High Voltage Teaching:
Using New Media to Electrify Students and Classrooms

Carl R. Schulkin

Meeting the Challenge of Integration

More so than college students, juniors and seniors in high school crave—one might even say *demand*—variety in instructional techniques. Holding their attention while stimulating them to think critically about important historical issues has been my constant preoccupation as a high school teacher for the past twenty-five years. First in my United States History survey and most recently in my Holocaust studies classes, I have continued to search for new and exciting ways to present historical interpretation and to motivate my students to analyze them on the basis of the evidence. Because New Media resources offer the opportunity simultaneously to teach content, sharpen the students' critical skills and help them acquire valuable computer skills, I have embraced these new pedagogical tools enthusiastically.

An equally important reason for my recent experimentation with New Media pedagogy has

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Field(s):
United States History, Holocaust Studies; Social Studies Department, Pembroke Hill School, Kansas City, Missouri
Course(s):
American Civilization History
Context:
This is a required interdisciplinary course for juniors, team taught with American Civilization English. Pembroke Hill School is an independent, college preparatory school with an enrollment of approximately 400 students in its high school. 100% of the students go on to four year colleges.
Intention:
--to develop a unit for a United States History survey course which would simultaneously teach students valuable computer skills, sharpen their historical research and writing skills and enhance their understanding of the plight of free African Americans in the antebellum South.

been my strong belief that in the long term—the *very* long term—
new electronic media will revolutionize American education. Like
the Industrial Revolution, the "New Media Pedagogical
Revolution" will occur very gradually, but it will eventually trans-
form our entire system of education. Such a transformation may
take decades, but, given the rapidly expanding role of computers
and the Internet in our daily lives, educators must begin preparing
for the inevitable. To prevent them from interfering with what we
value most in teaching and learning, we must tame these poten-
tially disruptive forces. We must find ways to utilize these power-
ful tools to further our current educational objectives and to devel-
op new approaches appropriate to a world increasingly dependent
on electronic devices. We must make them an integral part of the
classes we teach. This is what I have called "the challenge of inte-
gration."

When I set out in the summer of 1996 to meet "the challenge of
integration," I knew only that I was determined to integrate New
Media seamlessly into my American Civilization History and
Advanced Placement United States History surveys without
detracting from the critical skills and historical content which had
always constituted the essential core of these courses. I had a
vague sense that I would need to look carefully at both web sites
and CD-ROMs and that I would need to learn the rudiments of web
page design. Beyond that I clung to the hope that I would not have
to sacrifice anything essential in those courses as they existed in
order to incorporate new media.

Two and a half years later I believe I have successfully integrated
New Media into all of my classes without sacrificing any essential
content or skills and with some important gains for both my stu-
dents and myself. These gains include: 1) a new awareness on the
part of my students that the Internet can be a valuable source for
the serious study of history; 2) familiarity with some of the most
valuable electronic resources; 3) acquisition of a series of comput-
er-related searching and evaluation skills necessary for exploiting
those rich resources; and 4) exposure to the rudiments of web page
design and hypertextual thinking. A number of my current students
have been forthright in acknowledging these gains. A junior in my
American Civilization History class affirmed: "I was surprised to
see how much the computer actually helps in the study of U.S.
History." Another stated: "I never really thought of computers help-
ing us study United States history. I liked that we do not have to
read books to learn, but the computer puts more fun into learning.
It is a change of pace." "Before, I never saw the Web as such a

good source," yet another noted. "I know that I will use the Internet as a solid source from now on."

Having experimented with a variety of web sites and CD-ROMs and a number of different approaches during the past two and a half years, I have reached two general conclusions regarding the use of New Media. First, I firmly believe that there really is no such thing as a pure New Media lesson. All lessons incorporating New Media need to rely to some extent on traditional sources as well. Conversely, in the future, even those lessons based primarily on traditional sources will be enhanced if New Media are also utilized. Second, I am convinced that one of the most valuable uses of New Media for teaching history lies in the type of exercise which Randy Bass has called "the novice in the archive." For, of all the different New Media lessons I have tried, the one which has yielded the richest rewards has been *The Valley of the Shadow* project, a prototype of the kind of lesson that Professor Bass coined that term to describe.

Using New Media to Heighten Student Interest *and* Teach Critical Skills

Before one can understand *The Valley of the Shadow* project and its implications for teaching with technology, one must understand the approach I have taken to teaching history. Two controlling assumptions govern my methods of instruction. First, I believe that teaching what Benjamin Bloom has labeled higher level skills far surpasses in importance conveying any specific body of knowledge. In particular, I am convinced that when we teach juniors and seniors in high school and freshmen and sophomores in college, we must focus on history as interpretation. We must teach our students how to read for interpretation and, once they have identified an author's arguments, to analyze them critically by comparing them with the evidence presented. Our students need to be taught how to differentiate poorly substantiated from well substantiated arguments and to formulate and support their own interpretations both verbally and in writing. Second, I believe equally strongly that, particularly in a high school setting, heightening student interest through the use of more relevant subject matter and non-traditional instructional techniques significantly enhances learning. I have embraced the infusion of New Media precisely because they provide easy access to highly relevant subject matter and lend themselves to teaching the critical reading, thinking and writing skills enumerated above through the use of innovative, non-tradi-

tional instructional techniques.

Beginning in the late 1970s with integrating materials on African Americans and women, I have striven to make my United States History surveys more inclusive and to heighten student interest by allowing more and more of my students to see themselves in history. I have employed the non-traditional technique of showing excerpts from popular films such as *Nine to Five* and *Some Kind of Wonderful* to teach students how to identify and analyze a film maker's depiction of problems such as sex discrimination and class divisions in American society. I have used an analogous method of playing popular songs such as *We Didn't Start the Fire* and *With God On Our Side* to illustrate the difference between mentioning historical events and constructing an historical interpretation. Most important, my colleagues in our interdisciplinary American Civilization program and I have devised what we call a "simulation paper," a creative writing assignment incorporating historical research in response to a social history simulation.[1] It has been only a short step from there to the brave new world of search engines, hypertext, web sites and CD-ROMs in search of an even wider variety of instructional techniques.

Educators seeking confirmation that one can infuse New Media extensively into the high school classroom without detracting from either core content or higher level skills can take comfort from my students' experience with "simulation papers." Shortly after the inception of our team-taught American Civilization program, a colleague in our English Department, Lorraine Gordon, showed me how to use a social history simulation I had written as the basis for a creative writing assignment. We dubbed this paper a "simulation paper" because it required students to demonstrate their understanding of a specific, true-to-life historical problem by writing a play, short story, dialogue, series of diary entries, or exchange of letters embodying their proposed solution. Despite the novelty of the experience and the difficulty of finding actual historical detail to incorporate into the paper as evidence, we have received a large number of outstanding papers during the past nine years on subjects as diverse as a Hopi courtship in the 1780s, Tejanos choosing sides in the Texas Revolution of 1836, and the changing roles of African American women under the impact of affirmative action in the early 1970s. Equally important, students have consistently praised this assignment as the most interesting, most valuable assignment in the course. Integrating New Media has done nothing to alter that opinion. The most recent set of student evaluations, submitted at the conclusion of the fall semester of 1998, show

remarkable continuity with those we have received since the inception of the assignment nine years ago. For example, one of the students who responded most enthusiastically to New Media began his evaluation by stating: "The most interesting and valuable skill I learned during this semester was the use of the computer. I felt it was neat how you incorporated the computer into most of our projects." Then, in the next sentence, he stressed: "My favorite project was the simulation paper. Because I am better at creative writings and like them better than analytical essays, I found it to be a refreshing break from the typical essay."

A second student, equally enthusiastic about the use of New Media, expressed almost identical sentiments. "What I found to be most valuable for further success in this course and classes to come," she wrote, "was the work with the Internet. Never have I had so many projects or papers where I have turned to the Internet as a valued source. Not only have I learned to turn to it as a valid source, but I have also learned how to go about searching for information I never thought to be possible on the Internet." When it came to discussing what she had enjoyed most, however, she turned to the simulation paper: "It was nice to have some freedom and be creative in a historical way while writing a paper….This turned out to be, by far, one of the most challenging as well as fun assignments that we have done this semester." A third voice, reflecting less concern with New Media, revealed a greater appreciation for the analytical skills he had begun to sharpen while completing this assignment: "I personally liked the simulation paper because it was a different way to put information into a paper. When I did this paper, the information made more sense, because I thought of a real situation. It always helps me think of a problem in history if I put it in a real situation."

Seniors enrolled in my Holocaust class, "Always Remember: The Holocaust as Depicted in History, Film and Literature," during the fall of 1998 expressed similar opinions about my use of New Media. Although this class as a whole was exposed far less to such resources than my students in American Civilization History, several chose to discuss New Media in their course evaluations. Most revealing was the constructive criticism made by a highly motivated senior who had taken my Advanced Placement United States History class as a junior. "Rather than viewing another film," she wrote, "I would have liked to return to the computer lab for those two days and explored the Holocaust topic on the Internet. Both my junior and senior year classes with you have really gotten me interested in the Internet as a research tool. Some teachers think

that there is not any valuable information on the Internet, but you have really taught me otherwise. Towards the end of this course, I would have been interested to view the quality of information that is available on the Internet concerning the Holocaust."

Although I cannot claim that most of my students have become expert in the art of using the World Wide Web to do historical research, I can state with confidence that they have mastered the rudiments of using search engines, learned to take advantage of the basic features of a web browser and gained valuable experience evaluating web sites. My students have become familiar with and feel comfortable using computers to do historical research, and they turn to the World Wide Web regularly as an important source. Such gains may seem very modest when compared with exaggerated reports in the news media of young people far outdistancing their elders in the use of computers and the Internet. However, my experience teaching affluent students with easy access to the Internet has been that, with the exception of using word processing software to write papers, they have not utilized computers routinely for educational purposes prior to enrolling in my class.

What I have learned through trial and error during the past two and a half years and what I regard as crucial to fully integrating new media resources into a course is the careful sequencing of computer with critical reading, thinking and writing skills. An example of how we engineered such sequencing in our American Civilization class can be seen in the way we infused electronic media into a new unit built around Arthur Miller's *The Crucible*. My colleague in the English Department , Lorraine Gordon, and I agreed that our unit would culminate in a joint, interdisciplinary writing assignment in which students would combine their understanding of the historical reality of Massachusetts in the 1690s with Arthur Miller's literary depiction. Before we could ask our students to visit two web sites relating to the Salem Witch Trials and explore a CD-ROM about the play, however, we had to instruct them in the use of search engines, the navigation of CD-ROMs and how to go about evaluating a web site.

Once we had taught these basic computer skills, we were in a position to require our students to demonstrate their mastery of critical thinking and writing skills as well. As several students explicitly acknowledged in their course evaluations, rewriting a scene from *The Crucible* to make it historically accurate but without detracting from its dramatic impact, involved the same creative and analytical skills as writing a simulation paper. "The project on *The Crucible*," one student wrote, "was quite interesting. Although it

was definitely different from any project that I had ever done, it in my opinion was very valuable. This project allowed students the opportunity to be not only analytical, but also extremely creative."[2] While our students found the assignment very challenging, a number of them rewrote scenes from the play in a way that made it more plausible historically while preserving much of its dramatic impact. Several students transformed Reverend Samuel Parris into the major protagonist, imagining an unscrupulous, greedy, and ambitious cleric I found almost as interesting and far more believable than Miller's promiscuous sixty-year old, John Proctor.

The Novice in the Archive

After cumulatively building and practicing essential computer skills, toward the end of the first semester I used computers to teach the basic techniques of historical research in primary sources. In an attempt to electrify these novice historians, I asked my high school juniors to examine a very small portion of the massive web-based *The Valley of the Shadow* archive (http://jefferson.village.virginia.edu/vshadow2). Although it has taken me three tries to make this assignment more manageable for my students, the project has now become a key component of my course. It takes advantage of the unique capability of the World Wide Web to provide easy access to a rich array of primary sources. With careful guidance from the instructor, students can take advantage of this opportunity to learn how to construct a historical narrative based on their own analysis of these sources. It would be difficult, if not impossible, in most circumstances for a high school teacher to offer students such an opportunity, much less contemplate using such a project as a stepping stone to the exploration of genuinely new forms of learning such as "virtual papers."

Since devising and revising this unit has been the centerpiece of my efforts to meet what I have labeled "the challenge of integration," incorporating powerful New Media tools into my courses, I will explain in some detail the road I have traveled. It has been a long and difficult road, but one I have found very rewarding. I have devoted at least twice, if not three times, the amount of time to *The Valley of the Shadow* project than I usually devote to developing traditional lessons. (Whether such a heavy time commitment continues to be characteristic of New Media pedagogy remains to be seen, but it has been an important topic of discussion among those of us who have been "early adopters.") Another significant byproduct of my experience has been that now, with every new unit I

decide to create, I automatically ask myself: "Can the use of New Media enhance the effectiveness of what I am hoping to accomplish?" In most instances, the answer has been a resounding "Yes." And I have been sufficiently encouraged by the results to continue my search for genuinely new kinds of historical learning.

My love affair with *The Valley of the Shadow* web site began in July 1996 when I was introduced to it in a presentation by its principal architect, Ed Ayers, at the first New Media Classroom workshop. Given time at the workshop to explore the web site in some depth, I was intrigued by the registers of free blacks for Augusta County (http://jefferson.village.virginia.edu/vshadow2/govdoc/free.html) and the city of Staunton, Virginia (fblack2.html). I was already aware of an imbalance in the treatment of African American history prior to the Civil War in my survey classes: my students were exploring slavery in great depth, but receiving only brief exposure to the plight of free blacks. This collection of primary sources appeared to offer me an opportunity to teach my students how to utilize a web site while helping to correct this imbalance. Therein lay the basis for a new inquiry lesson, one which could be inserted in my course immediately following my lone lecture on free blacks in the antebellum period.

Having only a minimum amount of time to prepare and implement the lesson, I followed one of the key maxims of good teaching, the K.I.S.S. principle—Keep It Simple Stupid! I did a brief classroom demonstration of how to use a web browser to find and explore a site on the World Wide Web, provided the URL for the free black registers, and showed my students how to use the "find" function of Netscape Navigator to query these sources. After a brief discussion of the kinds of searches they might perform—occupation, emancipation or manumission, gender, mixing of the races—I set the students to work in our computer lab in groups of two or three for the remainder of two forty-five minute class periods. The final product of their labors was to be a 500 to 1000 word essay explaining what important conclusions regarding free blacks in the antebellum South they believed they could draw from examining these registers. They were encouraged to choose issues mentioned in lecture (such as the alleged deterioration of the status of free blacks or the possibility that many of the slaves who had been emancipated were of mixed racial ancestry) to test on the basis of these primary sources.

The results of this first foray into the world of New Media were very uneven. Some students expressed great enthusiasm and claimed to have learned a great deal about free blacks. At the other

extreme, a few expressed great frustration, claiming they could make no sense at all out of the hundreds of brief entries in the registers. Most importantly, many students complained that they had great difficulty figuring out what questions to ask of the data, and blamed their inability to devise productive queries for what they regarded as inadequate results. Actually, most students learned much more than they realized both about the difficulty of interpreting primary sources and the discriminatory treatment of free blacks. Most came to recognize that the white people who constructed the registers were primarily interested in preserving the institution of slavery and cared little about the occupations, religion or family life of free blacks. Nevertheless, I regarded the level of frustration students had expressed as unacceptable and set about trying to improve the lesson.

Three Essentials for A Successful Lesson: Revision, Revision and Revision

As I usually do with any new lesson, I asked my students to evaluate *The Valley of the Shadow* assignment. Most students responded by emphasizing the need for more guidance in formulating questions to ask of the data. A majority advised me either to devote more time to the project or abandon it entirely. Given my own perception of how much students had learned about working with primary sources and the plight of free blacks by simply playing the role of "the novice in the archive," I decided that I would revise and expand the lesson and try it again in the fall of 1997.

In preparation for launching my revised *Valley of the Shadow* project, I increased the amount and improved the quality of the background information on free African Americans that I provided to my students. At the urging of several New Media Classroom colleagues who had critiqued my original lesson, I stressed the bias and one-sidedness of the primary sources from which they were starting. I required students to find and use other web-based sources in addition to the Free Black Registers for Augusta County, Virginia, and I encouraged them to look for sources which had been created by or presented the point of view of African Americans. I insisted that students formulate a significant historical question relating to free African Americans in the antebellum South and attempt to answer that question in a five-to-eight page (1250 to 2000 word) research paper based on information gathered from both web sites and print sources.

The detailed critiques of the assignment that I required students

to submit revealed that the revised and expanded research paper assignment accomplished a great deal more than the original assignment had. First, it provided students with a better understanding of free African Americans during the antebellum period. Many commented that they had never before understood or appreciated the difficulties which free African Americans faced during the years 1790-1860. "I was amazed by the amount of rules and restrictions placed on blacks, even though they were free," one wrote. "I learned that most free blacks were born free," stated another, "and that not many masters manumitted their slaves. I learned what the definition of 'free' was and realized that free blacks weren't really free at all." Second, though warned from the beginning about the bias of the registers, some students still expressed amazement at the racism inherent in the documents. The most valuable lesson I learned from examining the registers, one student wrote, "was that white people of the time didn't seem to think of blacks, even free blacks, as humans."

By demanding that students locate and incorporate additional web-based sources into their papers, I forced them both to sharpen their web searching skills and examine in considerable depth at least one relevant site they found. The overwhelming majority of my students praised this aspect of the assignment, frequently commenting that they learned to feel comfortable using the World Wide Web as a research tool for the first time. A considerable number expressed surprise at the abundance of data on the Web relevant to their research. I derived a great deal of satisfaction from such comments because they indicated that I had succeeded in devising an assignment that taught significant research skills and subject matter and developed important computer skills simultaneously.

In addition to convincing students that it was important to study free African Americans in the antebellum era and that the Web could provide rich resources for historical research, I was able to give my students their first taste of extended research in primary sources. Most enjoyed and learned a great deal from that experience. "Unlike using most secondary sources," one student wrote, "the free black registry gives a sense of closeness to the actual events of the time." "Before this," another admitted, "I never knew they actually had records on people who were just commoners. I always thought they only had information on famous people." "I thought it was interesting," yet another affirmed, "to read data about actual free blacks. It made the researching more interesting because these were actually real people and not just statistics." In

a different vein, several students expressed a new appreciation for the skill required to practice the historian's craft. "I have developed a new respect for historians who do original research, since I now know how tough it is," one junior noted. "I learned that being a historian is a very difficult job," wrote another. Equally important, many students appreciated the opportunity to draw their own conclusions rather than relying on historians. As one student so adeptly phrased it in a double-edged comment: "I think that this freedom to draw our own conclusions enables us to do something we rarely are allowed to do in our history classes: think and interpret for ourselves."

My students were not shy about pointing out ways in which the assignment might be further improved. They were virtually unanimous in asking that I formulate a number of "model" research questions which those who wished to could adopt as their own with slight modification. They chastised me for insisting that every paper make significant use of the free black registers and forced me to concede that more often than not data from the 1860 census for Augusta County (jefferson.village.virginia.edu/vshadow2/govdoc/au.census1860.html) was just as valuable, if not more valuable, a source for most questions. They chided me for not providing them with enough instruction in the use of search engines or in the use of several databases which I had created to make it easier to count and establish correlations among the data contained in the registers and the 1860 census.

By the time my students had completed and evaluated this second revised version of *The Valley of the Shadow* project, I recognized that there was still much that I could do to improve the lesson. Nevertheless, I was convinced that in revised form this web-based project should become a permanent feature of my survey classes. When preceded by careful instruction in web site evaluation and the use of search engines, such an assignment clearly provided students with valuable experience in utilizing the World Wide Web as a research tool while teaching them important writing skills and subject matter. One of my most perceptive students summarized his experience from precisely this point of view. "The Valley of the Shadow research paper," he wrote, "brought together all of the main themes of historical research that we've learned in class up to now. In the project we did research out of original texts. We were forced to think critically about the historical value and significance of direct evidence. We also had to work with this evidence, come to our own conclusions, and write about our own ideas."

In December 1997, I sketched out the specific revisions I intended to implement in the fall of 1998. First, in conjunction with a revised web site evaluation assignment at the very beginning of the year, I decided to spend one additional forty-five minute class period in the computer lab teaching students how to use search engines and giving them time to do at least one extensive search for relevant historical sources. Second, I revised the requirement that students had to utilize the free black registers as a major source for their papers: they could now choose between using the registers or the 1860 census for Augusta County as one of their major sources. Third, I formulated a series of model historical problems from which students could select to begin their research. Model queries which I devised included: 1) Were mulatto slaves emancipated more often than black bondsmen? Females more often than males? 2) Were opportunities for economic advancement more abundant for mulattos than for blacks? For males than for females? 3) Did economic opportunities for free blacks deteriorate between 1830 and 1860? 4) Did the chances to achieve one's freedom decline significantly in Augusta County between 1830 and 1860? Were slaves discouraged from seeking their freedom by the deteriorating economic and legal status of free blacks? 5) Did changes in the legal status of mulattos and free blacks significantly influence the social status and/or economic opportunities enjoyed by free blacks during the antebellum period? Finally, I applied my improved knowledge of web page design to revising the assignment sheet and posting it interactively to the World Wide Web.

Now that I have completed and studied my students' evaluations of yet a third revised version of *The Valley of the Shadow* project, I am both chastened and greatly encouraged by the latest results. I am greatly encouraged because all of the positive outcomes achieved in the second iteration were replicated in the third. Students acknowledged that they had gained a new appreciation for the difficulties faced by free African Americans in the antebellum era and for the rich sources for historical research which the World Wide Web could provide. They reacted favorably to their first sustained encounter with primary sources and their attempt to apply the computer skills they had learned earlier to the construction of a historical narrative. On the other hand, I was chastened by their continuing complaints about the difficulty of finding a focus for their research and making sense of the data contained in the registers and the 1860 census.

Reflections on Teaching High School Students:
How to Interpret Primary Sources

After engaging in an extended dialogue with my current students and reflecting on my experiences over the past two and a half years, I have reached a new understanding of how to use *The Valley of the Shadow* web site to teach novices how to do research in an archive of electronic primary sources. One new lesson I have learned is that, although contextualizing primary sources is a necessary condition for their effective use by novices, it is not a sufficient condition. In this instance, I had worked very hard helping students formulate viable historical queries, but I had failed to recognize that most students lacked the mathematical skills needed to interpret the data in the registers and the 1860 census. Viewed from a slightly different perspective, while my efforts to locate relevant print sources on free blacks had been successful, students still had great difficulty drawing connections between what they learned from these sources and the data contained in *The Valley of the Shadow* archive. Fortunately, one student commented that he had had no difficulty understanding a letter from a former slave to his owner handed out to enrich a class discussion of Reconstruction, but that he had had great difficulty interpreting the data from the 1860 census. That is when I finally penetrated to the heart of the problem. Not all primary sources, not even all electronic primary sources, pose the same problems of interpretation. To be able to use the free black registers and the 1860 census effectively, students must first be taught the basic mathematical and statistical techniques needed to interpret such data.

As part of the introduction to the third revised edition of this assignment, I had attempted to acclimate my students to working with the free black registers by providing them with a work sheet and requiring that they do a preliminary tabulation of approximately twenty-five consecutive records. Although my instincts may have been correct, I failed to follow through by sufficiently debriefing the exercise and showing students how to utilize the statistical data they had compiled. Even such a follow up, however, would not have been very effective because the overwhelming majority of students chose to focus on the 1860 census rather than the registers. Moreover, as a number of students argued in their evaluations, work sheets, to be effective, needed to be distributed *after*, not before, they had formulated the specific historical problem they intended to research. The clear implication was that different problems would require different work sheets. Thus, the next

major task I have set for myself in preparation for the fourth iteration of this lesson is to create a series of five or six different work sheets, each one tailored to one of the model historical queries contained in the revised assignment sheet.[3]

Although a number of my current students have expressed satisfaction with the intended revisions and a few have even examined the revised assignment sheet, I have been chastened by the realization that what began as a brief inquiry lesson has become an elaborate, carefully orchestrated project designed to build critical reading, research and writing skills. I have moved from devoting two class periods to having my students draw their own conclusions from the free black registers to an extended research project built around a series of model historical queries. Students will still be able to draw their own conclusions and construct their own historical narratives, but the inquiries they will be making will be carefully guided inquiries at best. For any other instructor contemplating the devising of an electronic "novice in the archive" exercise using sources like the free black registers or the 1860 census, the implications are clear. A brief inquiry lesson can be built around such sources if and only if one's students are already adept at or can be quickly taught the mathematical skills needed to interpret the data. Even then, they must already possess or be provided with the necessary background information to permit them to formulate and attempt to answer their own historical queries.

The second important realization that dawned on me as a result of my third encounter with *The Valley of the Shadow* project is something that I had already learned long ago but lost sight of: that high school and beginning college students are much more comfortable dealing with secondary as opposed to primary sources, with narrative as opposed to statistical sources. Frustrated by the difficulty of making sense of the data in the free black registers or 1860 census, many of my students took the easy way out. Using their frustration as an excuse, these students quickly moved away from reliance on web-based primary sources. They constructed their historical narratives largely from secondary sources, giving only cursory and superficial consideration to the data in registers or the census. Since papers based on secondary sources defeat the whole purpose of *The Valley of the Shadow* project, I am determined to hold students accountable in the future for analyzing thoroughly at least one set of web-based sources. Now that I have reformulated the model queries, begun preparing new worksheets, and recognized that I must also teach basic mathematical and statistical skills, I will be able in good conscience to insist that stu-

dents strictly adhere to the requirement that they employ either the free black registers or the1860 census for Augusta County as one of their principal sources.

Electrifying one's students and history classroom need not be a daunting task. There is no denying that such "high voltage teaching" requires a complex combination of content knowledge, pedagogy and computer skills. But most experienced history instructors already possess the first two requisites and, thanks to professional development programs such as the New Media Classroom and Crossroads Projects, the third has become easier and easier to acquire. If a few of you who have read this study are convinced that you can do what I have done (and, perhaps, do it better), then my purpose in writing this essay will have been served. For why else do we write about our teaching, if not to inspire others to improve upon their and our own efforts?

Notes

[1] For an example of a "simulation paper" by a professional historian, see David Edmunds, "Shells That Ring For Shadows on Her Face: Potawatomi Commerce in the Old Northwest," *Wisconsin Magazine of History*, Vol. 76, No. 3 (Spring 1993), 163-179.

[2] For a copy of this assignment, see http://www.digitalhistory.com/schools/PembrokeHillSchool/sfproj/classes/crucible.html

[3] For this revised assignment sheet, see http://www.digitalhistory.com/schools/PembrokeHillSchool/sfproj/valleyasc.html