sentational workshops have furnished their federative parts toward a more in-terracial Union" (126).

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WALT WHITMAN ON THE WEB

The Internet holds extraordinary promise as a tool for research and teaching. Yet there is a difference between print and electronic cultures: academics typi-cally encounter books and articles that have passed through a process of peer review, and, in contrast, they typically encounter web sites that have gone through no such vetting process. While it is true that electronic resources, un-like printed matter, can be quickly altered and improved (and therefore criti-cism can literally be constructive in that it can lead to the removal of mislead-ing or erroneous information and the substitution of reliable information), the ephemeral nature of web sites, since they may disappear overnight or change beyond recognition between visits, makes their use a tricky business. Thus, overarching analyses of web sites—like this one focusing on materials related to Walt Whitman—can serve as guides to help people locate useful resources and to understand the problems that the use of these sites may present.

As project manager of *The Walt Whitman Hypertext Archive,* an online re-source dedicated to making Whitman materials more readily accessible to the public, I try to stay abreast of developments on the web and new electronic applications that may present possibilities for technological innovation in the humanities. I pay particular attention to sites dealing with Whitman materials. As a person contributing to the construction of a particular Whitman site, I have a vested interest in this subject matter. Still, my closeness to the field may offer offsetting advantages in the analysis of such sites. In attempting to sort through the sheer magnitude and complexity of Whitman-related documen-tary forms that are available to us, I've learned to recognize certain problematic issues that must be addressed in any presentation of these artifacts. With this in mind, I present the following review of sites currently available on the Internet which offer Whitman materials to the public.

The democratizing power inherent in popular reading and the vital role that technological innovation played in expanding access to knowledge stirred Whitman's soul. In an 1856 letter to Ralph Waldo Emerson, he openly ex-pressed his enthusiasm about the democratic possibilities inherent in new tech-nological advancements:

All current nourishments to literature serve. . . . Of the twenty-four modern mammoth two-double, three-double, and four-double cylinder presses now in the world, printing by steam, twenty-one of them are in These States. The twelve thousand large and small shops for dispensing books and newspapers—the same number of public libraries, any one of which has all the reading wanted to equip a man or woman for American read-ing—the three thousand different newspapers, the nutriment of the imperfect ones coming in just as usefully as any—. . . all are prophetic. . . . What a progress popular reading and writing has made in fifty years! What a progress fifty years hence!

One can only imagine the thrill that Whitman would have received had he been able to look ahead 140 years to see the promise of an electronic age, holding the hope of a vast, interconnected, world-wide audience. In today's digital era, much of Whitman's work and contextual materials related to his world are becoming accessible via a mere mouse-click. Although once perceived as a problematic figure in literary study because of the chaotic multiplicity of his texts, intellectual perspectives and technical opportunities presented by today's electronic age offer possibilities that now suit Whitman perfectly. Whitman-dedicated web sites continue to spring into existence across the net focusing on varying aspects of his poetry, prose, and life. While this expansion of sites offers exciting opportunities for teachers, students, and researchers, it also presents the possibility for misinterpretation and distortion of Whitman materials. For educational or research applications, it is important to review these sites carefully before accepting them as reliable resources.

In 1891, in what has come to be known as the "Deathbed Edition" of *Leaves of Grass*, Whitman included a statement on his copyright page requesting that any future editions of his book of poetry be a copy or facsimile of the 1891-92 edition which he preferred over any other and considered "complete." This statement, along with the once dominant editorial practice of seeking to establish a single authoritative text, has usually led to the use of the 1891-92 edition to the exclusion of all others. Intriguing arguments, however, have developed for establishing both the 1855 and 1860 editions of *Leaves* as superior versions. While this attention to the proper presentation and designation of specific editions of Whitman's book of poetry may seem extreme to the newcomer to Whitman studies, those who have probed the complexity of sorting out the multiple states of *Leaves of Grass* will understand how each edition represents a different documentary form of a work in progress. The 1855 edition, for example, was composed of twelve poems encompassing ninety-five pages. During the years following the publication of this initial text, Whitman engaged in a nearly forty-year process of revision that ultimately produced six different editions of *Leaves of Grass*. A table of contents evolved, poems were revised, omitted, sectioned, assigned titles, and added to the work until its final state incorporated over 290 poems spanning 438 pages. While this complex textual history and multiplicity of states seemed to require, as it were, a single authoritative text when one was bound by the space and economic constraints of print culture, electronic hypertext now allows us to present all documentary states authorized at one time or another by Whitman. All six of Whitman's editions, although sharing a common title and author, can thereby be examined as both individual works and as parts of an ongoing process. But as distance is placed between editorial authority and these texts, the possibility for misrepresentations and conflations leading to distorted versions of Whitman's work become a distinct concern. The effect of such errors is insidious, as each error infects the growing number of web pages that offer Whitman links. The realities produced by these errors become apparent as one visits such web sites as those constructed by Walt Whitman High School of Bethesda, Maryland and South Eugene High School of Eugene, Oregon. These

sites, constructed for student and faculty use, present mislabeled electronic versions of *Leaves of Grass* which they have reproduced from the web. Even at such prestigious places as the University of Pennsylvania, a professor's course home page directs students to the mislabeled "1855" text. Unfortunately, these sites are spreading misinformation and error. Similar cases of misrepresented Whitman text have been encountered on web sites around the world, including Italy, Spain, Germany, and France.

Anyone who carries out a search for "Whitman," "Walt Whitman," "Whitman, Walt," or *"Leaves of Grass"* using such web search engines as Infoseek, Excite, Yahoo, or Lycos is liable to register over 50,000 "hits," or matches. One site that will most certainly appear near the top of any response list is the Columbia University Bartleby Library's online edition of *Leaves of Grass*. This site, overseen by the Bartleby Project's editor-in-chief, Steven van Leeuwen, presents an electronic arrangement of Whitman's monumental book of poetry based upon a posthumous edition printed by David McKay in the first years of this century. The arrangement includes five illustrations of the poet, a note from Whitman to McKay, a facsimile of a three-page holograph autobiography, and variorum readings of many of the poems. For navigational purposes, the site offers a facsimile table of contents, an alphabetized listing of poem titles, as well as an index of first lines. Individual poems are easily accessed, and highlighted words or phrases mark hyper-links to variorum annotations. Unfortunately, the individual documents do not provide navigational tools that would allow the user to move from page to page (or screen to screen) within the text. Once a poem or annotation is accessed, the user is dependent upon the "Back" button provided by the web browser to return to the table of contents or index.

What is more problematic about this site is the text itself. The edition published by McKay in 1900, and then reprinted in following years (the edition reproduced by the Bartleby project could not have been printed earlier than 1904 as it lists Washington Square as the publishers' address, and McKay moved its offices to Washington Square in 1904), is actually based upon an edition published by Whitman in 1871. What makes this text most questionable, however, is that McKay took liberties with this unauthorized edition, shifting the placement of some poems, and omitting others. The Columbia University Bartleby Library's online text of *Leaves of Grass*, then, presents an arrangement that reflects neither Whitman's wishes in 1871, nor his final wishes. In fact it presents a text different in arrangement than anything Whitman ever produced.

Another site devoted to Whitman studies that has been established for some time and which appears repeatedly on the net is *The Walt Whitman Circle Home Page*. Visitors to this site are greeted by the following comment: "This home page is dedicated to all who would like to expand their poetic horizons, and learn more about America's most famous poet, and the times he lived in." The *Home Page* promises to provide specific materials that might justify its lofty dedication; it promises, for example, to make available (at no cost) *A Walt Whitman Primer* by Dr. Robert Strassburg as "a way to inspire young people and adults to learn about Walt Whitman and poetry." Precisely when this guide will become available remains in question. Materials related to

musical compositions inspired by *Leaves of Grass* are also promised, but if users follow this link, they meet an exasperating "This page under construction" declaration. Another link offers to provide a list of Whitman-related resources at the Library of Congress; however, this leads only to a server-generated "File Not Found" notice. Finally, the site's link to "reviews of books about Whitman" presents a mere two books published in 1995.

The real area of concern—beyond what *The Walt Whitman Circle Home Page* promises yet fails to deliver—is in the materials that this site *does* provide. In its "Background on Whitman," for example, the site presents as fact that while serving as editor of the *New Orleans Crescent* from 1846 to 1848, Whitman "had a brief but torrid love affair with an Octoroon lady of considerable charm." The notion that Whitman was ever involved in a "torrid love affair" with a woman in New Orleans (or any woman for that matter) is not taken seriously by Whitman scholars today. For example, David Reynolds's *Walt Whitman's America: A Cultural Biography*, one of the two books reviewed by the site, declares that not a shred of evidence has ever been uncovered that would support such a claim. Additionally, and most troublesome, a misleading date is assigned to the site's electronic text of *Leaves of Grass*. Although the site claims to present "*Leaves of Grass* (1855)," we get something far different than Whitman's original collection of twelve untitled poems. In fact, what we receive is the enormous "Deathbed Edition" of 1891-92. Compounding problems, the site suggests that its users "Go to Columbia University and read *Leaves of Grass* (1900 edition)" which, as previously discussed, presents another unreliable text.

Having encountered critical problems with sites established by such prominent editors as Columbia University's Steven van Leeuwen and *The Walt Whitman Circle Home Page*'s Dr. Robert Strassburg, Professor Emeritus of Music at California State University, users might begin to doubt if any site on the Internet can be trusted to offer reliable materials for studying and teaching Whitman. Useful sites do, however, exist and continue to make important information and materials more easily accessible to ever-widening audiences. The Long Island Globalink's *The Poetry of Walt Whitman* site, for example, provides a brief but informative biographical profile of the poet, directions to and a virtual photographic tour of Whitman's birthplace, as well as a modest bibliography of Whitman criticism. The site also provides a hyper-linked listing of books about Whitman as well as several of his poems. The incorporation of a search engine offers the added opportunity to seek out particular keywords contained within the materials presented. Additionally, the site offers a forum in which students, teachers, and researchers may pose questions and share information about Whitman. Unfortunately, the forum is inadequately moderated and many of the comments posted to the site may seem superfluous to those well acquainted with Whitman or could be considered inappropriate for young visitors who log on. Like a number of other sites, Globalink has some trouble getting Whitman's text straight: for example, it describes the sixth edition of 1881-82 as the "third edition."

Fortunately, the University of South Carolina's Department of Rare Books and Special Collections has created a hypertext exhibition which presents accurate bibliographic information about Whitman's works. Based on the Thom-

as Cooper Library's *Walt Whitman: A Centenary Exhibition*, held March through April, 1992, and in collaboration with Joel Myerson and Ezra Greenspan of the University of South Carolina's Department of English, this exhibit was constructed to illustrate the textual history of *Leaves of Grass*. Complete with images of the poet, images of the individual texts are set alongside of bibliographic descriptions that clearly identify the various editions and note interesting information regarding their composition, publication, and reception. The materials offered here are well worth the visit, as the user is offered the opportunity to trace the evolution of Whitman's masterpiece across its publication history.

While the sites I have discussed focus primarily on Whitman's texts, specialized sites are available which offer other interesting materials for studying the author and his works. A site made available by W. L. Bentley Rare Books, for example, presents selections from *With Walt Whitman in Camden*, Horace Traubel's firsthand account of the final years of Whitman's life. The resource includes a complete listing of index entries to the *With Walt Whitman in Camden* series, reviews from critics and readers of volumes eight and nine, and a retrospective of the entire series. This retrospective presents Traubel's purpose for publishing the account, as well as a brief publishing history and bibliographic listing of all issues of the series. Additionally, Bentley provides a nice map of the site along with direct links to other Whitman sites. Similarly, the *Atlantic Monthly* has made available an article written by John Townsend Trowbridge entitled, "Reminiscences of Walt Whitman," which it published in 1902, ten years after Whitman's death. "Reminiscences" presents a summary of Trowbridge's meetings and conversations with the poet.

In 1995, the Library of Congress made four famous Whitman notebooks available online through its *Walt Whitman Home Page*. Apparently stolen during World War II and just recently recovered, these notebooks provide fascinating insights into Whitman's earliest years as a poet as well as his experiences during the height of the American Civil War. Mixed in with notes regarding the identities, experiences, and requests of wounded soldiers taken down by Whitman, are trial lines of poetry that were later reworked and eventually included in the poet's *Leaves*. Individual pages of the notebooks may be viewed, enlarged, and even downloaded. The user can easily move to any page within the specific notebook being examined by typing in the desired page number (albeit the size of the images slows loading time). This system allows the user to move forward through the text from one page to the next, to back up a page, or even to move about the text indiscriminately. Each page also carries a link back to the table of contents where the user may access a different notebook at any time. I wish the Library would continue its excellent work by making the rest of the Whitman notebooks available as well (the Library of Congress holds over forty such Whitman notebooks). In fact, the Library holds thousands of Whitman documents, including pictures, letters, manuscripts, etc., which, if placed online, could revolutionize Whitman scholarship and instruction. Although placing this collection online would represent an incredible leap forward in making original documentary materials available to the world, another important undertaking is required to maximize the potential that online Whitman materials present in our modern electronic era.

What is needed is a central archive of all known Whitman materials which can be electronically organized and annotated for educational and research applications. But the site must also be managed in such a way that users can take away information confident of its validity and accuracy. Because Whitman was a poet of process—with his work evolving over six editions—and because his oeuvre exists in a complex assemblage of various documentary forms, this type of approach presents particular difficulties. While a project of this type has been attempted in book form in *The Collected Writings of Walt Whitman* (New York University Press), many scholars today agree that this work is not complete and could be greatly improved through the application of recent technological innovations in electronic publishing. As new Whitman materials continue to be discovered, the need for an archival form open to ongoing revision becomes ever more apparent.

In 1995, Ed Folsom (University of Iowa), Kenneth Price (College of William and Mary), and I met with John Unsworth, Director of the University of Virginia's Institute for the Advancement of Technology in the Humanities, and with Jerome McGann, Director of the *Rossetti Archive*, to discuss the possibility of constructing just such a research and teaching tool. This meeting led to the creation of *The Walt Whitman Hypertext Archive*. The *Archive* seeks to make all known Whitman materials available in electronic form. Realizing that electronic editing is open-ended—that revision is possible as new information and materials come to light—the current editors of the *Archive*, Price and Folsom, are constructing a flexible database that will provide the foundation for the ongoing collection and integration of Whitman materials. Visitors to the *Archive* today will find a site that already contains a substantial collection of Whitman materials.

In order to orient new users as they prepare to navigate within the *Archive*, the site initially presents an "Introduction to the Archive" link which will take users on a tour of the materials currently available. Users may decide to access the "Whitman Gallery" which contains all of the known photographs of Whitman along with annotations and an in-depth introduction. This part of the *Archive* is especially useful in the examination of Whitman's construction of his public "self." The user may also access all of the known contemporaneous reviews of Whitman's publications. For those interested in reception history, this area of the site may prove particularly instructive. A compilation of the last ten years of Whitman criticism and secondary sources is currently being assembled under the site's "A Current Bibliography" link. The *Archive* staff is committed to placing all ten years online by the end of 1997. Another area currently under development which promises to be of particular interest to teachers of Whitman is the "Archive in the Classroom." Here, educators will find rubrics for organizing and presenting Whitman materials related to various topics of study. Currently available are units focusing on "Race and Representation," "Whitman and his Reviewers," and "Portraits of the Self: Whitman and the Rise of Photography." Also under development are units focusing on the Civil War and nineteenth-century America.

The *Archive* will make available all the editions of Whitman's *Leaves of Grass* published during his lifetime. Along with an electronic copy of each text, the site will offer digitized facsimiles of each page of the corresponding book.

Additionally, the editors hope to make each text "hot," or "hot-linked," so that the user will be able to summon corresponding materials related to the text including early and later drafts of individual poems, letters related to the publication of the text, sights and images which Whitman encountered and which are thought to have inspired particular compositions, notebook entries, photographs, etc. Perhaps the most difficult task the editors seek to accomplish is the linking of the various editions in such a way as to demonstrate the variations that occurred within the text over time. The *Archive* additionally plans to incorporate "Biographical Materials," "Manuscripts," "Notebooks," and "Letters." Understandably, this will not be an easy undertaking as rare book libraries, special collections, and museums around the country continue to wrestle with the implications of allowing their collections to be digitally scanned and released on the Internet. Finally, by encoding each document within the *Archive* with standard generalized markup language (SGML) and by making programming available that will allow complex search functions to be carried out across the *Archive*, the project promises to present a platform-independent research tool that will provide the opportunity for examining Whitman materials in ways previously thought impossible. Indeed, in this context, Whitman's poetic words, "I Sing the Body Electric," seem to ring prophetic and truer than ever before.

Our electronic age and the advent of the Internet have created an ever-expanding web of communication in which people, regardless of location, are sharing information as never before. Each of the sites discussed here contributes to the construction of a vast, interconnected network of electronic resources that stands to revolutionize the way information is disseminated and accessed. As the integration of Whitman materials moves forward, thousands of similar strands, or filaments, are simultaneously forming that will ultimately weave an immense web spanning the fields of literature, history, science, and culture. In a poem he included in his 1871-72 *Leaves of Grass* entitled "A Noiseless Patient Spider," Whitman, again seemingly prophetic, celebrated the launching forth of such "filaments" into a "vacant vast surrounding" which, in the context of this developing network, could indeed be imagined as connecting points in cyberspace:

A noiseless patient spider,
I mark'd where on a little promontory it stood isolated,
Mark'd how to explore the vacant vast surrounding,
It launch'd forth filament, filament, filament, out of itself,
Ever unreeling them, ever tirelessly speeding them.

URLs included or reviewed in this article:

Walt Whitman High School
http://whitman.gmu.edu/features/education/walt/
South Eugene High School
http://www.4j.lane.edu/CyberSchool/Classes/CyberCraft/Projects/Completed/
    MenWomen/Whitman/Whitman.html
Modern & Contemporary American Poetry
http://dept.english.upenn.edu/~afilreis/88/whitman-links.html
Letteratura Classica

http://www.ulisse.com/letteratura/classica/whitman/
Club des Poètes
http://www.franceweb.fr/poesie/whitm1.htm
Columbia University Bartleby Project
http://www.cc.columbia.edu/acis/bartleby/whitman/
The Walt Whitman Circle Home Page
http://www.vive.com/connect/walt/whit.htm
The Poetry of Walt Whitman
http://www.liglobal.com/walt/
Walt Whitman: A Centenary Exhibition
http://www.sc.edu/library/spcoll/amlit/whitman/ww1.html
With Walt Whitman in Camden
http://www.wlbentley.com/wwic/WWIChome.html
Atlantic Monthly
http://www.theAtlantic.com/atlantic/atlweb/poetry/whitman/walt.htm
Walt Whitman Home Page
http://lcweb2.loc.gov/ammem/wwhome.html
The Walt Whitman Hypertext Archive
http://jefferson.village.virginia.edu/whitman

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