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*“After a hundred years / Nobody knows the Place”:
Notes Toward Spatial Visualizations of Emily Dickinson*

Dickinson scholars have long imagined the connections between Emily Dickinson and Amherst, the movement of Dickinson across the landscape, and the connections between Dickinson’s poetry and the environment. Advances in technology offer expanded possibilities for sustained critical inquiry in these areas through spatial approaches pioneered by digital humanities scholars. Popular interest in Amherst has produced general interest maps that locate Dickinsonian sites, but none of these projects have fully utilized spatial possibilities for scholarly inquiry.¹ What remains unexamined are digital manipulations of the relationships between texts—the letters and poems—and their spatial contexts, an area ripe for exploration by Dickinson scholars.

I haphazardly came to visualizations, as do most humanities scholars, through the need to answer a question that was not possible with existing print-based research techniques. While visualizations of literature and history is a crucial subfield of digital humanities, we are only beginning to explore how best to apply such techniques to the humanities. My dissertation project mapped shifting constructions of race in nineteenth-century Boston, what I designated the “Architecture of Inequality,” through the examination of historical texts, literature, physical structures, and landscape. The print monograph was not particularly conducive to the type of exploration that I imagined; it was difficult to represent shifting constructions of race, architecture, and literature through a static form of scholarship. I focused my discussion on Boston Common, the central green space in the city and, in thought, “commonly” owned by all Bostonians. While nineteenth-century Bostonians mythologized the Common as a space representative of United States democracy and inclusivity, the reality of the city surrounding the Common

challenged such an ideology. The city and buildings, particularly schoolhouses and churches, became sites of exclusion: blacks were ostracized from most public schoolhouses under segregation laws, and Catholic homes and businesses were attacked in the Broad Street anti-Irish riots. The idealized Boston Common, then, contradicted the reality of the city it laid within. To understand how the Common represented exclusion I located lithographs and maps that depicted the Common and its surrounds, yet it was difficult to find a way to layer that information in a manipulable form that revealed a time progression over space as well as particular moments of dislocation. I was discussing this difficulty at a dinner with engineering friends, who asked me why I wasn't using computer modeling systems to help understand my data. Well, why not, I thought? I refocused my scholarship on Concord, Massachusetts, a project that has grown into *The 19th-Century Concord Digital Archive (CDA)*. I began to experiment with technologies that would extend my understanding of the Concord landscape, adopting digital maps and geospatial data sets. An initial experiment using Google Maps to pinpoint important literary locations in Concord made clear that very little new information would arise from such manipulations. Other approaches, however, including the overlay of Henry David Thoreau's survey maps on contemporary maps found in Google Earth, hinted that deeper scholarly knowledge could be produced with such tools. The initial overlay of Thoreau's map revealed the movement of a streambed due to nineteenth-century construction, a finding that spurred further investigation of Thoreau's treatment of the manipulation of the natural and the constructed. As my experiments demonstrated, the biggest challenge for those who work with a digital project is matching the archive structure—the selection and arrangement of materials, metadata, and interface—to the theoretical goals of the scholar.

Dickinson scholars seeking value in various technological mappings should carefully consider how their research questions would benefit from such techniques, and which techniques best match their investigations. Spatial work might be imagined as encompassing two broad categories: representational and interpretive. In digital humanities we talk about representational digitizations as those models that suggest one-to-one correlations of digital surrogates and material objects, which would include projects that provide digital images or facsimiles of Dickinson's letters and poems, such as the *Dickinson Electronic Archives 1.0*, *Radical Scatters*, and the *Emily Dickinson Archive*. In geospatial work, representation is most commonly expressed through the mapping of locations or events, like a digital version of the guidebooks sold in the Homestead museum for use in locating Dickinson landmarks by eager tourists. In the last ten years,

such representational treatments have become fairly easy for scholars with little technical knowledge to develop. Prior to the development of Google Maps APIs, scholars would use GIS, which, while very malleable, has a high learning curve, or flash based programs, a proprietary and painstaking approach to mapping.² With the arrival of mapping mashups (the ability to pull together a variety of data into one program), it is easier to create and test geospatial concepts.

For scholars interested in a more robust mapping tool specifically designed for humanities concerns, Neatline 2.0, developed at the University of Virginia, is appropriate. The program allows users to create highly detailed maps, add historical map overlays and images, create robust metadata, and build timelines for temporal modeling. My students have used Neatline to locate Malcolm X's movements in *The Autobiography of Malcolm X*, revealing that X's evolution from hustler to devout Muslim happened within the same spatial locations, with X spending time proselytizing on the same streets on which he hustled, a view that contradicts his *Autobiography's* narrative. Dickinson scholars may find Neatline useful to represent Dickinson's trips to Washington, D.C., or Cambridge, MA, for eye treatment, visually emphasizing her connection to specific locations and the contemporary cultural and historical events occurring there. Even more intriguing, perhaps, would be a map of visits to the Homestead—by Samuel Bowles, Thomas Wadsworth Higginson, Helen Hunt Jackson, and others—following point of origination and date of travel, a project that would illuminate spatial elements of the complex social interactions scholars have long examined. Viewing locations geographically enables a different understanding of what the movement between buildings and places in Amherst meant to Dickinson and her community. Such mapping might demonstrate that certain interactions discussed in Dickinson's letters or in memoirs of the poet are misunderstood.

As scholars experiment with mapping, they begin "to imagine what we don't know in a disciplined and deliberated fashion" (McGann 18). For example, by modeling the Battle of Gettysburg topographically to examine Robert E. Lee's battlefield strategy, Anne Knowles has demonstrated that mapping might challenge our understanding of historical events. By replicating the battlefield and reconstructing Lee's view of the various Union troop lines, Knowles was able to prove that Lee was unable to see the troops that he wanted to move against, a finding contrary to scholarly understandings of the battle. Such lines of inquiry are best viewed as experimental, with the digital mapping tools providing a laboratory for conducting further work.

While representational spatial mapping is important to literary and historical scholarship, interpretive uses of mapping hold the most scholarly promise. In some ways, the representational mapping described above is indicative of what digital humanities scholars think of as first wave digitizations, or spatialization 1.0. Stephen Ramsay has argued that materials in early digital literary studies “seldom are . . . transformed algorithmically as a means of gaining entry to the deliberately and self-consciously subjective act of critical interpretation” (477-8); he suggests that we should look to technologies that allow higher order thinking through manipulation of humanities data instead of using technologies to simply represent material objects. In other words, while there are advantages to thinking through space in relationship to Dickinson and Amherst, there is greater scholarly reward in moving beyond what Ramsay calls “fact-checking” and instead employing technology to “assist the critic in the unfolding of interpretive possibilities” (484). In the case of the *CDA*, I have posited that mapping will locate writers within environmental contexts—among their neighbors, in their town governance structures, in their social milieu, and more. While doing so, however, the *CDA* aims not to perpetuate the “cult of the New England Village,” to use a phrase coined by Lawrence Buell, who argues that towns like Concord functioned “as a social model and as literary and mythic images—thanks partly to the New England influence, in each case—throughout much of America as a whole” (305). The project seeks instead to reveal the intricate and intertwining relationships of those who lived and wrote in Concord—a unique, specific place—while also inviting the scholar to revisit the concept of the New England village and engage with new and emerging critical approaches to scholarly work. Part of this engagement is revealed through the use of mapping. The *CDA* is currently working to locate literary and historical texts that have traditionally been underdocumented—free African Americans, Irish immigrants, the poor, and the criminal class—and to position these materials within spatial relationships over time. We hope that by converting literary and historical data to geo-temporal data we might see otherwise undetectable patterns. These patterns may help to explain why the Irish in Concord move from being seen as bodies for labor to figureheads of the New England village in a brief thirty-year period.

We have located one such transformation that helps to drive the shift in the rise and subsequent disappearance of the Irish Mill section of Concord. As the Irish Mill disappears in the historical and literary record, the Irish become configured in a very central way in town documents, literary documents, and space, so that by 1863 the Catholic church purchased the Protestant church on the central

Concord town green. This type of spatialization is broadly defined, particularly encompassing a range of theoretical investigations, such as racial shifts over time in a particular place or multiple imagined movements of people across landscapes. As Willard McCarty notes, “[a] map may be defined as a schematic spatial representation, or following Maxwell, a diagram of ‘anything that can be spatially conceived’” (262). Instead of thinking about a one-to-one relationship between an item and a spatial location, digital humanists are interested in using visualizations to break down or question such simplistic representations. We ask what, exactly, demarcates a “place” on a map? Should scholars use contemporary names or historical names for locations in Amherst? Choosing to layer contemporary names with historical names, mapping those shifts over time to correlate understandings of particular peoples, creates technological scholarship that expands traditional research. For example, Amherst’s place names of “Irish Hill” or “The Curragh” suggest that the position of Irish Americans in Amherst is open to exploration. Mapping these names by geo-temporal methods over time, looking at topography, the town center, business, and other markers of power in relationship to locations, might provide a more nuanced understanding of the shifting economic, social, and cultural status of the Irish in Amherst. Mapping these items in relationship to Dickinson’s servants could prove even more significant.

While reading Aife Murray’s *Maid as Muse: How Servants Changed Emily Dickinson’s Life and Language*, which presents a detailed and fascinating record of a relatively unexplored relationship between the Dickinson family and the Irish servants they employed, I kept thinking that the materials would be even more powerful if presented in a robust and manipulable digital archive. For example, Murray provides a chart that includes the year, number of extant letters written by Dickinson, number of extant poems written by Dickinson, the combined number, and a mention of various historical events, including “Mother breaks hip” and “Otis Lord’s death” (79-80). The productivity of the poet is then correlated to the quality of domestic service at the time. If the chart were visualized on a timeline that connected domestic service, historical events, and Dickinson’s written output, with links to letters and poems produced during each year, the reader would not only be able to understand the argument more easily but would be able to use the technological environment as a way to jumpstart his or her own research, locating patterns beyond Dickinson’s increased textual production due to servant employment. The visual is more than a form of representation. Instead it has the possibility to allow other scholars to view the data in new ways and to open up other scholarly questions.

As we adopt visualization tools, we must also critically engage with them. The skills literary scholars use to interpret textual artifacts are useful in allowing us to investigate, with the same rigor, the computer and its attendant tools. For example, the ease of use of contemporary mapping tools hides a huge problem for those working across historical periods. Street names shift over time. Landscapes evolve. A contemporary map cannot represent historical peculiarities nor change over time; it makes each designated geographical point seem definitive and fixed to the viewer. One potential solution to this problem is the utilization of a historical map overlay. Thoreau's surveys of Concord positioned over contemporary maps demonstrate the impact of urbanization and the reclamation of pastures by woods since the 1840s. Similar findings might be apparent in Amherst, which, like much of New England in the nineteenth century, transformed from a rural outpost to an agricultural and higher education center. Historical maps from 1856, 1886, and 1890 are available for Amherst that would easily lend themselves to interpreting such shifts.³ The ability to manipulate layers of high quality historical maps within contemporary digital mapping environments may spur additional research questions.

Scholars who choose to use mapping tools may discover anomalies in the literary record as they begin to position materials on maps and to question what items are appropriate for mapping. During one attempt to georeference a Thoreau survey map to a contemporary Google Earth environment, our CDA team puzzled over a strange icon in the corner of the map, which was not a building and did not appear to be a hill.⁴ We had already discovered that Thoreau included a few trees and bushes in his surveys, but this drawing was far more detailed than those we had previously examined. After a good deal of manipulation of the image with the computer we realized that our mystery item was an oak tree. Our discovery, spurred by the process of digitization and manipulation of the map, has led us to investigate the significance of the tree in Thoreau's larger body of writing. Thoreau's emphasis on individual environmental features is mimicked in the Concord town reports, which include records of landscape and environment, from Mrs. Emerson's flowers outside a schoolhouse to the town's redirection of streams, indicating that the materials of Concord could easily be mapped to conduct a plant survey over time and space or an interpretation of human impact on the environment. Dickinson scholars have long been interested in her natural and built environment, and with mapping technologies, new potential projects abound. Scholars might, for example, be able to cross reference the plants found in Dickinson's herbarium to her poems and letters, as well as

to historical records of plants found on Dickinson properties and in the town. Amherst itself as an agricultural area offers the possibility of exploration over time and space, as scholars might choose to interpret the built environment's relationship to the natural landscape and explore the significance of their findings for an understanding of Dickinson's nature poems.

The highly successful *Mapping the Republic of Letters* project gestures to ways that visualizations of relationships between individuals and textual materials might provide additional suggestions for future work. The project visualizes "a collection of over 55,000 letters and documents exchanged between 6,400 correspondents," presenting an exploratory interface that allows scholars to examine large patterns of intellectual exchange through a visual interface. Scholars are able to use the tool to map relationships between any letters and correspondents contained in the archive's robust set of digitized materials, in effect allowing scholars to produce topic models. Case studies include an analysis of Voltaire's voluminous correspondence between French and English figures, representing differences in correspondence based on national origin of letter writer. Visualizations are also geotemporal as represented by maps and timelines. Dickinson scholars might find a similar manipulation of Dickinson's correspondence to be full of possibilities. Instead of the creation of a simple map with a pinpoint that represents the Homestead, an inaccurate representation that fixes ideas of space and boundaries that work counter to the way that Dickinson scholars now imagine the representation of "home" and "place" in Dickinson, these mappings emphasize the scholar's choices and investments in representation.

Forms of digital mapping—geospatial, temporal, and intellectual—impact scholarship in multiple ways. Johanna Drucker has forcefully argued that scholars resist interfaces that produce static representations and, instead, create rich technological scholarship that interprets and reveals. The danger of using digital mapping tools is not in infatuation with the beautiful images produced but in the lack of rigorous theoretical analysis of the relation between tool and theory. "Maps, graphs, charts, are part of the intellectual equipment of scholars of all stripes," notes Drucker, who encourages scholars and artists to re-conceptualize such forms "for the ways their formal structures order information in a procedural sense" (7-8). Visualizations enables scholarship that disrupts, reorders, and exposes new forms of inquiry.

Notes

1. See "Dickinson's Amherst Today," which depicts a handful of historic sites and commemorative sites positioned over contemporary Google maps. Using Google maps, the creator has pinpointed historical Dickinson sites including the North Pleasant Street House, Amherst Academy and contemporary Dickinson sites such as a commemorative plaque outside the Bank of America and the Amherst Historical Mural.
2. An API or an Application Programming Interface allows technologies to work together. It gives users the ability to manipulate content and "mashup" their own data with other programs, such as Google Maps. GIS or Geographic Information Systems is a technology system that allows the user to present spatial information. An excellent example of the power of such early work is found in the Salem Witchcraft maps.
3. The Emily Dickinson Museum and Library of Congress both have digitized a map of Amherst from 1886. The map provides a detailed view of individual buildings in 1886 Amherst, making it an excellent candidate for overlaying onto Google Earth or Maps.
4. Georeferencing is to establish a location in map coordinates. When working with historical maps, even with well-constructed survey maps, you discover that exact matching of latitude and longitude is not possible and there is a certain art to matching the human produced map to the computer produced map.

Works Cited

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