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The William Blake Archive: An Overview

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Abstract

This essay offers an introduction to and summary of The William Blake Archive (WBA) as an online, multimedia, scholarly edition. It covers the history of the WBA's initial online publication in 1996 and then describes the conception and structure of the edition, its editorial principles, and "object-centered" organization, hierarchical structure, and interface, including the limited role played by author's intentions in setting up this structure. Next the essay surveys the WBA's editorial methods and procedures, including how the resource – which aims for "virtually reunified" corpus – has been produced and managed at The University of Virginia's Institute for Advanced Technology in the Humanities (IATH), and concludes with a look at the method of publication and delivery (including the role of structural markup and the World Wide Web).

William Blake (1757–1827) was the quintessential multimedia artist – a printmaker, engraver, and painter, as well as a poet. Scholars now widely agree that no simple textual edition of his artistic works can do justice to their complex composite nature. In letterpress-book form, this critical consensus led to the production of the Blake Trust facsimile editions during the 1990s (Bindman). During the same time period, it led to the creation of the digital edition, the William Blake Archive (hereafter WBA), edited by Morris Eaves, Robert Essick, and Joseph Viscomi, in collaboration with the staff of the University of Virginia's Institute for Advanced Technology in the Humanities (IATH). The WBA is one of the first serious scholarly editions in electronic format expressly designed for publication on the World Wide Web, and it remains a free online resource. Work on the project began in 1993, at about the same time the Web itself came into existence, and its first online installment appeared in 1996. In 2003 the WBA won the Modern Language Association's Prize for a Distinguished Scholarly Edition, the first digital edition to be so honored, and in 2005 it received the seal of approval of the MLA's Committee on Scholarly Editions (another first for a digital archive).

But it is an edition, as the student or scholar coming to the WBA should remain aware, an edited collection of reproductions and transcriptions specially encoded and arranged according to particular theories of editing and of Blake's art. Like many other digital humanities resources, the WBA

uses computers to study printed materials. In this case, it leverages the special features of digital media in order to analyze what were (bound and unbound) books and prints, but also paintings and drawings, all produced over two hundred years ago using copper plates and a printing press, paper and ink and tempera pigments. One purpose of a resource like the WBA is simply to provide access to rare materials by way of digital representations of Blake's works; it does not of course pretend to provide transparent, unmediated access to the works themselves. What follows is an overview of the specific features of the WBA, its conception and structure, editorial methods and production, mode of publication, and user interface.

Conception and Structure

The WBA includes introductory materials that spell out how the archive was constructed and what it aims to achieve, detailed and interlinked essays on editorial principles, technical standards, and procedures, as well as a general summary of its structure, "The Archive at a Glance." As these interlinked documents make clear, the WBA has been shaped by what the editors call an "object-centered" approach. This means that the archive is organized not around each literary work (or book) by Blake, and certainly not around an ideal or eclectic text of any given work, but around unique physical objects – which, for most but not all of the works in the archive, means handmade prints, often combining image and text, produced from individual copper plates.

The archive is structured hierarchically. Starting at the top with a "genre" (illuminated book or non-illuminated artwork), it branches down into specific works (e.g., *Songs of Innocence & of Experience*), and then to individual and uniquely varied copies of each work, and, finally, to individual "objects," the plates within each copy. All textual transcriptions, as well as helper applications and analytical tools, are keyed to what the editors call the "object-view page" on which the individual plate is represented. The illustration in Figure 1 (from the help files of the WBA) shows the heart of the edition, the layout of this object-view page. Each individual object in the WBA, a single plate from a particular copy of an illuminated book, say, can theoretically be juxtaposed with any other in the total archive, either through the use of a search engine (which in effect sorts and juxtaposes objects based on the user's individual requests) or visually, by using the "compare" button (which provides a horizontally scrollable series of combinations of plates taken from the multiple copies of a given work – see Figure 2). Every object is ultimately linked to every other object in the WBA, but the individual plate on its digital screen or Web "page" is the conceptual hub of every possible grouping. This choice in the design of the archive situates each digital facsimile of one of Blake's original objects at the central node of a radiant structure of other objects, diplomatic transcriptions, helper applications and tools, metadata files, and notes.

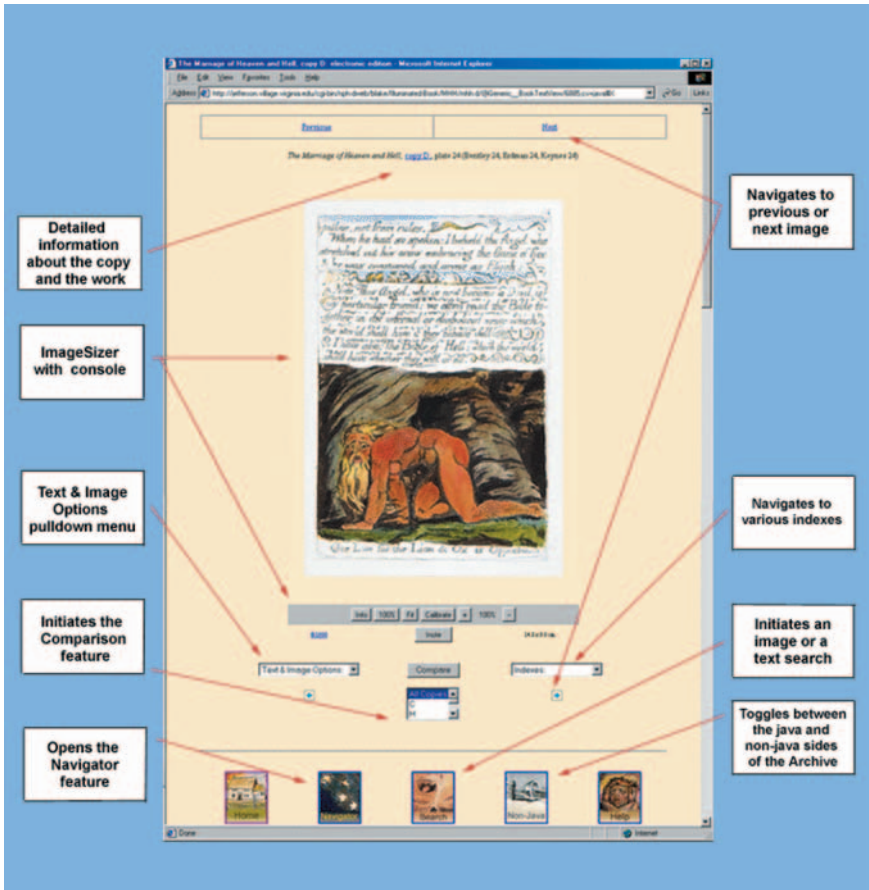


Fig. 1. The object-view page (from http://www.blakearchive.org/help/help_object.html).

This “database” design deliberately makes its primary object the individual plate, rather than, say, the book. Although one can “page through” any Blake book in the archive by navigating the links at the top and bottom of every object-view page, the focus of the editors’ analysis and annotation foregrounds each plate as a modular “record” in the database archive. This “radiant” design encourages an open-ended approach to the study of Blake’s works, one that does not assume as a fixed unity any individual book or work. For example, it is just as easy to compare multiple copies of “The Tyger” from *The Songs of Innocence & of Experience* (1794), across the six copies currently online at the WBA, as it is to compare “The Tyger” with “The Lamb” within a single copy. Indeed, the apparatus of the edition, the list of copies and the one-click “compare” button, encourages such cross-copy collations of plates. The decision to organize the edition in this way was based on the editors’ understanding of Blake’s practices as a printmaker and book-designer. Blake often combined the individual prints

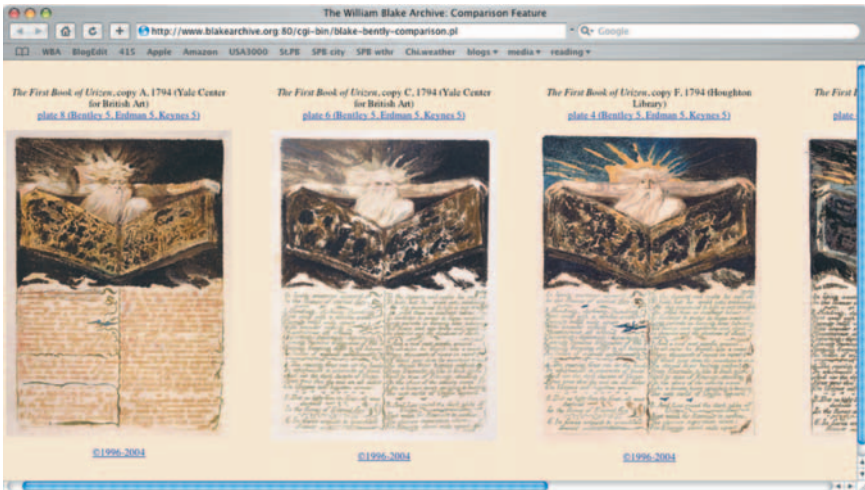


Fig. 2. "Compare" feature (horizontally scrollable).

he pulled into books, but not always, and not always in predictable ways, or according to the usual conventions of book printing and publishing. Most copies of Blake's books vary physically in significant ways, most obviously in their hand coloring, but in some cases this includes variation in the order of individual plates or pages. Any serious scholarly study of *The Book of Urizen*, for example, must take into account its bafflingly complex combinatorics. No two copies have their pages in the same order, for example, and some of the plates do not contain text (which might help key them to specific portions of the work). Thus the WBA begins with a modular view of Blake's work that highlights its variability and indetermination.

In addition to its primary objects, the WBA's preliminary and supplemental materials also include a bibliography of Blake studies, a list of related Websites, a biographical essay on Blake, and the complete searchable text of the standard letterpress edition of Blake by David Erdman (1965; rev. 1988) – an edition within the edition, as it were. Any combination of these materials can be integrated into any individual act of studying the primary materials, usually simply by opening multiple windows on one's computer desktop. The Erdman texts are especially useful for keyword searches among forms of the poetry that have historically been cited in criticism and read in classrooms, and for comparing against the new diplomatic transcriptions made by the WBA editors themselves, literal renderings of what they see in the facsimile images. Selecting either Erdman's critical-edition text or the WBA's textual transcription opens a new text window on top of the image, and this new window can be resized and dragged to any position on the user's screen, alongside the image of a plate, for example. Users can then compare and collate the various texts for themselves "on the fly." Non-academic users and students will need to read the introductory materials in order to fully understand the differences in purpose and result between

Erdman's eclectic textual edition, say, and the editor's "diplomatic" or literal transcriptions of each plate.

Besides collations of the multiple texts, the translation of Blake's originals into the digital medium makes possible other kinds of specialized analysis. Zooming, resizing (calibrating one's monitor to see the object's actual size or enlarging an image to reveal hitherto invisible details), searching (image and text), annotating (by WBA editors and end-users) – all are manipulations of Blake's texts and images facilitated by the electronic environment, which can be seen as a way of empowering the user to construct the meanings of the Blake's work ("Would to God that all the Lord's people were Prophets," Blake once wrote, quoting scripture). But the WBA also allows for reconstructions of Blake's authorial intentions. Recently, Joseph Viscomi, one of the WBA editors, manipulated digital images from Blake's *Song of Los* in Photoshop in order to achieve versions of some plate-sequences that were not completed but – as Viscomi judges – were intended but never completed by Blake. The results were printed out on paper, resulting in a new facsimile of an ideal text not actually realized in Blake's material corpus, an outcome perhaps unexpected given the object-centered design and digital manipulations favored by the WBA, but also a testament to its broader flexibility as a scholarly resource.

Methods of Editorial Production

Providing free access to reproductions of Blake's work is perhaps the most immediately obvious and broadly appreciated strength of the WBA, a baseline achievement the importance of which can hardly be overestimated. The goal is to provide users around the world a place of centralized and comparative access to extremely rare materials by Blake that actually reside in numerous far-flung locations. As the term "archive" emphasizes, the WBA is an aggregated collection of unique objects, a kind of growing database, that aims as much as possible for completeness. (Some copies of Blake's works remain to be incorporated, but all are listed at each work's point of access.) At present the archive is still weighted towards the popular and often-taught illuminated books, as the editors admit. But its ambitious aim is for comprehensiveness, a virtual reunification of the physically dispersed corpus of the range of works in different media produced by Blake, prints and drawings and paintings and books, as held in libraries and museums and private collections all over the world. As I write, the WBA contains digital versions of 56 copies of all of Blake's 19 illuminated books. It also contains a substantial and growing list of other kinds of materials besides the illuminated books – commercial illustrations, separate prints, drawings, and paintings, and manuscript materials, as well as typographic editions – to which the editors say they intend to give equal weight.

The consistency and accuracy of this "virtually-reunified" Blake corpus depends upon following standard practices and maintaining an established

quality control by the editors and staff at the University of Virginia's IATH during the process of digitizing each of the primary materials. A single Project Manager was put in place to work with all three editors to oversee production at IATH (Kirschenbaum). Although the editors continue to consult one another on every aspect of the edition, as a practical matter, divisions of labor have evolved. For example, Viscomi, who is himself an artist and printmaker as well as a Blake scholar, is mostly responsible for image production: scanning, color-correction, etc. In the early stages, important technical leadership on matters of textual encoding and software tools was provided by then-head of IATH, John Unsworth. The collaborative relationship among the three editors and IATH (with staff dedicated to this project), which has served as de facto publisher and production center, is largely responsible for the success of the project.

The basic editorial production process has been as follows: original plates by Blake that are now dispersed in collections all over the world are photographed; 4×5 inch or (less often) 8×10 inch transparencies or (rarely) smaller slides are then scanned directly in order to produce high quality TIFF images from which lower-resolution JPEGs are later produced. Each digital image is then color-corrected in relation to the transparency, which has itself been color-corrected against the original. Any text on the plate is diplomatically transcribed; even spatial arrangements of the words, gaps, blank spaces, etc., are preserved as far as possible. Textual encoding, image annotation, etc., then come together to produce a given object-view page. Metadata tags are added recording the provenance, history, and physical states for each archived object are all made readily available in a form that travels with each image, is embedded in its actual file. The metadata also describe the WBA's own editorial history, recording precisely how facsimiles were scanned, for example.

Mode of Publication and User Interface

As a digital resource, the WBA relies on specific technologies to build its facsimiles and texts, but also to make them available for viewing and advanced study over the network. Both the images and texts of the WBA are encoded using International Organization for Standardization (ISO) formats, open-source markup schemes, and community-recognized technical grammars: TIFF and JPEG formats for the images, originally SGML and TEI, and now, XML, for textual (and to some extent, image) markup, with the goal of long-term stability rather than the changing and momentary protocols of HTML display. And yet the WBA editors have in fact also worked wherever possible to fulfill the (sometimes competing) goal of providing a free resource via the actual World Wide Web, which, as I've indicated, developed along with the WBA. For example, the WBA has used stylesheets and, for a time, the (rather awkward) software plugin Dynaweb to render HTML versions of its SGML-encoded materials. More recently

it has undertaken a massive conversion of its SGML files to XML (the first version of the XML-based archive came online in January 2006), which should make possible more interoperability between the WBA and other scholarly digital resources, an increased use of open-source software applications, greater portability across platforms, and greater stability over time. The editors have clearly stated that their *primary* audience or user base is the community of specialist scholars doing sustained original research in Blake. It could conceivably have remained a locally held or proprietarily networked database resource for purely scholarly consultation; fortunately it evolved with its face turned toward what Blake called “the Publick” (through the World Wide Web). As one editor has it, the scholarly community of specialists is the “hard core of a target demographic that softens toward the edges” (Eaves). But those “edges” have clearly been crucial to the overall impact of the WBA and as a projected audience for the resource have shaped editorial policy, as well.

This decision – to make the WBA available over the existing vernacular public network of the World Wide Web – has posed a number of challenges for the editors and it has arguably led to some of the limitations of the WBA along the way. The editors began to build a rigorously marked-up scholarly edition according to hierarchical structural principles, and as a result the Web interface, for example, sometimes seemed almost an afterthought, and, especially early on, presented a rather steep learning curve for a more general student or scholarly (not to mention non-academic) segment of the user-base. The experimental features of the WBA at each stage, including the initial use of SGML and customized software plugins such as Imagesizer and iNote, for example, not to mention its (for the Web) relatively high-quality images (these are derived from even higher quality images held in the archive), have sometimes limited its audience in practice; at least until the rest of the Web, in terms of high-speed connections, for example, or better browsers, or familiarity with the software, have caught up. Of course, like other image-intensive multimedia Internet resources, the WBA is relatively less accessible to those with dialup and slower connections, or poor monitors on which to view the painstakingly produced digital images. And the user interface seems optimized for an imagined user who is a textual scholar doing reconstructive or “archaeological” work among Blake’s plates, rather than for the general reader (or viewer) of Blake’s texts and images. But overall, the WBA has succeeded remarkably well over the past decade in meeting the needs of its extremely diverse user-base. To put it in perspective: it is as if the editors of a traditional letterpress edition were forced to design a single edition for the use of scholarly, student, and popular reading audiences, and to make it available for free.

The first thing every visitor encounters at the WBA is a relatively lengthy home page containing the terms of access and use. Especially since unique images are involved, legal permission is a difficult problem for the WBA. Individual agreements with collecting institutions, digital watermarking,

metadata tagging, and careful user directions and agreements have all been employed in order to allow access for fair use and scholarly research. Below this level, if the user wants to access *The Book of Thel*, for example, she goes first to the (1) “US mirror,” then to (2) “Works in the Archive,” then (3) “Illuminated Books” – though a complete index is on this same page (at #2), it is not itself clickable – then, finally, to (4) *The Book of Thel*, where she can (5) select a copy from among four links and then (6) go to plate 1 (or whatever number), the object-view page around which the edition is explicitly organized. This series of clicks may test the patience of some visitors accustomed to today’s streamlined user interfaces, and the editors are aware that the WBA interface demands a certain level of preparation, even education. Hence the need for the “tour” contained in “The Archive at a Glance,” and for any user to spend some time learning to navigate and use the WBA.

The Web has been through many stages of evolution since 1996, including commercialization at the end of the decade and retrenchment after the dot-com crash. The fact that the WBA’s interface has held up as well as it has over the years is a testimony to the soundness of the general principles on which the edition was built: the pursuit of platform-independent robustness and persistence, using recognized community standards and technical grammars, and the focus on the serious scholar as the primary end-user, though with an open door for general users anywhere on the Web. Its recent move to translate all of its SGML files to the more flexible and more Web-friendly standard of XML testifies to the openness of the project as a whole. In this attitude of openness, in particular, as well as in its sound logical structure for organizing disparate content-objects, sensitivity to technical standards and the standards of the scholarly community, as we move toward increasing use of the Web for scholarly publication, the WBA stands as an exemplary precursor and a useful practical model for future scholarly projects.

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Insert in text the matter indicated in the margin	⤴	New matter followed by ⤴
Delete	⤵ through matter to be deleted	⤵
Delete and close up	⤵ through matter to be deleted	⤵
Substitute character or substitute part of one or more word(s)	/ through letter or ⤵ through word	New letter or new word
Change to italics	— under matter to be changed	ƒ
Change to capitals	≡ under matter to be changed	≡
Change to small capitals	≡ under matter to be changed	≡
Change to bold type	⌋ under matter to be changed	⌋
Change to bold italic	⌋ under matter to be changed	⌋
Change to lower case	Encircle matter to be changed	⊖
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Insert 'superior' character	/ through character or ⤴ where required	⤴ under character e.g. 3
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Insert full stop	(As above)	⦿
Insert comma	(As above)	,
Insert single quotation marks	(As above)	⤴ and/or ⤵
Insert double quotation marks	(As above)	⤴ and/or ⤵
Insert hyphen	(As above)	Ⓜ
Start new paragraph	⤴	⤴
No new paragraph	⤵	⤵
Transpose	⤴	⤴
Close up	linking ⦿ letters	⦿
Insert space between letters	⤴ between letters affected	#
Insert space between words	⤴ between words affected	#
Reduce space between letters	⤴ between letters affected	⤴
Reduce space between words	⤴ between words affected	⤴