Radiant Textuality

McGann, Jerome J.

About the electronic version

Radiant Textuality
McGann, Jerome J.
Conversion to TEI.P3-conformant markup by:

University of Virginia Online Scholarship Initiative Online Scholarship InitiativeCharlottesville, VA
Online Scholarship Initiative Alderman Library, University of Virginia Charlottesville VA 22903

English, MCG027

Available world wide

About the Print Version

McGann, Jerome J.
"Radiant Textuality"
Victorian Studies

OSI file created: 3 Dec 1995
Preprint

A recent literary newsgroup on the Internet posed the following question: "Has any of you written research in hypertext format? Would you accept a dissertation written in hypertext?". These questions reflect an anxiety that is common today because of the startling impact of technological change on humanities and literary study. The anxiety grows from certain unhelpful and erroneous assumptions about the nature of the technology, on one hand, and the traditional work of critical research and study on the other.

Furthermore, the venue bearing the questions told its own story: that these assumptions operate irrespective of one's enthusiasm or one's skepticism about the cultural changes that are taking place.

Newsgroup e-mail is a hot medium, it solicits quick responses. So with the electronic characters of the questions still radiating in my eyes, I shot off the following response.

> There's a good deal of "research" in hypertext format already out there, some of it in paper.

- 1. ANY scholarly-critical edition is "research in hypertext format". And here one wants to remind everyone that "research" etc., and litcrit, is hardly confined to the setpiece essay--indeed, that form is one of the most constricting and restrictive we have evolved. . . .[1]

- 2. Look at the backissues of ***Postmodern Culture*** , especially the last couple.
  Postmodern Culture

- 3. Look at the "general publications" of UVA's Institute for Advanced Technology in the Humanities (IATH).
  IATH publications

- 4. Finally, look at various online homepages for courses. Aren't courses "research projects" (in my experience, courses are scenes where everyone learns; "teaching" is a topdown model of learning I've never been able to find very attractive. Or much help.

As with virtually (a trembling word here) all newsgroup communication, this one comes in a kind of informal shorthand. Let me expand what I was trying to say.

The Return of the Library

To date, computerization in humanities has been mainly located in work closely associated with the library, and with library-oriented research projects. This has happened for one simple and obvious reason: material demands have driven libraries to study and exploit computerized tools, which allow these research facilities to gain a measure of control over the massive amounts of data they are called upon to manage.

For humanities and especially literary scholars, the library is the center of the world, the one thing needful. (As Borges thought, it might even BE the world; at any rate, it is the vehicle we ride to know and experience the world.) Of course, sometimes we forget the importance of the library, as our twentieth-century experience shows only too plainly. In the tight little island of humanities studies, the assault upon memory and historical knowledge instituted in the 1930s created a 50 year period when the humanities and literary studies tested the possibilities of abandoning their bibliographical center. Stanley Fish's notorious pronouncement (ca. 1975), that he did not need a library to do what he does, is an index of a distinctive (and recently dominant) ethos.[2]

The imperatives driving libraries and museums toward greater computerization are not the same as those that have brought the well-known "return to history" in literary and humanities scholarship. Nevertheless, a convergence of the twain has come about, and now the two movements--the computerization of the archives, and the re-historicizing of scholarship--are continually stimulating each other toward new ventures.

The Mutation of Theory to Practise

Under these circumstances, humanities scholars and educators have been drawn back toward a deep and serious re-engagement with another fundamental subdiscipline of their work: textual and editorial theory and method. Although "theory" no longer defines broad ranges of scholarly activity, as it did in recent years, it has preserved a vigorous life in textual studies. As a consequence, a rather unusual situation has emerged during the past five years or so.

First, "theory" often carries a highly practical dimension. The brilliant theoretical pursuit of a standardized electronic markup scheme--epitomized in the development of SGML and the subsequent evolution of the TEI guidelines for electronic texts--may be taken as the epitome of the kind of theoretical activity I am talking about.[3]

TEI Guidelines

Here theoretical work is undertaken under a clear practical horizon. Certain tools for organizing and analyzing electronic texts were desired and eventually constructed. As so often happens in activities of this kind, the work itself exposes, perhaps even creates, new ideas and possibilities that demand further study and exploration. (In this case, the limitations of SGML and TEI as general approaches have generated important revisionary alternatives. The MECS system of markup developed for the Wittgenstein Project appears to be one; another is the hybrid approach being followed by the Rossetti Archive and associated works like the Blake and the Emily Dickinson projects).[4]

Rossetti Archive

Second, textual and editorial work are once again being seen for what they are and have always been: the fundamental ground for any kind of historically-oriented intellectual work. This realization has been coming about, I think, exactly because the archives are "going electronic". That event--the creation of networked archives holding vast bodies of electronic and digitized materials--has been exerting enormous pressure upon scholars to become intimately involved in the design and creation of those archives.

Scholarship in the Age of Networked Archives

We stand at the beginning of a great scholarly revolution. Even now we operate under the extraordinary promise this revolution holds out: to integrate the resources of all libraries, museums, and archives and to make those resources available to all persons no matter where they reside physically. The hardware and software tools that help to realize these expectations are under development, indeed, are well advanced. Although these technical devices are indispensable, scholars like ourselves will exert most influence on their design by focussing attention on what we do and have traditionally done, and (implicitly or explicitly) asking that these new tools be designed to help us do our customary work better.

In this respect I would emphasize three research areas. Two of these center in the scholar's principal research tool, the library. The third investigates new methods of criticism and interpretation.

First, we have to begin transforming our existing paper-based archives of material into usable electronic forms (textual as well as graphical). Second, we have to move our current work into electronic venues that enhance both the range and the effectiveness of what we do. Finally, we must begin experimenting with the critical opportunities that these new media hold out to us.

Contrary to the expectations created by the explosion of the Internet, traditional scholars who navigate that sea of information have yet to find much to help them in their disciplinary work. Pockets of exceptions exist, and if you are a scholar of postmodernism the Net is a rich lode indeed. The latter exception underscores the problem: the Net has not yet accumulated those bodies of content that we need if we are to do our work. As a Victorianist I still have to go to the library to seek out copies of the nineteenth-century books and periodicals I need, and I continue to depend upon traditional bibliographical tools--books and catalogues--to develop my research projects.

The task of digitizing our archives--not just the archival systems, but the corpus of materials housed in our libraries and museums--is enormous. Nonetheless, it is a job that is already underway and it will continue. A core of digitized reference materials is emerging quickly and the rapid expansion of this core is taking place every day. That process in its turn exerts a steady pressure to digitize the regular holdings. It is crucial that scholars take an active role in shaping these events since they affect the character of our most fundamental resources.

The example of the Chadwyck-Healey "English Poetry Database" is an eloquent one. This is of course a splendid resource in many ways, and a groundbreaking effort to create a large electronic content-area of traditional materials. Nevertheless, those who have used it are well aware of its limitations. I am not speaking here of its cost--a subject that has raised many eyebrows--but of its scholarly design. For research purposes the database grows less and less useful for those authors who would be regarded, by traditional measures, as the more or the most important writers. It's most useful for so-called minor writers.
English Poetry Database

This paradox comes about for two reasons. On one hand, the poetical works of "minor" writers are often hard to obtain since they exist only in early editions, which are typically rare and can be quite expensive. By providing electronic texts of those hard-to-acquire books, "The English Poetry Database" supplies scholars with important primary materials. On the other hand, the policy of the Database is--wherever possible--to print from collected editions of the poets if such editions exist. The better-known the poet, the more likely there will be collected edition(s). Furthermore, the policy is to print collected editions that are out of copyright. Efforts are made to choose "the best" of such editions, of course, but in most cases the editions have serious deficiencies. The Database would have done much better to have printed first editions of most of its authors, or at any rate to have made its determinations about editions on scholastic rather than economic grounds. But it did not do this.

To cut its costs the Database made another decision that proves even more dismal so far as a scholar is concerned: it removes the front and back matter of the books in its corpus of texts. So we lose lists of subscribers and important prefatory materials as well as various notes and appendices. These excisions strip the Database of its usefulness for all kinds of the most basic scholarly work. Speaking for myself, I now use the Database in only two kinds of operation: as a vast concordance,[5] and as an initial source for texts that we don't have in our library. In the

latter case I still have to find a proper text of the work I am dealing with.

Most textual materials currently available on the Internet have similar problems, so far as a scholar is concerned. Indeed, most fall well behind the standards set and maintained by the Chadwyck-Healey project.

These limitations of current Internet texts have made me aware of the need for a strong scholarly influence on the design of electronic editions, in particular online editions. I therefore decided to launch (in 1993) a small project that I hoped would stimulate scholars to work actively at influencing the creation of good scholarly editions in electronic form. This project is **English Poetry 1780-1910: A Hypermedia Archive of Critical Editions** . The project was initiated with two hypermedia editions that were built in graduate courses I ran at University of Virginia. These were editions of two works by Richard Polwhele and Mary Robinson. Since then a number of other editions have been added to this Archive by scholars from other institutions, and further editions are in process of completion. In a few months my current graduate class will complete and put up a hypermedia edition of the four numbers of **The Germ** , the important journal that announced the arrival and the program of the Pre-Raphaelite movement. (The Archive remains open to projects that anyone wishes to propose.)
British Poetry 1780-1910

At the heart of all this, for myself at any rate, is **The Rossetti Archive** and its associated materials: a project to present a complete corpus in hypermedia form of all the visual and textual works of Dante Gabriel Rossetti in digitized facsimiles. This Archive is being built not only to create a proper edition of Rossetti's works, something that has never been attempted (for obvious reasons), but to design a model for image-based electronic scholarly editions that would have wide applicability.[6] In this respect the idea of the Rossetti Archive stands behind the founding of **English Poetry 1780-1910: A Hypermedia Archive of Critical Editions** .

This kind of work on the existing archive of scholarly materials should be accompanied by efforts to increase networked and electronic delivery of current research and criticism. Two important moves can be made and are already taking place. First, when current scholarly journals publish their work online and/or in electronic form, they open their materials to integration within a scholarly network whose range and power outstrip current paper-based publication. Furthermore, electronic publishing permits scholars to present their work in far greater depth and diversity. Essays can present all their documentary evidence as part of their argument (in notes and appendices, or in electronic links to the original documents--as in the present essay). They can also exploit fully the use of illustrations and images, including video film clips, as well as audio clips. (Examples of all these kinds of materials can be found in the groundbreaking electronic journal **Postmodern Culture** , published at University of Virginia.)

A second useful type of electronic publication is the preprint, which distributes research work in online electronic forms, including perhaps work in progress. Such a distribution mechanism has been launched for philosophical work (out of the University of Chicago), and University of Virginia has just announced a similar program for research and criticism in literature and cultural studies.[7]

Finally, anyone who works in these new electronic venues quickly discovers their potential for innovative approaches to critical writing and interpretion. While we can at this point only begin to imagine the possibilities, certain features of this new kind of textuality are decisive.

Radiant Scholarship and Criticism

When computer-literate scholars discuss the critical potential of new technologies, they regularly think in terms of database search and analysis. One sees this very clearly, for example, in the special issue of **Computers and the Humanities** devoted to the question of "A New Direction for Literary Studies?".[8] While some of the essays take a linguistic and some a cognitive approach, all focus on the computer's power to expose general patterns within a large database of information.

Computers do facilitate these kinds of investigation, which are clearly important. Such methods, however, cannot concern themselves with aesthetic issues because they forego any engagement with the "minute particulars" of specific works. More crucially, while these approaches view their materials of study as indeterminate and non-transparent, the critical instruments they deploy are not. Computers and computer programs may be (and often are) extremely "complex"; nonetheless, their functionality depends upon their determinate and self-transparent structures.

There are other ways to think about computerization as an aid to critical practise and reflection. First, unlike paper-based forms, electronic texts are more volatile and open-ended. This means that the "work-in-progress" becomes a defining mode for scholarly writing. Of course scholarship and criticism, like art, is a long journey, but the hypothetical structure of knowledge--knowledge as a continual pursuit rather than an achieved condition--gets increased emphasis through these new forms of study and expression.

Second, the cumulative nature of critical and scholarly work can be preserved and self-integrated in ways that far transcend the capabilities of paper-based instruments. Computerization not only vastly increases the amount of accessible information, it enables much greater flexibility in the ways information can be shaped, scaled, and negotiated. This doesn't mean that hierarchies of knowledge will be eliminated, as has been sometimes hoped and sometimes feared. Rather, it means that hierarchies can be determined and need not be determinate. Knowledge can be critically ordered for specific and conscious ends. Under such conditions, what is recondite and what is important, or what is central and what is peripheral, emerge as functions of the critical activity itself and need not stand as given horizons of thought.

Such formal flexibility defines what has been called the "interactive" character of knowledge pursued in a networked frame of reference. The environment is not so much a "readerly" as a "writerly" one: writer engagement rather than reader response. As such, it must also be enagaged in far more self-consciously collaborative ways.

The example of the Rossetti Archive illustrates the situation very well. I don't have in mind so much the "scale" of the project in the traditional sense--as one might speak of the large scale of the Bollingen Coleridge edition, or any other great scholarly work of that kind. Such projects have often called groups of scholars to work together. But their work, being codex-oriented, has a determinate shape and focus. When the last volume is completed, the work is finished. It may have to be revised, it will certainly be extended, modified, superceded by later scholars and critics. Nonetheless, it is a work whose covers will at some point close upon themselves.

The Rossetti Archive, by contrast, is unfinishable. In this, its initial phase of construction, it will be built in stages that will gradually release certain sets of textual and visual materials to the public domain. I imagine that in about ten or twelve years the entire initial phase will be complete. It will include a hypermedia environment of all authorized manuscript and print documents as well as all

pictorial materials as well. (All that are known, that is to say, or that have ever been known of.)

Were the Rossetti Archive a book project, we would say that it had been completed at that point. But it won't be complete then, or indeed at any time, for two reasons. First, it's being designed as something other than a self-integrated set of materials. It stands open to integration within the largest imaginable set of related information: to a hypothetical Archive of Archives. This design structure is built into the Rossetti Archive at its most fundamental levels. So, for example, when the Archive incorporates a text of a Rossetti work that appeared in a contemporary periodical like **The Fortnightly Review** , the Archive is organized to access the periodical as a whole, and not just one (arbitrarily reconstructed) piece of it. The desired item is called by following a link to its location in the periodical.

The completeness of the Rossetti Archive thus depends upon the completeness of the network of information in which it is imagined to exist. Its completion has to wait upon the completion of the Archive of Archives. (Nevertheless, though its practical completeness requires the emegence of the Archive of Archives, it is already conceptually complete.)

Second, the Rossetti Archive stands open not only to the entire inherited depository of related materials, it awaits the coming of additional materials that do not as yet exist.

Those two general conditions have always defined the framework in which scholarship is carried on. Libraries hold and preserve books, and they "update" the knowledge in their holdings by increasing those holdings--by buying and maintaining new books and periodicals. Beyond the library, a community of scholarship and a network of publishing set standards for legitimating and disseminating information. This arrangement of responsibilities has evolved and stabilized itself over hundreds of years, as have the laws governing these complex arrangements. The electronic network of information, however, has turned this world upside down. We confront new sets of technical, material, and scholarly demands. Whose responsibility will it be to maintain volatile scholarly products like The Rossetti Archive and how will those responsibilities be carried out? Because the Rossetti Archive will outlive its makers, provision has to be made for a continuity of authority over all aspects of the Archive and other works of that kind. Nothing in the current structure of the institutions of knowledge makes provision for the problems raised by these works. But provisions will be made because they must be. If history is prophetic, we shall find that the arrangements will evolve over time, and that they will be shaped by the initiative of those who are willing to "boldly venture where no one has thought to go".

The volatile character of these new kinds of scholarly editions--so unlike their more traditional precursors-- forecasts dramatic changes in the way criticism and interpretation will be carried out. The remarkable spread of newsgroups, LISTSERVs, and real-time virtual discourse (via MUDs and MOOs) has created a highly flexible environment for pursuing knowledge. The electronic pre-print initiatives I mentioned earlier are emerging, I am sure, in response to this radiant textual network. The (so to speak) email level of electronic discourse is clearly not an optimal one for disseminating more complex and extensive scholarly works. Preprint sites not only hold such materials more efficiently, they can be used to alter the contact range for different critical exchanges (to broader or more specialized audiences).

Under such conditions, criticism and interpretation will inevitably break free of the atomic forms--the monograph and the scholarly/interpretive essay--that have guided our work for so long.[9] Certain recent codex products--works like **The Telephone Book** , or much of the writing in a collection like **A Poetics of Criticism** , --mark the impact that radiant textuality is having on conventional text.[10] Even the most traditional kinds of critical writing--this essay you are reading now--can radically tranform themselves depending on the medium in which they are

constructed. The paper form of this work in **Victorian Studies** is far less permeable than the electronic preprint form, it cannot incorporate anything like the same range or variety of materials, and it does not interact with the scholarly community in the same ways. At the moment--and one should emphasize the word "moment"--the printed text of this essay has certain advantages over the electronic text. But the advantages reflect a temporary condition that is disappearing rapidly. **Victorian Studies** , I venture to say (it is not much of a prophecy), will not exist as a printed venue for very long.

Pedagogy and the Scene of Learning.

Finally, one should mention at least briefly the educational possibilities--some are current realities --for class and course work that seeks to exploit both wide and local area networking facilities. Here the fundamental tool is email, which is being modified and adapted into a variety of virtual dimensions that are useful for instructional purposes.

Let me mention just one project here-- Greg Ulmer's "Collective Page", which he is building as a course to be offered in the fall of 1995 at University of Florida.[11] Novel and interesting as the project is, one recognizes the species: the notorious IN.S.OMNIA (Invisible Seattle's Omnia), which evolved through the 1980s, is a clear ancestor, and David Blair's WAXWEB an equally clear current analogue.[12] So Ulmer's project is an index of what is happening even now, and of the kinds of possibility that are in store for a net-based educational scene.

Ulmer's idea for this course evolved from his work in composition and media courses he teaches at Florida. This experience led him to the following idea: "we are looking for a collective rhetoric to guide the writing of a group page that we compose by each adding his/her part to the whole without understanding the effect in advance, but we receive the effect afterwards by reading the collective page." Ulmer goes on to add that "The collective page will be a representation of American national identity composed as a discourse network of identity positions, showing the full import of the problematic including the latent and historically buried as well as the manifest and specific; and the negotiated and oppositional alternatives as well as the preferred outcomes (not to mention absurd and impossible positions as well--site of possible freedom?)" The ultimate purpose of the network is to show its users/builders "the full network in which they are imbedded" as well as their own involvement in that network, and the constraints it imposes on all within it.

Much could be said about this pedagogical adventure--indeed, the announcement of the project sparked an interesting exchange on the net. That dialogue--both its site and its character--illustrates the changes that are in store for all of us. Ulmer's course will be given at the University of Florida but its time-space will be, already is, far more broadly-based and interactively-imagined. The course not only solicits the "network" it wants to study and test, it incorporates itself into that network; and it establishes itself within the scalar forms--broadly, local area and wide-area forms--within which networked environments exist.

In terms of "Victorian Studies", Ulmer's project might well spur us to move beyond our loose and gossipy networked existence. The VICTORIA listserve is all very well and good, but its unsubscriptions are eloquent. I am myself regularly on the verge of cancelling out, though to date I simply wear down the Delete option.

It is time to give serious, collective thought to how we shall live and move and have our being within the networks of knowledge that are radiating around and through us all.

Endnotes

1. The ellipsis originally read: "not to make advertisements for myself, I would still suggest that the implicit and often explicit subject of both ***The Textual Condition*** and***Black Riders. The Visible Language of Modernism*** is 'hypertext' (see, in the latter, the "Dialogue on Dialogue" in particular)."

2. To the extent that this ethos energizes one, it has a salutary effect. It turns baneful as it diminishes our awareness of (1) the historical constructedness of all consciousness (including consciousness as "reading"), and (2) the library's ability to expose the vast historical networks by which we are all transacted.

3. See C. M. Sperberg-McQueen and Lou Bernard, eds., ***Guidelines for Electronic Text Encoding and Interchange*** , TEI P3 (Text Encoding Initiative: Chicago and Oxford, 1994. An electronic copy of the guidelines can be obtained via e-mail at tei@uic.edu. See also C. M. Sperberg-McQueen, "Text in the Electronic Age: Textual Study and Text Encoding, with Examples from Medieval Texts," ***Literary and Linguistic Computing*** 6 (1991), 34-46.

4. See Jerome McGann, "The Rossetti Archive and Image-Based Electronic Editing," a preprint version is available. See also Claus Huitfeldt, " Multidimensional Texts in a One-dimensional Medium", in ***Wittgenstein and Contemporary Theories of Language*** , ed. Paul Henry and Arild Utaker (Working Papers from the Wittgenstein Archives at the University of Bergen no. 5: Bergen, 1992). Two other studies by Huitfeldt are forthcoming: "MECS-A Multi-Element Code System" and "MECS-WIT-A Registration Standard for the Wittgenstein Archives at the University of Bergen". (For the Blake and Dickinson projects see below, note 6.)

5. Of course the concordance is far from complete, so far as "English poetry" is concerned--even "English poetry" in book form.

6. The ***Rossetti Archive*** is in fact still under construction; an initial set of its materials is scheduled for publication in three years (University of Michigan Press). The product linked to the present essay is an experimental model built in 1994 to test out certain of its structural premises. Two related projects are the William Blake and Emily Dickinson Archives, both being sponsored by U. of Virginia's Institute for Advanced Technology in the Humanities and adapting the model of The Rossetti Archive. Both projects get underway in the summer of 1995; the Blake project is

supported by a grant from the Getty Fund.

7. University of Virginia's preprint service will be put up on the Web this summer (1995); the International Philosophical PrePrint Exchange (IPPE) is online.

8. Vol. 27, nos. 5-6 (1993-94).

9. I borrow the metaphor of atomic forms from Nicholas Negroponte, ***Being Digital*** (Alfred A. Knopf: New York, 1995).

10. See Avital Ronnell, ***The Telephone Book. Technology, Skizophrenia, Electric Speech*** (University of Nebraska Press: Lincoln, 1989); ***A Poetics of Criticism*** , ed. Juliana Spahr et al. (Leave Books: Buffalo, 1994).

11. Ulmer announced the project on the INVENT-L listserve, which distributes from the Florida Media Arts Center. The announcement then sparked an interesting exchange.

12. For a lively narrative of the IN.S.OMNIA project see Rob Wittig, ***Invisible Rendezvous*** (Wesleyan UP: Hanover and London, 1994). The WAXWEB World-Wide Web address is http://bug.village.virginia.edu; the VRML browser is http://bug.village.virginia.edu/vrml.