

## Is the Future of Digital History Spatial History?

When we survey the World Wide Web for where historical narrative is going in the new medium, we cannot help but be impressed with the diversity of expression found there. The web contains huge archives of information, pedagogical projects, and files of nearly every sort, purpose, and character. While much of the PC interface and language has adopted the metaphor of the desk or office, nearly all of the organizing metaphors of the Internet have spatial meaning. We visit "sites" on the Internet, we call it "cyberspace," and we understand it as a vast public "domain." The technologies of the digital medium explicitly indicate spatial direction, as they build links, organize pathways, and navigate networks. The web has made these concepts more graphical, even as older technologies contained the building blocks of them in directory structures. Janet Murray, the leading critic of new media and narrative, has described four key criteria for successful narrative in cyberspace--the work must be participatory, procedural, encyclopedic, and spatial. Murray pointed out that "although this spatial property has been widely exploited in geographical applications, it is in fact independent of the computer's ability to display maps, pictures, or even three-dimensional models." The computer's spatial capacities, she argued, is a function of "the interactive process of navigation." The future of narrative in cyberspace, Murray predicted, will require an increasingly sophisticated "graceful choreography of navigation."<sup>1</sup>

Murray's call for "ever more expressive narrative landscapes" included using the capacious computing technology to exploit perspective in narrative. In 1997 when her book *Hamlet on the Holodeck* first appeared, Murray's examples of digital narrative landscapes included MUDs, a few hypertext stories and poems, and especially gaming and simulation. But Murray foresaw ever more complex narratives in which art, literature, criticism, and history might offer multiple perspectives or viewpoints in a fully elaborated, richly detailed landscape. Murray called these approaches "whole systems"--they were not hypertext as much as simulations. If historians, for example, could reconstruct a world of interrelated entities, a digital environment in which perspectives opened up different spatial relationships, they might be able to create an interpretation distinctly and powerfully manipulated.<sup>2</sup>

At the dawn of the computing age in American history in 1945, Vannevar Bush, the director of the Office of Scientific Research and Development, explained his vision of

---

<sup>1</sup> Janet H. Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (Cambridge: MIT Press, 1997): 79-83.

<sup>2</sup> For some critical analysis of hypertext approaches to narrative, see Espen Aarseth, *Cybertext: Perspectives on Ergodic Literature* (Baltimore: Johns Hopkins University Press, 1997); George P. Landow, ed. *Hyper/Text/Theory* (Baltimore: Johns Hopkins University Press, 1994); George P. Landow, *Hypertext 2.0: The Convergence of Contemporary Critical Theory and Technology* (Baltimore: Johns Hopkins University Press, 1992); Richard A. Lanham, *The Electronic Word: Democracy, Technology, and the Arts* (Chicago: University of Chicago Press, 1993); and Peter Lunenfeld, ed. *The Digital Dialectic: New Essays on New Media* (Cambridge: MIT Press, 1999).

how computers might broadly recast the way we think. As he described the possibilities for computing machines, what he called a "memex," Bush described how the machine might help manage all sorts of data. To make his point he gave examples of the range of historical information available and how the machine might allow a researcher to follow "trails" through the past, to recover an understanding of the events, people, technologies, and texts of the past. Bush's "trails" offer an explicitly spatial analogy for computing and history, and in the last decade Bush's examples seem increasingly prescient.<sup>3</sup>

Historians have created large scale archives and virtual worlds of a sort that might allow for multiple perspective and observation, that might offer complex trails of evidence, commentary, and a range of visual and spatial information. Yet, only recently have historians begun to consider spatial history as a means of organizing the past and how it might differ from other approaches to the historical record. What does it mean to do spatial history? Historians working in fields as diverse as Latin American colonial history and United States twentieth century legal studies have described their work as spatial history.

The most comprehensive and compelling narrative work in spatial history is Paul Carter's *The Road to Botany Bay: An Exploration of Landscape and History*. Carter's post-colonial approach seeks to reverse the reduction of space as a stage on which history is set. Imperial history, according to Carter, emphasized the temporal dimension of history not the spatial, and the result has been a "diorama history--history where the past has been settled even more effectively than the country." Carter's analysis of spatial history proposed a fresh contingency, one with awareness that the activities of exploring and settling were superfluous unless the spatial experience of them is understood as relevant.<sup>4</sup>

Carter's study of Australia's colonization culminated with a reevaluation of the escape of convicts from Sydney Cove to Botany Bay where they hoped to make it on board French vessels. The convicts were said to have taken "the road to Botany Bay" in 1788 but, Carter pointed out, it could have been nothing more than a foot path, a trace of a track that Aboriginals used to move between the bays. Carter attempted to reveal "the contingent nature of historical space." In this story only the presence of the French fleet at Botany signified it as the "other" place, the one alternative place to the British convict colony with its foothold in Sydney Cove. Furthermore, the imperial accounts of the event presuppose the road as a fixed, two-way point-to-point structure. Carter called this "a significant misrepresentation of the spatial reality" because it placed the convicts with the imperial conception of the space itself. It suggested that the convicts "followed what was already there" and were "imprisoned" in an all-encompassing imperial system where roads lead somewhere within the orbit of imperial power. Instead, the convicts conceived of the road in quite different terms, their local knowledge of its presence and its direction signified, created even, its promise.<sup>5</sup>

---

<sup>3</sup> Vannevar Bush, "As We May Think," *The Atlantic Monthly*, July 1945.

<sup>4</sup> Paul Carter, *The Road to Botany Bay: An Exploration of Landscape and History* (New York: Alfred Knopf, 1988): xx.

<sup>5</sup> Carter, *The Road to Botany Bay*, 308-309.

Carter's definition of spatial history, in fact, struggled against "the one-way logic of positivist chronology." Spatial history, according to Carter,

does not go confidently forward. It does not organize its subject matter into a nationalist enterprise. It advances exploratively, even metaphorically, recognizing that the future is invented. Going back, it questions the assumptions that the past has been settled once and for all. It undermines the empirical stability of roads and buildings. It runs the risk of becoming as intangible as distant views. Its objects are intentions and, suggesting the plurality of historical directions, it constantly risks escaping into poetry, biography, or a form of immaterialism positivists might think nihilistic. After all, what can you do with a horizon?<sup>6</sup>

For Carter the road to a spatial history approach might also lead to a recovered Aboriginal history, one with broad implications for understanding North American Indian history as well. Aboriginal culture was, in this view, horizontally distributed and expressed across space, their wandering constituted a state with cultural power and meaning. The Aboriginal world was not temporally arranged with a past, present, and future, but instead spatially constructed, "as a power over space." Over time the Aboriginals collaborated with white settlers, opening up to them their own networks and pathways. The European pattern of settlement in both Australia and North America overlaid the Aboriginals and Indians, but the transfer of spatial information was one-way, and, Carter argued, the history told of it ignores the fact that "the country did not precede the traveler." All space is invented, constituted by the traveler, as Carter's analysis of places and names showed.<sup>7</sup>

The spatial history of early English settlement in Virginia has obvious parallels. The historians of early Virginia and Chesapeake society have focused on how English settlers at Jamestown bumbled in an environment they could not understand or make productive without Indian aid. In addition, the policies and direction of the Virginia Company, according to some leading historians, was largely defined by English-Spanish rivalry and English perceptions of the failures of the Spanish model.<sup>8</sup> Recently, however, April Hatfield has suggested that the Spanish provided the model for the English takeover of Powhatan Tsenacommacah. According to Hatfield, the English not only learned to navigate and apprehend the geography of the Chesapeake from the Powhatan but also quickly moved to appropriate the geopolitical relationships embedded within Powhatan Tsenacommacah. By the mid 1640s the English had supplanted the Powhatan and, according to Hatfield, "regarded the Tsenacommacah's geographies as their own."

---

<sup>6</sup> Carter, *The Road to Botany Bay*, 294.

<sup>7</sup> Carter, *The Road to Botany Bay*, 349-350.

<sup>8</sup> On disease and the failure of the English to understand the environmental geography of the Chesapeake, see Carville Earle, "Environment, Disease, and Mortality in Early Virginia." In *The Chesapeake in the Seventeenth Century: Essays on Anglo-American Society*, eds. Thad W. Tate and David L. Ammerman, pp. 96-125. Chapel Hill: The University of North Carolina Press, 1979. On the role of the Spanish example in Virginia Company development, see Edmund S. Morgan, *American Slavery, American Freedom: the Ordeal of Colonial Virginia* (New York: Norton, 1975).

It was no accident that John Smith's early map of Virginia included iron crosses as the boundaries that defined the Powhatan society, for Smith clearly meant to signify the furthest extent of a white Christian's penetration into the region. But it was the boundary as well of what the English knew or had been told of the place. Place naming, according to Paul Carter, constitutes the first step in the construction of space as a backdrop or diorama. Smith's map remained the only English guide to the colony of Virginia for over fifty years, and its crosses stand as very English symbols of the political boundaries between Powhatan and Monacan power. What would they have used to signify their boundaries?<sup>9</sup>

Recently, legal historians have begun to examine the role of space and spatial history and to describe a field of inquiry they are calling "law and geography." Where earlier jurists, lawyers, and scholars conceived of the law as principle without regard to geography, these critical legal theorists have asserted that "law is mapped." "Embedded within law," Nicholas Blomley has written, "are a rich and complex set of 'maps' of social life. Legal categories are used to construct and differentiate material spaces which, in turn, acquire a legal potency that has a direct bearing on those using and traversing such spaces."<sup>10</sup> David Delaney, one of the leading historians of racial segregation in the law, characterizes Jim Crow as a process of "fanatical hyperterritoriality." Legal codification of Jim Crow created overlapping and highly racialized spatial lines, boundaries that crossed still other lines--jurisdiction, public space, deeded property, and interstate commerce for example. Spatial vocabulary dominates the language of Jim Crow segregation both in legal and in public usage. In case after case from Kentucky to California, judges in the era of restrictive covenants, for example, focused on Negro "infiltration," "invasion," and "territory," as they sorted out whether conditions in segregated areas had changed enough to allow the neighborhood to change color. Segregation, then, appeared a constant, a spatial concept that existed apart from judicial interpretation.<sup>11</sup>

---

<sup>9</sup> April Hatfield, "Spanish Colonization Literature, Powhatan Geographies, and English Perceptions of Tsenacommacah/Virginia," *Journal of Southern History* (May 2003): 245-282. See also Hatfield's *Atlantic Virginia: Intercolonial Relations in the Seventeenth Century* (Philadelphia: University of Pennsylvania Press, 2004). Hatfield argues that the seventeenth century was a period of trans-Atlantic networks of information, migration, and commerce and that the colonists in Virginia possessed a "transnational sense of geography." (2) Hatfield's depiction of the Virginia colony counters the historiography of the colony as locally focused, inward looking, and disconnected from larger geographies of colonization. Hatfield's study does not create a "spatial history" as explored in this review of the literature, nor does it connect the colonial geography of the Atlantic world to the theoretical work of post-colonial scholars.

<sup>10</sup> Nicholas K. Blomley, *Law, Space, and the Geographies of Power* (New York: Guilford Press, 1994): 54.

<sup>11</sup> David Delaney, *Race, Place, and the Law, 1836-1948* (Austin: University of Texas Press, 1998): 96. Much of the work of scholars on space and law and politics has been influenced by the theoretical work of Michael Foucault whose historical studies emphasized spatial relationships and concentrated on concepts of territoriality, boundaries, transgressions, and limits. For an analysis stressing the significance of Foucault's spatial approach to history, see Stuart Elden, *Mapping the Present: Heidegger, Foucault, and The Project of a Spatial History* (London: Continuum, 2001). Elden argues that politics "is inherently spatial." A number of other scholars are also writing about space in history, following Jurgen Habermas' work on the "public sphere." See especially, Mary K. Ryan, *Civic Wars: Democracy and Public Life in the American City during the Nineteenth Century* (Berkeley: University of California Press, 1997); Saul Cornell, *The Other Founders: Anti-Federalism and the Dissenting Tradition in America, 1788-1828* (Chapel Hill:

Spatial history, then, has several characteristics. It seeks most of all to recover contingency in its depiction of the past. It attempts to achieve multiple perspectives in its story and to break down the hegemony of linear narrative. And it has served mostly to advance post-structuralist, and to a lesser degree post-modern, criticism from critical legal studies to post-colonialists. Spatial history rejects the positivism of empirical approaches. The goal of these scholars is to "spatialize history" not to "historicize space." Neither Delaney, Bromley, nor Carter, all self-described practitioners of spatial history, includes maps in his work. Maps, they suggest, are Cartesian, two-dimensional, and hegemonic.<sup>12</sup>

As new technologies offer historians tools for the analysis and presentation of their work, the prospects for more spatial history would seem promising. Historians can choose from the geographic information systems, as well as a host of proprietary technologies (for example, Flash™, Quicktime™, and Photoshop™) and the base markup languages for the World Wide Web (HTML, XML, and HXML). All of these technologies offer the possibility of spatial approaches to history.

Across a wide range of periods and fields, there are large historical GIS projects underway. The methodology has attracted historians working on the Salem Witch trials, the culture of Tibet, religious history of the United States, the American Civil War, the Dust Bowl, and twentieth-century urban history.<sup>13</sup>

Yet, the progress toward more spatial history, especially in the digital arena, has been slow and uneven. Historical GIS, in particular, seems to run directly against the practices and theory of spatial history. Controversy has erupted within geography over GIS and around funding battles, disciplinary control, and theoretical differences. Historians have been equally divided over historical GIS. Some historians see it as promoting positivism, ignoring complexities, and disregarding uncertainties. There are good reasons for these concerns. Historians working with GIS, after all, can easily replicate the hegemonic world of the historical maps they georeference, and the

---

University of North Carolina Press, 1999); Christopher Grasso, *A Speaking Aristocracy: Transforming Public Discourse in Eighteenth-Century Connecticut* (Chapel Hill: University of North Carolina Press, 1999). Ryan's *Civic Wars*, for example, describes public buildings, squares, and spaces as "spatial anchors" and "spatial ballast." Space, in this analysis, remains a stage, a backdrop for public expression.

<sup>12</sup> For the best analysis of maps as objects of and expressions of power, see J. B. Hartley, *The New Nature of Maps: Essays in Historical Cartography*, ed. Paul Laxton (Baltimore: Johns Hopkins University Press, 2001) especially chapter five, "Deconstructing the Map." See also David Harvey, *Spaces of Capital: Toward a Critical Geography* (New York: Routledge, 2001) for a critical approach to cognitive maps. For an excellent collection of essays by geographers on the concepts of spatial history and postmodern criticism, see Michael Keith and Steve Pile, ed., *Place and the Politics of Identity* (London: Routledge, 1993). These scholars suggest that spatial criticism has come forward recently as theorists increasingly recognize the limitations of singular analytical categories of race, class, and gender to explain the complexities of power and its application in society.

<sup>13</sup> For the best overview of historical GIS as a methodology and examples of research using it, see Anne Kelly Knowles, ed. *Past Time, Past Place: GIS for History* (Redlands: ESRI Press, 2002), and Special Issue of *Social Science History* (Fall 2000), "Historical GIS: The Spatial Turn in Social Science History."

technology remains maddeningly intolerant of anything but the most precise spatial data.<sup>14</sup>

Edward Ayers and I recently attempted our own spatial history of two American communities on the eve of the Civil War. Our recent article in the *American Historical Review* grew out of *The Valley of the Shadow*, a large electronic archive of documents and materials about two communities--Augusta County, Virginia, and Franklin County, Pennsylvania. The electronic archive itself could easily be considered a spatial history of the sort that Paul Carter and others envisioned. *The Valley of the Shadow* electronic archive orients visitors to a social and spatial history of the Civil War, as it incorporates multiple perspectives and promotes contingency, so much so that many visitors to the site have described it as a sort of game or simulation.<sup>15</sup>

Our article for the *American Historical Review*, on the other hand, offered an interpretation drawn from the electronic archive. We aimed to create a narrative comparing the spatiality of slavery and freedom in these communities. We used historical GIS to construct comparative maps of the communities and presented a detailed description of our methods. Unlike Carter, Delaney, Bromley and the other spatial historians, we included over thirty maps derived from the GIS that included comparisons of rivers, roads, railroads, farms, businesses, towns, political activists, and precinct returns. In addition, we integrated dozens of letters, newspaper articles, census records, and statistical tables. This work was rigorously empirical in a way that the profession--after the linguistic turn--has generally avoided.<sup>16</sup>

As our research and writing for this piece of digital scholarship developed, it became more and more clear that our spatial history relied not on historical GIS but instead on Extensible Markup Language (XML). The markup system for the all of our interpretive narrative, historiographical exchanges, and commentary on evidence, XML mapped the relationships among the many pieces of the narrative. The non-linear

---

<sup>14</sup> For some criticism of GIS, see John Pickles, ed. *Ground Truth: The Social Implications of Geographic Information Systems* (New York: Guilford Press, 1995).

<sup>15</sup> The URL is <http://valley.vcdh.virginia.edu>. For reviews and analysis of *The Valley of the Shadow: Two Communities in the American Civil War* web site, see William G. Thomas, III, "In the Valley of the Shadow: Communities and History in the American Civil War," *Virginia Magazine of History and Biography* (September 1998) <<http://jefferson.village.virginia.edu/vcdh/thomas.vmhb.html>>, Andrew McMichael, "The Historian, The Internet, and the Web: A Reassessment," *AHA Perspectives* (February 1998), 29-32. Michael O'Malley and Roy Rosenzweig, "Brave New World or Blind Alley? American History on the World Wide Web," *Journal of American History* (June 1997), 132-155. Roy Rosenzweig, "The Road to Xanadu: Public and Private Pathways on the History Web," *Journal of American History* 88.2 (2001): 78 pars. 2 Oct. 2003 <<http://www.historycooperative.org/journals/jah/88.2/rosenzweig.html>>. Gary J. Kornblith, "Venturing into the Civil War, Virtually: A Review," *Journal of American History*, 88 (June 2001), 145-51. See also Edward L. Ayers and Anne S. Rubin, *The Valley of the Shadow: Two American Communities in the American Civil War* CD-ROM (New York: W. W. Norton & Co., 2000) and Edward L. Ayers, *In the Presence of Mine Enemies: War in the Heart of America, 1859-1863* (New York: W. W. Norton & Co., 2003).

<sup>16</sup> William G. Thomas, III and Edward L. Ayers, "The Differences Slavery Made: A Close Analysis of Two American Communities," *American Historical Review*, (December 2003): 1299-1307. The electronic article is available at <http://www.historycooperative.org>.

presentation that XML allowed ran counter to the fixed precision that the GIS demanded. The contingency that XML supported ran counter to the closed system that the GIS created. And the multiple perspectives that XML favored with its powerful presentation capabilities ran counter to the all-encompassing view GIS seemed to require. As limited as GIS may be for historians, it has been quickly and eagerly adopted by social scientists and historians. Its popularity alone will continue to mean that the future of digital history will increasingly include spatial models derived from GIS.

Digital historians, however, are seeking ways to create new forms of expression, ones that will satisfy the ambitions of those historians calling for a spatial history. The technology of XML, in particular, presents the opportunity to do more than merely historicize space; indeed, XML and other publishing schema are only just beginning to influence how historians tell their stories. "To achieve interesting and worthwhile computer-generated literature," one theorist of digital narrative has explained, "it is necessary to dispose of the poetics of narrative literature and to use the computer's potential for combination and world simulation in order to develop new genres that can be valued and used on their own terms." Historians seeking to create spatial histories need only to push the computer's potential. Others are already doing so, using the technology to create appealing worlds and simulations. We should experiment too. Nothing is stopping us, and a new history awaits.<sup>17</sup>

---

<sup>17</sup> Espen Aarseth, *Cybertext: Perspectives on Ergodic Literature* (Baltimore: Johns Hopkins University Press, 1997). For a similar call to experimentation, see Michael O'Malley and Roy Rosenzweig, "Brave New World or Blind Alley? American History on the World Wide Web," and Roy Rosenzweig, *The Road to Xanadu: Public and Private Pathways on the History Web.*"