Innovative Digital Projects

The Library of Congress, Digital Collections & Programs
www.loc.gov/library/libarch-digital.html

The Library of Congress, Global Gateway: World Culture & Resources
http://international.loc.gov/intldl/intldlhome.html

The American Memory Project
http://memory.loc.gov/ammem/help/view.html

The American Memory Project Listing
http://memory.loc.gov/ammem

Library of Congress Digital Exhibits
www.loc.gov/exhibits

Rivers, Edens, Empires: Lewis & Clark and the Revealing of America
www.loc.gov/exhibits/lewisandclark/virtualtour

The **Library of Congress, Digital Collections & Programs** Web site features many of the digital collections and exhibits of The Library of Congress. Many of them are basic digitization projects, but there are a few that meet the criteria set for this book.

The American Memory Project has a number of collections that feature audio, maps, and video (the main page provides information about downloading free plugins in order to use the site's interactive features). A listing of American Memory projects is also available. Many of the audio and video segments are housed under the Performing Arts, Music category.

Many of the digitized maps use the DjVu software program, which allows users to zoom in and access greater detail on the maps. *I Hear America Singing* is another digital project that incorporates multimedia elements. The *Rivers, Edens, Empires: Lewis & Clark*

and the Revealing of America exhibit uses Flash. In this particular Lewis & Clark exhibit, the user is given a virtual tour of the Lewis & Clark exhibit gallery currently on display at the Library of Congress.

There are multiple resources available for teachers, educators, researchers, publishers, librarians, families, and disabled persons to access, use, and teach with these digitized resources. This is a wonderful Web site/portal for experimentation, exploration, and learning.

DigiCULT
www.digicult.info/pages

DigiCULT Newsletters
www.digicult.info/pages/newsletter.php

DigiCULT Technology Watch Reports
www.digicult.info/pages/techwatch.php

DigiCULT Thematic Issues
www.digicult.info/pages/themiss.php

DigiCULT's mission is to benefit the cultural heritage sector, particularly in Europe, by assessing and monitoring emerging and existing technologies to help optimize the development, preservation, and access to Europe's cultural and scientific heritage, especially within the emerging digital cultural economy. As such, this group has issued a number of groundbreaking and informative reports that list many of the innovative digital projects in the humanities currently underway in Europe.

Thus far, this group has produced nine newsletters (between 2002 through 2004); three Technology Watch Reports, focused on presenting six technologies in depth and their current and future impacts on cultural heritage projects; and seven Thematic Issues, which detail news, software products, current projects, and digital initiatives

of interest to the cultural heritage community. It's impossible for this report to detail all of the interactive and innovative projects detailed in the publications of this group, which is why this general annotation with specific links is provided.

De Humani Corporis Fabrica *by Andreas Vesalius*
http://vesalius.northwestern.edu

The **De Humani Corporis Fabrica** Web portal, available in both Flash and no Flash versions, is a digitized, interactive presentation of one book, the Renaissance anatomical atlas *On the Fabric of the Human Body* (1543, 1555) by Andreas Vesalius.

When entering the site, the user is presented with a frames-type structure, where the left-hand frame column provides navigational and content available by clicking on the topics in the bar at the top of the page (Contents, Images, Essays, Index, Bibliography, and About). The book has been translated into English, and this translation is what is presented to the user (in other words, only the woodcuts/illustrations from the actual document have been digitized and are available to the user, not the Latin text).

It is the woodcuts (images) from this book that are the real attraction. The user can view the images by name or body location. Once an image is chosen, the user can utilize four buttons that allow for zooming in, zooming out, access to information about Macromedia Flash, and for going directly to the part in the text that discusses that particular image.

The Essays section provides commentary on some of the language and instructions Vesalius uses in his book, while the Index provides a glossary of Latin medical terms and where they appear in the book. A substantial Bibliography is available in PDF format.

Finally, the About section details many of the project's processes for accomplishing the presentation and also includes useful and instructive Help and Site Information section.

EarthWorks: Virtual Exploration of the Ancient Ohio Valley
http://earthworks.uc.edu

Using virtual computer reconstruction and digital restoration, the Center for the Electronic Reconstruction of Historical and Archaeological Sites (CERHAS), in cooperation with the University of Cincinnati and various other entities, has constructed **EarthWorks: Virtual Exploration of the Ancient Ohio Valley** to showcase various photo and video recreations of the ancient Ohio Valley. This site is actually a preview of a CD-ROM product available for purchase through CERHAS, but the user can access some very sophisticated and interesting virtual reconstruction videos here. There are also links to some other CERHAS projects, most dealing with the Argive Heraion in ancient Greece.

Humanities Exhibits Interactive
www.humanities-interactive.org/a_base_UD.html

The **Humanities Exhibits Interactive** site incorporates Flash software throughout, which serves to amaze the user through the project's navigational and visual effects. Produced by the Texas Council for the Humanities, it's one of the most innovative front-ends I have seen for a humanities Web site.

The opening Flash movie takes the user directly to the front page, where access to seven interactive categories is available. Clicking on any exhibit makes the Web page come alive with movement, shuffling the headings and categories around so the user is visually stimulated to continue to explore the content. For instance, the Ancient Cultures category contains seven exhibits, all of which contain interactive properties. Each digital exhibit contains digitized photos and essays on the topic as well as some type of interactive game to challenge the user regarding the content of the exhibit.

Under the Medieval World category, and within The Art of Chivalry exhibit, for example, the interactive Medieval Knight game asks questions of the user, and if a correct answer is given, a knight's armor is constructed gradually (piece by piece, per right answer), after which he mounts an armored horse.

This Web site truly is a discovery zone, created to be used by teachers and educators to inform and instruct K–12 students on topics usually not covered in the traditional school curriculum.

The VRoma: A Virtual Community for Teaching and Learning Classics
www.vroma.org

The **VRoma: A Virtual Community for Teaching and Learning Classics** project, originally funded by a 1997 NEH Teaching with Technology grant, is a "virtual online environment," generally known as a multi-user networked environment (MOO), which is built on a cultural and spatial metaphor of ancient Rome. Faculty and students can meet and interact in real time, collaborate, hold classes, and access various materials for learning.

Users become a VRoman (a virtual character, or avatar), and can enter two different spaces: Rome (modeled on Rome around 150 CE), or Officina (ancient life simulation spaces, and faculty "offices"). Users must register in order to log in, after which they can explore these virtual spaces, virtually interact and collaborate with other avatars currently in the system, all the while learning about ancient Roman culture and civilization. There's also a large archive of teaching materials available, including digital images.

MATRIX: The Center for Humane Arts, Letters, and Social Sciences Online
www.matrix.msu.edu

The Flint Sit-Down Strike
www.historicalvoices.org/flint

OYEZ Project
www.oyez.org/oyez/frontpage

Earliest Voices: A Gallery from the Vincent Voice Library
www.historicalvoices.org/earliest_voices

History and Politics Out Loud
www.hpol.org

The African Digital Library
www.aodl.org

The Michigan Writers Network
www.michigan-writers.org

The Spoken Word
www.historicalvoices.org/spokenword

Studs Terkel: Conversations with America
www.studsterkel.org

American Black Journal
www.matrix.msu.edu/~abj

Based at Michigan State University, the **MATRIX: The Center for Humane Arts, Letters, and Social Sciences Online** is a humanities and technology research center. The Center received a $3.5 million NSF Digital Libraries II grant in 1998, and since, it has created a graduate certificate program in humanities computing. Part of the center's goal is to create standardized, interoperable repositories of humanities content.

There are a number of projects on the Matrix Web site that I would consider innovative. One is the Historical Voices collection, where a number of digitized audio files from the twentieth century are featured, along with Flash-generated multimedia and virtual reality tours.

Projects include The Flint Sit-Down Strike, the OYEZ Project, Earliest Voices: A Gallery from the Vincent Voice Library, History and Politics Out Loud, The African Digital Library, the Michigan Writers Network (an online, interactive community), The Spoken Word: Transforming Teaching and Learning in the Classroom, and Studs Terkel: Conversations with America.

Other featured collections include American Black Journal, a multimedia exhibit that features video and sound clips on the Detroit Public Television chronicle of the television series Colored People's Time, a televised public forum for black Americans that first aired in 1968. Users can explore topics such as music, life in the Motor City, and community leadership, among others.

MATRIX provides not only multimedia content in all of these projects, but also educational curricula and materials for teachers and students. In addition, MATRIX is developing best practices standards in digital sound digitization, a digital archive structure for multimedia materials, federated archives, delivery mechanisms for diverse users, and metadata standards.

Megalithic Portal and Megalith Map
www.megalithic.co.uk

The **Megalithic Portal and Megalith Map** Web site contains the world's first interactive multicountry map of megalithic and other prehistoric sites. It covers all of Europe, with other areas of the globe under construction. More than 10,000 prehistoric monuments have been plotted, and there's access to more than 12,000 pictures. The site comes in both frames and no-frames versions; no plug-ins required. The Megalith Map, constructed with the MapServ software, provides an interactive map of megaliths, rock outcrops, henges and timber circles, ancient trackways, ancient villages, long and round barrows, tombs and standing stones, stone circles and rows, rock art/carvings, caves and quarries, forts and brochs, hill-forts, holy wells and springs, Pictish stone symbols, ancient temples and palaces, ancient crosses, mazes and figures, museums, and modern stone circles.

"The Berth" Iron Age Hill Fort Virtual Tour
www.virtuallyhistorical.com/downloads/1794_CAS%20Main%20Page.htm

The Centre for Arthurian Studies, an amateur group that maintains a Web site, has constructed a QuickTime-based virtual tour of **"The Berth" Iron Age Hill**, an ancient hill-fort that group members think could have been Cynddylan's Llys Pengwern (capitol of the kingdom of Pengwerm) and, perhaps, even the historical Arthur's Avalon.

Based on historical research, the portal offers a very interesting perspective. It features constructed virtual re-creations of this hill-fort at various times in its history, dating back to 500 B.C., when the area was surrounded by fens and was accessible only via boats and a wooden causeway. It would have been an impregnable and, indeed, appropriate physical site to be included in any oral tradition related to the King Arthur tradition. Overall, the Web site is fun to explore, well constructed, visually interesting, and rich with research and essays.

The Centre for Arthurian Studies also is currently building Wroxeter Roman City, a virtual tour of the British ruins, to re-create how this important Roman city may have looked like in its heyday.

Virtual Mithraeum
http://museums.ncl.ac.uk/archive/mithras/intro.htm

The **Virtual Mithraeum** offers a fairly compact yet detailed history of the ancient worship of Mithras. The

portal includes a virtual reconstruction and interactive tour of the inside of a temple to Mithras. The user can zoom in and out, click on hotspots to see the text associated with that object, and can use the cursor to move around the virtual temple. The **Virtual Mithraeum** is a nicely constructed virtual reality reconstruction focusing on one specific topic.

Engines of Our Ingenuity
www.uh.edu/engines

The **Engines of Our Ingenuity** Web site contains all the content, as well as the audio transmissions, of the public radio show "Engines of Our Ingenuity" by Dr. John Lienhard of the University of Houston. This radio program is comprised of insightful and informative humanities-related research, opinions, thoughts, and comments on historical and cultural events and directions. Dr. Lienhard, M.D., Anderson Professor Emeritus of Mechanical Engineering and History at UH, has received numerous awards for the content of his radio show, and the site features educational material for classroom use.

"Sing Ye in the Spirit:" Music & Quakerism in Harmony
www.haverford.edu/library/quakermusic

The **"Sing Ye in the Spirit:" Music & Quakerism in Harmony** online exhibit, constructed by the Sharpless Gallery and the Magill Library at Haverford College, interactively presents the complex relationship between music and Quakerism. Along with historical research and short essays, various documents and RealPlayer audio links are interspersed throughout the exhibit.

The exhibit is divided into the following areas: Music & the Early Quakers, 1650-1830; Obliged to Keep the Rules of the Society of Friends; Musical Portrayals of Quakers; Recollecting a Quaker Singer: David Scull Bispham; and How Can I Keep from Singing? Music & Texts by Quakers. There also are links to audio portions of the opening of the exhibit on April 12, 2004. Various contemporary composers and their links to Quakerism are featured, including Ned Rorem and Pete Seeger.

This type of innovative digital project showcases the quality that a small college can accomplish in the humanities on the Web.

10 x 10: 100 Words and Pictures That Define the Time
www.tenbyten.org/10x10.html

The **10 x 10: 100 Words and Pictures That Define the Time** project is probably one of my favorite innovative digital projects. Every hour on the hour, this site collects the 100 words and pictures that matter most on a global scale, and it presents them as a collage on the front page of portal.

The user utilizes the mouse to move down the 100 keywords on the right-hand side of the collage, and if they click on a word, a picture is pulled up that links to various news headlines that use the keyword. For instance, when I accessed the site at 1 p.m. EST on April 8, 2005, the top five keywords were: pope, funeral, Paul, popes, and president.

By harvesting the content of the major international news sources, the site presents the news in a very visual and interactive way and runs *without* human intervention. It provides an hourly snapshot of what's going on in the world, 24 hours a day, 365 days a year.

Users can also access the previous hour's collage, or they can go back in time at least six months to November 2004, or access the collage for the year 2004. Using cutting-edge technology and a unique style of visual presentation, 10 x 10 provides a stimulating and unbiased way to access daily news!

David Rumsey Historical Map Collection
www.davidrumsey.com

More than 10,000 cartographic images are freely available to view at the **David Rumsey Historical Map Collection**, a personal collection that has grown and been at the forefront of map digitization for many years. Maps can be viewed in two Insight® formats: one for basic users with a standard Web browser, and a second Insight Java Client for researchers and advanced users.

The Rumsey collection has always been at the forefront of cutting edge viewing and scanning technology, and a listing of hardware and software used to create the digital collection is available. For a detailed analysis and report on the content and functionality of this collection, see the article "Open Archives Initiative Data Providers. Part III. Social Sciences and Humanities" in *Library Hi Tech News* v. 21 no. 7 (September/October 2004): 30-39, or access a PDF of the article at www.public.iastate.edu/~gerrymck/OAI-DP-III.pdf.

Geospatial Resource Portal
www.gisdevelopment.net

The Geospatial Resource Portal contains a number of application papers about 3D technologies involving geospatial applications, particularly in archaeology. A company called Osmosis has developed two CD-ROMs that feature virtual 3D reconstructions of Olympia and Ayutthaya (see www.osmosis.com.au for more information; click on the Visualize, Animate, and Broadcast buttons in order to view sample content from these CDs. Navigation buttons are located at the bottom of the rectangle).

Ancient Routes
www.ancientroute.com

Ancient Routes offers users interactive online activities in which they can explore the ancient trade routes around the Mediterranean, covering the time periods from the beginning of writing to around 400 A.D. There

currently are six trade routes available for exploration: King's Highway, Silk Road, Way of the Sea, Royal Road, Lower Road, and Amber Road. (King's Highway was the only one of the routes that offered interactive features as of mid-May 2005).

I would imagine Rodney R. Baird, the person indicated at the bottom of the site, is the architect of this, and plans to make all of the trade routes as interactive as the King's Highway. In any case, to get to the interactive map of the King's Highway, the user must click on the colored ball to the left, then scroll down to the HotMap link. This pulls up an interactive map, where the user can click on the city in question, and then will be taken to an explanation of the importance of that city to the selected trade route.

To assist the user in visualizing these trade routes, various other colored gifs and jpegs of maps are included in the portal. It is only hoped that more interactivity—such as is available with the King's Highway—will be added in the future. The site offers thematic exploration of topics as well.

The Symphony: An Interactive Guide
http://library.thinkquest.org/22673

Classical Midi Archive
www.classicalarchives.com

The Symphony: An Interactive Guide Web site is a wonderful exploratorium for the music professional and/or amateur wishing to learn more about the form known as the symphony, which first appeared in the mid-eighteenth century. The symphony form had its early fame and fortune in the Classical Period with Haydn and Mozart, found its ultimate fulfillment in the Romantic Period of the nineteenth century, and is still composed today by many composers.

The site is full of Midi music files, so the user can listen to various segments of symphonic movements by many composers. There is a full-color and nicely constructed timeline, which is clickable to various composers and their works; a color guide to the form of the typical symphony and the various movements, along with the basic structures (rondo, sonata, ternary, variations); how a typical symphony orchestra looks and where the instruments are arranged and located (along with Midi music files and digitized pictures of each of the instruments and how they sound); and an interactive quiz and a discussion board and survey. A link to the **Classical Midi Archive** is provided in the Links section. The Quick Tour provides a brief historical account of the development of the symphony.

Digital History
www.digitalhistory.uh.edu

Certainly full of content and extensive educational resources, **Digital History** does have some interactivity connected to it, although it is difficult to find. The table of contents on the left-hand side of the site guides the user through focused topics. The portal is mainly geared toward K-12 students and to teachers and educators of that age group.

Under Multimedia, there's a Flash movie called "An Overview of American History" that is nicely constructed. Time Machine looks like it may be a fun, interactive game, but currently it's under construction.

There are midi music files under the Historical Music topic, and the Games Database takes the user to a list of links to interactive games. Film Trailers provides short film takes from movies on historical topics, such as *1776*, *2001: A Space Odyssey*, and many others.

The Learning Modules topic under For Teachers provides various links to free multimedia for use in the classroom, and the Speeches topic under History Reference Room allows users to hear clips of speeches by prominent Americans. There is a high level of exploration and creativity to the content of this site.

The Charrette Project
www.princeton.edu/~lancelot/index2.html
www.ontoligent.com/figura/index.php

The *Charrette* Project focuses on the use of powerful hypertext format, high-resolution images, diplomatic transcriptions, and valuable cross-referencing capabilities for the study of one particular story and all of its manuscript transmissions: Chretien de Troye's *Le Chevalier de la Charrette*. Figura TG is the software/browser of the *Charrette* database. (This database is available through the site listed under The *Charrette* Project, or directly at www.ontoligent.com/figura/index. php.)

There are four entry points into the database: Pages, Figures, Words, and Text. The Pages access allows the user to select from any of the eight digitized manuscripts in which this story survives, compare them page by page, or line by line if necessary. Figures allows the user to access various character lines throughout the manuscripts. Words allows for searching any particular words in the story, whether it appears as noun, verb, adverb, etc., and Episodes lets the user search for particular episodes within the text and how they compare with the other surviving manuscripts. Finally, the XML code for the episodes is available to print or display.

This particular project goes beyond just digitization of text, to the next stage of multiple examination and study of all surviving manuscripts of one particular text. It uses the power of database indexing, text and image digitization, and appropriate classification and division of the contents so that scholars and interested amateurs can truly examine and find parallels and similarities among various transmissions of this one text throughout history.

Variations2: Indiana University Digital Music Library Project

www.dml.indiana.edu

The **Variations2: Indiana University Digital Music Library Project**'s goal is to establish a digital music library test-bed system, incorporating various types and genres of music, for research and development activities in network services, metadata standards, and systems and component-based application architectures. It's hoped this system will be the foundation for digital library research on a variety of topics, more for than just music (for instance, usability studies, intellectual property rights, and instruction).

Variations2 builds on its successful predecessor, Variations, which was the first attempt to provide students in academic music institutions with streaming audio and video content for listening and research purposes and to also address the technological and property rights challenges involved with digitizing and providing access to copyrighted music materials. With help from the National Science Foundation and the National Endowment for the Humanities, Variations2 provides dissemination of its research objectives and deliverables through its Web site.

The Documents link gives the user access to the many papers, PowerPoint demonstrations, and publications regarding this project. The News link provides access to current news as well as to an archive of version releases. The Research Areas link accesses much of the content of the Web site; links to developments and research in copyright, metadata, music instruction, networking, system design, and usability are available here. The Software link features the Variations2 software, user's guide, user screen shots, and cataloging screen shots. The Variations2 staff are very active in the music information retrieval (MIR) and digital library conferences and events, and staff members regularly share their research and development goals and outcomes with their colleagues.

Treasures in Full

www.bl.uk/treasures/treasuresinfull.html

Treasures in Full, constructed by The British Library, is comprised of three interactive resources (with another on the way) in which the main feature is the ability to compare and contrast textual content of specific British Library collections. It goes beyond just text digitization, to one organization's attempt to digitize and provide research tools for the study and comparison of all the content that one organization has in certain areas.

Shakespeare in Quarto provides access to all of the British Library's copies of the twenty-one plays by William Shakespeare printed in quartos, all ninety-three copies. The project provides historical and biographical links and information on this time period as well.

A timeline moves across the top of the Web site, so that the user can click on specific dates to find out historical information. The software for this (and the other Treasures in Full exhibits) allows the user to compare any two plays, quartos, and/or copies at the same time.

Caxton's Chaucer showcases the British Library's two editions of Chaucer's Canterbury Tales, and Gutenberg Bible does the same with the British Library's two copies of the earliest book ever printed. The sliding timeline at the top of each project and all of the projects' content provide plentiful data on the various time periods (for the Bible and Chaucer, the late medieval/early Renaissance time period). An exhibit on the British Library's collection of Renaissance Festival Books is coming soon.

Theban Mapping Project

www.thebanmappingproject.com

The **Theban Mapping Project** (TMP) is a quality example of what I would consider "innovative" in a digital humanities project. Using 3D imagery and computer models, this project uses Flash video and state-of-the-art technology to map and provide interactive content emanating from a comprehensive archaeological database on Thebes, the ancient Egyptian capitol and home of the Valley of the Kings, the burial grounds of numerous Egyptian Pharaohs and their families. Begun in 1978, TMP provides access to two major atlases: The Valley of the Kings and the Theban Necropolis.

The Valley of the Kings atlas, once clicked, immediately launches a Flash movie that drops the user from an overall view of Ancient Egypt, down to the ancient city of Thebes. To begin, the user is shown an interactive map of the known tombs in the Valley of the Kings. Each tomb on the map is available to the user, to examine, explore, learn about, and manipulate in various ways. By moving the mouse over the outlines of the tombs on the map, the user can click and go to an interactive movie on that tomb/archaeological dig (with a written transcript). Users can also play with a 3D tomb overview (which uses a revolutionary new type of image software called Quantapoint, using lasers to map precise distances, slopes, and geographical features within the actual tomb), in which the user can manipulate to "tour" the tomb itself virtually and stop to examine the various frescoes and images.

For each tomb, there's a Description tab that provides recent information on that tomb and archaeological dig, access to images and media regarding that tomb, articles and related links, and other interesting information like measurements, objects found, where they now reside, etc. The Maps & Plans tab lets the user choose the maps and plans from the various tombs, in order to see how they are laid out, where objects were found during the digs, and even enables the user to click on a measure tab so one can measure interactively the distance from one point to another within the tomb.

The Theban Necropolis atlas is an aerial image of the entire area where the Egyptian Pharaohs are buried,

including not only the Valley of the Kings but also other points of interest now covered with sand or modern construction. Moving the mouse over the various areas indicates what is being looked at, and there's a zoom feature that quickly makes the aerial photograph difficult to view. The only clickable portion of this atlas is the one over The Valley of the Kings, which, of course, launches The Valley of the Kings atlas.

In addition to all of the interactivity, there's a considerable amount of historical content and resources available on this site. Clickable topics such as Articles, Sites, Search, Resources, and About TMP are at the top of the site, and a What's New feature provides current information on the project. As with all truly "innovative" Web sites described in this report, one really has to explore and play with what is available to truly understand the presentation of material. This is one of those projects that could take days to really examine all of the content available, but one would have a great deal of fun in the process.

A Companion to Middle English Literature
http://user.phil-fak.uni-duesseldorf.de/~holteir/companion

A Companion to Middle English Literature is an online book provided as a free interactive resource to anyone who wishes to use it. It's hosted by a Basic Support for Cooperative Work (BSCW) server at the University of Düsseldorf in Germany. (More information on the cooperative nature of this resource can be found at http://user.phil-fak.uni-duesseldorf.de/~holteir/companion/ReadMe/readme.html.)

Under the Navigation button, links to various arrangements of the contents and topics of the book are available. When clicked, these links go directly to some type of an image-clickable page where the resources can be accessed, either via a regular button or by moving the mouse over one of the images in the collage and clicking. The topics are: General, Literature, Authors, Anonymous, Text Groups, Topics, and History.

For Text Groups, for instance, the image shows a large bookcase with the various text groups such as Chronicles and Debate Poems available for access. For Anonymous, a collage of various illuminated manuscripts provides access to anonymous works. Under the History link, there are some well constructed Dynasties, Reigns, and Timelines charts. The Guided Tours link and Maps link are still under construction. Online tests are available for teachers to give to their students in each of the areas that the book covers.

Renaissance Masses, 1440–1520
www.princeton.edu/~rwegman/mass.htm

Renaissance Masses, 1440–1520 provides access to approximately 83 MP3 music files for a number of Renaissance Masses and movements. There are some rather detailed and complex directions provided on the front page for how to download the MP3 files, as they do not load automatically onto the user's computer.

This is a unique Web site, as musical recordings for Renaissance Masses are not in great demand, and therefore, are few and far between. Yet here on the Internet is a site that provides actual music for downloading and listening to these wonderful compositions. The creator of the portal does not provide any type of description, research, or detail regarding either historical or biographical content, just MP3 music files.

Viewing Pompeii
http://hitchcock.itc.virginia.edu/Pompeii

Viewing Pompeii is a hodgepodge of QuickTime movies prepared for the Pompeii Forum Project at the University of Virginia. It is very nice because the professors that are part of this project are the ones who shot the video, and they provide commentary and narrative.

Under the Map of Pompeii with Panoramic Images section, there is a clickable map of the Pompeii archaeological site, where the user can click on various parts of the map and view images of that part of the surviving/uncovered buildings, walkways, monuments, etc. The Forum Baths link takes the user to a clickable map of the Pompeii Forum Baths, where QuickTime movies pop up that show that portion of the baths, along with commentary by the professors that shot the video.

Three Trenches are QuickTime movies of three trenches in Pompeii, again with commentary. Under Aspects of Pompeiian Urbanism, there are three QuickTime movies with the professors, in which they move around the Pompeiian ruins and discuss the life, times, and history of the city. Roman Panoramic Images and Images of Pompeii are just digitized photographs of these sites.

For teachers or just interested amateur historians, this is an excellent resource for use in a classroom setting for touring Pompeii without actually going there.

The Valley of the Shadow: Two Communities in the American Civil War
http://valley.vcdh.virginia.edu

The Valley of the Shadow: Two Communities in the American Civil War is what I would consider the first "innovative" digital project in the humanities. First begun in 1991 and taking advantage of early computer technology, this project was one of the founding projects of the Institute for Advanced Technology in the Humanities (IATH) at the University of Virginia. In 1993, using the early Internet browser Mosaic, this project was launched and has gone through numerous revisions and iterations, which still are considered "innovative" even today.

The Valley of the Shadow is a detailed digital archive of two communities during the American Civil War, one North (Franklin County, Pennsylvania), one South

(Augusta County, Virginia), with thousands of digitized letters, diaries, newspapers, speeches, church and census records, and various other paraphernalia.

When entering the site, the user is directed to three "maps" that look like the floor plans for a library. The maps are labeled, The Eve of War: Fall 1859 to Spring 1861; The War Years, Spring 1861 to Spring 1865; and The Aftermath: Spring 1865 to Fall 1870. Each of these "floor plans" has a Reference Center in the middle of the room, with side rooms featuring various content such as Soldiers' Records, Newspapers, and Letters & Diaries, to name a few. By clicking on these "rooms," the user accesses specific exhibits, digitized materials, and interactive maps.

For instance, under The War Years, in the Battle Maps room, there's an animated battle theater map that charts the movements of the various infantry, cavalry, and artillery units of these two counties during the Civil War. By clicking on one of the units, the map shows the movements of that battalion during the war and the various battles in which it participated.

At the bottom of the map, an interactive timeline moves forward at the same time as the movement of the battalion, so that the user can see where in time and place these battles and movements took place.

The user can also click and place into the map any number of elements, such as modern cities, major rivers, historic towns, etc. In addition to the digitized and interactive content, this Web site also provides teaching plans and resources for using this project in the classroom. These resources are available under the "floor plan" and titled "Using the Valley Project."

Music in the Afghan North, 1967–1972

www.wesleyan.edu/its/acs/modules/slobin/html

The **Music in the Afghan North, 1967–1972** project grew out of the Learning Objects, Learning Activities (LOLA) project at Wesleyan University. This Web site supplements a book, *Music in the Culture of Northern Afghanistan*, written by Mark Slobin from fieldwork and publication materials that he gathered while in Afghanistan during the indicated time period. The book is available as downloadable PDF chapters under the Resources link.

What is wonderful about this site is it includes video clips of actual instrument and dance performances; audio clips of various ethnomusicological events such as native instruments and native singers; various color and black-and-white maps; and digital photos. The various topics listed on the front page of the site are: Introduction, Fieldwork, Background, Shared Music, Ethnic Subcultures, Instruments, Archive, and Resources.

There is an interactive ethnolinguistic map under the Background heading, which features information on the various languages and dialects in northern Afghanistan. There's also a really neat Comparative Map Viewer under the Background topic. It uses Flash, and the user pulls down and compares two maps from available thumbnails, then moves the map viewer at the bottom of the screen to view the information being layered from the top map to the bottom map.'

Under the Shared Music topic, each of the sub-topics (The Music Culture, Women's Music, Radio & Military Music, Tea House, and Town Life) provides audio clips, video clips, and digitized maps and photographs. Some of the most interesting audio clips are under the Introduction topic, where program tracks of Beatles' songs played and sung by Afghanis and with Afghanistan instruments are featured. Overall, this is a fantastic Web site with very interesting content and technology.

Virtual Instrument Museum

http://learningobjects.wesleyan.edu/vim

Virtual Instrument Museum is another project out of Wesleyan University's LOLA project. This Web site features the university's world instrument collection, which is one of the largest and most diverse collections in the world. The instruments have been photographed and are available as QTVR movies, under the Exhibits heading, so the user can move the cursor to examine the instruments in 360-degree views and in full color. All of the instruments sounds are available as digitized files as well.

The instruments are categorized in a number of ways: by type (chordophones, aerophones, membranophones, and idiophones), by geographic region (North America, Southern Asia, etc.), by material (wood, stone, bamboo, etc.), and by alphabetical indices (sub-divided into instruments, genres, and ensembles).

By going under Instrument Types, the user can see an alphabetical list of all the instruments. When choosing an instrument, the user gets four boxes at the top of the page concerning the instrument: images, audio, video, and QVTR. Obviously, not every instrument will have content in every format, but many of them do.

This site offers exploration opportunities for teachers and students interested in studying world music and playing with interactive content, sound, and images of instruments from around the world.

A Virtual Village

http://learningobjects.wesleyan.edu/virtualvillage

A Virtual Village is, yes, another project from Wesleyan (there are more coming!). This is a virtual tour of Arampur, India, one of the almost 600,000 villages in India. The main feature of this Web site is the interactive virtual map of the village. The user can navigate in any direction that he or she wishes.

By clicking on the dots in the map, the navigation arrow moves to that location and displays a digital picture of it, along with content. To view the picture and content,

the user must shrink the map to the left, and he or she then can continue to "roam" the village. At any time, the map can be expanded to show the entire village again and shrunk back to reveal the pictures and content.

The user can also use the navigation arrow buttons on the lower right of the map to move in various directions (like walking virtually), rather than skipping around on the map. The virtual village also can be navigated using the Thematic Maps category, where various topics such as Hindu temples and Muslim mosques are just some of the content showcased.

Under the My Life category, the user can experience the daily life of five Arampur residents, since each resident was given a twenty-four-exposure film roll and allowed to take pictures of anything (relating to his or her daily life) he or she wanted. Selected audio clips of various interviews with Arampur residents are provided under the Interviews category.

Using state-of-the-art technology and interactivity, this Web site offers another fascinating, innovative project teachers and educators can use in the classroom to explore other cultures.

Unaahil B'aak: The Temples of Palenque
http://learningobjects.wesleyan.edu/palenque

Ok, so the LOLA project at Wesleyan University has got innovative digital projects coming out of its ears! I cannot believe some of the interactivity and technology involved with these projects.

The **Unaahil B'aak: The Temples of Palenque** focuses on the ancient Mayan city of Palenque, which during the seventh century A.D. was at the height of its power and influence. The rulers of this city were building pyramids and temples that rivaled those of Ancient Egypt, without ever having seen or known about them.

Besides all of the historical and structural content this site provides (which is substantial), the real interactivity is contained under the Exploring Palenque heading. Here, there are two really cool 3D virtual reality tools and maps to explore Palenque as it once existed. The 3D walkthrough of ancient Palenque requires the Adobe Atmosphere plug-in, but it is freely available and took me only a minute to download. Once that was done, I was able to explore the 3D virtual world of Palenque. Instructions for moving in the virtual world are provided in a small sidebar box outside of the virtual world through the Atmosphere Navigation Help. Inside the virtual world, icons are available you click on to view digitized photos and multimedia clips of the buildings.

With the Palenque Map, the user is able to zoom down from above to view the ancient site and move around through navigation arrows provided in the lower right hand part of the map. Various icons can be clicked as the user navigates through the map, such as photographs, QuickTime panoramas, and 3D fly-throughs.

This is another Web site that deserves plenty of time for exploration and discovery.

Orienting the World: Maps and Imperialism
http://learningobjects.wesleyan.edu/projects/orientingtheworld/simulation.html

The **Orienting the World: Maps and Imperialism** project is a work in progress, and it currently contains only one active project, although two more are in the works (Mapping the World video, and Special Collections Maps). The project up and running is called South Asia Diaspora. This interactive map has no accompanying content but does display trade routes, European colonial borders, and where various commodities were located that resulted in the South Asia diaspora. In addition, at the bottom of the map is an interactive timeline. The user clicks on a topic, and the timeline provides moves and provides short information clips regarding that topic placed along the timeline.

Cycles of Life in a Bengali Town
http://learningobjects.wesleyan.edu/bishnapur

Based on the field work of Akos Ostor and Lina Fruzzetti from 1967–1973, **Cycles of Life in a Bengali Town** is an interactive project that presents the cycle of life in a typical Hindi village in the mid-late twentieth century. The categories available for exploration are: Sacred Ritual, Life Cycle, Society, Context, and Gallery.

Under the Sacred Ritual category, there's an interactive "Ritual Cycle" wheel, in which the various festivals, holidays, celebrations, and feasts of the Hindu year can be accessed by moving the cursor over various portions of the wheel and clicking. Various feasts associated with Krishna and Radha, Shiva and Durga, Earth Deities, and Household Rituals then are highlighted on the wheel, along with accompanying information. Clicking on one of the highlighted wedges on the wheel at this point brings up specific rituals, which then reveals content, images, audio, and sometimes video of the celebration.

Under the Life Cycle category, the cycles of birth, marriage, and death are highlighted with various types of media. The Society category brings up a visual map of the Hindi village of Vishnapur; it is not interactive but the various subcategories above it are. For instance, the Music subheading brings up numerous audio clips of various types of music recorded in the village. Other subheadings bring up digitized photos and manuscripts. The Context category provides information on the original fieldwork that produced much of the content of this site as well as a bibliography. The Gallery category is an organized index, by topic, of all of the images, documents, sound, and video files.

This is yet another great innovative digital humanities project from the LOLA Project at Wesleyan University!

Ricardian Explorer

www.wesleyan.edu/econ/ricardian

Ricardian Explorer contains an interactive computer game that simulates the functioning of a simple model of international trade. The ultimate goal of the game is to consume a balanced basket of goods. Using conventional economic models, decisions are guided by consumer needs and desires. Players are producer-consumers. According to the Setup and Play instructions, users only need a computer and the freely available Java 1.4_01 plug-in to play the game. (Because it's an exercise and process involving the social sciences discipline, it is included in this report.)

Naropa University Audio Archive Project

www.naropa.edu/audioarchive

The **Naropa University Audio Archive Project** features more than 1,000 audio-tape selections from 30 years of readings, classes, and workshops from the Jack Kerouac School of Disembodied Poetics, founded by Allen Ginsberg and Anne Waldman in 1974. There are audio clips throughout the Web site of various twentieth-century authors reading from their works as well as conversations and discussions by many influential twentieth-century authors. Approximately 300 hours of these audio clips are available at The Internet Archives (www.archive.org).

The Internet Archive

www.archive.org

The purpose of **The Internet Archive** Web site and its staff is to provide researchers, historians, and scholars with permanent access to historical collections that exist in digital format. Begun in 1996, this project has taken "snapshots" of the Internet at various times in its existence, so its progression, history, and "lost" content can still be accessed and studied in the future. Access to various media is also archived, such as audio, moving images, and software. There is plenty of content here for exploration and discovery.

Decameron *Web*

www.brown.edu/Departments/Italian_Studies/dweb

Decameron Web is a site devoted to the *Decameron* by Boccaccio in the fourteenth century. While it is a typical humanities site, it does have three audio clips of medieval music under the Arts category.

Virtual Vietnam Archive

www.vietnam.ttu.edu/virtualarchive

Supported and maintained by Texas Tech University, the **Virtual Vietnam Archive** features a huge amount of multimedia content on the Vietnam War including: more than two-million pages of material, 1,000-plus finding aids, more than 71,000 images, almost 1,000 digitized maps of southeast Asia, over 500 audio recordings, more

than 200 digitized 16mm and 8mm film reels available as streaming media, and almost 400 digitized oral history interviews. The project director indicates more than 40,000 new items are added to the site every month, so it's obviously well funded and has plenty of material to digitize and offer to those interested in this subject area. There's also a Teacher's Resource Page that assists teachers and educators with incorporating this content into the curriculum.

Texas Beyond History: The Virtual Museum of Texas's Cultural History

www.texasbeyondhistory.net

Texas Beyond History: The Virtual Museum of Texas's Cultural History is interactive right from the start. Geared toward the teaching and learning of Texas history in K–12 education, the Web site presents an interactive map of the state of Texas appears on the front page. Moving the cursor over the places indicated on the map brings up a short illustrated summary and teaser about the content of the exhibit/historical Web site (this is a collaborative project where content from various Texas museums and projects is linked to this main site). The user then clicks to connect to that exhibit.

Categories at the top of the page are: About TBH, Special Exhibits, Kids, Teachers, and Resources. There's plenty of interactive content here just waiting to be found. For instance, in the Tejas: Life and Times of the Caddo digital exhibit, there's a Caddo Map Tool. In this exhibit, the user can work with a map of the Caddo Homeland area of Texas, interposing various content like flora, environment, and archaeology over the map, with clickable links to various digitized photos and information.

Under the Kids category, users can play Meet the Critters game, which uses Flash technology. There's also a Time Travel to an Ancient Rockshelter interactive learning object that uses Flash (and has Dr. Dirt, the armadillo archaeologist as your guide!).

This is an excellent example of collaboration, technology, and education working together to provide digital learning objects and multimedia in the humanities via the Internet.

Acropolis Virtual Tour

www.dkv.columbia.edu/vmc/learning

Acropolis Virtual Tour offers a sequence of screens (reminiscent of an art gallery wall; the user must move the lower slide from left to right once the site is accessed) that use QTVR technology. There are a number of maps of the Acropolis setting in Athens, Greece, which each have clickable circles that take the user to 360-degree venues of that location.

Once in the site, an image is presented on the screen, and by moving the cursor in various directions while on the image, a 360-degree panorama of the modern-day

location becomes available. The Web site provides a map of the Acropolis in modern-day Athens, a map of the Acropolis and Panathenaic processional paths with non-processional views, and maps with exterior and interior views of the Parthenon ruins. This a very cool online project—almost like being there!

Acropolis 360
www.acropolis360.com

If you can believe it, **Acropolis 360** offers another totally separate Web site/project that features 360-degree content of the Acropolis ruins in Athens, Greece. The user must click on either the dial-up or broadband option and is then taken to a tiny interactive map of the Acropolis location, where he or she can click on any of the locations identified.

What is fantastic about the site is the technology provides a huge panoramic screen with which to view the chosen location, brought up on a separate screen. As the user moves through all of these wonderful panoramic pictures, an audio sound guide discusses the location, ruins, and history of the archaeological site. Toggling back to the original Web site, an interactive reconstruction of the Acropolis and its ruins/buildings is available to click and go to more panoramic pictures.

In the lower right-hand corner of some of these pictures, the ruins often are reconstructed as they once were and show cutaway cross sections of what the building was used for or what it contained.

Many of the panoramic pictures have hot spots that, when clicked on, will take you to other views or provide information in the text box (unfortunately, these hot spots are not indicated very well; I only discovered them because I read they were there and just happened to move through some pictures and click when the icon changed).

This is a fun site to explore and play with; the technology used to build this is remarkable, and you even get the 3D boxes and squares of a virtual room displayed as the panoramic picture appears.

Virtual World 3D–The Acropolis
www.visionarywebsites.com/virtualworld/ancientsites/acropolis.htm

Virtual Worlds 3D Ancient Sites
www.virtualworld3d.com/ancientsites/ancientsites.htm

I guess the Acropolis is one of those places that lends itself to innovative technology in its presentation on the Web. While the **Virtual World 3D–The Acropolis** Web site has very little content and, basically, three screens of presentation, there's a nice 3D reconstruction of the hill as it once was and digitized images of what it looks like today. In fact, clicking on the Visionary Web sites link at the bottom of the page takes the user to the company's Web page, where you can go to **Virtual Worlds 3D Ancient Sites**. The Acropolis is one of four virtual ancient sites constructed; the others are Stonehenge, the Great Pyramid, and the Giza Plateau (more on each of these follows).

Virtual World 3D–Stonehenge
www.visionarywebsites.com/virtualworld/ancientsites/stonehenge.htm

This virtual reconstruction of Stonehenge, **Virtual World 3D–Stonehenge**, has much more interactive content than Virtual World 3D–The Acropolis. There are QuickTime movies that provide a fly-around virtual tour of Stonehenge as well as what the ancient site would have looked like during the summer and winter solstices. Wow, this is a fantastic project! There are also some digitized photos, but the movies are the real showpiece of this virtual reconstruction.

Virtual World 3D–The Great Pyramid and the Giza Plateau
www.virtualworld3d.com/ancientsites/ancientsites.htm

Unfortunately, for some reason, the two particular virtual re-creations, **Virtual World 3D–The Great Pyramid and Giza Plateau** have a number of problems. First, there doesn't seem to be a separate Web site available for either of them (like the other two virtual projects, Acropolis and Stonehenge); the user must access these through the parent Web site.

Secondly, clicking on either one of the icons for these two projects pops up the same exhibit/re-creation Web page.

Finally, all of the QuickTime movies and fly-throughs of the Pyramids do not work or are broken. It's a shame, as I would have really liked to see these.

Arthuriana Pedagogy
www.smu.edu/Arthuriana/teaching

The **Arthuriana Pedagogy** Web site is dedicated to assisting teachers and educators with various types of materials for use in instruction regarding any related to King Arthur. It's nicely organized into two major categories: Educational Materials for Specific Grades and Educational Materials for General Use. This latter category could probably be renamed Educational Materials by Format, for it provides access to the resources by textbooks and films, maps, graphics, audio files, related Web sites, and Arthurnet Discussions. There are some very good (and hard to obtain) audio files, with various professors reading Middle English, Welsh, French, and Latin examples of medieval and Renaissance texts related to the Arthurian legend.

"The Criyng and the Soun": The Chaucer MetaPage Audio Files

http://academics.vmi.edu/english/audio/audio_index.html

"The Criyng and the Soun": The Chaucer MetaPage Audio Files is another great resource for teachers looking for audio files that illustrate how medieval stories might have been read and how Middle English would have sounded. This particular Web site focuses on texts of Geoffrey Chaucer, again read and recorded mainly by academic professors.

Uncle Tom's Cabin & American Culture: A Multi-Media Archive

www.iath.virginia.edu/utc

Uncle Tom's Cabin & American Culture: A Multi-Media Archive is one of the more interactive from the University of Virginia's Institute for Advanced Technology in the Humanities (IATH) projects. The content can be accessed via three modes: Search mode, Browse mode, and Interpret mode. The user is offered these options, even before content can be viewed, and each is explained. Plug-ins needed to view interactive and 3D content are available directly through the Web site. The best way to discover the interactive content is to go to the Plug-Ins & c. Page. Details regarding where most interactivity is in the Web site can be found there. Otherwise, it is rather difficult to find most of it through browsing or searching.

America in the 1930s

http://xroads.virginia.edu/~1930s/front.html

Focusing on one decade within the twentieth century, the **America in the 1930s** Web site serves up film, audio, images, and other multimedia content to provide an overall picture of life in 1930s America. The various categories are: On Film, In Print, On Display, On the Air, Timeline, Site Index, and Downloads. The various software products used include Shockwave, RealPlayer, and QuickTime.

In relation to a year-by-year chronological presentation, the Timeline category is the optimal way to view the multimedia content. There are all kinds of radio programs, even a special exhibit on The War of the Worlds 1938 broadcast. Other memorable content includes a Superman exhibit with audio from the first sixteen episodes of the radio program, the rebirth of swing music, the Amos 'n' Andy radio program, and radio broadcasts by Franklin D. Roosevelt, to name a few.

This is an exceptionally rich multimedia Web site.

Aquae Urbis Romae: The Waters of the City of Rome

www.iath.virginia.edu/waters

Developed within IATH at the University of Virginia, the **Aquae Urbis Romae: The Waters of the City of Rome** Web site presents interactive cartographic maps of the hydrological and hydraulic systems in Rome from 753 B.C. to the present day. Specifics regarding the technical specifications and technology used to create this project are provided under Project Description. The maps are provided at the bottom of the front page. The user clicks on a certain time period in the history of Rome as a city. This brings up two choices of viewing: a JPEG map that has clickable links to content and a VRML 3D map that allows for various types of zooming, panning, and rotating.

Unfortunately, a new window appears when items are clicked on in the JPEG map; it would be more interactive if the content either popped up over the map, perhaps with digital images, etc. In order to view the VRML maps, the user has to download a free plug-in. Though fun to play around in, I found this Web site to be more of a play tool for VRML experimentation, since the content was separated from the maps.

Institute for Advanced Technology in the Humanities (IATH)

www.iath.virginia.edu

While I would never say the **Institute for Advanced Technology in the Humanities** (IATH) is not a leader in the forwarding of humanities computing, but given the parameters set forth the Preface of this report, it's difficult to find innovative digital projects in group's Web site. It also may be difficult to find the projects because the Web site itself does not actively market or promote its multimedia projects.

With the exception of the Aquae Urbis Romae project listed previously, I spent a lot of time just trying to locate and view all of the IATH projects. The easiest way I found to do this was to go to the Subject drop down menu on the right side of the front Web page, and go through the various humanities disciplines to get access to all of IATH's projects. Even using this search strategy, however, failed to discover much "innovation," at least as defined for this report.

Abraham Lincoln Historical Digitization Project

http://lincoln.lib.niu.edu

The **Abraham Lincoln Historical Digitization Project** is one of those interactive and innovative projects that really fills a niche in the humanities. It focuses on Abraham Lincoln and him alone, and the presentation of the material is both user-friendly and easy to follow. Primary source materials can be accessed via a toolbar that appears at the top of every Web page. This toolbar divides the content into format (text, image, video, sound, interactive resource, and all), so the user can decide what he or she wants to see in relation to multimedia.

In addition, there are buttons near the bottom of the front Web page that let the user access the content as interpretative materials, such as Search Lincoln's

Writings, Browse Lincoln's Writings, Browse Songs, Browse Entire Database, Lincoln-Douglas Debates of 1858, Black Hawk War, and Fast Facts about Lincoln. There are also clickable buttons to other online exhibits with Lincoln content.

The Interactive Resource category features a number of state and U.S. geographical maps showing presidential race results, Lincoln-Douglas debate sites, and other items of interest. It was difficult to ascertain what these maps were supposed to illustrate and provide interactively, but I only played with them very quickly. The other major plus of this Web site is it's geared toward educators (since it was constructed with NEH monies), and as such, there are numerous lesson plans and resources for incorporating this Web site into classroom teaching.

Illinois Historical Digitization Projects
http://dig.lib.niu.edu

Prairie Fire: The Illinois Country, 1673–1818.
http://dig.lib.niu.edu/prairiefire

Illinois During the Civil War, 1861–1865
http://dig.lib.niu.edu/civilwar

Illinois During the Gilded Age, 1866–1896
http://dig.lib.niu.edu/gildedage

Taming the Wild Prairie: A History of DeKalb County, Illinois, 1837–1900
http://dig.lib.niu.edu/dekalb

Getting the Message Out: National Campaign Materials, 1840–1860
http://dig.lib.niu.edu/message

Mark Twain's Mississippi River
http://dig.lib.niu.edu/twain

The Black Hawk War of 1832
http://lincoln.lib.niu.edu/blackhawk

The **Illinois Historical Digitization Projects** is the parent Web site of the Abraham Lincoln Historical Digitization Project. Fortunately, I discovered there are a number of other projects (project titles and URLs listed in box) by Northern Illinois University Libraries' digitization program that all follow the same format as this Abraham Lincoln project. They all have interactive content; the toolbar at the top of the front Web page is the same and provides the same access to various multimedia materials; and each project has a teacher's resource center with lesson plans and other aids for using the Web site(s) and their contents in the classroom.

Meet the Author
www.meettheauthor.com

If you love books and would like to know what the author thinks about his or her own work, the **Meet the Author** Web site has more 500 video/audio "book bites" of interviews with book authors. It is a wonderful application of streaming video Web casting tied to books.

Greensboro Sit-Ins: Launch of a Civil Rights Movement
www.sitins.com

Greensboro Sit-Ins: Launch of a Civil Rights Movement is a very focused, well-constructed Web site on a single event in history that changed America. The front page features a streaming video feed that continuously moves across the page as soon as it is launched. There's quite a bit of multimedia available, which can be accessed directly from the Multimedia category on the left-hand side of the Web page or can be discovered through exploration of the other categories available. There are video and audio interviews with the people who participated or observed this historical event in progress as well as digital images and digitized newspaper content.

Stonehenge Landscapes
www.arch-ant.bham.ac.uk/research/computing/SHBarrows

The **Stonehenge Landscapes** Web site is based partly on a book of the same name; it provides the technological and interactive content the book describes and details, so the user can see what is being discussed. To understand what's available, the user should click on the Walks category on the left-hand side of the front page. If you want to read about the technology involved, click on the Applets category.

Basically, this Web site features two interactive walks around the Stonehenge area. The text for these two walks has an interactive map, where the user can click on areas of the map and a digitized panorama of that area will be displayed with important features labeled. The user can zoom in and out of the panorama to see the picture (and the map within another window will also show the expansion by broadening its area of focus). One needs to download a zip software file in order to access this technology. It's interesting to play with but hard to figure out what exactly one is supposed to do with it.

Virtual Wroxeter Roman Fortress
www.arch-ant.bham.ac.uk/bufau/research/bt

Virtual Wroxeter Roman Fortress offers an interesting 3D reconstruction of the Wroxeter archaeological site in Britain, where a Roman fortress and headquarters once stood. The interactivity is hard to figure out, as the 3D image just has some buttons that allow the user to zoom in and out; no clickable features are present to help the user understand what's represented in the 3D image, and there's no labeling of buildings or notable locations. One must download Viscape (a free plug-in) to play with the 3D image. Instructions for doing this are provided on the

front Web page. There's supposed to be a guided tour of the 3D reconstruction, but I could not find this.

York: The City Walls
www.york.gov.uk/walls

I like the **York: The City Walls** Web site, because York is one of my favorite medieval towns (one that I have visited often). It is one of the few modern-day cities in Britain that still has a majority of its medieval town wall intact (Chester is another one). This Web site provides a nice interactive map the user can click on to see various photos of York from its town wall as well as interactive 360-degree panoramic pictures the user can manipulate to see the town from the walls. It brings back a lot of good memories and walks . . .

Institute of Museum and Library Services: Digital Projects
www.imls.gov/digitalcorner/cls_po.asp

One of the major grant sources for innovative digital projects in the humanities is the Institute of Museum and Library Services. The **Institute of Museum and Library Services: Digital Projects** Web site, unfortunately, does not really provide links to all of the IMLS projects constructed in the grant areas of Digital Collections, Learning Innovations, and Research and Tools. One must search by choosing one of these grant categories, then sort the list by year, institution name, or program name. Even after receiving the results, there are no clickable links to these programs, just a short annotated description of the project. Perhaps more interest would be generated in these grant projects if links to them were provided.

Canadian Music Centre
www.musiccentre.ca/home.cfm?lang=en
Canadian Music Centre Education Section
www.musiccentre.ca/mus.cfm#soundadv
Sounding Places
www.emf.org/artists/mccartney00

The **Canadian Music Centre** Web site provides lots of interactive content related to music in Canada. On the front page, there's a Featured Composer section that provides a biography, a sample music score to look at, a sample audio file to listen to, and access to other composers featured on the Web site. In addition, there is a wonderful Education section, which features a Flash game called Sound Adventure that offers various landscapes and music for exploration (along with teacher resources).

Sound Progression is another Flash application that features the compositional trends of twentieth-century Canadian composers. In addition, there are some very interactive resources available under the Useful Resources heading, many of them games and content for K–12 education.

There are also other headings, such as Reference Tools (that provides access to resources like the Multimedia Music Dictionary) and In-Depth Research (that provides access to interesting multimedia sound experiments like **Sounding Places**). This is wonderful and content-rich Web site filled with audio, score, and video files related to Canadian music that also includes educational resources.

University of California, Santa Barbara Department of Special Collection Cylinder Preservation and Digitization Pilot Project
www.library.ucsb.edu/speccoll/pa/cylinders.html

Wax Music Cylinders Audio Files
www.library.ucsb.edu/speccoll/pa/cylindersgenre.html#solo

The **University of California, Santa Barbara Department of Special Collection Cylinder Preservation and Digitization Pilot Project** is very unique project attempting to catalog, digitize, preserve, and provide digitized audio access to approximately 7,000 wax music cylinders, the oldest and most fragile sound carriers in existence. This project has converted around sixty of these cylinders and provided access to the digitized sound as MP3 files, QuickTime 56K, and QuickTime broadband. The actual audio files are available (see URL under Wax Music Cylinders Audio Files above), and the project has listed them under specific genres such as solo instrumental with orchestral accompaniment, orchestral, opera & classical, vocal with orchestral accompaniment, marches, vaudeville and other comedic and ethnic comedy songs, folk and country and old time music, and brown wax cylinders.

These are absolutely fabulous to listen to: The quality of the recordings is wonderful, and even listening to the crackle and pop of the mechanism and the sound as it plays reminds me of growing up and listening to vinyl recordings. Have fun with this one!

Virtual Vaudeville
www.virtualvaudeville.com

The **Virtual Vaudeville** Web site features the use of a state-of-the-art digital technology called the Live Performance Simulation System and its first major product, Virtual Vaudeville. (To understand the concept and problems associated with representing and archiving live performance, see www.virtualvaudeville.com/concept.htm.)

In order to view and be amazed by what this project has done, just press "See The Show." The Performance Viewer will show a 3D performance of an actual vaudeville script that survives, with virtual characters and props. Legendary vaudeville comedian Frank Bush is the featured virtual performer. The Theater Fly Thru is a 3D representation of the Union Square Theater in the late nineteenth century.

This is exactly the type of innovative digital project that the humanities needs to further examine and incorporate into many different areas, like archaeology, the arts, even literature. I was amazed by the quality of image and sound as well as by the realism of the performance. This is a must-see Web site!

Cathedral/Historical Virtual Tours

I came across a number of interactive, 360-degree virtual tours of medieval cathedrals, which enable the user to learn about the architectural, structural, historical, and liturgical aspects of medieval religion and practice. Many of them incorporate fly-throughs, 3D reconstructions, and/or various interactive maps that displayed images, audio, and video content.

Antiquity

The Parthenon
www.learn.columbia.edu/parthenon/flash

The Doric Order
www.learn.columbia.edu/shockwave/doric

Early Christian Architecture

Ravenna
www.turismo.ravenna.it/contenuti/index.php?t=visita, click on "Dynamic Images and Trailers"

Santa Maria Maggiore, Rome
www.cvrlab.org/humnet
www.cvrlab.org/humnet/resources/smmmovie.mpeg

Romanesque Architecture

Conques, Ste. Foy, Animated Plan/Glossary
www.learn.columbia.edu/ma/swf/djr/ma_djr_resource_foy_ag.html

La Madeleine Basilica Vézelay (Burgundy, France)
www.mcah.columbia.edu/mcah2/html/mcah_projects.html#; www.lejourduseigneur.com/vezelay/00.htm
For L**a Madeleine Basilica Vézelay (Burgundy, France**), click on the plan under 'France, Vézelay, Church of La Madeleine' at the bottom of the page.

Le Puy-en-Velay (Auvergne, France)
www.lejourduseigneur.com/puyenvelay/00.htm

Gothic Architecture

Chartres Cathedral
www.ithaca.edu/chartres/newsplash.html?
www.lejourduseigneur.com/chartres/chartres.html
www.lejourduseigneur.com/chartres/00.htm

Amiens Cathedral
www.arch.columbia.edu/DDL/projects/amiens
w2.amiens.com/cathedrale/accueil.htm
www.learn.columbia.edu/amiens_flash
Under **Amiens Cathedral**, the third URL listed is a magnificent interactive guide to learning about the architectural features of a medieval cathedral. The ground plan for Amiens is displayed as well as a glossary the user can click into, and the ground plan interactively displays where in the cathedral this particular structure or item(s) are located.

Avignon/Palais des Papas
www.lejourduseigneur.com/avignon/avignon.html

Bourbonnais Churches (S. Murray)
www.learn.columbia.edu/bourbonnais
Bourbonnais Churches (S. Murray) is an excellent interactive map of the Bourbonnais region of France, with 360-degree panoramic pictures of all churches/cathedrals highlighted.

Carcassonne
www.lejourduseigneur.com/carcassonne/carcassonne.html

La Rochelle
www.lejourduseigneur.com/larochelle/larochelle.html

Manchester Cathedral
www.mindwave.co.uk/manchestercathedral

Mont Saint-Michel
www.lejourduseigneur.com/MtStMichel

Paris, Notre-Dame; Interactive Glossary - Plan
www.learn.columbia.edu/ma/swf/ms/ma_ms_resource_nd_ag.html

Reims Cathedral
www.lejourduseigneur.com/reims/reims.html
In **Reims Cathedral**, just click "suivant" in the lower right hand corner of the Web page to see how Reims was built and appeared at different time periods in its existence. Access to 360-degree panoramic pictures is offered, and the other cathedrals at this Web site work the same way.

Rocamadour

www.lejourduseigneur.com/rocamadour/visite/00.htm

Sacre-Coeur de Montmartre in Paris

www.lejourduseigneur.com/sacrecoeur

Salisbury Cathedral

www.vrsalisbury.co.uk

Salisbury Cathedral provides QVTR and Java maps of Salisbury as well as 360-degree panoramic pictures. For more United Kingdom cities and sites by this company with similar access, see the lower right-hand side of the Web page.

Toulouse, St. Étienne (slow loading, but good)

www.gillesvidal.com/data/stetienne/vv-stet1.htm

York Minster, York, England

www.vryork.com/minster/tour/source/minster03.html

Westminster Abbey

www.westminster-abbey.org/tour

Gothic Cathedral Technique: Build an Arch

www.bbc.co.uk/history/society_culture/architecture/launch_ani_build_arch.shtml

In **Gothic Cathedral Technique: Build an Arch**, see the Multimedia Zone on the right-hand side of the Web page. Other multimedia games are available here too.

A Thousand Years of Church Architecture

www.learn.columbia.edu/shockwave/1k_years

Other General

Bayeux Tapestry Screensaver

www.screengold.co.uk/scrbayeaux.htm

Moscow, Cathedral of the Dormition

http://vrm.vrway.com/issue09/VIRTUAL_CATHEDRAL_OF_THE_DORMITION_BY_ALEXEY_TRUSOV_.html

Digital Himalaya

www.digitalhimalaya.com

Tibetan and Himalayan Digital Library

http://iris.lib.virginia.edu/tibet
http://iris.lib.virginia.edu/tibet/collections/cultgeo/maps.html

The **Digital Himalaya** Web site features digital images and multimedia related to anthropological information from the Himalayan region. It is associated with the Tibetan and Himalayan Digital Library discussed next.

Currently there are five major digital collections available: Williamson Collection, Furer-Haimendorf Film Collection, Naga Videodisc, Thak Archive, and Thangmi Archive. More are planned in the future, and content is being added continually, according to the information available.

The fabulous **Tibetan and Himalayan Digital Library** has multimedia content galore as well as lots of interactivity and information. The major categories in the top toolbar (which are also provided as image links) are: Collections, Reference, Community, Education, and Tools. The Web site is available in English, Chinese, and Tibetan.

Under the Community category, for example, are a number of interactive maps. Information on how they are constructed, what is available in them, and other information (see http://iris.lib.virginia.edu/tibet/collections/cultgeo/maps.html).

The Asia interactive map shows country names, and when Tibet is clicked on, another interactive map pops up (in which the major geographic features can be inserted) and offers a virtual tour of the town of Lhasa. The information is presented in a number of different ways: by collection, by themes, and by format.

Absalom, Absalom! *Electronic, Interactive! Chronology*

http://etext.lib.virginia.edu/railton/absalom

***Absalom, Absalom!* Electronic, Interactive! Chronology** is a fascinating multimedia resource meant to assist teachers and students studying William Faulkner's book *Absalom, Absalom!* There's a Flash-based chronology of the chapter-by-chapter events in the book, a Flash-based chronology of the full text, and audio/sound files of Faulkner's visit to the University of Virginia's English Club in March 1957 and two English classes in May 1958.

This is a unique way to teach the book, and help students to visualize the chronology of the plot while they read the book.

The Crystal Palace

www.iath.virginia.edu/london/model

Monuments and Dust

www.iath.virginia.edu/london

A VRML model and a three-minute animation of the interior of **The Crystal Palace** was produced by IATH for the Museum of London and the "Monuments and Dust" digital project. The animation impresses on the viewer how large the actual building was as well as presents the character of the structure and space. There's extensive documentation available on the Web site about how the VRML model and animation were done and the technology was utilized.

This is a neat Web site focused on one particular architectural structure. See also the **Monuments and Dust** exhibit, which is related.

Television News of the Civil Rights Era: 1950–1970

www.vcdh.virginia.edu/civilrightstv

The **Television News of the Civil Rights Era: 1950–1970** digital archive features an extensive collection of digitized 16mm news footage from TV news station WSLS in Roanoke, Virginia. As an historical and educational Web site of digital primary source materials, it provides K–12 students the opportunity to investigate historical events in a wide range of experiences. The major categories are: Films & Summaries, Primary Documents, Oral Histories, Glossary, Classroom Applications, and Essays and Interpretations. The user can view the film itself or just the transcript.

Third View: A Rephotographic Survey of the American West

www.thirdview.org

The **Third View: A Rephotographic Survey of the American West** project involved a re-photographing of many historic western American landscape photographs taken during the nineteenth and early twentieth centuries. Between 1997 and 2000, more than 109 historic landscape sites featured in early survey photographs were revisited, and this Web site is a wonderful compilation of the original photograph, one taken in the mid-1970s for a book titled *Second View* (University of New Mexico Press, 1984), and one taken recently for a book/CD titled *Third Views, Second Sights* (University of New Mexico Press, 2004).

Under the Rephotographs category, an interactive map of the American West allows the user to click and slide a magnifier to specific spots on the map. Rivers and lakes, railroads, and roads and highways can be laid over the interactive map to provide perspective about the importance of these cities and towns in nineteenth-century America.

The original photograph is displayed first, and the second view is laid over the first and slowly fades in over the first in order to show the dramatic changes in that landscape since the first photo.

If a third view is available, the slow fade-in is also used to show changes from the first and second photos. The user can click on each view to make the photos fade in and out, or he or she can press an auto button to do it automatically. The photographs can be emailed, or the user can order a print. Other categories for exploration include: Field Notes, Classroom, Book & DVD, and Reference.

Thumbprints of "Ephelia": The End of an Enigma in Restoration Attribution

http://marauder.millersville.edu/~resound/ephelia

A large multimedia Web site on the contested "Ephelia" poet of seventeenth-century English poetry. the author of the Web site, **Thumbprints of "Ephelia": The**

End of an Enigma in Restoration Attribution, feels she has identified (through various research findings) that the "Ephelia" poet is Mary "Mall" Villiers, later Stuart, Duchess of Richmond (1622–1685). Audio clips, images, and text are provided on the Web site to support this supposition.

Nebraska Studies

www.nebraskastudies.org

This is a perfect example of an innovative digital humanities project in regional studies. The **Nebraska Studies** Web site is designed as a huge timeline, from pre-1500 Nebraska (back into prehistoric times) to the present. By clicking on the timeline, the user is presented with a more detailed timeline, showing the content of the Web site for that time period, along with notable national and international events below for comparison.

When accessing the content, the user is taken to the topic, where a table of contents is presented on the left-hand side of the page. There's a Teacher's Resource, Tools, and Media section for each timeline category.

It's under the Media section the user can access quickly the multimedia content for that particular timeline category. For instance, under 1500–1799, there are five Flash animation movies, focusing on early American Indian tribes in the Nebraska area as well as migration routes of prehistoric horses and how the early Indians made use of the bison for food, etc. Under 1875–1899, there are two interactive maps that show the early Ponta Indian migrations and treatises as well as that indicate the events that lead up to the trial of Standing Bear. This is excellent resource!

The September 11 Digital Archive

http://911digitalarchive.org

The **September 11 Digital Archive** is an interactive Web site that uses electronic media to preserve, collect, and present the history of the September 11, 2001, attacks on the World Trade Center in New York City and the Pentagon in Washington, D.C. It's divided into formats: still images, moving images, audio, documents, and guide to Web sites.

The Lost Museum

www.lostmuseum.cuny.edu

The **Lost Museum** provides users with a fascinating Web site to explore, both in innovative presentation and the topic itself! This Web site presents a 3D reconstruction of the American Museum of P.T. Barnum in New York City as it would have looked before being destroyed by a fire in 1865. This museum was one of the most visited American "tourist" attractions of the nineteenth century, comprising five floors of changing exhibits and attractions.

A Flash movie discusses the purpose of the Web site, and the user then moves into two major avenues for exploration: Who Burned Down the Museum?, an

exploration of the mystery surrounding the fire by P.T. Barnum himself through a 3D environment (with the user as the detective to explore the possible suspects and evidence regarding the fire); and Explore the Museum, an actual 3D re-creation of the museum, with interactive floor plans and virtual 360-degree views of actual exhibits once displayed in the museum. There is also a Visit the Classroom category with support materials for teaching.

The 3D museum is wonderful to explore (there are actually only three floors), where the user chooses which floor to explore, and he or she then can move side to side to see the content of the museum. In P.T. Barnum's office, for example, the user can zoom in on his desk and examine various photos, books, letters, and notes for content on the showman and his museum and life. Question marks appear in the museum when there's content available to view, and the user can learn more about the exhibit or get closer to it. This is definitely an innovative and unique project, both technologically and in content!

DoHistory
www.dohistory.org

The **DoHistory** Web site helps users to see the challenges of piecing together past history from primary source materials. This case study examines the life of Martha Ballard, a midwife, healer, mother, and wife in late eighteenth through early nineteenth century Maine. Video clips from a PBS film documenting Ballard's life titled *A Midwife's Tale* are available, along with information regarding the process of making an historical film. Martha Ballard's diary, which is the primary source material for her life and the film, has been digitized and is available for searching and browsing. In addition, there are teaching resources available for those wishing to incorporate this Web site into their educational curricula.

South Seas: Voyaging and Cross-Cultural Encounters in the Pacific (1760–1800)
http://southseas.nla.gov.au

South Seas: Voyaging and Cross-Cultural Encounters in the Pacific (1760–1800) is an online information resource on the history of European voyaging and encounters with indigenous populations in the Pacific between 1760 and 1800. Available so far in this project is Phase I, James Cook's first discovery voyage of 1768–1771.

There are a number of interactive maps, based on the primary sources, available for this expedition, namely James Cook's diary and ship logs. The maps show the route his expedition took and enables users to zoom in on a day-by-day map, which allows them to click to content related to that day of the expedition.

Under the Cultural Atlases category, users can view maps of some of the locations Cook visited and zoom in to get a better view of what the island or location looked

like. There is also access from the maps to digitized diaries, ships logs, and maps that the expedition used or created. This is a project in process devoted to a unique and interesting topic.

The Cultural VR Lab at UCLA
www.cvrlab.org/projects/projects.html
The Roman Forum
http://cvrlab.org/forum
The Basilica of Santa Maria Maggiore Restoration Project
http://cvrlab.org/humnet

The Web site **The Cultural VR Lab at UCLA** reveals what the virtual reality laboratory at the University of California in Los Angeles is currently working on—some very interesting 3D reconstructions! One of the two projects the lab is working on and one that is currently operable is **The Roman Forum**, a VR project in which the user can—by moving through a timeline located at the top of the Web page—view the construction of the Roman Forum from 700 B.C. to 500 A.D. Moving the cursor over the map will provide information on the building itself, when it was built, its uses, etc. Sometimes, clicking on the building will produce VR representations and more information in the lower half of the page.

Another project available is **The Basilica of Santa Maria Maggiore Restoration Project**. The most interesting part of this project is the MPEG video reconstruction of the basilica, which flies the user through the church and shows him or her what it might have looked like. Current projects under development provide only screen shots and images of the 3D reconstructions, but many of them look like they will be fascinating when they are completed.

Performing Medieval Narrative Today: A Video Showcase
http://euterpe.bobst.nyu.edu/mednar

Chock full of video and audio performances of medieval stories, narratives, and tales, the **Performing Medieval Narrative Today: A Video Showcase** is a wonderful tool to explore for both educational and personal pleasure. The user searches through a number of drop-down boxes to narrow the parameters of the search for content. The two search categories are Performance and Original Works.

Under the Performance category, drop-down menus include: performance descriptors, musical instruments, performer categories, name of performers/ensemble, title of clip, language of performance, setting, and geographical location. Under the Original Works category, drop-down menus include: title of work, author, genre, subject, period, and language of work.

Each video clip includes an extensive bibliographic summary, in order to assist in populating the search categories indicated. According to the About narrative,

this Web site supplements the book *Performing Medieval Narrative* (Boydell and Brewer, 2005). The front Web page shuttles the user through Flash images of some of the performances contained within the Web site. QuickTime 6 is required to access the video content.

Slavery and the Making of America
www.pbs.org/wnet/slavery

One of the many interactive Web sites constructed to complement the PBS educational TV series, the **Slavery and the Making of America** Web site stands out due to its audio clips and interactive maps. For instance, under the Slave Experience category, looking under the Religion heading, the user clicks on the topic Hidden Objects and is taken to an interactive map of hidden objects that have been unearthed beneath former and destroyed slave locations throughout the South. Moving the cursor over the orange dots displays the artifact found, and clicking on it provides a detailed description of that item.

Under the Slave Experience category (looking under the Education, Arts, & Culture heading), the user can click on the Music in Slave Life topic and listen to various religious, work, and recreational songs that slaves used to sing.

Ukrainian Village Project
www.arts.ualberta.ca/uvp

The **Ukrainian Village Project** Web site contains quite a bit of interactive material on the folklore and ethnography of the Ukraine. There are audio and video files, but the real attraction is a 3D model of a real farm in the village of Iavorivka. The user clicks on Virtual Farm and is taken to a QuickTime re-creation of the farm. There are some problems with navigation and clicking on content, but apparently this project is currently undergoing some problems with its technology.

The World of Dante
www.iath.virginia.edu/dante

The **World of Dante** is a hypermedia environment for the study of Dante's *Inferno*. Besides having the entire book digitized and available for reading and studying, there's a 3D VRML representation of Hell the user can generate. He or she can pick and choose exactly what type of creature or person he or she wants to see as well as choose a color to view said selection on the VRML map.

Once the map is generated, besides being able to move around the map in 3D with the various navigational choices, the user can also move the cursor over the generated icons in the map and get a short description of who/what is at this level of Hell in the story. By clicking on the icon, the user is taken directly into the text of *Inferno* at the location and canto where this object is being referenced (in a separate pop-up window).

Performing Cicero
http://cicero.humnet.ucla.edu

The **Performing Cicero** Web site contains a series of experiments in the performance of a Ciceronian speech from Ancient Greece. The user clicks on the Speech category to go to the QuickTime movies. There are three interpretative versions of Ciceronian speech available by different performers in costume. Information on the sources and the costumes are available as well.

A Vision of Britain through Time
www.visionofbritain.org.uk

A **Vision of Britain through Time** offers a look at Britain between 1801 and 2001, through census reports, traveler's tales, and historical mapping. Under the Historical Mapping category, the user can choose to zoom in and observe maps of twentieth-century Britain, nineteenth-century Britain, a Landuse map, and a Digital Chart of the World. The best way to start, however, is to follow the step-by-step instructions for choosing a location, then pulling up census information provided through a number of topic choices, and then viewing that area in the Historical Map area.

Trajan's Column
http://cheiron.humanities.mcmaster.ca/~trajan

Trajan's Column is an interesting digital representation of the Roman emperor's monument. The best way to access the content of this Web site is to click #5 Cartoons on the front page. The user is then taken to a cartoon representation of the column, whereby he or she can move panel by panel, either right or left, or can move through the column spirals either up or down. When images and their accompanying information are available, a blue box indicates this in the cartoon of the panel.

Ancient Greece: Town and Country
http://vads.ahds.ac.uk/guides/vr_guide/ancgr/Start_Here.htm

Ancient Greece: Town and Country is an educational package for grades six and up, which is virtual reality based. The Web site provides 3D reconstructions of an ancient Greek house in the country and one in the city. The Vari House is the only one of the two I could bring up on my computer, but it uses VRML language and navigational devices so the user can view the 3D from all angles. The user can walk through (virtually) the archaeological site, and there's even one location in the ruins the user can click to view one of the objects found in the ruins. Unfortunately, a number of links on this Web site don't work.

Virtual Saltburn by the Sea
www.scm.tees.ac.uk/users/p.c.fencott/Saltburn

Virtual Saltburn by the Sea is a VRML re-creation of a small, Victorian seaside town in northeast England.

Fun to move around in, in this project the user starts out on the beach and can see the trams moving up and down the hillside going up to the town. I didn't really have much time to explore getting up to the town, although I was able to walk down the beach (again, virtually), to the steps, and get inside the tram.

The Northwest Palace of Ashur-nasir-pal II, Nimrud, Assyria

http://vads.ahds.ac.uk/guides/vr_guide/nwpalace/ NWPalace_page01.htm; http://vads.ahds.ac.uk/guides/ vr_guide/vlib4.html#ashur

The Northwest Palace of Ashur-nasir-pal II, Nimrud, Assyria offers another VRML reconstruction of the ancient palace of a King of Assyria. It's only partially constructed, since when you start trying to move out the door to see the sky or the reliefs near the exit outside, you get a clickable sign taking you to the company that made the reconstruction. The relief panels that line the walls, however, are re-created in remarkable detail and can be walked toward and viewed as if you are really there. This is very nice!

Electronic Cultural Atlas Initiative

www.ecai.org

The **Electronic Cultural Atlas Initiative (ECAI)** uses state-of-the-art mapping and interactive technologies to enhance the understanding and preservation of human culture. They have many projects listed on their Web site; too many to list or go through for this book, but plenty to explore.

ECAI uses the TimeMap project software developed at the University of Sydney in Australia for all of its interactive maps. Under the Projects category in the top bar, ECAI presents a list of projects as well as a list of featured projects. All of these relate, in some way, to combining historical, cultural, and archaeological materials with technological and geospatial imagery to create unique projects and unique ways of viewing and researching information.

The Tomb of Senneferi: Theban Tomb 99

www.newton.cam.ac.uk/egypt/tt99

Petra: Lost City of Stone

www.amnh.org/exhibitions/petra

The Tomb of Senneferi: Theban Tomb 99 Web site features fieldwork on this Egyptian tomb from 1992 through 2002. It has QuickTime VR movies and QuickTime videos. The creators of the site include panoramic photos users can click on, so they can move around to see the vista photographed. The videos show work in the field, including working on textiles, sorting pottery, and cleaning wall paintings, among many others.

Known to most people through the third Indiana Jones movie, the place to where Indiana (Harrison Ford) goes off to find his father (Sean Connery) and the Holy Grail. Petra is a mysterious location the Web site **Petra: Lost City of Stone** helps to demystify. Under the Interactives category, there are three panoramic 360-degree photographs for the user to visit Petra and its monuments virtually.

Cultivating Communities: Dance in the Digital Age

http://arts.internet2.edu/fall2002-perfevent.html

Cultivating Communities: Dance in the Digital Age is one of the many innovative projects that has come out of the Internet 2 Initiative. The streaming video(s) highlights the Fall 2002 performances, from around the country, of regional dance and music. The virtual performance is available at the Web site.

The Last Expression: Art and Auschwitz

http://tle.northwestern.edu

Featuring art produced by prisoners during their captivity at Auschwitz, **The Last Expression: Art and Auschwitz** Web site features virtual 360-degree panoramic tours of Auschwitz itself, inside the barracks, and other locations as well as art tours (accessed through hot spots) to view some of the artwork that still survives at Auschwitz. Essays, lectures, and bibliographies are also available.

The Beat Goes On: How Sounds Are Recorded and Played

www.ieee-virtual-museum.org/exhibit/exhibit. php?id=159246&lid=1

The Beat Goes On: How Sounds Are Recorded and Played is one of a number of interesting projects from the IEEE Virtual Museum. This exhibit focuses on the history of recording sound. It features some very interesting interactive content, including a Flash demo of how Thomas Edison's phonograph worked, an audio recording of Enrico Caruso singing, an early 1930s video clip of "sound on film," and other audio clips. This is very well done, short yet interactive exhibit on the history of recording.

World War II: How War Impacted Technology

www.ieee-virtual-museum.org/exhibit/exhibit. php?id=159269&lid=1

World War II: How War Impacted Technology is another IEEE Virtual Museum exhibit. It discusses how technology impacted the outcome of World War II. There's interactive content showing how the first atomic bomb worked, how radar worked, and a few video clips.

Songs in the Key of E

www.ieee-virtual-museum.org/exhibit/exhibit. php?id=159271&lid=1

Songs in the Key of E is an interactive exhibit that examines the history of electronic musical sounds and

instruments. There are video clips of theremin music, vocoder music, various electronic organs and pianos, including the Moog synthesizer. Each of the IEEE Virtual Museum exhibits is interactive and full of content but rarely go beyond six screens.

Powering the Electrical Revolution:
Women and Technology
http://www.ieee-virtual-museum.org/exhibit/exhibit. php?id=159251&lid=1

With video clips of women working in factories and other technological occupations, **Powering the Electrical Revolution: Women and Technology** looks at the role of women during World War II and after in the changing work environment in America.

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