Of Time and Space

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Of Time and Space: a new framework for digital editions of draft manuscripts

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The future of scholarly editing is digital, we hear from many sources (see Gabler 2010, for instance), but more often than not the expectation of simply transferring the text from the page to the screen appears elusive and perhaps ill conceived. The ambition of Digital Humanities in general, and of digital scholarly editing in particular, consists precisely then in proposing new and innovative pathways and models for the publication and representation of texts and documents. However, our cultural habit of thinking in terms of printed books has shaped not only our expectations of what a digital scholarly edition should deliver, but also the way we have been thinking of our editorial work in a digital framework. This tendency has been defined the "page paradigm" by Patrick Sahle (2008), or, more commonly, the "tyranny of the page". Such an attitude is not surprising as the *codex* format, whether as scribal manuscript earlier or as printed book later on, has represented the most common way in which Western society has transmitted knowledge across cultures and time. However, this attitude has somewhat limited our exploitation of the capabilities offered by the digital medium (Sutherland 2009, 20), a limitation which is particularly relevant for cases where print culture has not been able to propose a convincing and helpful publication format to begin with, so that the application of the printed book model in digital format seems far from the substantial improvement which was promised by the new digital environment.

One such example of this is authorial draft manuscripts. These are working manuscripts that represent earlier stages of elaboration of literary (and other) works: the *avant-texte* (the "pre-text" or the "text-before-the-text"), according to the terminology used by the *critique génétique*. They are characterized in most cases by a wealth of authorial and other corrections which often can be grouped within so-called campaigns of revision; the layers of corrections and their private nature make them often very hard to read, even for scholars. Draft manuscripts are normally considered to be of interest to two distinct groups of people who approach these objects for very different reasons: the scholars of the particular author which produced the draft, and members of the general public who are fascinated by the sight of the handwriting of their favourite writer. The former tend to spend days, months, or years on a particular artefact, in order to disentangle the intricacies of the writing and authoring process. The latter tend to spend only a few seconds on a particular document before being put off by the difficulty of reading the handwriting (which is often obscure), or by the lack of insight into the cultural importance of the particular document.

The most prestigious theoretical framework for the understanding and editing of draft manuscripts has been provided by the French school of *Critique Génétique*, which is concentrated around the activities promoted by the ITEM (*Institut des Textes et Manuscrits Modèrnes*).[1] Yet while the scholarly methodologies of the French school have generally been judged positively,

[1] More information about ITEM can be found at the Institute web site at <http://www.item.ens.fr/> (accessed 23/09/07).

their outcomes, in the shape of printed genetic editions, have been criticized as unreadable, unusable, time consuming and, in general, deceptive (Grésillon 1994, pp. 195-202). The obscure, intricate symbolism that necessarily characterizes such editions is perhaps the principal reason for their cold reception by the academic community;[2] and indeed the need to represent the intricate stratifications of textual manipulations on a printed page may lead to an obscurity even greater than that recorded in the erasures and interlineations of the source manuscript. More recently, the digital has promised a possible solution to this difficulty. The advent of the computer and of its extraordinary capability of representing objects in a direct, fuss-free way has been seen by many as a way to offer advanced scholarship (including genetic editions) to a larger audience, not least because many important digital editions are now freely available on the web. However, we are now facing the fact that access alone is not enough to make manuscripts interesting and engaging. Transcriptions and diplomatic editions are often offered side by side with the digital facsimile, a format that may be sufficient to make the handwriting less obscure, but this new format still seems to fail in making a real difference to the access and appreciation of the material. This seems to be one of the possible readings of the results of a survey conducted on a

[2] A particularly good (or bad) example of this is represented by the genetic edition of *Hérodias* by Gustave Flaubert, edited by Giovanni Bonaccorso *et al.*, in 1991; this edition encompass nine different types of arrows to mark the location of interlinear and marginal insertions belonging to four different revision campaigns. But see also Hunter 2007, pp. 118-120, for complaints about similar issues in editions of early modern texts.

substantial number of Medieval Studies scholars by Dot Porter (2013). Of all the indicators considered of the usage of digital resources, the use of digital scholarly editions is the only one that has failed to grow since a previous survey in 2012; clearly digital editions have failed to show great advantages with respect with their print counterparts, in spite of all the effort that have been undertaken by their editors.

Part of the difficulty may be because this cultural dependency on the model of the printed book extends well beyond the early editors and is also clearly evident in the model for digital transcription and editing traditionally proposed by the Text Encoding Initiative (TEI). The TEI was born with the explicit goal of providing a standardized format for text encoding, and today it is the *de facto* standard for it, at least for researchers in the arts and humanities. However, its abstract model is heavily shaped by the printed book: in fact it states that the transcription/edition of the text has to be provided within an element called *text*, and this is articulated in turn as consisting of a *front*, a *body* and a *back*, a structure which depends heavily on this older structure.[3] When it comes to manuscripts, it is no surprise then to

[3] The TEI Guidelines offer definitions for each of these components which also clearly reveal their connection to the printed book: "<front>: (front matter) contains any prefatory matter (headers, title page, prefaces, dedications, etc.) found at the start of a document, before the main body. <body>: (text body) contains the whole body of a single unitary text, excluding any front or back matter. <back>: (back matter) contains any appendixes, etc. following the main part of a text" (TEI Consortium, 2013).

discover that, while TEI has historically offered robust encoding facilities for relatively "clean" scribal manuscripts, until very recently it was ill equipped for supporting the transcription of modern, draft, or authorial manuscripts, or, indeed, messy manuscripts of any period which do not fit the "normal" layout;[4] in particular, the TEI proved to be unsuitable for the encoding of genetic editions and genetic editing at large. This weakness has been discussed in several occasions (see Pierazzo 2009; Crasson and Fekete 2004, for instance), and the fundamental steps to begin addressing have now been undertaken by the TEI's Special Interest Group (SIG) on Manuscripts. The process started in 2008 when, during the TEI Annual Members' Meeting, a group of people within the SIG organized themselves into the Genetic Editions Workgroup.[5] From the very beginning the group became aware that it was not possible to propose an encoding model for genetic editions without substantial changes to the TEI's underlying assumptions that one should primarily encode the semantic/linguistic structure of a document rather than its physical structure. It was also very clear that such an endeavour, which

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[4] The same layout that later shaped the format of the printed page.

[5] The Manuscripts SIG has been chaired by Elena Pierazzo together with Malte Rehbein from 2007 to early 2013 <http://www.tei-c.org/Activities/SIG/Manuscript/> [Accessed 14 March 2013]. The working group was chaired by Fotis Iannidis; other members were Malte Rehbein, Lou Burnard, and Elena Pierazzo. Fundamental contributions have been made also by Gregor Middell, Paolo D'Iorio, and Moritz Wissenbach. See <http://www.tei-c.org/SIG/Manuscripts/genetic.html> [Accessed 14 March 2013].

represents nothing short of a revolution of the TEI's abstract model, would require the involvement of a large international community.

At another level, the group was keenly aware of the multitude of approaches to editorial work, some of which are connected to 'national schools' of philology such as the French school of *critique génétique*, while others are linked to textual theory (copy-text, eclecticism, stemmatics, etc.). To avoid the risk of embracing one approach and refusing another, the new encoding embraces what could be defined as the ecumenical approach of the TEI: the TEI does not establish *what* a scholar should do, but rather *how* to do it if the scholar consider it relevant to her/his research. This is the key choice that has made the TEI a viable option in the past (and present) for so many different scholars who have different purposes and scholarly approaches: the Guidelines do not enforce the encoding of specific phenomena, they simply explain how to encode particular phenomena if one wishes to do so. Paradoxically, in spite of such an agnostic approach, the Guidelines have succeeded in shaping the way we speak and think about editing across countries and ideological positions. Allen Renear (2004, 235) has written:

> The principal goal of the TEI, developing an interchange language that would allow scholars to exchange information, was ambitious enough. But the TEI succeeded not only in this, but at a far more difficult project, the development of a new data description language that substantially *improves* our ability to describe textual features, not just our ability to exchange descriptions based on current practice.

Renear concluded that the "TEI is now itself a research community". This being the case, it follows that developing a new approach like the one the working group had in mind for genetic encoding must be undertaken with great care, treating its design as a research activity, and knowing that the end result will probably influence future scholarship for many, many years to come, just as the TEI has done – and presumably will continue to do – with the existing models.

In an attempt to enlarge the base of contributors, in 2009 the group organized a two-day workshop in Paris at the ITEM with participants from Belgium, France, Germany, Ireland, Norway, the United Kingdom, and the USA.[6] All the subsequent stages of the model's elaboration were then made public for discussion and feedback by several means: via the TEI website and the TEI Wiki, by sharing the source files within the TEI repository, and by officially

[6] The workshop has been sponsored by the Association for Computing in the Humanities, the Association for Literary and Linguistic Computing, The University of Galway (Ireland), the *Digitale Faustedition* (University of Würzburg, Germany) and the TEI. The invited participants were: Anne Bohnenkamp, John Bryant, Aurèle Crasson, Jean-Daniel Fekete, Daniel Ferrer, Hans Walter Gabler, Axel Gellhaus, Almuth Grésillon, Claus Huitfeldt, Dirk van Hulle, Jean-Louis Lebrave, Wolfgang Lukas, Kenneth M. Price and Kathryn Sutherland.

inviting testers and feedback. The process ultimately lasted two years and resulted in a contribution to the TEI which consists of three sections:[7]

1. **Documentary view**. Thanks to this view it is now possible to transcribe the textual content of a document according to its physical structure – surface by surface, zone by zone and line by line – in addition to or instead of the TEI's normal semantic structure of the text (paragraph by paragraph or verse by verse). The module also allows the grouping of surfaces into folios, bifolios, or quires, and accommodates attached pieces of paper ("patches", or "paperoles" according to the terminology of the French school). The module adopts a very generic nomenclature such as surface and not page, or zone and not block, in order to allow for the encoding of different types of writing supports (such as unbounded or disbounded leaves) and different verbal and non-verbal content.
2. **Enhancing transcription**. This includes a set of new elements for encoding textual and paratextual features typical of working manuscripts. It includes, for instance, elements for rewriting, deleting, or transposing sections of texts, doing and undoing things on the page such as deleting then restoring the deleted text, or moving a section from one place to another, then moving it back where it was before moving it again, and so on. These elements acknowledge the fact that a draft manuscript

[7] These proposals are now incorporated within Chapter 11 of he TEI Guidelines, "Representations of Primary Sources", available from <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/PH.html> [Accessed 14 March 2013].

represents a sort of "writer's laboratory", where things are tested many times before finding their final collocation and formulation. The module also includes elements to encode functional annotations (e.g., "move the paragraph here" or "remember to check this") and any other "stage directions" (*notes de régie*). For this feature the term "metalmark" was invented; the name points to its meta-value (with respect to the main text) and its possible non-verbal manifestation (an arrow or a connecting line are also considered metamarks, for instance). This element makes transparent the acknowledgement that draft manuscripts contain not only a text, but also instructions, annotations, graphs and other features, all of which constitute the elements of the protocol, of the recipe that will eventually make the text (Ferrer 1998, 261).

In compliance with the TEI's "ecumenical" approach, this new section also includes a generic element for encoding any type of phenomenon that alters the normal flow of writing, independent of interpretational surplus. For instance, when an editor sees that a word has been struck through in a given document, the editor can choose to look at the manuscript page in two ways: she/he can say either that the word has been deleted (interpretation) or that there is a line through it (record), depending on the theoretical framework within which the transcription takes place.[8]

3. **Genetic criticism**. A group of tools for documenting the evolution across time within the same document and across the different stages that a work

[8] This terminology is based on Zeller 1995; Huitfeldt 2006, 194 uses instead "representation and interpretation".

has had, from its first documented elaboration to the "finished" product (usually, but not necessarily, the published book).

This new model for encoding documents has been included as part of the TEI standard since December 2011, becoming the main feature of version 2.0 of the current release (P5).

Since its inception, the model has been used as a "proof of concept" for the encoding of a few pages of one of Proust's notebooks and the development of a prototype web edition. The work has been conducted in collaboration with Julie André and was funded by the ANR Program CAHIERS-PROUST;[9] the digital development has been conducted in collaboration with Raffaele Viglianti and Peter Stokes (André and Pierazzo, 2013).[10]

Fundamental to this proof of concept was consideration of the implicit dynamicity of authorial draft pages: writing is always a process that develops

[9] The CAHIERS-PROUST project is directed by Nathalie Mauriac Dyer (ITEM) <http://www.item.ens.fr/index.php?id=75919> [Accessed 14 March 2013].

[10] The prototype is available online at <http://research.cch.kcl.ac.uk/proust_prototype/index.html>. The interface has been build by generating SVG files embedded within an HTML 5 framework via a set of XSLT 2 stylesheets. More information and a freely downloadable version of the interface can be found in the *About* section of the prototype's website.

in time, and this is even more true for authoring (as opposed to copying), which includes not simply linear writing but also rewriting, adding, deleting, moving etc., (Pierazzo 2009, 169). A printed or even printable transcription can only present this process as a static object, and even the provision of diacritics to mark the so-called "revision campaigns" fails to make such a process really evident and accessible: on the contrary, they overload the transcribed texts with unfamiliar signs that deprive the text of any reading appeal. Even ultra-diplomatic editions present limitations when it comes to taking the process of authoring into account: such editions aim to reproduce the textual and paratextual material in a manner that is as close as possible to their appearance in the original manuscript, as if they were a sort of "normalized photograph". The advantages of this compared to facsimile editions lie mainly in the deciphering of the handwriting: in many cases this is not trivial, but providing only this may prove a little limiting when so many more things could be said of and analysed in the draft page. In the rare cases that these things are analysed and said, they are provided to the reader in the format of a hefty monograph, where the editor explains verbally the authoring process and the different layers of corrections that can be observed on the page. Some attempts have been made to represent these dynamic processes in print: one example is the diagrams at the back of the editions of the *Chaiers* of Proust published by Brepols Publishers-BnF and edited by Nathalie Muriac, but these diagrams lack usability and accessibility. They are printed at the back of the volume, thereby forcing the reader to flip back and forth within the book, and they show the zoned pages only at a thumbnail size making them impossible to read.

Computers, on the other hand, can provide a very suitable environment for presenting this dynamic aspect of the authorial process, as they easily support animation and interactivity. In the analysis of the pages of Proust that have constituted the sample for the prototype, Julie André has delineated two different types of sequences: those according to which the pages were (presumably) progressively filled, and those according to which we should read the content if we wish to follow the storyline. The pages have then been subdivided into zones which were filled at the same time, according to these sequences, and each portion of the text has been transcribed within each zone (i.e. the <zone> element of the new TEI). For this work, the authorial process has been reconstructed at the macro-stages of writing (the zone), but the encoding could cope perfectly well with a more granular level, at word and even letter level.

This form of transcription and encoding does not proceed from top-right to bottom-left for each page and does not attempt to say "what is text, really" (De Rose et al. 1990). Instead, it can follow any order (or orders) that is (or are) considered relevant or useful by the editor, working his/her way from layer to layer of writing and of revision campaigns. A transcription conducted according to these principles is able not only to faithfully represent the final state of the document as well as all its intermediate stages, but also to avoid the notorious problem connected to XML-related transcription of overlapping hierarchies: because each zone is considered independently of the others, the fact that they may overlap on the document is completely irrelevant for the transcription. This new approach breaks all bounds with the TEI's former OHCO model (*ibid.*) and its accompanying claim that a manuscript "is, really"

only a support for the "linguistic code"; the TEI now embraces the rules and semantics of the "bibliographical code" for the first time. Indeed it goes further: this terminology of "linguistic" and "bibliographical code" is borrowed form Jerome McGann's famous depiction of the "social text" theory, according to which "meaning is transmitted through bibliographical as well as linguistic codes" (McGann 1991:57). However, his choice of wording and his theoretical framework have been conceived with print publications in mind, and so they are not really suitable for draft manuscripts; for him, in fact, "the literary 'text' is not solely the product of authorial intention, but the result of interventions by many agents (such as copyists, printers, publishers) and material processes (such as revision, adaptation, publication)" (Siemens et al. 2010). Perhaps then, instead of "bibliographical code" we could talk here of the "codicological code", which is a more generic and comprehensive term;[11] this codicological code includes issues like the layout, the crafting of the writing support, the direction of writing, the conception of the space, the manipulation of the documents, etc., the semantics of which represent the main concerns of this type of digital representation.

However, the biggest innovation in this prototype was the research of new ways in which the encoded text could be delivered to the reader. Paradoxically, while this edition attempts to represents the codex and its semantics, it is also independent from what has been previously called the "printed book model" as its delivery has not been conceived according to the "page paradigm" and is not designed to be printed. In order to test the

[11] See also, on a related topic, Pierazzo and Stokes 2011.

potential of the new approach and to stretch our understanding of authorial manuscripts, innovative forms of output have been explored which in turn have been enabled by the topological encoding where each zone can be provided by a set of spatial coordinates. As mentioned above, the normal publication format adopted for draft manuscripts, both in print and on the web, is the (ultra-)diplomatic edition, which presents the transcribed text in a format that tries to mimic the layout of the manuscript page as much as the publishing medium allows.[12] While this type of edition presents many advantages, it lacks the fundamental aspect mentioned above: the dynamicity of the writing process. Ultra-diplomatic editions on the web are also normally presented side by side with the digital facsimile of the page,[13] but again this representation has been considered unsatisfactory for more than one reason: first, it creates an alternative new space which tries to mimic the original without ever being ever able to reproduce it in full, giving rise to all manner of frustration in attempting the unachievable goal of reproducing the exact layout, spacing and 'feeling' of the draft page (Sutherland and Pierazzo 2011, 207-208). Second, it leaves to the user/reader the task of establishing the

[12] But see Pierazzo 2011, 466-472, for a call to use scholarly criteria to define the type of edition.

[13] See, for instance, Sutherland 2010 and the and the genetic edition of the manuscripts of Flaubert's *Madame Bovary*, published by the University of Rouen in collaboration with the Library of Rouen and the Centre Flaubert (see in particular <http://www.bovary.fr/folio_visu.php?mode=sequence&org=3&seq=2> [accessed 15 March 2013]).

relationship between the transcribed and the inscribed text, a task which is tiring and uncomfortable, relying as it does on the rapid movement of the eyes from one area of the screen to another.[14] Finally, the side-by-side view is limited to presenting pages (and not, for instance, openings), given the constraint in width of the screen, an approach that, if applied to Proust's *Chaiers*, will indeed falsify the documentary evidence which shows how Proust considered his writing space to be the opening as a whole. In fact, the constraints of the screen have not yet been fully assessed in this context: most debates surrounding digital editions have revolved around the new and improved expressive capabilities of digital representations and how these are about to overcome the limits of the printed page, but very little attention has been the paid so far to the new constraints presented, for instance, by the unforgiving sizes of screens which cannot be stretched and which can vary enormously by user and circumstance (Sutherland and Pierazzo 2011, 198-200). So, in the case of Proust (who used to write only on the right side of the opening of his own notebooks and used the left side for additions, corrections and rewriting) the page-by-page visualisation that has become the standard for digital editions was not an option; nor was it an option to present the facsimile of the opening alongside the transcription if either was to be at a readable size: the codicological codes forced us to look for a new solution, namely migrating the transcription *within* the facsimile.

[14] Usability tests have demonstrated that users prefer concentrating on the left hand side of the screen only, a fact that, together with personal experience, suggests that the side-by-side layout may not be very effective (Nielsen 2010).

This possibility has already been partially explored by a few editions which have experimented with integrating the transcription with the facsimile. Using the *Hypernietsche* framework, for example, Hans Walter Gabler in 2005 presented a facsimile page of *Ulysses* where a virtual magnifying glass reveals the transcription of a portion of that page as it passes over (see fig. 1). Gabler declares:

> Just seeing the screen effect of the magnifying glass over the image suggests sufficiently the potential of the electronic medium to convey the close interdependence of visualising and reading the document. In the ultra-diplomatic transcription, the interpenetration of image and text becomes truly essential (p. 205)

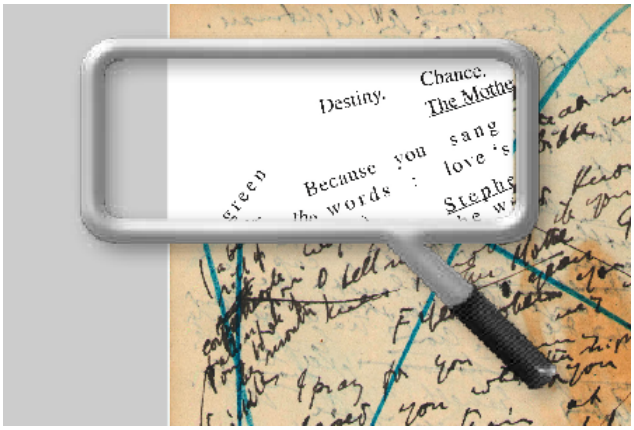

Fig. 1, screen shot of a detail of VA-19,62[1][15]

Similar to this is the "Zoom Topographic" view offered by the edition of *Stirrings Still* contained within the *Samuel Becket Digital Manuscript*

[15] Available from <http://www.compositiongenetics.org/bksailehwgabler-33> [accessed 15 March 2013].

Project's website, where a draggable box reveals an ultra-diplomatic transcription as it is laid over the facsimile[16].

Both visualisations represents a good attempt to integrate ("interpenetrate", to use Gabler's 2005 terminology) the edition and the facsimile, trying as they do to take advantage of some of the potential of the digital environment in an attempt to break free from the printed book model. But they both present limitations: the integration is only partial and unstable, as it relies on the movement (or steadiness) of the mouse; the two layers are not aligned making the deciphering of the handwriting cumbersome; and finally they are not suitable for extended reading, any more than watching a movie from a keyhole would be.

The question, then, is how the edited texts can be presented in a more interesting and innovative way which is suitable for reading and exploring at the same time. To respond to this and other questions, the prototype-edition has been based on and embedded within the facsimile in a way similar to the ones seen above, but avoiding the "keyhole effect" (as illustrated in Figure 3). Additionally, the prototype attempts to go a step further than the examples seen before, as it is built around the idea of process, meaning that the zones that have been outlined and encoded have been assigned a relative order with

[16] Available from <http://www.beckettarchive.org/demo/MS-UoR-2934.htm?page=06&trans=basic&type=linear&text=documentfacsimileszoto&notes=on&metamarks=&facs=2934-4r> [accessed 14 March 2013].

respect to their presumed sequence of writing and reading;[17] this information has then been used to create an interactive, accessible interface which tries to present the user with a representation of the writing process, not just the end product.

[17] Although possible in principle, we have not attempted to record the absolute timing of authoring but only the relative sequence of writing campaigns. This is due to both practical and theoretical reasons: the former because it is not yet clear exactly when Proust wrote in this specific notebook, and the latter because, in the impossibility of assigning all variants to a specific absolute time and therefore to clearly distinguish all layers of writing, this could lead to the reconstructions of texts that never existed (Pierazzo 2009, 185-186).

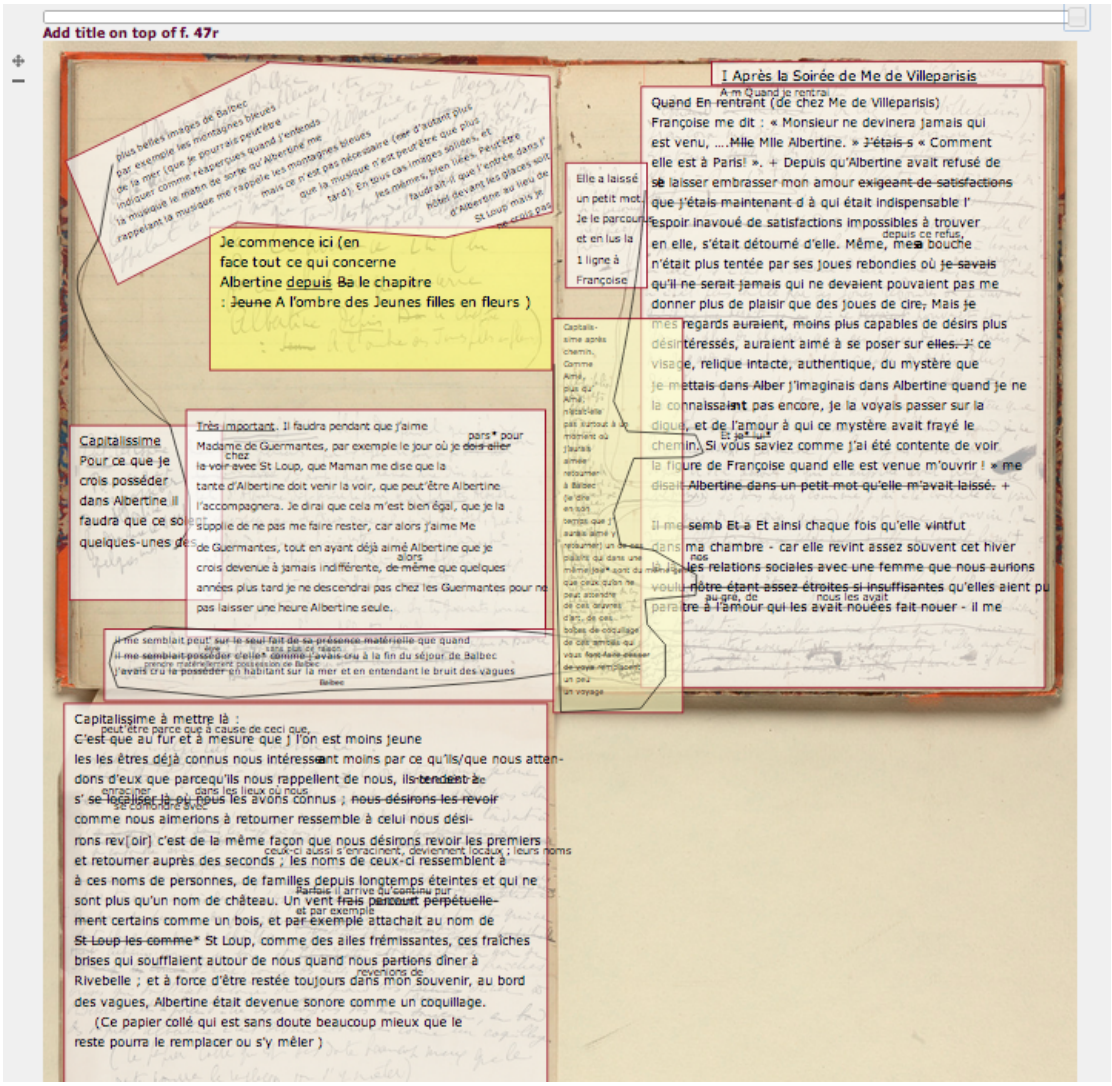

Fig. 3: Cahier 46, ff. 46v-47r

In this interface the user is initially prompted with the “clean” image of one opening of Cahier 46 (folios 46v-47r); then, by clicking on the image, the zones containing the transcribed text appear in the order in which they are presumed to have been written. Different colours have been used as background for the zones according to the different level of certainty and confidence that the editor had in ordering the sequences: the darker the colour, the greater the uncertainty. In this way, a visual semiotic codification conveys the doubts and decisions of scholars in an intuitive way. A brief

explanation, outlining the rationale of the sequencing, appears with each zone, making the whole reconstruction more easily understandable. The user can also switch from the writing sequence to the reading one at any given moment: the order in which the zones display will change accordingly. A timeline bar marks the passing of time for both the writing an the reading sequences, allowing the user to go back in time, so to speak, and re-enact the process of authoring as many time as is wished. The zones of transcription can also be moved around at will to reveal the underlying facsimile, using the toolkit provided on the right hand side of the window. Zones can also be hidden and then restored, following an order which differs from the one which provided by the editor, enabling users and scholars to test new hypotheses.

This digital representation of draft manuscripts does not move away from the facsimile, but it is strongly bound with it, acknowledging the importance of the codicological codes and therefore emphasizing that these codes carry as much meaning as the linguistic codes do. The prototype is also very simple and simplified: for instance, it is not currently able to represent the ordered sequence across openings, and offers only a limited set of tools to the user; it also does not present any animation for inline corrections but only for blocks of text. Nevertheless, it is able to open new exciting perspectives in the representation and delivery of digital editions of manuscripts, for both scholars and the general public.

Draft manuscripts are complex, data-rich objects which require the long patient work of scholars to be made ‘consumable’ by people other than the specialist. Because of the complexity offered by these materials, they have

rarely taken a central role in scholarship beyond that of their editors. The documents' complexity, combined with the inaccessibility of editions, has often discouraged even the bravest of readers. The problem is that draft manuscripts present texts before they become readable: the non-linear, fragmented, paradigmatic textuality of most drafts proves to be opaque, tiring and only rewarding if one commits a substantial amount of time to the task; they often are overlooked as a result, in spite of representing a mine of information on the work of authors. The printed book model has proven to be unsuitable for the task of presenting such material in an accessible way to scholars other than editors, let alone for members of the general public. In this historic moment, providing public engagement and measuring the impact of research on society (particularly research in the Humanities) is becoming more and more the responsibility of researchers who have to find how best to present their scholarship in ways that can be understood and appreciated by the largest number of people. In this cultural framework, the intrinsic dynamicity and interactivity of computers can offer a lot to the dissemination and democratisation of knowledge. The Proust prototype, even at this very limited stage, represents a step forward in that direction, borrowing as it does some ideas from computer games. The easy, intuitive interactivity makes the user experience enjoyable and fun, and suggests that even the most complex of cultural objects can be made easy without compromising the level of scholarship. The idea of using game mechanics in a non-game context for solving problems is called "gamification" and is a well-know approach in interface design, eLearning and advertising (Zichermann and Cunningham 2011). The idea is to take the user experience or problem to be solved and break it down into small tasks; once these are achieved then users are

rewarded somehow and are invited to proceed to the next, more complex level. Most gamified environments appeal to competitiveness, building communities of users and making them "play" against each other. A "light" version of these principles has already been implemented successfully in academic projects, particularly in crowdsourcing such as the *Old Weather* project which use the crowd to transcribe ships logs in order to study the weather,[18] or *What's on the Menu*, which aims to enable the study of food prices and eating habits by inviting people to transcribe old menus of restaurants.[19] Can (or should) a scholarly digital edition do the same? The idea behind the digital representation embodied by the Proust prototype offers two aspects of this: on the one hand it presents scholars with the possibility of exploring draft manuscripts in a much deeper and more accessible way, by representing the draft manuscript as the custodian of the authoring process, by exploring the codicological codes of the material object; on the other hand, the end result could also be enjoyable for people with non-specialist knowledge, opening new perspectives on the access of advanced cultural content to the wider public, a consideration that has increasingly to find a place in the agenda of textual scholars.

Bibliography

André, Julie and Elena Pierazzo. 2013. "Le Codage en TEI des Brouillons de Proust: Vers l'Edition Numérique." *Genesis*, 36 (forthcoming).

[18] The project is supported by a large consortium of partners including the UK Met Office, the National Archives and the University of Oxford.

[19] *What's on the Menu* is a project of the New York Public Library.

Crasson, Aurèle and Jean-Daniel Fekete. 2004. “Structuration des Manuscrits: Du Corpus à la Region”. In *Proceedings of CIFED 2004*, La Rochelle, pp. 162–168. <http://www.lri.fr/~fekete/ps/CrassonFeketeCifed04-final.pdf> [Accessed 14 March 2013].

De Rose, Stephen J., David G. Durand, Elli Mylonas and Allen H. Renear. 1990. “What is Text, Really.” *Journal of Computing in Higher Education*, I, 2, pp. 3-26.

Ferrer, Daniel. 1998. “The Open Space of the Draft Page: James Joyce and Modern Manuscripts”. In George Bornstein and Theresa Tinkle eds. *The Iconic Page in Manuscript, Print, and Digital Culture*. Ann Arbor: The University of Michigan Press, 249–67.

Flaubert, Gustave. 1991. *Hérodias: Edition Diplomatique et Génétique des Manuscrits*. Bonaccorso G. *et al*. eds. Paris: Nizet.

Gabler, Hans Walter. 2005. “The Primacy of the Document in Editing”. *Ecdotica*, 4, pp. 197-207.

Gabler, Hans Walter. 2010. “Theorizing the Digital Scholarly Edition.” *Literature Compass* 7/2, *pp*. 43–56.

Grésillon, Almuth. 1994. *Eléments de Critique Génétique: Lire les Manuscrits Modernes*. Paris: Presse universitaire de France.

Huitfeldt, Claus. 2006. *Philosophy Case Study*. Burnard, Lou, Katherine O’Brein O’Keefe and John Unsworth, eds. *Electronic Textual Editing*. New York: Modern Language Association of America.

Hunter, Michael. 2007. *Editing Early Modern Texts: an Introduction to Principles and Practice*. New York: Palgrave Macmillan.

Madame Bovary: Edition Intégrale sur le Web. 2009. <http://www.bovary.fr/> [Accessed 15 March 2013].

McGann, Jerome. 1991. *The Textual Condition*. Princeton: Princeton University Press.

Nielsen, Jakob. 2010. "Horizontal Attention Leans Left". *Jakob Nielsen's Alertbox*, 6 April <http://www.nngroup.com/articles/horizontal-attention-leans-left/> [Accessed 15 March 2013].

NYPL Labs. 2011. *What's on the Menu*. <http://menus.nypl.org/> [Accessed 15 March 2013].

Old Weather: Our Weather's Past, the Climate's Future. 2012. <http://www.oldweather.org/> [Accessed 15 March 2013].

Pierazzo, Elena. 2009."Digital Genetic Editions: The Encoding of Time in Manuscript Transcription". In Marilyn Deegan and Kathryn Sutherland, eds. *Text Editing, Print and the Digital World*. Farham: Ashgate, pp. 169–186;

Pierazzo, Elena. 2011. "A Rationale of Digital Documentary Editions". *Literary and Linguistic Computing*, 26/4, pp. 463-477 <doi:10.1093/llc/fqr033> [Accessed 14 March 2013].

Pierazzo, Elena and Peter Stokes. 2011. "Putting the Text back into Context: a Codicological Approach to Manuscript Transcription". Franz Fischer, Cristiane Fritze and Georg Vogeler (eds.), in collaboration with B. Assmann, M Rehbein and P. Sahle. *Kodikologie und Paläographie im Digitalen Zeitalter 2 - Codicology and Palaeography in the Digital age 2*. Norderstedt: Books on Demand, pp. 397-430. <urn:nbn:de:hbz:38-43605> [Accessed 14 March 2014].

Porter, Dot. 2013. “Medievalists and the Scholarly Edition”. *Scholarly Editing* 34 <http://www.scholarlyediting.org/2013/essays/essay.porter.html> [Accessed 15 March 2013].

TEI Consortium, eds. *TEI P5: Guidelines for Electronic Text Encoding and Interchange*. Version 2.3.0. Last Updated 17 January 2013. TEI Consortium. <http://www.tei-c.org/Guidelines/P5/> [Accessed 14 March 2013].

Renear, Allen. “Text Encoding”. In Susan Schreibman, Ray Siemens and John Unsworth eds. *Companion to Digital Humanities*. Oxford: Blackwell.

Sahle, Patrick. 2008. *Catalog of Digital Scholarly Editions*. <http://www.uni-koeln.de/~ahz26/vlet/> [Accessed 14 March 2013].

Siemens, Ray, Mike Elkink, Alastair McColl, Karin Armstrong, James Dixon, Angelsea Saby, Brett D. Hirsch and Cara Leitch, with Martin Holmes, Eric Haswell, Chris Gaudet, Paul Girn, Michael Joyce, Rachel Gold, and Gerry Watson, and members of the PKP, Iter, TAPoR, and INKE team. 2010. “Underpinnings of the Social Edition? A Narrative, 2004-9, for the Renaissance English Knowledgebase (REKn) and Professional Reading Environment (PReE) Projects.” In Jerome McGann, Andrew Stauffer, Dana Wheeles, and Michael Pickard eds. *Online Humanities Scholarship: The Shape of Things to Come*. Houston: Rice UP. <http://cnx.org/content/m34335/latest/> [Accessed 14 March 2013].

Sutherland, Kathryn. 2009. ‘Being Critical: Paper-based Editing and the Digital Environment’. In Marilyn Deegan and Kathryn Sutherland, eds. *Text Editing, Print and the Digital World*. Farham: Ashgate, pp. 13-25.

Sutherland, Kathryn. 2010. *Jane Austen’s Fiction Manuscripts: A Digital Edition*. <http://www.janeausten.ac.uk> [Accessed 15 March 2013].

Sutherland, Kathryn and Elena Pierazzo. 2011. “The Author's Hand: from Page to Screen”. Marilyn Deegan and Willard McCarty eds. *Collaborative Research in the Digital Humanities*. Farham: Ashgate, pp. 191-212.

Van Hulle, Dirk and Mark Nixon. 2011. *Samuel Beckett Digital Manuscript Project*. <http://www.beckettarchive.org/> [Accessed 15 March 2013]

Zeller, Hans. 1995. “Record and Interpretation: Analysis and Documentation as Goal and Method of Editing”. In Hans Walter Gabler, George Bornstein and Pierce, Gillian Borland eds. *Contemporary German Editorial Theory*. Ann Arbor: The University of Michigan Press, pp. 17-59.

Zichermann, Gabe and Christopher Cunningham. 2011. *Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps*. Sebastopol (CA): O’Reilly.