- 1.2.3) No possibility to compare.
- 2.1.1) Plot (collection) > The story (member), Acts and scenes (collection; > Act ... scene ..., members), Plot-line (member).  
 Themes (collection) > Fate, Good and Evil, Nature and Supernatural, Guilt and Conscience, Kingship and Ambition (members).  
 Language (collection) > Introduction, Verse, Prose, Imagery, Paradox and Ambiguity, Irony (members).  
 Performance (collection) > Actors and Acting (member), Sets and Scenery (member), Costume (member), Music and Sound Effects (member), Adaptations (collection, > Music and Dance, Cinema, Art, members).  
 Background (collection) > Sources of the play (member), Critical opinions (collection; different scholars with quotations, members), The Life of Shakespeare (collection, > The theatre, Early life, London, The Globe, Successful years, Last years, Publication, members).  
 Characters (collection) > Picture Index (collection), Angus, Banquo, etc., other characters (members).  
 The Play (collection) > From the Beginning, Act 1 (collection > Scene 1, Scene 2, etc., members), Act 2 (idem), Act 3 (idem), Act 4 (idem), Act 5 (idem).  
 Collections correspond to different semantic aspects of the work. Therefore, they contribute to clarify the different aspects of the literary text significance.
- 2.2.1) The text can be accessed starting from the “Play” collection on the homepage.

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<sup>138</sup> Cf. explanation in the page “The Play” in the “Contents” of the “Help” collection: “The play screen represents the stage of a theatre with a background appropriate to the particular scene. Text appears on the left-hand side of the screen, and images of the characters currently on stage appear on the right. The audio plays automatically, and the text is automatically updated so that the two are always synchronized”.

Two different possibilities are offered: “From the beginning” or “Act ...” and then “Scene ...”. These two possibilities correspond to the option between sequential and nonsequential reading; the first option is probably thought for users who want to read the whole text, while the second is mainly thought for users who want to study or read a precise point of the text of the play. However, the complete index of the text is not visible in the collection center of the “Play” collection. It is supplied by the scene navigator displayed at the bottom of each text screen of the “Play” collection.

- 2.2.2) The access to the literary text is privileged. In fact, the navigational link to the text of the play collection is placed at the center of the hexagon. Authors explicitly declare that the play is the central object of the application: “At the heart of the CD-ROM is the play of Macbeth itself” (page “The Play” in the “Contents” of the “Help” collection) and “At the heart of the CD-ROM is the full text, a complete audio recording of the play itself and video extracts from a recent BBC production” (page “Introduction” in the “Contents” of the “Help” collection). Besides, in the “Go back” tools the possibility to access the text of the play is offered. In this way, the existence of this possibility is pointed out. The fact that there always is the possibility to go back to the play is significant of the central role the authors of the CD-Rom assigned to the play itself.
- 2.2.3) Members of the text of the play collection are scenes. The literary text is divided in scenes. The text of each scene is displayed on several pages. Therefore, the user doesn’t need to scroll up and down, but s/he can browse back and forth among the different pages.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Some links on the literary text are embedded, while others are unembedded (in the sense that their anchor doesn’t coincide with a part of the text itself).
- 2.2.6) Different possibilities are offered to browse the text of the play (cf. the “Moving around within the play” page in the “Contents” of the “Help” section<sup>139</sup>).
- 2.3.1) The differentiation between text of the play and annotations is signaled through the use of a different font, but mainly by the fact that annotations

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<sup>139</sup> “Once you have called up the play, there are several ways of moving to the required place within it.  
- You can move to the beginning of any act or scene by clicking on the appropriate place on the Scene Navigator which runs along the bottom of the screen. The Scene Navigator is divided into Acts and Scenes, with your current position in the play highlighted.  
- You can move to the next scene by clicking on the blue forward arrow in the top right-hand corner of the screen.  
- You can move around within a scene itself by using the page display at the bottom of the text. This tells you the number of pages in the scene and your current position, for example, Page 2 of 12. If the blue down arrow is clicked once it displays the next page. When the blue up arrow is clicked once, it displays the previous page. To page quickly through the text, click on a blue arrow and hold the mouse button down. When you get to the page required, release the mouse button. The blue arrows will change to white at the first or last page of a scene. Click the white down arrow to move to the start of the next scene. Click the white up arrow to move to the last page of the previous scene.  
- You can also use Search to go to a particular place in the play”.

appear in pop-up windows overlapping with the text. Texts contained in the other main collections present the same font as the text of the play. In this case the differentiation is accomplished by the substitution on the screen of the text of the play with these other texts (the reader realizes that s/he is in a different realm).

- 2.3.2) From the text of the play (without moving to another collection) the following information is available: visual background representing the place where the scene happens, linguistic explanations (through the embedded links and through the “question mark” links; therefore, also more widely defined cultural information and information about characters and the plot are available, see 1.1.8), film video clips or images of the characters “on stage”, audio file with the recitation; at the top of the page, indication of the number of the act and of the scene to which the page belongs and indication of the place where the scene happens; at the bottom, indication of the total number of pages of the scene and of the number of the page the reader is currently exploring, scene navigator showing which part of the whole work the reader is exploring.
- 2.3.3) Linguistic and cultural annotations can be accessed only through embedded links available on the text of the play. The same is valid for the representational elements (audio file with recitation, film video clips, characters’ images and screen backgrounds). All the other added materials (which mainly consist of essays on different topics) can be accessed from the text of the play (thanks to the navigation bar) or from the homepage through their correspondent collection. This is also valid for the film video clips. They can be accessed from the text screens or from the “Media index” in the “Tools” collection. Only the audio file with the recitation of the whole play and the images of characters can be accessed only from the text screens.
- 2.3.4) Within the text of the short essays or at their end links to the interesting passages of the text of the play in relationship to the content of the essay are provided. Clicking on these links, the reader can listen to the recitation of these passages. Also when searching the play, the reader can access the passages displayed as results of her/his search.
- 2.3.5) Links mentioned at 2.3.3 are semantic associations. So are links to the audio recitation of the relevant passages of the text contained in the essays and mentioned at 2.3.4.
- 2.3.6) Links are always one-way. However, since links connecting added materials to the text of the play provide access not directly to the text but to the audio file with the recitation and since all annotations appear in pop-up windows, the reader never moves to a different page when s/he is reading a given added material. Therefore, s/he almost never needs “to come back”. However, a sophisticated “Go back” tool is made available, which includes the possibility to access to the text of the play, the possibility to go back to the main menu of the hypertextual transposition and the possibility to go back to previously visited parts of the hypertextual transposition.
- 2.3.7) When accessing the text of the play, the audio file with the recitation

- automatically starts.<sup>140</sup> When the reader is on the text of the play and the audio file with the recitation is on, the following screen substitutes the previous one automatically (automatic browsing of the text). Also the update of the images of the characters present in the scene the text of which is displayed in the left frame is automatic.<sup>141</sup> Also the synchronization between an activated video and the displayed part of the text is automatic.<sup>142</sup> Tools are available to the reader in order to control these automatic elements.
- 2.3.8) The correspondence between referred passage of the text of the play and added material is signaled by the embedded anchor of some links, by the fact that the pop-up window with the annotation is displayed almost at the side of the commented passage and by the position of the “question mark” anchor. The signaling of the correspondence between a given page of the text and the images, audio file and video clips of the theatrical representation of the play relies on the use of synchronized frames. In the case of the short essays the correspondence is signaled by the fact that only the recitation of the precise relevant passage is made available.
- 2.4.1) In the “Tools” collection the function “Search the play” is available. It allows to search for a word or an expression within the text of the play and then to access to the passages of the play where the word or expression has been found and to copy the results of the search. It is also possible to search for a word or expression in the whole content of the hypertextual transposition (tool “Find” in the “Tools” collection). Another interesting possibility is offered in order to search the play in the “Themes” collection. At the top of each page a “Trying searching the play for ...” tool is offered, where keywords relevant in respect to a given theme are suggested.
- 2.4.2) Thanks to the use of frames and of pop-up windows, when reading the text of the play, the reader can consume at the same time several different contents, namely the text itself, annotations, images of characters and their captions, video clips of the film, recitation of the play.
- 2.4.3) –
- 2.5.1) The active reference pattern is only partially applied. In fact, thanks to the detailed titles present on each page, the reader always knows which part of the hypertextual transposition s/he is exploring. And, thanks to the navigation bar, which is always displayed, s/he can easily move from a collection to another one. However, these two functionalities are not gathered in a unique device.

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<sup>140</sup> “At the start of the play, and whenever you move to a new section, audio plays automatically. You can pause the sound by clicking the Pause Sound button below the text of the play. When you click the Play Sound button the audio will start playing from the start of the currently displayed text” (page “Audio” in the “Contents” of the “Help” collection).

<sup>141</sup> “Still images representing the characters currently on stage appear on the right-hand side of the screen. Whenever a new character enters or exits, their picture is automatically displayed or removed” (page “Images” in the “Contents” of the “Help” collection).

<sup>142</sup> “Whenever a video sequence is available, a red button marked Video appears. Click on the Video button. The pictures of the characters disappear, and are replaced by the video sequence. The text is paged to the beginning of the video sequence” (page “Video” in the “Contents” of the “Help” collection).

- 2.5.2) The behaviour anticipation pattern is applied in the text of the play collection. There, when rolling over each one of the arrow links or buttons available, a label appears explaining the function of the button and, therefore, preventing the reader about what will happen if s/he clicks on it. The same is done in all the other sections correspondently to the arrows links available at the top of the page (a label “More ...” or “Previous” appears).
- 2.5.3) The information factoring pattern is not applied. When the reader browses a given short essay in one of the main collections starting from the text of the play, the essay is displayed in the same way it is when the reader accesses it through the corresponding collection. In fact, the reader is moved from one collection to another one.
- 2.5.4) Guided tours (slide shows) are offered when accessing the visual and audio elements through the “Media Index” of the “Tools” collection. Also the navigation within the text of the play is organized as a guided tour. In fact, the reader moves to the next/previous scene (of the same act or of a different act) by clicking on the blue forward/backward arrow in the top right/left-hand corner of the screen.<sup>143</sup> When the audio file of the recitation is on, the guided tour procedes by its own, automatically (the displayed text always corresponds to the portion of text that is recitated in a given moment). However, the reader can stop it, go back or forth, that is, s/he can take the control over this automatic device.<sup>144</sup> Supports to user’s orientation are complete. In fact, at the top of the page the number of the act and of the scene to which the page belongs is displayed, while at the bottom of the left frame occupied by the text, the total number of pages of the scene and the number of the currently displayed page are indicated. This also happens in the added material pages. On the text of the play screens, the application of the behaviour anticipation pattern warns the reader about the changing of the page or of the scene (rolling over the arrow, instead of the label “Previous/Next Page”, the label “Previous/Next Scene” appears).
- 3.1) No page provides clear information about the intended audience.
- 3.2) However, in the introduction of the “Contents” page of the “Help” collection the application is described in the following way: “Macbeth is ideal for students, teachers, or anyone interested in learning more about one of Shakespeare's most popular works. Its clear, inviting user interface makes it easy to use for those with little or no computer experience”. Therefore, students and teachers seem to constitute the main intended audience. However, every possible reader is thought as possible user of the hypertextual transposition. The absence of a translation of the text of the play lets us suppose that the intended audience is composed of English native-speakers.

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<sup>143</sup> This means that the different collections corresponding to the different acts are linked in order to allow the reader to navigate among them sequentially.

<sup>144</sup> This is an example of the application of the *Eigenzeit* principle which is, according to Mok, one of the main criteria for the evaluation of a successful interaction in multimedia contexts and it corresponds to the criterion of *Kosistenz* in the *vier K*'s criteria scheme (Eppler 1999: 139).

### Remarks

The fact that the CD-Rom was published by HarperCollins (a big publisher) and BBC Education is a sign of authority. Besides, all the authors of the added texts have some important experience as regards Shakespeare's studies. David Bevington is Professor of English and of Comparative Literature at the Department of English of the University of Chicago (see <http://humanities.uchicago.edu/depts/english/faculty/bevington.shtml>). Neil Cartlidge works at the Department of Old & Middle English of the University College Dublin (see <http://www.ucd.ie/~english/staff/neilcart.htm>). Wendy Nelson-Cave is the author of the *Who's Who in Shakespeare*. No information found about Helen Clark, Domenica de Rosa and James Simms.

Attica Cybernetics (no web site found).

The text is drawn from Alexander Shakespeare published by HarperCollins Publishers and edited by R. B. Kennedy. Textual notes and glossary are by R.B. Kennedy, while additional texts are by several other authors.

## **M2) Macbeth – The Voyager Company**

- 1.1.1) In the “Opening remarks” slide show of the “Introduction” collection some insights about the coverage of the application are provided. However, this is done almost indirectly (“lot of information and many opinions about politics, superstition and the history of the play”).
- 1.1.2) The aim of this hypertextual transposition seems to be providing information and explanation of the play as wide and complete as possible.
- 1.1.3) A print equivalent exists, but it has been published after the hypertextual transposition. In fact, the CD-Rom was published in 1994 and the printed annotated edition was published in 1997. The major part of the essays and annotations included in the printed edition are that included in the hypertextual transposition. The “Credits” page informs us that the text was drawn from the New Cambridge Shakespeare Edition, 1993, Cambridge University Press. Essays and annotations by A.R. Braunmuller, introduction and commentary by David S. Rodes.
- 1.1.4) –
- 1.1.5) Addressed narrative aspects are characters' presentation, character appearance chart, scene summaries, identification of the main theme of the tragedy (“violent intrusion of the demonic into the realm of human affairs”, paragraph of the “Introductory essay” in “Introduction” collection and also paragraph “Macbeth as tragedy” of the same essay), theme of witches and witchcraft (essay “Witches and witchcraft” in the “Essays” collection), geographical setting (paragraph of the “Introductory essay” in “Introduction” collection), maps in the “Picture Gallery”, historical setting (paragraph of the “Introductory essay” in “Introduction” collection).
- 1.1.6) Embedded and “daggers” links on the text of the play provide linguistic

explanations (words' and expressions' definitions). No translation or paraphrase of the text of the play is available. Main traits of the language of the play are developed (the use of equivocation, paragraph "The language of ambiguity and equivocation" of the "Introductory essay" of the "Introduction" collection; essay "The languages of Macbeth" in the "Essays" collection).

1.1.7) Addressed aspects of the text history are: presentation of Holinshed's *Chronicles of England, Scotland, and Ireland*, the main source of the play (paragraph "Holinshed" of the "Introductory essay" of the "Introduction" collection) and identification of the episodes Shakespeare used for his tragedy (essay "Shakespeare's *Macbeth* and Holinshed's *Chronicles*" of the "Introductory essay" of the "Introduction" collection); extracts from the *Chronicles* (appendix "Extracts from the Chronicles of England, Scotland and Ireland by Raphael Holinshed in the "Essay" collection); presentation of superstitions about this play (paragraph "The second Mrs. Fraser" of the "Introductory essay" of the "Introduction" collection); author's biography (essay "William Shakespeare of Stratford-on-Avon, Gentleman" of the "Essays" collection); the problem of authorship (essay "Who wrote *Macbeth*?" of the "Essays" collection). In the "Picture Gallery" collection Shakespeare's portraits and portraits and illustrations of the collections "Kings and Queens" and "History" are available. Also more strictly speaking philological aspects are addressed: explanation of modernizations adopted in the digital edition of the text, description of textual aspects and history of the first folio (essay "Textual analysis" in the "Essays" collection); images of pages of folios in the "Picture Gallery"; concordance, note on the text, collation and relinement included in the "Concordance and Textual Matters" collection.

1.1.8) Aspects of representations of the play are addressed: description of how theatres and stages were at Shakespeare's time and in early *Macbeth*'s performances (essay "The theatrical world" in the "Essays" collection); description of different ways of casting *Macbeth* (essay "Casting *Macbeth*" in the "Essays" collection); video clips and scripts of three different filmic representations of the play (only for some scenes); illustrations of Swan Theater in the "Picture Gallery"; portraits of the collections "Performers and Performances" and "Macbeth in the Art" of the "Picture Gallery"; essay "About the Royal Shakespeare Company's Production of *Macbeth*" of the "Introduction" collection; audio file with the recitation of the play; comparison between different performances all along the history and between different ways of performing *Macbeth* (essay "Macbeth in Performance" in the "Essays" collection). Also "The Macbeth Karaoke" collection has to do with representations of the play. In this case what is made available is not directly (or not mainly) a representation of the play, but a tool allowing the reader to play some passages of the tragedy. The reader can, first, listen to a recitation of the passage. Then, s/he can record her/his own recitation and listen to it. On the script some embedded links are available. They provide information about the particular features and the differences of the script in

respect to the original text. Their interpretation is not clear. In fact, the reader could expect to find the same comments this link gave in the original text. Ex. 1.1. On the page with the clip also a link for a clip commentary is available. The commentary appears in a pop-up window.

- 1.1.9) Annotations are used only to provide linguistic explanations (words' and expressions' definitions).
- 1.1.10) Essays are available. The major part of the added materials consists of essays. Essays don't contain visual or acustic elements, except for some images (however, not provided in a consistent way).
- 1.1.11) Narrative aspects of the text of the play are developed by means of verbal written texts. The only exception is constituted by maps included in the "Picture Gallery". They are interactive maps (of Scotland and of Shakespeare's London), where the location of places mentioned in the narrated story or related to the play in a more general way can be highlighted and for each of them an explicative annotation can be read. As regards characters, also a scheme is available (the character appearance chart).
- 1.1.12) Linguistic and stylistic aspects of the text of the play are exclusively developed by means of verbal written texts.
- 1.1.13) Aspects of history of the text of the play are mainly developed by means of verbal written texts. However, also the use of images contributes as to the historical context (various portraits in the "Picture Gallery") and philological aspects (reproductions of folio pages). It is interesting to note that as regards sources some information is provided by making available the texts of the sources.
- 1.1.14) Aspects dealing with representations of the play are developed by means of video clips, audio files and static images. The available static images are reproductions of paintings, drawings, illustrations and other photographs. An interesting use of the audio device for the play representation can be found in "The Macbeth Karaoke" collection. However, it is interesting to note that many of aspects dealing with representations are developed by verbal written texts.
- 1.2.1) It is possible to search a given word or expression in the text of the play. It is also possible to find a line by its number, to search the concordance and to search a given word in the whole application.
- 1.2.2) It is possible to view at the same time annotations or added materials and the text of the play.
- 1.2.3) No possibility to compare.
- 2.1.1) Introduction (collection) > Opening Remarks, The Royal Shakespeare Company Production, Introductory Essay (members).  
The Characters in the Play (collection) > different characters (members).  
The Tragedy of Macbeth (collection) > "Scene 1" ... scenes (members).  
Summaries and Commentaries > different scenes, commentaries to the different film clips (members).  
Essays (collection) > different essays (members).  
Clips Gallery (collection) > different clips (members).

Picture Gallery (collection) > Maps, Shakespeare and his Theater, Kings and Queens, Performers and Performances, History, Macbeth in Art (collections, the members of which consist of images).

Concordance and Textual Matters (collection) > A Concordance to the Play, A Note on the Text, Collation, Relineation (members).

Suggested Readings (pages).

The Macbeth Karaoke (collection) > Act 1 Scene 7, Act 2 Scene 2 (members).

- 2.2.1) The text of the play collection center consists of the index of the text of the play, allowing the reader to choose where to begin the reading. It has to be noted that in the printed annotated edition upon which this hypertextual transposition is based, the index is not available. This is a sign that it is presupposed that the reader follows the text of the play from the beginning to the end. A second possibility for accessing the text of the play is the gauge. However, it is available only in the tool box, which can be activated on each content screen.
- 2.2.2) The main menu proposes different possible choices. The choice of the literary text is presented in bold font and it is, therefore, a privileged choice.
- 2.2.3) Members of the text of the play collection coincide with scenes. The text is divided in scenes. The text of a given scene is displayed on several different screens. Therefore, in order to read it fully the reader has to browse the text forth and back.
- 2.2.4) On the literary text pages links are present. Thanks to an apposite tool of the tool box, it is possible to hide them.
- 2.2.5) Links on the text of the play are both embedded and unembedded. Links providing linguistic explanations of words or short expressions are embedded, while links providing linguistic explanation of broader portions of text are unembedded (“dagger” anchor). So are links providing access to film video clips. Besides, in the left frame, a tool box with navigational links is available.
- 2.2.6) Once the reader entered the text of a given scene, the text can be browsed sequentially. The reader browses page by page and at the end of a given scene s/he is not brought back to the index where s/he has to choose the following scene s/he wants to read, but s/he browses automatically the following scene. The same is true when the reader reaches the end of a given act: s/he browses automatically the text of the first scene of the following act.<sup>145</sup> In order to browse the text not sequentially after having entered “The tragedy of Macbeth” collection, the reader can use the research tool “Find a line by its number”. Otherwise, s/he can use the index available in the navigation bar. There, expanding the title of the current text screen, the index of the play (organized in two hierarchical layers, acts and scenes) is available. Besides, the reader can use the gauge. Clicking on it at a given point, the reader is brought to the correspondent scene.
- 2.3.1) The differentiation between literary text and added material is signaled by the

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<sup>145</sup> This is possible because the different scenes are members of a unique collection “The tragedy of Macbeth”. There are not collections for each act.

- fact that annotations and also some essays (or parts of them) appear in pop-up windows overlapping with the text of the play.
- 2.3.2) From the text of the play (without moving to a different collection) the following types of information are accessible: linguistic explanations (or more widely cultural explanations, the aim of which is however the understanding of some words or expressions used in the text of the play)<sup>146</sup> and short comments about the theatrical performances of the play<sup>147</sup> (embedded links and “daggers” links); film video clips (with the correspondent script). Also the audio file with the recitation of the play is accessible, but its activation is “hidden” (the reader has to click on the text of the play; the playing of the audio file will start from the point where the reader clicked). Through the Tools box it is possible to access (without leaving the page of the text, thanks to the application of the information factory pattern) the gauge (where the part of the text the reader should have visited before that point, supposing s/he read the text sequentially, is highlighted), commentaries to scenes and acts, scene summaries, concordance, the list of abbreviations, the glossary, the textual note, the collation of each act, the relinication, the casting note, the character index and the character appearance chart. The number of the act and scene, as well as lines, displayed on a given screen are available at the top of the page. These elements can be expanded. In this way, the index of the play is made available (it is not completely displayed, it is organized in two layers).
- 2.3.3) Linguistic and cultural explanations provided by the embedded and “daggers” links can be accessed only starting from the text of the play screen. All the other added materials are accessible starting both from the text of the play thanks to the navigation tool box, placed in the left frame, or independently on the text of the play starting from their collections.
- 2.3.4) In essays, nowhere there is a direct link to the original text. The reason can be that they all have topics that have to do with the whole text. However, the text of the play is always accessible starting from the added material thanks to the tool box placed in the left frame. On the film video clips pages a link “Return to the play” is expressly provided. It leads to the corresponding passage of the text of the play. From the characters’ cards it is possible to access to the text of the play correspondently to the cues of the character to which the card is dedicated. From each entry of the concordance it is possible to access the passage of the text where it is used. On the essay pages, on the contrary, links to referred passage of the text of the play are not provided. Rather, the referred passage is transcribed within the text of the essay itself.
- 2.3.5) Links providing linguistic explanations about words or expressions of the text are semantic associations, as well as links providing access to film clips starting from the text of the play. Other semantic associations are links providing access to the text of the play starting from the film video clips, from

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<sup>146</sup> Example: links “Thunder and Lighting” at 1.1 or “Graymalkin”.

<sup>147</sup> See for instance link “1.1”.

- the characters' cards and from concordance. Semantic associations are also provided between two different essays.
- 2.3.6) Links are usually one-way in the sense that if the reader follows a link, than in order to come back to the point s/he left, s/he has to use the tool box.
  - 2.3.7) No element is automatically activated or displayed.
  - 2.3.8) In the case of embedded links on the text of the play the relationship is precisely signaled by the anchors (the words or expressions that are objects of the explanation are underlined). For the daggers links the correlation is signaled by the anchor position and by the fact that, after the user clicked on the link, the part of the text of the play to which the link refers is highlighted. The use of pop-up windows also contributes to the manifestation of the correlation (the two elements the reader has to correlate are simultaneously present on the page). When arriving on a page of the text of the play from the characters' cards, the passage of the text corresponding to the cue of the character the reader is exploring is highlighted. The same happens when arriving on a page of the text of the play starting from an entry of the concordance. The relationship between a film video clip and the passage of the text it represents is manifested by spatial juxtaposition: since the link is present on that page, the clip will represent the events narrated in that same page. Generally speaking, in all the other cases (especially when a given added material is accessed through the tool box) the relationship between added material and a given passage of the text of the play is not signaled by the author of the hypertextual transposition. It is up to the reader to identify the relationship.
  - 2.4.1) Through the tool "Find" of the tool box it is possible to search a word or expression in the text. Through the "Research tool" of the tool box it is possible to find a line by its number and to search the concordance. Concordance in itself is another available search tool. Besides, there is an important and sophisticated search tool, which is however "hidden". The readers can know about its existence only if s/he reads the Help page. When keeping the mouse down on any word of the text of the play or of the added material, the possibility is offered to search for the same word in the same section, in all the section, in context, to search to the previous occurrence of the same word, to the following, etc.
  - 2.4.2) The pop-up and floating window devices allow the reader to view at the same time the text of the play and annotations or other added materials.
  - 2.4.3) –
  - 2.5.1) An active navigational object is present on each page. The bar including the title of the page summarizes the collection and collection to which the page belongs and provides the possibility to pass to different members of the collection or to other collections. However, this bar is not perceivable. The user has to click on the title and then it appears, but how can s/he know that this possibility exists? Besides, the collection and the member the reader is currently visiting are not highlighted. In order to pass to different collections and to some other pages it is also possible to use the tool box appearing in the

- left frame. However, this, too, is not immediately perceivable by the reader.
- 2.5.2) No application of the behaviour anticipation pattern.
  - 2.5.3) A local application of the information factoring pattern is present. When the reader browses the essays about collation and casting or the commentaries and summaries from the tool box (and not from the main collections of the homepage) starting from a text of the play screen, the text of these essays appears in floating windows overlapping with the page of the text of the play. Also additional commentaries included in these essays are displayed in this way. Thus, these contents are displayed within the context of the text of the play.
  - 2.5.4) The exploration of the images of the “Picture Gallery” is organized by thematic guided tours (slide shows). Also the paging within the different scenes and the different acts of the text of the play is organized as a guided tour. In this guided tour supports to user’s orientation are provided but not in a complete way. In fact, at the top of each text screen the act and the scene to which the screen belongs are indicated, as well as the portion of text included in the page (by indicating the lines interval). However, there is no indication of the total number of screens or lines constituting the whole scene.
  - 3.1) Nowhere information about the intended audience is provided.
  - 3.2) –

#### Remarks

In the “Opening remarks” guided tour (slide show) of the “Introduction” collection the author (David S. Rodes) exposes his interpretation of Macbeth play, underlining four aspects that, in his opinion, are central to the play (when composing Macbeth, Shakespeare payed attention to his source material and to the interest of his audience; artistic strategies, relationship of the medium to the message, of form to content; despite the comprehensiveness, the script is packed with dazzling words, the script is not fixed; morality or immorality of art). This part of the hypertextual transposition has to do with objectivity, because the author declares which is his interpretation of the presented object. Besides, in the essay “About the Royal Shakespeare Company’s Production fo *Macbeth*” of the “Introduction” collection, the author explains the value he attributes to this production and the reasons why from it the audio track available on the text of the play in this hypertextual transposition was drawn.

Authors seem to be authoritative. The “Credits” page informs us that essays and annotations are by A.R. Braunmuller (Professor of English and Comparative Literature at UCLA) and introduction and commentaries are by David S. Rodes (Senior Lecturer of English and Comparative Literature at UCLA). Some information about authors’ experience and knowledge about Macbeth is given in the “Opening remarks” guided tour (slide show) of the “Introduction” collection (“two teachers of dramatic literature” who studied, read and taught Macbeth during 30 years).

This CD-Rom is now distributed by Educorp (information available on the Voyager site [www.voyagerco.com](http://www.voyagerco.com); Educorp address is [www.educorp.com](http://www.educorp.com)).

However, the only edition of Macbeth by Cambridge University Press in 1993 is the one

edited by Rex Gibson, which belongs to the series Cambridge School Shakespeare and not to the series “New Cambridge Shakespeare” (see online catalog of the British Library).

### **M3) William Shakespeare’s Macbeth – Bride Digital Classic**

- 1.1.1) In the video presentation of the CD-Rom by its producer included in the “Welcome” collection the hypertextual transposition coverage is addressed. It consists mainly of the presentation of Macbeth play considering Shakespeare’s world and Scottish history and widely using all the multimedial possibilities. However, this video is not immediately accessible.
- 1.1.2) As it is also suggested by this video presentation, the comparison between the story narrated by Shakespeare and historical facts (especially in expository video clips and also in the characters’ descriptions) is one of the main focusses of this hypertextual transposition. Besides, it shows the filmic transposition of the play (video clips are available from “M” clapperboard hyperlink) and it provides explanation about themes and characters present in the text (from hyperlink “Bytes”).<sup>148</sup>
- 1.1.3) No print equivalent exists. Both explanatory and film video clips seem to have been produced expressly for this application. The “Credits” page in the “Welcome” collection informs us that the text editor is Prof. Gary Taylor (Director, Hudson Strode Program in Renaissance Studies, University of Alabama). No information is provided about the reference edition for the text of the play. However, Gary Taylor participated in the edition of *The Complete Works of Shakespeare*. He was Gen. Ed. with Stanley Wells. New York & London: Oxford UP, 1986. In this edition no annotation is available. Only Shakespeare’s texts with short introductions are provided. The “Credits” page informs us that annotations and glosses are by Prof. Taylor and Dr. Celia R. Daileader (University of Alabama). Annotation coordination is by Rick Russell and proofreading by Lisa Mercer, Tess Raymond and Rick Russell. Therefore, we should conclude that added materials included in the hypertextual transposition (namely, “Bytes”, paraphrase, synopsis, characters’ description and summary) have been created expressly for the hypertextual transposition.
- 1.1.4) –
- 1.1.5) Addressed narrative aspects are characters (image of them and description), synopsis (summary of the narrated story), summary of each scene, presentation of some places related to the text (see, for instance, the video presentations “Birnam Wood Scotland” and “Dunkeld Cathedral, Scotland; The Scottish Play’s Stage Curse”). Screen backgrounds represent places or

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<sup>148</sup> Hyperlinks “Bytes” provide access to different kinds of information. Sometimes it is an intratextual remark, sometimes it is a correlation of a word or expression or passage of the text of the play with a wider theme of the play, sometimes a general explanation about the passage to which the link refers.

- objects involved in the narrated story.
- 1.1.6) Linguistic aspects are addressed. Words' and expressions' explanations on the pages of the text of the play are provided, as well as paraphrase. Some "Bytes" provide intratextual references (ex. V, 1, lines 40-50; V, 1, lines 68-76; V, 11, lines 25-38). "Bytes" also provide indication and explanation of some expressions in relationship to main themes of the play (ex. V, 1, lines 1-11). No translation of the text of the play is provided.
  - 1.1.7) No explanation about the text history is provided. No explanation about philological aspects, except for some hints in some explanatory video clips; ex. "The Three Witches".
  - 1.1.8) Video clips of the filmic representation of the play are available. This film seems to have been produced expressly for this hypertextual transposition. No exact reference is provided. Only on the "Credits" page of the "Welcome" collection names of people that collaborated in the videos production, indication of where they have been produced and a list with the names of all performers are available. However, no difference is signaled between explanatory video clips and film video clips. Even not in the "Performers" collection (from where the different film video clips can be accessed) information about the film can be found. A theme music accompanies the reader's navigation on the homepage.
  - 1.1.9) Annotations are present on the text of the play screens.
  - 1.1.10) Expository video clips can be considered a sort of essays.
  - 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts. However, also videos and static images contribute to them. Expository video clips contain images of the presenter, but also of places that have to do with the play and clips of the film (therefore, characters' images). Static images consist of characters' portraits (which consists of a thumbnail drawing, not a photograph or the reproduction of a painting; at each cue the portrait of the speaking character is available; it constitutes the anchor of the link bringing the reader to the correspondent character's description) and screen backgrounds (representing an object, a place or a scene emblematic in respect to the text contained in the page). Summaries consist of a short video clip (two presenters narrating the major events of the scene).
  - 1.1.12) Added materials dealing with linguistic and stylistic aspects of the play consist mainly of verbal written texts. The anchor of "Bytes" links contributes to point out to the reader's attention the presence of an explanation.
  - 1.1.13) –
  - 1.1.14) Added materials dealing with representations of the play consist mainly of film video clips. Audio files are also used in this hypertextual transposition for providing a musical background when the user is visiting the main menu. In the whole hypertextual transposition different uses of the audio device can be detected. It can be used for the recitation of the play or for an explicative text about some aspects of the play. It is also used for noises when the user chooses a scene or when s/he browses from a page of a scene to another (the

- noise produced by turning the page of a book).<sup>149</sup>
- 1.2.1) No possibility to search the text.
  - 1.2.2) No possibility to visualize at the same time text and added material, except for characters' descriptions. They appear in a pop-up window in the up right corner of the screen and, therefore, they can be seen in comparison with the text of the play.
  - 1.2.3) No possibility to compare.
  - 2.1.1) Act 1 (collection) > Scene 1 (...) Scene 7 (members).  
 Act 2 (collection) > Scene 1 (...) Scene 4 (members).  
 Act 3 (collection) > Scene 1 (...) Scene 6 (members).  
 Act 4 (collection) > Scene 1 (...) Scene 3 (members).  
 Act 5 (collection) > Scene 1 (...) Scene 11 (members).  
 Welcome (collection) > Macbeth, Romeo and Juliet, Credits (members).  
 Presenters (collection) > explanatory video clips organized by presenter (members).  
 Performers (collection) > film video clips organized by act (members).  
 Help: it is a member, not a collection (animation explaining the navigation).  
 Synopsis: it is a member, not a collection (summary of the whole story).  
 The collection gathering all the characters' descriptions is not available from the main menu. It is only available by clicking on the page number of the text of the play screens. However, it also is a collection, the members of which are the descriptive cards of all the characters.
  - 2.2.1) Only one possibility is offered in order to access to the text of the play: choose one of the collections corresponding to the different acts of the play and then choose one of the members corresponding to the different scenes. Therefore, the access to the text of the play happens through an index that distinguishes acts and scenes. Here, the complete index (the one that is usually printed at the beginning of a printed edition of the play) is divided in two hierachical layers: first, the reader chooses the act s/he wants to access (collections) and, second, s/he chooses the scene (members). Therefore, the reader doesn't have a complete overview on all the parts of the text. This also happens because, on the collection center of an "Act ..." collection, scrolling menus are used. Therefore, the reader has to move forward and backward. The access to the scenes belonging to this act is not presented on a unique page.<sup>150</sup>
  - 2.2.2) The access to the text of the play is very much privileged. In fact, collections

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<sup>149</sup> The background of the part of the screen where the text is displayed represents an old sheet. When clicking on the arrows links in order to browse between different text screens, the noise we usually produce when turning the pages of a book is reproduced. These elements try to imitate the reading act of a book. Their aim seems to be to make the reader familiar with the application trying to give her/him the same sensations s/he has when reading a book. However, this is not useful to enhance the understanding of the text meaning itself.

<sup>150</sup> The scrolling menu pattern can be used in order to display the members of a given collection, when the number of members is high and the screen space is limited (<http://www.welie.com/patterns/scrolling-menu.html>).

- providing access to the different acts occupy almost the whole main menu. The font of their access link is bigger than the font of the other access links.
- 2.2.3) Members of the “Act ...” collections are scenes. The text of the play is divided in scenes. The text of each scene is displayed on several pages. The user passes from one page to the other clicking on the arrows links (s/he doesn’t have to scroll up and down, but s/he has to browse).
- 2.2.4) On the literary text pages links are present.
- 2.2.5) All the links are unembedded, except for the links providing the definition of words or expressions of the text of the play. The particular device adopted in this application to accomplish this task helps the integration of the definition with the rest of the text.
- 2.2.6) Once s/he is within the text of a given scene, the reader moves forward and backward through the arrows links. Once s/he reaches the end of a given scene, s/he can automatically pass to the following scene, clicking on the arrows links. However, once s/he reaches the end of a given act, clicking on the arrow links, s/he is brought back to the collection center of the text.<sup>151</sup> Therefore, within a given act, the reader can only browse the text sequentially (no other possibility is offered).
- 2.3.1) Literary text and added materials present a completely different layout. Backgrounds and fonts are different. The background of the screens containing the text of the play is composed of two parts (two frames): the left part (where the text is reproduced) imitates a page of an old book and the right part (where unembedded links are available) reproduces a landscape that is meaningful in respect to the part of the play presented in the left frame (it reproduces the setting of a given portion of the text; in fact, this background changes within a same scene). At the beginning of each video clip with the animated introductive slide which reads “The Globe Theater presents Macbeth”. However, this device distracts the reader (it is “against” a seamless interaction). Also the changing of scene when reading the text of the play is clearly highlighted by the appearance on the screen of a big title with the number of the act and the number of the scene. Characters’ descriptions are displayed in a pop-up window.
- 2.3.2) From a page of the text of the play (without moving to a different collection) the following information is available: background representing an object, a place or a scene emblematic in respect to the text displayed on that screen; indication of the number of the act, of the scene and of the lines of the part of text displayed on that screen; symbols or images of characters (at each cue); characters’ descriptions; linguistic explanations; film video clips and indication of the portion of text to which the film video clip corresponds; thematic or intratextual comments (links “Bytes”); summary of the scene to which the page belongs; paraphrase of the explored page; explanatory video clip about an aspect or character relevant in respect to the content of the

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<sup>151</sup> This is explained by the fact that different scenes of a given act are members of the same collections, while the text of the scenes of each act constitutes different collections.

- explored page.
- 2.3.3) Only the (explanatory and film) video clips and synopsis are accessible independently from the text of the play. All the other materials are accessible only starting from the text of the play. The access to the synopsis is immediately available on the homepage. It is not accessible directly from the text of the play and no link is available from the synopsis to the original text. It is also accessible from “Performances” (help in order to situate the single film video clips within the whole of the story).
- 2.3.4) On the “Bytes” and paraphrase screens an explicit possibility is given to go back to the text (“Return” link”). In the case of (expository and film) video clips the reader is automatically brought back to the text of the play screens. However, generally speaking, added materials don’t provide access to the referred passages of the text of the play.
- 2.3.5) Links between the text of the play and added materials or annotations accessible directly from the text screens are semantic associations (cf. 2.3.2). So is the “Return” link available on some added materials (cf. 2.3.6).
- 2.3.6) Links are either double-way (when the user is on the page of the added material, s/he finds a link “Return” that leads her/him back to the page of the text) or they automatically come back to the page of the text.
- 2.3.7) At the end of video clips the user is automatically brought back to the text of the play.
- 2.3.8) The relationship between the referred passage of the literary text and the added material is always signaled, but this happens in a different way according to the different kinds of added materials:
- Words’ or expressions’ definitions: the words to which the definition refers are highlighted in blue and the definition (in red) substitutes these words on the screen directly within the text of the play; just by rolling-over the synonyms or paraphrase appear at the place of the link. In this way the reader can easily integrate the explanation with the rest of the text.
  - Film video clips: the anchor is set side to the interested portion of the text and the portion of text represented in the video is underlined in red;
  - “Bytes”: the anchor is set at the side of the interested portion of the text;
  - Summary: the content corresponds to the text of a given scene (principle of spatial juxtaposition, but in respect to a wider entity, not in respect to the page);
  - Paraphrase: the content of the paraphrase corresponds to the portion of text displayed on that screen (principle of spatial juxtaposition);
  - Explanatory video clips: their content refers to the portion of the text displayed on that screen (principle of spatial juxtaposition). However, it can happen that in reality the explanatory video clip is not directly relevant in respect to the page of the text at the side of

which it is set. It is the case of the video clip “Image: Candle Life and Death” at V, 1, 1-11, where it even anticipates the development of the story, revealing to the reader an element that the text of the play reveals only later on (at the very end of the play at V, 11, 25-38). In this case the relationship between added material and literary text is not precisely signaled. In some cases the relationship between the video and the part of the text to which side the video is set is not clear. It is for instance the case of the video “Dunkeld Cathedral, Scotland. The scottish Play’s Stage Curse” available at V, 11, 1-9. It has to be noted that a same explanatory video clip can be set side to different portions of the text.<sup>152</sup> For instance, the video clip “Unnatural Evil” can be read in relationship to I, 1, 7-11 and in relationship to II, 4, 12-20; the video clip “Macbeth as Military General” can be read in relationship to I, 2, 10-24 and in relationship to III, 1, 1-11 or V, 3, 21-31; the video clip “King Macbeth 1040-1057” can be read in relationship to I, 2, 57-65 and in relationship to I, 3 102-111; the video clip “The Soliloquy” can be read in relationship to I, 3, 123-137 and in relationship to II, 1, 33-50.<sup>153</sup>

- At the beginning of each cue, side to the name of the speaking character, a photograph of her/him is available; the relationship is manifested by the juxtaposition of the photograph to the character’s name.

2.4.1) –

2.4.2) Thanks to the use of pop-up windows, clicking on the icons of the characters available side to their name at the beginning of each of their cues, it is possible to view simultaneously text and characters’ descriptions.

2.4.3) –

2.5.1) Some elements of the active reference pattern are applied, but not the entire pattern. At the top of each text screen the act and scene reference is indicated. However, there is no navigational tool summarizing the navigational steps the user accomplished in order to reach a given point. Therefore, we cannot state that the pattern is applied. However, since the main navigational possibilities

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<sup>152</sup> The presupposition implied by this design choice is that the literary text will (or can be) read non-sequentially.

<sup>153</sup> Example of the video “Birnam Wood Scotland”: it can be read in relationship to V, 3, 1-12, in relationship to V, 3, 60-64, in relationship to V, 5, 31-40, in relationship to V, 6, 1-9 and in relationship to V, 10, 20-32. In the text of the play Birnam Wood is mentioned in two more passages: at IV, 1, 109-199 (the passage that corresponds to the apparition’s prophecy) and at V, 4, 1-5 (the passage where Malcolm and his soldiers come to Birnam Wood and Malcolm orders them to use branches to hide themselves). At these two points of the text in the hypertextual transposition the video is not made available. This is because the video explains the allusions to Birnam Wood, remembering the reader what Malcom and his men did and remembering the apparition’s prophecy (that is remembering the two events narrated in these two parts of the text where the video is not available). In respect to the passages to which side the video is set, it explains the allusions to Birnam Wood, remembering to the reader its relationship with these two passages of the text of the play.

- correspond to the access of the different acts of the play, this is even not necessary.
- 2.5.2) Generally speaking, during the navigation there is no application of the behaviour anticipation pattern. However, at the entrance of the “Welcome”, “Presenters” and “Performers” collections links the anchor of which is “Click here to ...” can be found. This is an indication of what will happen if the reader decides to click on them.
- 2.5.3) No application of the information factoring pattern.
- 2.5.4) The navigation between text screens of a given scene or text screens of different scenes of a same act is a guided tour. However, the passage between different scenes is signaled to the reader: before displaying the first page of the following scene, the application automatically displays the title (act and scene number) of the scene the reader is beginning to read. This is an element of rupture in the reading process (the contrary of seamless experience). In this guided tour supports to user’s orientation are provided but not in a complete way. In fact at the top of each text screen the act and the scene to which the page belongs are indicated, as well as the portion of text included in the screen (by indicating the lines interval). However, there is no indication about the total number of screens or lines the whole scene entails.
- 3.1) Nowhere information about the intended audience is explicitly provided. However, in the video presentation by the CD-Rom producer included in the “Welcome” collection, it is stated that this hypertextual transposition will be fascinating for the computer users of any age.
- 3.2) –

#### Remarks

The “Credits” page in the “Welcome” collection informs us that the text’s editor is Prof. Gary Taylor (Director, Hudson Strode Program in Renaissance Studies, University of Alabama). From the Website Emelior (<http://www.emelior.com/contact.html>)<sup>154</sup> we discovered that James H. Bride, president and CEO of Bride Media International, was also faculty emeritus at the Noble and Greenough School in Dedham, Massachusetts, where he taught English for 35 years.

The application was produced by Bride Media International (<http://www.bridemedia.com/bmi/>). This company is member of PEP’s Registry of Educational Software Companies (<http://www.microweb.com/pepsite/Software/Publishers/B.html>).<sup>155</sup> From the

<sup>154</sup> “Emelior Corporation was founded in 1999 by Winston Emmons, a teacher, writer, and consultant. ‘The most intelligent, original educational materials are created by teachers,’ he says, ‘but their work rarely gets outside their own schools. Emelior gives them the opportunity to share with the rest of the world the good work they’ve created and also earn ‘merit pay’ for their efforts. The Emelior name means using e-commerce to serve the purpose suggested by the Latin word *melior* -- to make things better -- for children and their teachers” (<http://www.emelior.com/about.html>).

<sup>155</sup> “The PEP site is an informational resource for Parents, Educators, and children's software Publishers. The content of this site has been developed in response to the interests and needs of these three audiences” (<http://www.microweb.com/pepsite/index.html>).

Website Emelior (<http://www.emelior.com/contact.html>) we discovered that “In addition to titles for the global education market, Jim's company produces corporate communications, including *The Ashburn Legacy*, a video profile of the legendary Frank Ashburn, longtime headmaster of the Brooks School in Massachusetts”. This CD-Rom is one of the educational resources offered by the Social Studies School Service (<http://www.socialstudies.com/>).

Annotations and glosses are by Prof. Taylor and Dr. Celia R. Daileader (University of Alabama). Annotation coordination is by Rick Russell and proofreading by Lisa Mercer, Tess Raymond and Rick Russell.

Gary Taylor participated in the edition of *The Complete Works of Shakespeare*. He was Gen. Ed. with Stanley Wells. New York & London: Oxford UP, 1986.

### **MD1) Midsummer Night's Dream – Lingo.uib**

- 1.1.1) The page “What is this?” provides information about coverage.
- 1.1.2) The focus is set on a wide and complete commentary to the text of the play. “The web resources consist of [the complete text](#) of *A Midsummer Night's Dream*, and an extensive [commentary](#) providing summaries of, excerpts from and references to secondary literature on the play. (...) There is also an extensive [bibliography](#), linked to the commentary, and also a [webography](#) to provide pointers to other relevant information on the Web” (“What is this?” page).
- 1.1.3) No print equivalent exists. The commentary seems to have been produced expressly for this hypertextual transposition. The text of the play consists of an already existing electronic version of it by Electronic Text Center, University of Virginia Library (it is TEI-encoded). The print version from which it is drawn seems to be “The Globe Edition” of the Works of William Shakespeare edited by William George Clark and William Aldis Wright (see “About this edition” in the “Text” or “Text and commentary” collection).
- 1.1.4) –
- 1.1.5) Narrative aspects are addressed in the commentary (themes, characters' attitudes and events summaries). One of the entrances to commentary (one of the proposed path through the commentary) consists of paths through different themes of the play. Summaries of scenes should be accessible from the text collection center. However, they are provided only for some scenes. Themes are also developed by intratextual references pointed out in the commentary by giving the possibility to access the part of the text that includes the intratextual reference. In the commentary, also links to other comments related to the explored one are provided.
- 1.1.6) Words' and expressions' definitions or etymologies are provided in the commentary.
- 1.1.7) Two of the entrances to commentary (namely, criticism and context) are devoted to aspects related to text history. Opinions of scholars and critics are

widely reported in the commentary. Philological aspects are not developed in this hypertextual transposition.

- 1.1.8) Aspects related to representations of the play are only occasionally addressed in the commentary. The path “Context” through the commentary also deals with aspects of the play representations. However, no images or theatrical or filmic representation are accessible from this site.
- 1.1.9) Annotations are present. They constitute the commentary, in which three main topics are developed: themes (particularly, gender, love, madness and reason, individuals and society), criticism (different scholars or different approaches) and context (particularly, Elizabethan acting, theatre, London, festivals, riots, role of Queen Elizabeth).
- 1.1.10) Essays are not available.
- 1.1.11) Added materials dealing with narrative aspects of the play consist of verbal written texts (commentary annotations). Some of them are provided by links (possibility to access given passages of the text of the play).
- 1.1.12) Added materials dealing with linguistic aspects of the play consist of verbal written texts (commentary annotations).
- 1.1.13) Added materials dealing with aspects of text history consist of verbal written texts (commentary annotations).
- 1.1.14) Added materials dealing with representations of the play consist of verbal written texts (commentary annotations).
- 1.2.1) It is possible to search the text of the play and the whole site.
- 1.2.2) It is possible to view simultaneously the text of the play and the commentary.
- 1.2.3) No possibility to compare.
- 2.1.1) “Text and commentary” (collection) > “Text” (collection > “dramatis personae”, scenes, “about this edition”, “summary”, members), “Commentary” (collection > different thematic paths through different reading paths, some of which are other collection, while other are members).  
“MOO”: access to MOO.  
“What is this?”: entity. On this page a separated access to the “Text” and to the “Commentary” collections is provided.
- 2.2.1) The user accesses to the text of the play through an index, which constitutes the collection center of the “Text” collection. On the homepage the main access to the text of the play is constituted by the access link to the “Text and commentary” collection. When clicking on it, the screen is divided in two frames. The reader has to choose the scene s/he wants to read in the index.
- 2.2.2) On the homepage the access to the text of the play is not strongly privileged. In fact, the access link “Text and commentary” looks like the other links. This is probably due to the fact that the most innovative part of this site is considered to be the MOO. However, the link providing access to the text is set at the top of the list of possible choices on the homepage. Besides, the “Text and commentary” collection is the only content the site offers in addition to the MOO. In the presentation of the contents of the site in the “What is this?” page the presence of the text comes first (in respect to the MOO).

- 2.2.3) Members of the “Text and commentary” and of the “Text” collection are scenes of the play. The text of the play is divided by scenes. The text of each scene is displayed on a single screen. Therefore, the user has to scroll up and down in order to read it. When accessing the text from the “Text and commentary” collection, the text is displayed in the left frame, while in the right one the commentary is displayed.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Links on the text of the play are unembedded. They are inserted in the text of the play, but they don’t coincide with parts of the text. Their anchor is different according to the kind of information they provide access to. Two different links are available: the “Comment” link (the anchor is red) and the “Context” link (the anchor is blue).
- 2.2.6) Once the reader accessed to the text of a given scene, the reader can continue reading the text sequentially thanks to the link “Read on” placed at the bottom of the text frame. However, the reader can only proceed forward. Two possibilities are prevented, namely going back sequentially and browsing the text non-sequentially. In order to browse the text non-sequentially, the reader is obliged to go back to the index of the text collection center. The index is not displayed on the text screen. These two preventions constitute important differences in respect to printed editions. In fact, in printed editions these two possibilities are not represented, but they are even not prevented. The reader can accomplish them despite the fact that they are not represented. On the contrary, in this site, because of the fact that these possibilities are not represented the reader cannot accomplish them. When the reader accesses to the text of the play from the collection “Text” on the “What is this?” page, the text will be displayed on the whole screen. No frame will be there. If the user clicks on a link to the commentary, the commentary will be displayed in a new window. However, the modality to move within the text of the play is the same as when the text is accessed from the “Text and commentary” collection.
- 2.3.1) The differentiation between literary text and commentary is signaled by the fact that these two different contents are displayed in two different frames of the same page. Besides, the commentary font is different (smaller) than the text font.
- 2.3.2) From the literary text (when accessed from the homepage and visualized in the frames page) it is possible to access to the commentary. The number of the act and the scene is indicated at the top of each text page. Thanks to the presence of frames, it is also possible (so to say) to access the text starting from the commentary. In fact, clicking on a link referring to a given passage of the text of the play contained in the commentary (displayed in the right frame), this passage will be displayed in the left frame.
- 2.3.3) The commentary (the only added material of this hypertextual transposition) can be accessed both from the text of the play or independently on it (from the “Commentary” collection). However, this second possibility is not offered on the homepage, but on the “What is this?” page. Therefore, it is difficult for the

- reader to choose it.
- 2.3.4) The commentary always gives access to the referred passages of the text of the play. There is a little bit of confusion as regards the displaying of these referred passages. In fact, they are usually displayed in the left frame. However, sometimes they substitute the commentary in the right frame.
  - 2.3.5) Semantic associations have been set between commentary and passages of the text of the play and between passages of the commentary referring to or explaining a same word, expression or theme.
  - 2.3.6) Links are one-way. This fact (especially as regards links among different passages of the comment or between comment and text) risks creating some confusion. This feature is very different from the usual features of printed annotated editions and it is one of the most evident causes of the complexity of this hypertextual transposition. In fact, each commentary is full of links leading the reader to other commentaries or to other passages of the text of the play. In fact, links leading the reader to other commentaries aim at creating thematic consistent paths. However, after the user accomplished the first step on one of these paths (after s/he clicked on the link proposing a given path), s/he is left alone. In fact, on the passages of the commentary s/he accesses to, nothing will indicate her/him again how to continue on the chosen path.
  - 2.3.7) No automatically activated element is available.
  - 2.3.8) The relationship between the referred passage of the literary text and the added material is signaled by the anchor juxtaposition in respect to the word or expression of the text the commentary refers to. Also the spatial juxtaposition enabled by the use of frames contributes to the signaling of this relationship.
  - 2.4.1) In order to search the text, the reader has to enter the search tool. However, it is difficult to find. In fact, it is not directly accessible from the homepage. It is only available on the “Entrances to the commentary” page, which can be accessed from the “Text and commentary” collection (clicking then on the link “Enter the commentary” in the right frame) or from the “What is this?” page (choosing then the “Commentary” link). The search tool is a full text search tool on the server that hosts the site. Therefore, it is possible that also pages that are not part of the site are retrieved. As the short text presenting the search possibility on the page “Entrances to the commentary” explains, this tool should be used only if the proposed thematic reading paths don’t satisfy the reader’s needs or questions.
  - 2.4.2) In the “Text and commentary” collection it is possible to view simultaneously the text of the play and the commentary thanks to the use of frames. From the “What is this?” page it is possible to access text and commentary separately. This is not possible from the homepage. From there, it is possible not to activate the commentary in the right frame (and, therefore, to view only the text), but the page will in any case present two frames. In the left frame the reader will visualize the text of the play or the summary, while in the right frame s/he will visualize the commentary.
  - 2.4.3) –

- 2.5.1) No application of the active reference pattern.
- 2.5.2) No application of the behaviour anticipation pattern.
- 2.5.3) No application of the information factoring pattern.
- 2.5.4) The text of the play in the “Text and commentary” collection is organized as a guided tour. However, it is a guided tour that proceeds only in one direction (forward). No support to user’s orientation is provided. On the page “Entrances to the commentary” some thematic paths through the commentary (and therefore also through the text) are proposed. But these paths are not organized as guided tour.
- 3.1) The “What is this?” page provides information about the intended audience.
- 3.2) Students and scholars constitute the primary intended audience. The absence of a translation of the text of the play lets us suppose that the intended audience is composed by English native-speakers. The “What is this?” also states that the main aim of the site use is the studying of the play. “This site is primarily intended as an aid for students and scholars studying the play” (“What is this?” page).

#### Remarks

It has to be noted that this site is not complete. Some links don’t work (see for instance the “Read on” link between III, 1 and III, 2) and summaries are not available for all the scenes.

It is interesting to note that the “What is this?” page explains some possible reading strategies users can adopt. “The Dream site can be read in many ways, either by following themes through the interlinked commentary, by reading the play linearly and reading comments as you are interested, or in a continual play between Shakespeare's text and the comments.”

#### **MD2) BBC Shakespeare on CD-Rom. A Midsummer Night’s Dream**

- 1.1.1) Some information about the hypertextual transposition coverage is available in the introduction of the “Contents” page of the “Help” collection: “The BBC Shakespeare CD-ROM (Midsummer Night’s Dream) is a rich and exciting multimedia resource. At the heart of the CD-ROM is the full text, a complete audio recording of the play itself and video extracts from a recent BBC production. The play is enhanced by a wealth of supplementary background information”. However, this page is not easily or immediately accessible.
- 1.1.2) The aim of this hypertextual transposition seems to be the presentation of a complete experience of the play. Therefore, videos, images and audio files are used as means of presentating the text of the play. Besides, there also is the intention to offer a complete knowledge about the play (see the rich added materials).
- 1.1.3) No print equivalent exists. The “Credits” page lets us suppose that the comment has been partly drawn from Kennedy’s edition of Midsummer Night’s Dream and partly it has been created for this hypertextual transposition. The CD-Rom music theme was composed especially for this

CD-Rom by Arne Richards (orchestration and mixing are by Gerald Garcia; see caption to the CD-Rom music theme in “Adaptations – Music” in the “Performance” collection). The audio version of *Midsummer Night’s Dream* is drawn from HarperCollins AudioBooks.

- 1.1.4) –
- 1.1.5) Addressed narrative aspects are plot and plot-line, summaries (of the whole story, by act and by scene), themes (Love and Marriage, Illusion, Acting and Drama, Discord and Harmony) and characters’ presentation. On the text of the play pages screen backgrounds reproduce images of the landscape where the events narrated in the displayed part of the text take place. They change at each scene in order to reproduce the place and the atmosphere where, according to the text of the play, the story narrated in the scene happens. In some characters’ descriptions a link “Note” is also available. It provides information about how the character has been performed in some performances. The background of each screen reproduces the photograph of an actor performing the character. In this way the reader can see a portrait of the character. For some characters some video clips are also available. They can be clips of documentaries, in which a useful explanation about that character is provided, or clips of the performance of the play, in which that character is particularly important. For some characters also some images are available (with different persons interpreting the character; they work like different possible portraits of the character). For some characters there also are audio files from sound archive, providing information, commentaries and descriptions of the character.
- 1.1.6) Linguistic explanations are provided through the “question mark” and the embedded links on the text of the play (it has to be noted that these annotations also contain information that is not merely linguistic, but that we should widely define cultural or that explains or remembers to the reader the dynamics of the plot, the characters’ strategies and relationships within the narrated story). No translation of the text of the play is available. As regards stylistic aspects, different aspects of the language of the play are exposed in the essays belonging to the “Language” collection.
- 1.1.7) Addressed aspects related to the text history: sources of the play, critical opinions, Shakespeare’s biography (all included in the “Background” collection). No philological aspect is developed in the added material.
- 1.1.8) The essays included in the “Performance” collection, as well as the essay “Acting and Drame” of the “Themes” collection expose topics and characteristics related to different representations of the play. Besides, on the text pages, images, videos and audio files of a filmic representation of the play are available. These elements constitute the core of the application, together with the text of the play (“At the heart of the CD-ROM is the full text, a complete audio recording of the play itself and video extracts from a recent BBC production”, see page “Introduction” in the “Contents” of the “Help” collection). On the homepage a theme music accompanies the reader’s navigation.

- 1.1.9) Annotations are available on the text of the play. They appear in pop-up windows.
- 1.1.10) Several short essays are available. They also contain annotations with linguistic explanations of terms used in the essay (appearing in pop-up windows), explanatory video clips and audio files from interviews.
- 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts (summaries and characters' presentations), but also of schemas (plot-line) and images (screen backgrounds). Essays on themes consist of verbal written texts (both for the very text of the essay and for the annotations to some words or expressions of it), but they also include static images (with captions), videos (expository video clips) and audio files (mainly, recorded interviews or presentations of an aspect of the topic). Their aim is to illustrate aspects of a given topic explained in the text of the essay. In some characters' presentations, besides static images, also film video clips are available. Often captions introduce new information. They don't just say what the image represents. Besides, an image can occur in more than one context (collection). However, images always have the same caption independently on the context in which they appear.
- 1.1.12) Added materials dealing with linguistic and stylistic aspects consist of verbal written text (cf. annotations available on the text screens). Essays on language and stylistic aspects consist of verbal written texts (both for the very text of the essay and for the annotations to some words or expressions of it), but they also include static images (with captions), videos (expository video clips) and audio files. Their aim is to illustrate aspects of a given topic explained in the text of the essay.
- 1.1.13) Added materials dealing with aspect of the text history consist of verbal written texts. However, they also include static images (with captions), videos (expository video clips) and audio files (mainly, recorded interviews or presentations of an aspect of the topic). Their aim is to illustrate aspects of a given topic explained in the text of the essay.
- 1.1.14) Added materials dealing with representations of the play mainly consist of film video clips, audio files and static images. Static images are photographs of characters present at any point of the text (photographs of actors playing a given character in a given performance or photographs of performances of the main scene narrated in the correspondent text).<sup>156</sup> Also verbal written texts are used as to the presentation of general aspects of these representations in the short essays of the "Performance" collection. As the other essays, they also include static images (with captions), videos (expository video clips) and audio files (mainly, recorded interviews or presentations of an aspect of the topic). Their aim is to illustrate aspects of a given topic explained in the text

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<sup>156</sup> Cf. explanation in the page "The Play" in the "Contents" of the "Help" collection: "The play screen represents the stage of a theatre with a background appropriate to the particular scene. Text appears on the left-hand side of the screen, and images of the characters currently on stage appear on the right. The audio plays automatically, and the text is automatically updated so that the two are always synchronized".

of the essay. Different uses of the audio device: recitation (not only aloud reading, but also noises), recitation of segments of the text of the play in relationship to themes or other comments (it has the function to make available, present, the original text), sound archive (with interviews about different topics related to the play), music (basic theme music of the CD-Rom, music or sounds planned in the script or clips of music inspired or related to the play).

- 1.2.1) It is possible to search for words or expressions in the text of the play.
- 1.2.2) It is possible to view simultaneously the text and some added material.
- 1.2.3) No possibility to compare.
- 2.1.1) Plot (collection) > The story (member), Acts and scenes (collection; > Act ... scene ..., members), Plot-line (member).  
 Themes (collection) > Love and Marriage, Illusion, Acting and Drama, Discord and Harmony (members).  
 Language (collection) > Introduction, Verse, Prose, Imagery, Comedy (members).  
 Performance (collection) > Actors and Acting (member), Sets and Scenery (member), Costume (member), Music in the play (member), Adaptations (collection, > Music, Ballet, Cinema, Art, members).  
 Background (collection) > Sources of the play (member), Critical opinions (collection > different scholars with quotations, members), The Life of Shakespeare (collection > The theatre, Early life, London, The Globe, Successful years, Last years, Publication, members).  
 Characters (collection) > Picture Index (collection), Nick Bottom (Pyramus), Cobweb, etc., other characters (members).  
 The Play (collection) > From the Beginning, Act 1 (collection > Scene 1, Scene 2, etc., members), Act 2 (idem), Act 3 (idem), Act 4 (idem), Act 5 (idem).  
 Collections correspond to different semantic aspects of the work. Therefore, they contribute to clarify the different aspects of the literary text significance.
- 2.2.1) The text can be accessed starting from the “Play” collection on the homepage. Two different possibilities are offered: “From the beginning” or “Act ...” and then “Scene ...”. These two possibilities correspond to the option between sequential and nonsequential reading; the first option is probably thought for users who want to read the whole text, while the second is mainly thought for users who want to study or read a precise point of the original text). However, the complete index of the text is not visible in the collection center of the “Play” collection. It is supplied by the scene navigator displayed at the bottom of each text screen of the “Play” collection.
- 2.2.2) The access to the literary text is privileged. In fact, the navigational link to the text of the play collection is placed at the center of the hexagon. Authors explicitly declare that the play is the central object of the application: “At the heart of the CD-ROM is the play of *Midsummer Night’s Dream* itself” (page “The Play” in the “Contents” of the “Help” collection) and “At the heart of the CD-ROM is the full text, a complete audio recording of the play itself and

video extracts from a recent BBC production” (page “Introduction” in the “Contents” of the “Help” collection). Besides, in the “Go back” tools the possibility to access the text of the play is offered. In this way, the existence of this possibility is pointed out. The fact that there always is the possibility to go back to the play is significant of the central role the authors of the CD-Rom assigned to the play itself.

- 2.2.3) Members of the text of the play collection are scenes. The literary text is divided in scenes. The text of each scene is displayed on several pages. Therefore, the user doesn’t need to scroll up and down, but s/he can browse back and forth among the different pages.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) Some links on the literary text are embedded, while others are unembedded (in the sense that their anchor doesn’t coincide with a part of the text itself).
- 2.2.6) Different possibilities are offered to browse the text of the play (cf. the page “Moving around within the play” in the “Contents” of the “Help” section<sup>157</sup>).
- 2.3.1) The differentiation between text of the play and annotations is signaled through the use of a different font, but mainly by the fact that annotations appear in pop-up windows overlapping with the text. Texts contained in the other main collections present the same font as the text of the play. In this case the differentiation is accomplished by the substitution on the screen of the text of the play with these other texts (the reader realizes that s/he is in a different realm).
- 2.3.2) From the text of the play (without moving to another collection) the following information is available: visual background representing the place where the scene happens, linguistic explanations (through the embedded links and through the “question mark” links; these links provide also more widely defined cultural information and information about characters and the plot), film video clips or images of the characters “on stage”, audio file with the recitation; at the top of the page, indication of the number of the act and of the scene to which the page belongs and indication of the place where the scene happens; at the bottom, indication of the total number of pages of the scene and of the number of the page the reader is currently exploring, scene

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<sup>157</sup> “Once you have called up the play, there are several ways of moving to the required place within it.  
- You can move to the beginning of any act or scene by clicking on the appropriate place on the Scene Navigator which runs along the bottom of the screen. The Scene Navigator is divided into Acts and Scenes, with your current position in the play highlighted.  
- You can move to the next scene by clicking on the blue forward arrow in the top right-hand corner of the screen.  
- You can move around within a scene itself by using the page display at the bottom of the text. This tells you the number of pages in the scene and your current position, for example, Page 2 of 12. If the blue down arrow is clicked once it displays the next page. When the blue up arrow is clicked once, it displays the previous page. To page quickly through the text, click on a blue arrow and hold the mouse button down. When you get to the page required, release the mouse button. The blue arrows will change to white at the first or last page of a scene. Click the white down arrow to move to the start of the next scene. Click the white up arrow to move to the last page of the previous scene.  
- You can also use Search to go to a particular place in the play”.

- navigator showing which part of the whole work the reader is exploring.
- 2.3.3) Linguistic and cultural annotations can be accessed only through embedded links available on the text of the play. The same is valid for the representational elements (audio file with recitation, film video clips, characters' images and screen backgrounds). All the other added materials (which mainly consist of essays on different topics) can be accessed both from the text of the play (thanks to the navigation bar) and from the homepage through their correspondent collection. This is also valid for the film video clips. They can be accessed from the text screens or from the "Media index" in the "Tools" collection. Only the audio file with the recitation of the whole play and the images of characters can be accessed only from the text screens.
  - 2.3.4) Within the text of the short essays links to the interesting passages of the text of the play in relationship to the content of the essay are provided. Clicking on these links, the reader can listen to the recitation of these passages. Also when searching the play, the reader can access the passages displayed as results of her/his search.
  - 2.3.5) Links mentioned at 2.3.3 are semantic associations. So are links to the audio recitation of the relevant passages of the text contained in the essays and mentioned at 2.3.4.
  - 2.3.6) Links are always one-way. However, since links connecting added materials to the text of the play provide access not directly to the text but to the audio file with the recitation and since all annotations appear in pop-up windows, the reader never moves to a different page when s/he is reading a given added material. Therefore, s/he almost never needs "to come back". However, a sophisticated "Go back" tool is made available, which includes the possibility to access to the text of the play, the possibility to go back to the main menu of the hypertextual transposition and the possibility to go back to previously visited parts of the hypertextual transposition.
  - 2.3.7) When accessing the text of the play, the audio file with the recitation automatically starts. When the reader is on the text of the play and the audio file with the recitation is on, the following screen substitutes the previous one automatically (automatic browsing of the text). Also the aggiornamento of the images of the characters present in the scene the text of which is displayed in the left frame is automatic. Also the synchronization between an activated video and the displayed part of the text is automatic. Tools are available to the reader in order to control these automatic elements.
  - 2.3.8) The correspondence between the referred passage of the text of the play and the added material is signaled by the fact that the pop-up window with the annotation is displayed almost at the side of the commented passage and by the position of the "question mark" anchor. For some links the correspondence is signaled by the embedded anchor. The signaling of the correspondence between a given page of the text and the images, audio file and video clips of the theatrical representation of the play relies on the use of synchronized frames. In the case of the short essays the correspondence is

signaled by the fact that only the recitation of the precise relevant passage is made available. In the case of embedded links the relationship is signaled by the anchor of the links themselves. The portion of the text to which the annotation refers is the part of the text that constitutes the anchor.

- 2.4.1) In the “Tools” collection the function “Search the play” is available. It allows to search for a word or an expression within the text of the play and then to access to the passages of the play where the word or expression has been found and to copy the results of the search. It is also possible to search for a word or expression in the whole content of the hypertextual transposition (tool “Find” in the “Tools” collection). Another interesting possibility is offered in order to search the play in the “Themes” collection. At the top of each page a “Trying searching the play for ...” tool is offered, where keywords relevant in respect to a given theme are suggested.
- 2.4.2) Thanks to the use of frames and thanks to the use of pop-up windows, when reading the text, it is possible for the reader to consume simultaneously different kinds of content, namely the text itself, annotations, images of characters and their captions, video clips of the film, recitation of the play.
- 2.4.3) –
- 2.5.1) The active reference pattern is only partially applied. In fact, thanks to the detailed titles present on each page, the reader always knows which part of the hypertextual transposition s/he is exploring. And, thanks to the navigation bar, which is always displayed, s/he can easily move from a collection to another one. However, these two functionalities are not gathered in a unique device.
- 2.5.2) The behaviour anticipation pattern is applied in the text of the play collection. There, when rolling over each one of the available arrow links or buttons, a label appears explaining its function and, therefore, preventing the reader about what happens if s/he clicks on it (about its effect). The same is done in all the other sections correspondently to the arrows links available at the top of the page (a label “More ...” or “Previous” appears).
- 2.5.3) The information factoring pattern is not applied. When the reader browses a given short essay in one of the main collections starting from the text of the play, the essay is displayed in the same way it is when the reader accesses it through the corresponding collection. In fact, the reader is moved from one collection to another one.
- 2.5.4) Guided tours (slide shows) are offered when accessing the visual and audio elements through the “Media Index” of the “Tools” collection. Also the navigation within the text of the play is organized as a guided tour. In fact, when the reader moves to the next/previous scene (of the same act or of a different act) by clicking on the blue forward/backward arrow in the top right/left-hand corner of the screen.<sup>158</sup> When the audio file of the recitation is on, the guided tour proceeds by its own, automatically (the displayed text always corresponds to the portion of text that is recited in a given moment).

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<sup>158</sup> This means that the different collections corresponding to the different acts are linked in order to allow the reader to navigate among them sequentially.

However, the reader can stop it, go back or forth, that is, s/he can take the control over this automatic device.<sup>159</sup> Supports to user's orientation are complete. In fact, at the top of the page the number of the act and of the scene to which the page belongs is displayed, while at the bottom of the left frame occupied by the text, the total number of pages of the scene as well as the number of the currently displayed page are indicated. This is also valid in the added material pages. The application of the behaviour anticipation pattern warns the reader about the changing of the page or of the scene (rolling over the arrow, instead of the label "Previous/Next Page", the label "Previous/Next Scene" appears).

- 3.1) No page provides clear information about the intended audience.
- 3.2) --

### **MM1) Interactive Shakespeare**

- 1.1.1) The "Introduction" page of the Interactive Shakespeare Project provides information about the hypertextual transposition contents. They are a new edition of the text, glossary annotations, study prompts, pertinent essays, exercise prompts, folio facsimile, photographs, video, reviews, Virtual Globe and links.
- 1.1.2) Many of the added materials aim to make this hypertextual transposition suitable and useful for didactic purposes (cf. exercises, essays dealing with pedagogical issues for teachers, questions for further reflection). Special focus is devoted to aspects of the play performance.
- 1.1.3) No print equivalent exists. Also the included version of the text of the play and the theater performance from which images and videos are drawn have been expressly produced for this hypertextual transposition. The commentary has been created for this hypertextual transposition (see page "Site Credits" in the "Credits" collection).
- 1.1.4) --
- 1.1.5) Observations and comments about narrative aspects can be found in annotations and questions available on the text screens (explanations or hints about characters' behaviours and themes). Play themes and characters' attitudes (characters' psychology) are also addressed in some essays. The play fable is provided in the "Production notes" essay.
- 1.1.6) Linguistic explanations of words or expressions are provided by annotations available on the text screens. Discussion about the genre (is the play really a comedy?) and style of the text can be found in the essay "Introduction to *Measure for Measure*". An exercise for editing a passage of the play in modern English is proposed.

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<sup>159</sup> This is an example of the application of the "Eigenzeit" principle which is, according to Mok, one of the main criteria for the evaluation of a successful interaction in multimedia contexts and it corresponds to the criterion of *Kosistenz* in the *vier K's* criteria scheme (Eppler 1999: 139).

- 1.1.7) Considerations about the historical context in which the play was written and about the history of the text (date of production and first edition) are provided in some essays (cf. “Introduction to *Measure for Measure*”). Philological aspects are developed. On the text pages, side to certain passages of the text, “Folio” unembedded links are available. They provide access to the “Folio comparison”. “Folio comparison” consists of a page, structured as a table, where the reader can view simultaneously the transcription of the text of the play starting from the point to which side the link was set (on the left), the image of the correspondent page of the Folio (on the right) and a comment about stage direction and performance of the text (at the bottom). In the “Teacher’s Guide” collection (which is also accessible from the “Folio Comparison”) an essay about the importance of folio comparisons is available. “In order to explore issues of editing and performance, teachers and students are able to compare specific passages of the Interactive Shakespeare edition to an original Folio version of the play” (“Introduction” page on the homepage of the Interactive Shakespeare Project).
- 1.1.8) Considerations about generic aspects of play performances and peculiarities of specific performances can be found in some essays and also in the comments provided in the “Folio comparisons”. Exercises about different options of performance of given passages of the play are proposed. Changing images with scenes of the theatrical representation of the scene the reader is exploring are available at the top of the right frame on each text page. Besides, from the text page of each scene it is possible to access to movie clips. A collection “Review” is available on the “Main Menu”. It is “a collection of performance reviews of various productions of *Measure for Measure* in the United States and England” (“Introduction” page of the homepage of Interactive Shakespeare Project).
- 1.1.9) Annotations are present on the text screens. Mainly, they provide linguistic explanations. However, they also occasionally provide clarifications about characters’ attitudes, information about the historical context in which the play has been produced and more widely cultural information.
- 1.1.10) Several essays are present. “A range of essays dealing with thematic, historical, performance and pedagogical issues” (“Introduction” page on the homepage of the Interactive Shakespeare Project). There, observations, explanations and comments dealing with all the four different aspects of the text significance can be found (in a “mixed way”).
- 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts (annotations, essays or parts of essays).
- 1.1.12) Added materials dealing with linguistic and stylistic explanations consist of verbal written texts (annotations and parts of essays).
- 1.1.13) Added materials dealing with aspects of text history consist of verbal written texts, but also of images of folio pages.
- 1.1.14) Added materials dealing with representations of the play consist of static images and video clips. “Over 350 photographs accompany the scrolling text. This assists students in visualizing the action” (“Introduction” page on the

homepage of the Interactive Shakespeare Project). “Students are able to watch key transitional moments in each scene of Measure for Measure that investigate performance choices. A full hour of video and audio will be available to users of the site” (“Introduction” page on the homepage of the Interactive Shakespeare Project). Also verbal written texts are used in order to develop aspects related to representations of the play (cf. “Review” collection and comments available on the “Folio comparison” pages).

- 1.2.1) No possibility to search the text.
- 1.2.2) It is possible to view simultaneously text of the play and annotations and questions.
- 1.2.3) The possibility is offered to compare parts of the transcription of the text of the play and the reproduction of the correspondent folio page.
- 2.1.1) “The Play” (collection) > different scenes (members).  
“Teacher’s Guide” (collection) > several essays (members).  
“Essays” (collection) > several essays (members).  
“Exercises” (collection) > several essays (proposal for exercises, members).  
“Reviews” (collection) > several essays (reviews, members).  
Resources and links (collection) > list of interesting sites (member).  
“Credits” (collection) > several short texts (members).
- 2.2.1) The text of the play can be accessed only through the index displayed on the “Main Menu”.
- 2.2.2) On the “Main Menu” the access to the text of the play is privileged. It occupies a central position on the screen and a wider portion of the menu. The whole index of the play is made available.
- 2.2.3) Members of the text of the play collection are scenes. The text of the play is divided by scenes. The text of each scene is displayed on a single screen. Therefore, the user has to scroll up and down in order to read the whole text.
- 2.2.4) On the literary text pages links are present.
- 2.2.5) On the text of the play screens both embedded and unembedded links are available. Embedded links provide access to linguistic explanations or to annotations, the aim of which is to help the reader in understanding what it is narrated, the meaning of used words or expressions. Unembedded links provide access to contents of other collections (“Essays”, “Exercises”, “Folio”) or to questions that should help the reader in reflecting upon given passages of the text. Asterisk links have an embedded anchor, but they provide information similar to that provided by embedded links (unless referring to a wider portion of the text of the play).
- 2.2.6) In order to browse the text, the reader has to choose a scene in the index of the “Main menu”. Once s/he entered a scene, s/he has to scroll up and down in order to read the whole text. S/he can proceed in a sequential way thanks to the next/previous links available in the navigation bar. In order to browse the text of the play non-sequentially, s/he can go back to the index through the “Main Menu” link and there s/he can choose another scene.
- 2.3.1) The differentiation between literary text and annotations and questions is signaled by the fact that annotations and questions are displayed in another

- frame.
- 2.3.2) The number of the act and scene of the displayed part of the text is indicated both in the navigation bar and at the top of the text frame. From the text screens it is possible to access annotations with linguistic explanations and explanations of characters' behaviours or cultural information (as it is explained in the "Introduction" page on the homepage of the Interactive Shakespeare Project, "definitions of words that are either unfamiliar to modern readers or words whose meaning have changed over time, and textual exegesis"). Besides, correspondently to relevant passages of the text, it is possible to access to essays, exercises, folio comparisons, questions for further reflection. Changing images drawn from a theatrical representation of the scene the reader is exploring are directly available, as well as an image of a Shakespeare's portrait. It is also possible to access to movie clips of the explored scene. Access to the previous/next scene is offered, as well as access to the "Main Menu" (that is, to the all other collections and to the index of the play).
- 2.3.3) Annotations, questions, images and movie clips are accessible only from the literary text. Folio comparisons are accessible either from the literary text or from the essay "Folio Comparisons" in the "Teacher's Guide" collection. Essays and exercises are accessible either from the literary text or from their respective collections. Reviews and information about other resources and links are accessible only independently on the literary text, starting from their respective collections.
- 2.3.4) On the added material pages access to the text of the play is always made available. However, the text of the play is not accessed at a precise point, but at the beginning of the scene to which the added material is relevant. As to essays, this is due to the fact that they deal with aspects concerning the whole text or the whole scene. For annotations and questions the problem doesn't exist, since, thanks to the use of frames, the information is displayed on the same screen of the text.
- 2.3.5) In this hypertextual transposition semantic associations are used in order to relate text and added material. In fact, all the links available on the text pages are semantic associations. They relate the text to annotations, questions, essays, exercises, folio comparisons, video clips. On the contrary, no semantic association has been set among different added material.
- 2.3.6) "Essay", "Exercise" and "Folio" links are double-way. Once the reader left the text of the play in order to explore the related content, a special link ("The Play") is available in order to go back to the text (to the scene s/he was exploring). This problem is not relevant as regards the other embedded and unembedded links available on the text, since the information to which they give access is displayed on the same screen of the text (this is possible thanks to the use of frames). This is also valid for the movie clips. They are displayed in a small new window. The presence of double-way links supplies the shortcoming of the substitution of the text by the added material on the screen (see 1.3.3).

- 2.3.7) The changing images of representation of the scene the reader entered are automatically displayed. No other element is automatically activated.
- 2.3.8) The relationship between the referred passage of the literary text and the added material is signaled by the anchor position or by the anchor itself (in the case of embedded links the anchor coincide with the part of the text to which the annotation refers). As regards changing images and movie clips, the relationship is signaled by the spatial juxtaposition. Since a given image appears side to the text of a given scene, this image refers to that scene. In the same way, since the access link to movie clips appears on the text screen of a given scene, it refers to that scene.
- 2.4.1) –
- 2.4.2) Both the possibility to compare the text and reproductions of folio pages and the possibility to view simultaneously the text and annotations is offered by the use of frames. Therefore, the reader only has to click on the correspondent link and s/he will be able to view simultaneously both types of contents.
- 2.4.3) Cf. 2.4.2.
- 2.5.1) No application of the active reference pattern.
- 2.5.2) No application of the behaviour anticipation pattern.
- 2.5.3) No application of the information factoring pattern. In fact, added materials of the different collections appear (are presented to the reader) in the same way when the reader accesses to them from a passage of the text of the play or from their respective collections.
- 2.5.4) The guided tour pattern is applied within the text collection. In fact, once the reader accessed to the text of a given scene, s/he can browse the previous or the next one sequentially, thanks to the apposite links available at the top of the page. The guided tour continues also between scenes belonging to different acts. Supports to user's orientation are not provided.
- 3.1) The "Introduction" page of the Interactive Shakespeare Project provides information about the intended audience.
- 3.2) Students and educators are the primarily intended audience. The absence of a text translation lets us suppose that the intended audience is composed of English native-speakers.

### Remarks

The hypertextual transposition of Measure for Measure is part of a wider site dedicated to the Interactive Shakespeare Project of the College of Holy Cross, Worcester, Massachusetts. This project also includes a VRML of the Globe Theater ("The Virtual Globe enables students to enter the theatre where Shakespeare's plays were originally performed and to manipulate virtual actors in cyberspace", see "Introduction" page), in which it is also possible to find more historical information (about London in 1600 and about the Globe). In this analysis I will consider only the very hypertextual transposition and I leave apart the rest of this site. Therefore, I consider the "Main Menu" as the homepage of the hypertextual transposition.

## **O1) Odissea – Rizzoli New Media**

- 1.1.1) The animation “Visita guidata” (which starts automatically when the reader accesses the CD-Rom) illustrates which are the contents of the application.
- 1.1.2) No particular aspect is emphasized in the animation “visita guidata”. However, the aim of the application seems to be to provide a knowledge as wide and as thorough as possible of the culture and the world narrated in the poem (cf. particularly the collection “Il mondo di Odisseo”). The aspect of entertainment is however very present. In fact, a whole section is dedicated to plays. Also exercises and pages dedicated to persons using the application in order to study the poem are available. These two elements let emerge the edutainment character of the application.
- 1.1.3) A partial print equivalent is provided with the CD-Rom. It is a reprint of the edition Omero, Odissea, a cura di Maria Grazia Ciani, commento di Elisa Avezzù, Venezia: Marsilio Editore, 1994-2000.
- 1.1.4) The print edition that is provided the CD-Rom includes less material than the CD-Rom. The commentaries of each canto are available both in the printed edition and in the hypertextual transposition. However, all the other essays included in the “Il mondo di Odisseo” collection, as well as the contents of the “Gli incontri” collection, are not present in the printed edition. Therefore, the hypertextual transposition is richer than the printed edition.
- 1.1.5) Descriptions of the characters in the left bottom frame on the text screen. The “Incontri” collection describes the *fabula* of the story (it describes Odysseus’ journey in a chronological order). At the same time it shows the geographical setting of the poem. Cantos summaries are provided (directly on the homepage, before the reader accesses a given canto and on each film video clip screen). Explanations about the historical setting or further explanations about characters, geographical setting, themes, etc. are included in the different essays and in the “Per saperne di più” cards (which accompany the film video clips). However, there, generally speaking, they are “mixed” with other kinds of information. For the historical setting, cf. particularly the “Vita quotidiana” and “Tra storia e mito” collections of the “Il mondo di Odisseo” collection. For themes, cf. particularly the paragraphs of the didactic cards intitled “I motivi di repertorio”. Cf. also the paragraphs intitled “Comprensione del testo: i contenuti”. Reproduction of paintings representing some characters or some aspects of the historical context of the poem or photographs of some places mentioned in the poem are available, even if not in a systematic way (cf. particularly images available on some essays screens).
- 1.1.6) No particular explanation of linguistic aspects of the text, except for the availability of the Greek original text. This unusual lack (linguistic explanations are one of the usual contents of hypertextual transpositions) is due to the fact that the central text of this hypertextual transposition is not the original one, but its modern Italian translation. In fact, the modern Italian translation of the poem is the “default” text (the one to which the reader

accesses through the “Il poema” collection). The original Greek text is accessible only as added material from the page of the Italian translation, when the reader clicks on the link “Apparati testuali e multimediali” (the original text is one of the available “Apparati testuali e multimediali”). The original text will be accessed in a PDF format. Besides, the original text is in verse, while the translation is in prose. In the didactic cards of the “Per chi studia” collection of the “Il mondo di Odisseo” collection paragraphs dedicated to different aspects of “Il linguaggio di Omero” are developed. Cf. also paragraphs intitled “Gli espedienti narrativi”.

- 1.1.7) No added material is explicitly devoted to aspects of literary text history. Information about the author, the history of the text, the historical context in which it was written and about sources are provided within the various essays and in the “Per saperne di più” cards (they are “mixed” with other kinds of information). No added material about philological aspects is provided.
- 1.1.8) Available added materials dealing with representations of the play are film video clips, reproduction of paintings representing scenes of the poem and audio files with aloud reading of some passages of the poem. No description or consideration is developed about the filmic representation of the poem.
- 1.1.9) Annotations are available only for the description (definition) of characters appearing in the poem.
- 1.1.10) Many essays are available. All the “apparati testuali” are practically constituted by essays.
- 1.1.11) Added materials dealing with narrative aspects consist mainly of verbal written texts. However, also static images (reproductions of paintings, drawings, objects or photographs representing characters or places) contribute to them. Very interesting is the visual representation of the *fabula* by means of the collection center of the “Gli incontri” collection, which is a map of Odysseus’ journey.
- 1.1.12) Added materials dealing with linguistic and stylistic aspects consist of verbal written texts.
- 1.1.13) Added materials dealing with aspect of the text history consist of verbal written texts.
- 1.1.14) Added materials dealing with representations of the poem consist of videos (film video clips), static images (reproductions of paintings drawings, objects or photographs representing scenes of the story) and audio files (for the aloud reading of some passages).
- 1.2.1) No possibility to search the text is offered, even not when the reader is on the text of the poem.
- 1.2.2) It is not possible to view on a same screen text and essays. On the contrary, annotations (about characters) and the text are displayed at the same time, as are text and image representing the main scene of the canto and the film video clip and the summary of the episode represented in the clip. It is also possible, when listening to the audio files with the aloud readings of some passages, to see and read at the same time the text of the correspondent passage.
- 1.2.3) Generally speaking, no possibility to compare is offered. For instance, it is not

possible to compare the modern English translation and the Greek original text.

2.1.1) “Il Poema” (collection) > α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, τ, υ, φ, χ, ψ, ω (members).

“Il mondo di Odisseo” (collection) > “Commento ai canti”, “Vita quotidiana”, “Tra storia e mito”, “Per chi studia”, “Immagini”, “Brani audio” (collections).

Members of this collection are the various essays.

“Gli incontri” (collection) > presentations of eleven important encounters Odysseus made in his journey. Each encounter is a member and it is composed by a film video clip, a summary and a card “Per saperne di più”.

“Giochi” (collection) > games about the narrated story. The possibility to access them by theme is offered, as well as the possibility to simply choose a game from the list.

Collections correspond to different semantic aspects of the work. Therefore, they contribute to clarify the different aspects of the literary text significance.

2.2.1) The reader accesses to the text of the poem through the main index available on the homepage. There, a symbol for each canto is available. Within a given canto, then, the index of its different paragraphs is available in a bottom frame. Besides, in the top navigation tool bar the main index of the poem remains available. In this way the reader can choose to visit a different canto. The Greek original text can be accessed only starting from the Italian translation. Besides, the reader accesses the PDF version of the canto only, not of the whole poem. In order to access the Greek text of another canto the reader has to access the correspondent collection with the modern English translation and choose the “Apparati testuali e multimediali” within this collection.

2.2.2) The access link to the collection “Il poema” on the homepage is differentiated in respect to the access links to the other collections, but not in an evident way. The access to the “Il poema” collection is set on the left side of the screen (while the access to the other collections is set on the right side). Besides, it occupies more room and more information about it is immediately available to the reader. The content of the collection is detailedly displayed (this is the same for the collection “Il mondo di Odisseo”). A very short summary for each canto is already available when rolling over the symbol of the canto, as it is the image identifying the canto (which is displayed in a bigger size in respect as the other images are).

2.2.3) Members of the literary text collection are cantos. The text of the poem is divided in cantos. The text of each canto is presented on several screens. The reader has to page forth and back in order to read it. Below the electronic version of the text of the poem the index of the different paragraphs of the displayed canto is available and it is useful for the reader in order to move non-sequentially within the canto and in order to get oriented about its content.

2.2.4) On the literary text pages links are present.

2.2.5) Only links providing access to annotations about characters are embedded.

- All the other links are unembedded.
- 2.2.6) Once the reader accessed the text of a given canto, in order to browse the text of the poem, two possibilities are available. First, the reader can move within the pages of a given canto by means of the arrow links set at the end of each page (previous/next; sequential reading). Second, s/he can use the index of the paragraphs of the canto, which is displayed in the lower left frame (non-sequential reading). In order to browse a different canto, the reader has to use the links available in the navigation bar.
- 2.3.1) The differentiation between text and added material is signaled through the use of a different font for annotations (about characters) and essays, but also by the use of frames. However, the differentiation through different fonts is not very striking. Annotations (about characters) appear in a different frame in respect to the text of the poem. So do indexes. Essays substitute the text of the poem on the screen. In order to access them the reader has to click on the link “Apparati testuali e multimediali”. This action makes her/him aware of the fact that s/he is accessing something different in respect to the text of the poem.
- 2.3.2) From the literary text screens the following information is directly accessible: title of the canto, index of the canto, definition and description of mentioned characters, image which is thematically related to the canto (with an explicative caption) and essays the theme of which is related to that canto.
- 2.3.3) Annotations about characters are accessible only from the text screens. The number of each canto (more precisely, the letter identifying the canto) is always indicated on the text screens backgrounds. The other added materials are accessible both from the text (through the link “Apparati testuali e multimediali”) and from the homepage through one of the available collections. Film video clips can be accessed only from the apposite collection. They cannot be accessed starting from the correspondent passage in the text of the poem.
- 2.3.4) From added materials it is almost always possible to access the text of the poem. The problem doesn’t exist for annotations about characters, since they are displayed simultaneously with the text of the poem (cf. above). For each essay of one of the collection of the “Il mondo di Odisseo” collection it is possible to access the text of the canto where aspects and topics exposed in that essay are more present. From each member of the “Gli incontri” collection it is possible to access to the correspondent canto. On the contrary, from games of the “Giochi” collection no direct access to the text of the poem is provided.
- 2.3.5) Embedded links (providing access to annotations about characters) are semantic associations. So are the links offered at the end of some annotations to some essay where a topic mentioned in the annotation is more widely developed. Also the link “Apparati testuali e multimediali” is a semantic association between entities of the collection “Il poema” and entities of the collection “Il mondo di Odisseo”. So are the links that from the entities of the collection “Gli incontri” allow the reader to access the text of the poem.

- 2.3.6) Links are one-way. In order to go back to the previous point the reader was exploring, s/he has to use the tool “Indietro” provided in the navigation bar.
- 2.3.7) The initial animation “Visita guidata” and the music when accessing the collection “Giochi” are automatically activated.
- 2.3.8) Generally speaking, the relationship between referred passage of the literary text and added material is not signaled in a precise way. In fact, essays are associated to a whole canto. There is no indication of the more interesting part of a given canto in respect to a given essay. However, on the essay screen background the letter identifying the canto to which a given essay refers is indicated. Besides, when the essay is accessed from the collection center “Il mondo di Odisseo”, this letter is indicated at the right side of the title of each essay. Also the relationship between a given member of the “Gli incontri” collection and the correspondent canto (between a given film video clip and the text of the poem) is not signaled in a precise way. The possibility to access to the canto to which the episode represented in the video clip belongs is offered, but within the canto the passage precisely corresponding to the video clip is not signaled. For annotations (about characters), the relationship is very precisely signaled thanks to the embedded anchor and the use of frames.
- 2.4.1) –
- 2.4.2) The possibility to view at the same time the text and annotations about characters or other added materials is offered through the use of frames.
- 2.4.3) –
- 2.5.1) The active reference pattern is not applied. When the reader accesses to a given canto, the symbol identifying this canto is displayed on the left top corner of the screen and the index of the all cantos remains available in the navigation tool bar. However, these two functionalities are not combined in a unique device. Besides, when visiting the members of the other collections, no indication is provided about the group to which this entity belongs or its position in respect to the whole content of the collection (see “Gli incontri” and “Il mondo di Odisseo”).
- 2.5.2) The behaviour anticipation pattern is partially applied. In fact, when rolling over the names of the different collections and collections available on the homepage, a text resuming the content the user can find in it appears. This is a help to the reader in order to choose the right collection. Besides, the anchors of the different links are quite explicit and images in anchors are always accompanied by texts that clearly explain their meaning and therefore they give an important orientation to the reader. For instance, the anchor of the links previous/next in each member of the “Gli incontri” collection explains “Vai al prossimo filmato” and “Torna al filmato precedente” (however, it is not clear that “prossimo” and “precedente” refer to the chronology of Odysseus’ journey). Also the meaning of the tools available in the navigational tool bar (back, print, help, quit) is made explicit by a text accompanying the icons: “indietro”, “stampa”, “aiuto”, “uscita”.
- 2.5.3) The information factoring pattern is not applied. In fact, when a member of a given collection is accessed starting from another collection, the content is

displayed as part of this collection. This implies that the reader really has the feeling to change subject, to move to a different part of the application, to be brought away from what s/he was exploring before. It is for instance the case of the access to the text of the canto starting from the members of the “Gli incontri” collection or the access to the different essays starting from the “Il mondo di Odisseo” collection.

2.5.4) It is possible to navigate as a guided tour within the text of the poem and within the members of the “Gli incontri” collection. No support to user’s orientation is provided.

3.1) No information is provided about the intended audience.

3.2) –

#### Remarks

It wasn’t possible to find information about the authors of the contents of this application (Giulia Lucchelli and Carla Scimone for “Il poema”, indice e note; Silvia Grassi for “Gli incontri”, “Per saperne di più”; Roberta Manfrinato e Caterina Massai for “Il mondo di Odisseo”, “Tra mito e storia”; Roberta Manfrinato for “Il mondo di Odisseo”, “Vita quotidiana”). We only know that Sarita Segre (editorial coordination) also collaborated to the production of the Enciclopedia Multimediale Rizzoli. Simonetta Noferi provided the educational advice.

The application is produced by Rizzoli New Media.

#### **RJ1) William Shakespeare’s Romeo & Juliet – Bride Digital Classic**

1.1.1) Coverage is clarified in a video presentation of the CD-Rom by its producer included in the “Welcome” collection. It has to be said that this video presentation is not immediately accessible.

1.1.2) The CD-Rom coverage seems to consist mainly of the presentation of Romeo and Juliet play considering Shakespeare’s style, Renaissance culture and the world where the play is staged. Therefore, the aim is mainly the contextualization of the play.

1.1.3) No print equivalent exists. Both explanatory and film video clips seem to have been produced expressly for this application. The “Credits” page in the “Welcome” collection informs us that the text editor is Prof. Gary Taylor (Director, Hudson Strode Program in Renaissance Studies, University of Alabama). No information is provided about the reference edition for the text of the play. However, Gary Taylor participated in the edition of *The Complete Works of Shakespeare*. He was Gen. Ed. with Stanley Wells. New York & London: Oxford UP, 1986. In this edition no annotation is available. Only Shakespeare’s texts with short introductions are provided. The “Credits” page informs us that glosses are by Celia R. Datleader, University of Alabama, paraphrase is by Rick Russell and Dr. Daileader, formatting and editing of glosses are also by Rick Russell. Therefore, we should conclude that added materials included in the hypertextual transposition (namely, annotations, paraphrase, synopsis, characters’ description and summary) have been created

- expressly for the hypertextual transposition.
- 1.1.4) –
  - 1.1.5) Addressed narrative aspects are characters (image of them and description), synopsis (summary of the narrated story), summary of each scene, presentation of themes of the play in the expository video clips, screen backgrounds representing places or objects involved in the narrated story and confession links signalling when a risky action is taking place.
  - 1.1.6) Linguistic aspects are addressed. Words' and expressions' explanations on the pages of the text of the play are provided, as well as paraphrase. Jester, foreshadowing and censored links provide information about the style used at a given point of the text. Several expository video clips deal with stylistic aspects. No translation of the text of the play is provided.
  - 1.1.7) No explanation about the text history is provided, except for some occasional hints in expository video clips. Philological aspects are not addressed.
  - 1.1.8) Video clips of the filmic representation of the play are available. This film seems to have been produced expressly for this hypertextual transposition. No exact reference is provided. Only on the "Credits" page of the "Welcome" collection names of the people that collaborated in the videos production, indication of where they have been produced and a list of the names of all performers are available. However, no difference is signaled between explanatory video clips and film video clips. Even not in the "Performers" collection (from where the different film video clips can be accessed) information about the film can be found. A theme music accompanies the reader's navigation on the homepage. Some of the expository video clips deal with general aspects of the play performances.
  - 1.1.9) Annotations are present on the text of the play screens.
  - 1.1.10) Expository video clips can be considered a sort of essays.
  - 1.1.11) Added materials dealing with narrative aspects consist of verbal written texts. However, also videos and static images contribute to them. Expository video clips contain images of the presenter, but also characters' images (since they also include very short clips of film) or of places that have to do with the play. Static images consist of characters' portraits (a photograph or reproduction of a painting; at each cue the portrait of the speaking character is available; it constitutes the anchor of the link bringing the reader to the correspondent character's description) and screen backgrounds (representing an object, a place or a scene emblematic in respect to the text contained in the page). Summaries consist of a short video clip (two presenters narrating the major events of the scene). The anchor of the confession links is used to point out to the reader's attention the happening of given events.
  - 1.1.12) Added materials dealing with linguistic and stylistic aspects of the play consist of verbal written text, but also of expository video clips and links anchors.
  - 1.1.13) –
  - 1.1.14) Added materials dealing with representations of the play consist mainly of film video clips. Audio files are also used in this hypertextual transposition

for providing a musical background when the user is visiting the main menu. In the whole hypertextual transposition different uses of the audio device can be detected. It can be used for the recitation of the play or for an explicative text about some aspects of the play. It is also used for noises when the user chooses a scene or when s/he browses from a page of a scene to another (the same noise we hear when turning the page of a book).<sup>160</sup> Video clips are also used to provide knowledge about general aspects of the play performances.

- 1.2.1) No possibilities to search the text.
  - 1.2.2) No possibilities to visualize at the same time text and added material, except for characters' descriptions. They appear in a pop-up window in the up right corner of the screen and, therefore, they can be seen in comparison with the text of the play.
  - 1.2.3) No possibility to compare.
  - 2.1.1) Act 1 (collection) > Scene 1 (...) Scene 5 (members).  
 Act 2 (collection) > Scene 1 (...) Scene 5 (members).  
 Act 3 (collection) > Scene 1 (...) Scene 5 (members).  
 Act 4 (collection) > Scene 1 (...) Scene 4 (members).  
 Act 5 (collection) > Scene 1 (...) Scene 3 (members).  
 Welcome (collection) > Macbeth, Romeo and Juliet, Credits (members).  
 Video with presentation of the application and of the series to which it belongs.  
 Presenters (collection) > explanatory video clips organized by presenter (members).  
 Performances (collection) > film video clips organized by act (members).  
 From this collection center the link to the synopsis is available.  
 Help: it is a member, not a collection (animation explaining the navigation). It is a slide show explaining the meaning and function of all the available links. It is useful because some of them are quite "hidden"; therefore, it is difficult for the reader to be aware of their existence. It is for instance the case of:
    - The photograph of the character is the anchor of a link that makes available biographical information about a given character.
    - The page number at the bottom of the screen: it provides access to a collection "The Persons of the Play".
- Synopsis: it is a member, not a collection (summary of the whole story).  
 The collection gathering all the characters' descriptions is not available from the main menu. It is only available by clicking on the page number of the text screens. However, it also is a collection, the members of which are the descriptive texts of all the characters. On the collection centre a "Return" link bringing the reader back to the scene s/he was reading is made available.

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<sup>160</sup> The background of the part of the screen where the text is displayed represents an old sheet. When clicking on the arrows links in order to browse between different text screens, the noise we usually produce when turning the pages of a book is reproduced. These elements try to imitate the reading act of a book. Their aim seems to be to make the reader familiar with the application trying to give her/him the same sensations s/he has when reading a book. However, this is not useful to enhance the understanding of the text meaning itself.

- 2.2.1) Only one possibility is offered in order to access to the text of the play: choose one of the collections corresponding to the different acts of the play and then choose one of the members corresponding to the different scenes. Therefore, the access to the text of the play happens through an index that distinguishes acts and scenes. Here, the complete index (the one that is usually printed at the beginning of a printed edition of the play) is divided in two hierarchical layers: first, the reader chooses the act s/he wants to access (collections) and, second, s/he chooses the scene (member). Therefore, the reader doesn't have a complete overview on all the parts of the text. This also happens because, on the collection center of an "Act ..." collection, scrolling menus are used. Therefore, the reader has to move forward and backward. The access to the scenes belonging to this act is not presented on a unique page.<sup>161</sup>
- 2.2.2) The access to the text of the play is very much privileged. In fact, collections providing access to the different acts occupy almost the whole main menu. The font of their access link is bigger than the font of the other access links.
- 2.2.3) Members of the "Act ..." collections are scenes. The text of the play is divided in scenes. The text of each scene is displayed on several pages. The user passes from one page to the other by clicking on the arrows links (s/he doesn't have to scroll up and down, but s/he has to browse).
- 2.2.4) On the literary text pages links are present.
- 2.2.5) All the links are unembedded, except for the links providing definition of words or expressions of the text of the play. The particular device adopted in this application to accomplish this task helps the integration of the definition with the rest of the text.
- 2.2.6) Once s/he is within the text of a given scene, the reader moves forward and backward through the arrows links placed at the bottom of each page. Once s/he reaches the end of a given scene, s/he can automatically pass to the following scene, clicking on the arrows links. However, once s/he reaches the end of a given act, clicking on the arrow links, s/he is brought back to the collection center of the text.<sup>162</sup> Therefore, within a given act, the reader can only browse the text sequentially (no other possibility is offered).
- 2.3.1) Literary text and added material present a completely different layout. Backgrounds and fonts are different. The background of the screens containing the text of the play is composed of two parts (two frames): the left part (where the text is reproduced) imitates a page of an old book and the right part (where unembedded links are available) reproduces a landscape that is meaningful in respect to the part of the play presented in the left frame (it reproduces the setting of a given portion of the text; in fact, this background

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<sup>161</sup> The scrolling menu pattern can be used in order to display the members of a given collection, when the number of members is high and the screen space is limited (<http://www.welie.com/patterns/scrolling-menu.html>). However, it doesn't seem to be very effective, because the user doesn't have an overview on the whole content of the collection.

<sup>162</sup> This is explained by the fact that different scenes of a given act are members of the same collections, while the text of the scenes of each act constitutes different collections.

changes within a same scene). Each video clip begins with the animated slide on which the title “The Globe Theater presents ...” appears. However, this device distracts the reader (it is “against” a seamless interaction). Also the changing of scene when reading the text of the play is clearly highlighted by the appearance on the screen of a big title with the number of the act and the number of the scene. It is interesting to note, with Cantoni and Di Blas,<sup>163</sup> that this device embodies an essential difference of hypertextual transpositions and printed annotated editions. Characters’ descriptions are displayed in a pop-up window.

- 2.3.2) From a page of the text of the play (without moving to a different collection) the following information is available: background representing an object, a place or a scene emblematic in respect to the text displayed on that screen; indication of the number of the act, of the scene and of the lines of the part of the text displayed on that screen; images of characters (at each cue) and characters’ descriptions; linguistic explanations; film video clips and indication of the portion of text to which the film video clip corresponds; thematic or rhetorical comments (foreshadowing links, censored links, confession links, jester links with indication of the passage of the text to which the explanation refers); summary of the scene to which the explored page belongs; paraphrase of the explored page; explanatory video clip about an aspect or character relevant in respect to the content of the explored page.
- 2.3.3) Only the (explanatory and film) video clips and the synopsis are accessible independently from the text of the play. All the other materials are accessible only starting from the text of the play. The access to the synopsis is immediately available on the homepage. It is also accessible from “Performances” (help in order to situate the single film video clips within the whole of the story).
- 2.3.4) On the foreshadowing, jester, censored and confession links and on the paraphrase screens an explicit possibility to go back to the text (“Return” link”) is provided. In the case of (expository and film) video clips the reader is automatically brought back to the text of the play screens. However, generally speaking, added materials don’t provide access to the referred passages of the text of the play.
- 2.3.5) Links between text of the play and added material or annotations accessible directly from the text screens are semantic associations (see 2.3.2). So is the “Return” link available on some added materials (cf. 2.3.6).
- 2.3.6) Links are either double-way (when the user is on the page of the added material, s/he finds a link “Return” that leads her/him back to the page of the text) or they automatically come back to the page of the text.
- 2.3.7) At the end of video clips the user is automatically brought back to the text of the play.
- 2.3.8) The relationship between the referred passage of the literary text and the

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<sup>163</sup> “Si pensi, per esempio, a cd-rom ipermediali dove il lettore è costretto a fruire ogni volta, per numerosi secondi, dei titoli di testa: nessun libro è in grado d’imporre a ogni fruizione la lettura della propria copertina” (Cantoni & Di Blas 2002: 141).

added material is always signaled, but this happens in a different way according to the different kinds of added materials:

- Words' or expressions' definitions: the words to which the definition refers are highlighted in blue and the definition (in red) substitutes these words on the screen within the text of the play; just by rolling-over the synonyms or paraphrase appear at the place of the link. In this way the reader can easily integrate the explanation with the rest of the text.
- Film video clips: the anchor is set side to the interested portion of the text; the precise portion of text represented in the video is underlined in red;
- Foreshadowing, censored, confession, jester: the icon of the link is set side to the interested portion of the text; the precise interested portion of the text is also underlined in blank;
- Summary: the content corresponds to the text of a given scene (principle of spatial juxtaposition, but in respect to a wider entity, not in respect to the page);
- Paraphrase: the content of the paraphrase corresponds to the portion of text displayed on that screen (principle of spatial juxtaposition);
- Explanatory video clips: their content (explanation of general feature of the play) refers to the portion of the text displayed on that screen (principle of spatial juxtaposition);
- At the beginning of each cue, side to the name of the speaking character, a photograph of her/him is available; the relationship is manifested by the juxtaposition of the photograph to the character's name.

2.4.1)

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2.4.2)

Thanks to the use of pop-up windows, clicking on the icons of the characters available side to their name at the beginning of each of their cues, it is possible to view simultaneously text and characters' descriptions.

2.4.3)

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2.5.1)

Some elements of the active reference pattern are applied, but not the entire pattern. At the top of each text screen the act and scene reference is indicated. However, there is no navigational tool summarizing the navigational steps the user accomplished in order to reach a given point. Therefore, we cannot state that the pattern is applied. However, since the main navigational possibilities correspond to the access of the different acts of the play, this is even not necessary.

2.5.2)

Generally speaking, during the navigation there is no application of the behaviour anticipation pattern. At the entrance of some collections links the anchor of which is "Click here to ..." can be found (cf., for instance, "Click here to meet experts" at the entrance of the "Presenters" collection). This is an indication of what will happen if the reader decides to click on them.

2.5.3)

No application of the information factoring pattern.

- 2.5.4) The navigation between text screens of a given scene or text screens of different scenes of a same act is a guided tour. However, the passage between different scenes is signaled to the reader: before displaying the first page of the next scene, the application automatically displays the title (act and scene number) of the scene the reader is beginning to read. This is an element of rupture in the reading process (the contrary of seamless experience). In this guided tour supports to user's orientation are provided, but not in a complete way. In fact, at the top of each text screen the act and the scene to which the page belongs are indicated, as well as the portion of text included in the screen (by indicating the lines interval). However, there is no indication about the total number of screens or lines of the whole scene entails. Also the characters' collection is organized as a guided tour.
- 3.1) Nowhere information about the intended audience is explicitly provided. However, in the video presentation by the CD-Rom producer included in the "Welcome" collection, it is stated that this hypertextual transposition will be fascinating for the computer users of any age.

3.2) –

#### Remarks

Information about the text: Editor: Professor Gary Taylor (Director, Hudson Strode Program in Renaissance Studies, University of Alabama); Glosses: Celia R. Daileader, University of Alabama; Paraphrase: Rick Russell, Dr. Daileader; Formatting and Editing of Glosses: Rick Russell. No indication about the used edition of the text. The reason is that Gary Taylor participated in the edition of The Complete Works of Shakespeare. He was Gen. Ed. with Stanley Wells. New York & London: Oxford UP, 1986.

## 7 Appendix 3: Hierarchy of represented reading strategies

High-level reading strategy	Low-level reading strategies	Devices
1.1) Situating the different application's parts and elements within the whole physical structure of the application.	1.1.1) Understanding one's own current position within the whole.	Active reference pattern [D1, M2, only partly in DC3, H1, H2, LM1, M1, M3 and MD2]
		Indication of the quantity of pages of a given section and of the number of the page s/he is currently exploring [M1, MD2]
	1.1.2) Understanding how to perform a given operation.	Sentence "Click here to ..." [DC1 (in the map of the hell), DC2 (in the pop-up window where only the precise referred passage of the literary text is displayed, in order to let the user know how to move to the part of the literary text that contains this passage), H2 (for each image), M3, RJ1] <sup>164</sup>
		Anticipation behaviour pattern about the possible choices [DC2, O1 (for tools in the navigation bar)] <sup>165</sup>
	1.1.3) Finishing the exploration of a given path before exploring something else.	Use of the audio device to provide access to referred passages of the literary text [M1, MD2]
		To provide an evident "Return" link [M3, RJ1]
		Automatic back after a video [M3, RJ1]
Use of the information factoring pattern [DC2, DC3, M2]		
		Displaying of the precise referred passage in pop-up windows with a link that allows the reader to browse a different section

<sup>164</sup> Storrer (2002: 13) notes that "whereas meta-communicative link descriptions (such as "click here for definition") tend to interrupt the process of content processing, the usage of link titles allows for a more fluent reading as the titles are displayed on demand only".

<sup>165</sup> Storrer underlined the possibility to use link titles as global and local context cues (2002: 13).

		[DC2]
		<p>Displaying of a new content in pop-up windows or in a frame of the page the reader is already exploring</p> <p>[partly DC1, DC2, DC3, partly DC4, H2, partly M1, partly M2, partly M3, MD1, partly MD2, partly MM1, partly O1, partly RJ1]</p>
	<i>1.1.4) Being aware of the passage from one type of content to another.</i>	<p>The title of the material that will be displayed appears in a pop-up window as anchor of a link, on which the user has to click if s/he really wishes to explore it</p> <p>[DC2]</p>
		<p>The name that identifies the added material appears as a link in the lower frame</p> <p>[DC1]</p>
		<p>An apposite link has to be clicked in order to access to some added material from the literary text</p> <p>[O1]</p>
		<p>Animated slide when accessing to a new content</p> <p>[M3, RJ1]</p>
	<i>1.1.5) Distinguishing and recognizing the different available types of contents.</i>	<p>Displaying them in different parts of the screen</p> <p>[DC1, DC2, DC3, DC4 (for annotations), H2 (in the “Reading room”), M1 (valid for annotations and images), M2, M3, MD1, MD2, MM1, O1, RJ1]</p>
		<p>Use of different fonts or graphics</p> <p>[DC4 (for different versions of the literary text and for text and annotations), LM1 (for annotations), M1 (for annotations), M3, MD1, MD2, partly O1, RJ1]</p>

<b>High-level reading strategy</b>	<b>Low-level reading strategies</b>	<b>Devices</b>
<i>1.2) Situating the part of the literary text the user is exploring within the whole physical structure of the literary text.</i>	<i>1.2.1) Acquiring an overview of the physical structure of the literary text.</i>	The collection centre of the text collection reproduces the index of the literary work [partly D1, DC1, DC3, DC5, H1, H2, LM1, M2, MD1, MM1]
	<i>1.2.2) Keeping in mind this overview.</i>	The index is set in a frame [D1, DC1, DC4]
		Detailed anchor in the navigation bar [DC3, H2 (even if it is the index of the physical division of the text operated in the hypertextual transposition), M2 (even if it is not immediately visible), O1] <sup>166</sup>
		Availability of the apposite visual device on the text screens [M1, M2, MD2]
	<i>1.2.3) Being aware of the part (chapter, canto, etc.) of the literary text to which the currently explored screen belongs.</i>	Highlighting of this title in the index always available [D1 (the title is not highlighted but expanded), DC1, DC3, DC4, O1]
		Title available on each screen [DC2, DC3, LM1, M1, M2, M3, MD2, MM1, O1, RJ1]
		Highlighting in the visual device of the segment that represents the part the reader is in [M1, M2, MD2]
		Indication of the number of the segment the reader is exploring and of the total number of available segments [H2]
		The number of the part of the literary text the reader is exploring is repeated side to the verse number [DC4]
		<i>1.2.4) Being aware of one's own position within that part.</i>
Availability of the index of the paragraphs belonging to a given part of the literary text		

<sup>166</sup> Storrer classified such a device as a global context cue (2002: 12).

		[O1]
		Explicitation of the meaning of the arrows links on the text screen (anticipation behaviour pattern)
		[DC1, DC2, M1, MD2]

High-level reading strategy	Low-level reading strategy	Devices	
2.1) <i>Situating the part of the literary text the user is exploring within the whole of the narration.</i>	2.1.1) <i>Being aware of the spatial and temporal coordinates of the events narrated in a given part of the literary text.</i>	Place, date, time and main characters are displayed on each text screen	When on the text pages [D1 (indication of the voice for each paragraph), DC3, M1, MD2] Before entering the text pages (behaviour anticipation pattern) [DC3]
		Visualization of the place of the narrated event	Map with the indication of the place that corresponds to the narrated events [LM1 (maps), M2 (interactive maps), O1 (collection centre of “Incontri”)]
			3D View [DC1]
			Screen backgrounds [M1, M3, MD2, RJ1]
			Illustrations of narrated scenes [DC1, DC2, DC3]
	2.1.2) <i>Acquiring an overview on the whole narrated story.</i>	Easy access to maps and schemes from the literary text screens [DC2, DC3, O1 (collection centre of “Incontri”)] In D1, DC1 and DC4 they are available, but not accessible from the text screens.	
		Easy access to a plot-line from the literary text screens [M1, MD2]	
		Easy and immediate access to a synopsis [M1 (from each text screen), M3 (already on the homepage, before the reader enters the literary text screens), MD2 (from each text screen), RJ1 (already on the homepage, before the reader enters the literary text screens)]	
		On the literary text screens, access to the summary of the part of the literary text to which the page the reader is exploring belongs [DC2, DC5, H1, M3, RJ1]	
		On the literary text screens, access to descriptions of the place where the narrated events happen [DC5]	
	On the literary text screens, access to summaries of the other parts of the literary text [H2 (even if it is less direct because the reader		

		moves to another collection), M1, M2, MD2, O1 (already on the homepage and before entering the text!)]
		The division of the text of a given part among several different screens follows a semantic criterion, that is, it aims at reflecting the sense of the text (not a fixed number of verses per screen, but narrated episodes) [DC3, H2]
	<i>2.1.3) Being aware of the relationship among different elements of the narrated story.</i>	Sophisticated search possibilities [D1, DC1, M1 (guided search), M2, MD2 (guided search)]
		3D View [DC1]
		Character appearances chart [M2]
		The division of the text of a given part among several different screens follows a semantic criterion, that is, it aims at reflecting the sense of the text (not a fixed number of verses per screen, but narrated episodes) [DC3, H2]
	<i>2.1.4) Keeping in mind previously mentioned narrative elements.</i>	Characters indexes [D1, DC3, DC5, H1 (dramatis personae), M1, M2, M3, MD2, O1, RJ1]
		Mentioned places [D1, DC3]

High-level reading strategy	Low-level reading strategies	Devices	
2.2) Integrating information provided by added materials and annotations with the meaning of the passage of the literary text it refers to.	2.2.1) Being aware of the kinds of available added materials and annotations.	Different anchors [DC1, DC2, M3, MD1, MM1, RJ1]	
		Frames [DC3, H2, MM1]	
		Difference between embedded and unembedded links [M2, M3, MM1, RJ1]	
	2.2.2) Understanding to which precise portion of the literary text a given added material refers to.	Spatial juxtaposition	Anchor position [D1 (for links to translation), DC1, DC2, DC4, M1, M2, M3, MD1, MD2, MM1, RJ1]
			Synchronized frames [DC3, M1, MD2]
			Pop-up windows [DC1, DC2, M1, M2, MD2]
		The shape of the anchors signals to which part of the literary text the link refers to [DC2]	
		Indication (on the screen backgrounds or in the collection centre) of the number (letter) of the part of the literary text to which the added material refers to (in the case of the collection centre the canto is also accessible) [O1]	
		The added information overlaps with the part of the literary text it explains [M3, RJ1]	
		After the user clicked on the link, the part of the literary text to which it refers, is highlighted [M2]	
		The part of the literary text to which the link refers to is underlined [M3, RJ1]	
		The anchor of embedded links signals the passage of the literary text to which the annotation refers [DC5, H1, H2, LM1, M1, M2, MD2, MM1, O1 (for characters)]	
		Audio file with the recitation of the relevant passage [M1, MD2]	
	2.2.3) Understanding the semantic motivation of the correlation between a given portion	The anchor of the link manifests the meaning of the link itself; it represents the motivation of the relationship between text and added material [M3, RJ1]	

	<i>of the literary text and a given added material.</i>	Collections correspond to different semantic aspects of the work (they contribute to clarify the different aspects of the literary text significance) [D1, DC5, H1, M1, MD2, O1]
	2.2.4) <i>Relating information provided by added materials to the literary text.</i>	Use of frames [DC3, DC4, H2, M1, MD1, MD2, MM1, O1]
Use of pop-up windows [DC1, DC2, M1, M2, M3 (only for characters' descriptions), MD2, RJ1 (only for characters' descriptions)]		
Displaying of text and added material on the same page [DC2 (for original Italian text and English translation), DC4 (for original Italian text and English translation), MD2]		
Access to the added material from the text screens [DC1, DC2, partly DC3, partly DC5, partly H1, H2, LM1, partly M1, M3, MD1, partly MD2, MM1, O1, RJ1]		

High-level reading strategy	Low-level reading strategies	Devices
3.1) <i>Paying attention to the literary text.</i>	3.1.1) <i>Accessing the literary text collection.</i>	On the homepage the link to the text collection is placed in a privileged position (at the top or centrally) [DC2, H2 (embedded link within the introductory text), M1, M3, MD2, O1, RJ1]
		On the homepage the link to the text collection is graphically striking [DC5 (not on the homepage, but on the collection center of the text collection), LM1, M2, H2]
		On the homepage the link to the text collection occupies a bigger part of the screen [DC2, LM1, M3, MM1, O1, RJ1]
		The access link to the text collection is constantly proposed [H2]
	3.1.2) <i>Distinguishing and recognizing literary text and added materials.</i>	Use of a different font or layout for added material and literary text [DC2, DC4 (for Longfellow's notes and Italian text), LM1, M1 (for annotations), M3, MD1, MD2 (for annotations), RJ1]
		Displaying of the added material in "secondary" parts of the screen [DC1, DC2, DC3, DC4, M2, MD1, MD2 (for annotations), MM1, O1]
	3.1.3) <i>Keeping the attention's focus on the literary text.</i>	Systematic use of unembedded links on the text screens [DC2]
		Possibility to hide annotations [M2]
		Inclusion in the hypertextual transposition of electronic transcriptions without

		<p>annotations [D1, partly H1<sup>167</sup>, H2]</p>
	<p><i>3.1.4) Reading the literary text following the order proposed by its author.</i></p>	<p>On the homepage a link is offered that brings the reader directly at the beginning [DC2, DC5 (not on the homepage, but on the collection center of the text collection)]</p>
		<p>On the homepage, when entering the literary text collection, a link “From the beginning” is offered [M1, MD2]</p>
		<p>Within the literary text collection, arrows links or previous/next links allow the reader to browse the different pages of the literary text in a sequential way (as turning the pages of a book). Organization of the text collection as guided tour [D1 (the reader can only browse forward), DC1, DC2, DC3, DC4, DC5, H2, LM1 (the reader can only browse forward), M1, M2, M3, MD1 (the reader can only browse forward), MD2, MM1, O1 (but in a weak way), RJ1]</p>
	<p><i>3.1.5) Staying on the literary text till the end of the wished reading.</i></p>	<p>“Return” (to the text) link [D1, (between Italian text/English translation), M3, MM1, RJ1]</p>
		<p>Links to relevant or mentioned passages of the literary text [D1, DC2 (not always), DC5 (not always), LM1 (not always), M1, MD1, MD2, O1]</p>
		<p>The reader is automatically brought back to the text [M3, RJ1]</p>

<sup>167</sup> Partly in that the available unabridged text only contains few links to characters’ cards. In the “Brani scelti” collection, annotations are available at the right side of the text, but no embedded link is there.

<b>High-level reading strategy</b>	<b>Devices</b>	
<i>3.2) Consuming all the essential representations of the literary work.</i>	Access to the theatrical or filmic representation	Default automatically activated [M1, MD2, MM1 (changing images)]
		Activated by the reader [H2, M2, M3, MM1, O1, RJ1]
	Access to the audio file with the aloud reading	Default automatically activated [M1, MD2]
		Activated by the reader [DC2, DC3, M2, O1]

<b>High-level reading strategy</b>	<b>Low-level reading strategies</b>	<b>Devices</b>
3.3) <i>Exploring further information.</i>	3.3.1) <i>Accessing added materials about all the different aspects of the literary text.</i>	Default presence of embedded links on the literary text [DC5, H1, H2, LM1, M1, M2, M3, MD2, MM1, O1 (only for characters' descriptions), RJ1]
		The access to the text and the access to the annotations are combined, unified [DC3, MD1]
	3.3.2) <i>Widely and deeply exploring the added materials.</i>	Guided search possibilities [M1, MD2]
		Proposal of thematic reading paths through the application [DC5, H1, M1, MD1 (in the commentary), MD2, MM1 (teacher's guide), O1]
		Possibility to combine different added materials in order to compare them [H2, partly MM1]

High-level reading strategy	Low-level reading strategies	Devices		
4) Getting immersed in the reading experience.	4.1) Relating and integrating with the literary text its visual and acoustic representations (consuming visual and acoustic representations in relationship to the literary text).	Automatic highlighting of the verse that is been recited at a given moment, when listening to the audio file [DC3]		
		Automatic displaying and synchronization of these elements when accessing to the literary text [M1, MD2, MM1 (changing images)]		
		Direct access to these elements from the literary text screens (even if this device is weaker than the previous one) [DC2, H2, M2, M3, MM1, RJ1]		
		Possibility to view at the same time the text and the visual and audio content [DC2, H2, M1, M2, MM1]		
	4.2) Not getting distracted by the artefact itself.	Screens backgrounds [M1, M3, MD2, RJ1]		
		Links anchors [M3 (for characters), RJ1 (for characters)]		
		Background music [M1, M3, MD2, RJ1]		
		Music or noises that accompanies the different steps of the user's navigation [M3, RJ1]		
	4.3) Not getting distracted by the operations entailed by the act of reading.	Automatic displaying of the content of annotations and added material		Synchronized frames [DC3]
				Rolling over (even if it solves the problem in a weaker way) [DC1]

High-level reading strategy	Low-level reading strategies	Devices
5) Investigating the literary text according to "personal" needs or questions.	5.1) Retrieving information or passages of the literary text useful as to one's need or question.	Explicit representation of the non-sequential reading strategy [DC2, DC4]
		Concordances [D1, M2]
		Different search possibilities [D1, DC1, DC2, DC3, M1, M2, MD2]
	5.2) Visualizing the literary text in the most suitable way in respect to one's needs or questions.	Possibility to choose how to display the literary text [D1, DC2, DC4, partly H2]
	5.3) Building new thematic paths through the literary text.	Concordances [D1, M2]
		Presence of (sophisticated) search possibilities; especially, guided search possibilities in M1 and MD2. [D1, DC1, DC2, DC3, M1, M2, MD2]
		Possibility to highlight passages of the added material that deal with a same theme [DC3]
		Possibility to set bookmarks [M2]
		Possibility to choose which part of the text and/or added material to combine or compare [H2, partly MM1]
	5.4) Establishing new relationships between the available added materials and the literary text, relationships that fit better to one's need or question than the relationships made explicit in the application.	Low number of semantic associations between text and added material [D1, DC3, DC4, M2] <sup>168</sup>
	Collections organize added material according to the type (not according to its semantic value in respect to the literary text) [DC2, LM1, M2]	

<sup>168</sup> The less semantic associations between the text and the added material and among the added material, the more the hypertextual transposition is similar to an archive, that is, the more it is adapt for researching, because this means that connections among the hypertextual transposition contents have to be identified and created by the user.

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