

Telling Neighborhood Stories through Maps

Maps are indispensable for finding our way from location to location. Today, internet technologies such as GoogleMaps and MapQuest and portable global positioning systems (GPS) provide detailed directions for the most efficient—or most scenic—routes. Paper road atlases still fill a need, as well, as they help us figure out where we want to go or where we are when we are not where we thought we were. Subway and bus route maps show us how to navigate public transportation systems, indicating where we can make stops and transfers. We would be lost, figuratively and literally, without maps.

But these sorts of reference maps tell us very little about “place.” Locations become places only when we begin to understand the meanings they have in peoples’ lives. Online mapping systems can tell a friend the shortest driving route to a favorite restaurant, how long the trip will take, and even estimate the cost of the fuel. But such a system cannot communicate the “meaning” of that restaurant—the marriage proposal made there, the first taste of a special dish, or the food poisoning contracted.

New mapping technologies, however, have enabled researchers to better contextualize “place.” Geographic Information Systems (GIS) are software and hardware that allow for integrating, mapping, and analyzing spatial data. This technology makes online mapping and GPS systems work by converting digital data about location into roads, directions, and distances. GIS maps contain information about geographic coordinates that correspond to locations on the earth, so whether a map layer represents a Philadelphia neighborhood or an Asian country, the GIS software knows where to draw the data and is able to layer data for overlapping areas. GPS systems communicate with satellites to identify locations on the earth, creating the kind of data

that can then be mapped with GIS software. But what really makes GIS special, at least to humanities and social science researchers, is its ability to convey information about those locations. The technical term for this information is “attribute,” which can include anything we can record about specific locations. Attributes are stored in databases—anything from a simple Excel spreadsheet to a sophisticated relational database—where each row represents a location and each column stores information about that location. GIS represents these locations as map layers by using points, lines, polygons, and grid cells that become meaningful when we use the attributes to symbolize the maps. In other words, the maps allow us to represent locations as “places.”

Two Philadelphia local history and culture projects—Mapping the Du Bois Philadelphia Negro and PhilaPlace—showcase the ability of GIS maps to represent place. Mapping Du Bois, a research, teaching, and outreach project at the University of Pennsylvania School of Design, is using GIS to re-create the foot survey W. E. B. Du Bois conducted of Philadelphia’s Old Seventh Ward for his 1899 classic book, *The Philadelphia Negro*. The Historical Society of Pennsylvania’s PhilaPlace is a multiethnic Web-based project that connects stories to places across time in specific Philadelphia neighborhoods. PhilaPlace invites individuals and community and institutional partners (including the University of Pennsylvania School of Design) to experience and share memories through interactive mapping to contribute to an enduring record of Philadelphia’s history and culture. Both projects use this new technology to help us better understand not only the places but also the people of the past.

W. E. B. Du Bois himself used maps to tell the stories of Philadelphia’s African American residents during the 19th century. Trained as a sociologist and historian, Du Bois was the first African American to graduate with a PhD from Harvard, and he was hired by the

University of Pennsylvania and the College Settlement Association to study the “Negro problem” in Philadelphia. The young scholar, in addition to having a very productive academic career, went on to serve as the editor of the National Association for the Advancement of Colored People’s (NAACP) magazine, the *Crisis*, and was a leading civil rights advocate during much of the 20th century. The Mapping Du Bois project is based on the historian and sociologist’s turn-of-the century survey of Philadelphia’s historically black district.

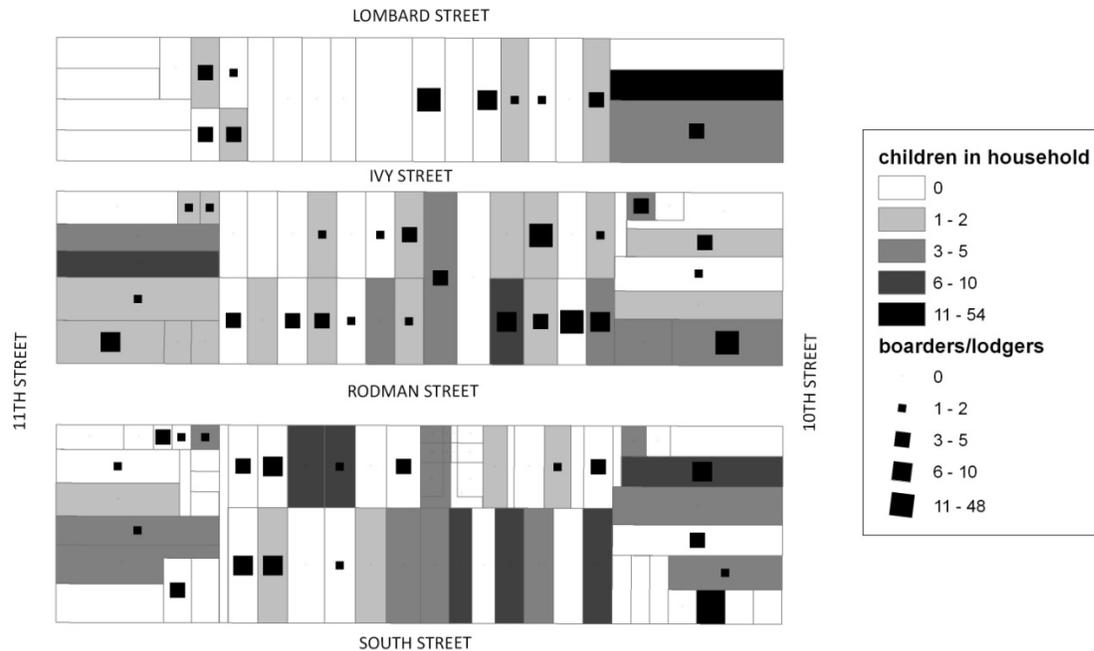
For his research in Philadelphia, which he conducted between 1896 and 1897, Du Bois interviewed members of nearly all of the 2,500 black households in the area between Spruce and South streets, from Seventh Street to the Schuylkill River. He created a color-coded parcel map, without the benefit of GIS, that indicated the social class of black households—the “middle class and those above,” the “working poor—fair to comfortable,” “the poor,” and the “vicious and criminal.” These categories were similar to those used by Charles Booth in his 1880s survey of poverty in London. The category “vicious and criminal” referred to people involved in “vice,” such as gambling and prostitution. In mapping Philadelphia’s black households, Du Bois applied new social science methods and theories to demonstrate that there was a social class structure among blacks, just as there was among whites. “There is always a strong tendency on the part of the community to consider the Negroes as composing one practically homogenous mass,” he lamented. “Nothing more exasperates the better class of Negroes than this tendency to ignore utterly their existence.”

Unfortunately, the original data Du Bois collected no longer exist, so the Mapping Du Bois project turned to the manuscript 1900 U.S. Census to learn more about the people who lived in the Seventh Ward around the time of Du Bois’s study. By looking at the blocks between Lombard and South streets, between 10th and 11th Streets, we can get an understanding of how

GIS works. This small area, which now incorporates Seger Recreation Center, was home to a rich array of people in 1900, including African Americans born in Philadelphia and the South, immigrants from Russia and other European countries, and whites born in Philadelphia. The census indicates that taking in boarders to help pay the rent was a common strategy across all of these groups, particularly among African Americans. In *The Philadelphia Negro*, Du Bois expressed concern about the moral influence of these boarders—particularly young, single men—on households with children—particularly girls. “In such ways the privacy and intimacy of the home life is destroyed,” he warned, “and elements of danger and demoralization admitted.” Though trying to be an objective social scientist, Du Bois’s ideas about home life also reflected Victorian morals. Throughout *The Philadelphia Negro*, he mixed his empirical evidence about widespread racial discrimination with his opinions about how blacks were, in part, to blame for making poor choices about how they lived.

The 1900 U.S. Census includes information about the presence of children and boarders. Student research assistants typed the data into a computer spreadsheet (see Figure 1) for more than 20,000 Seventh Ward residents from the original census manuscripts (see Figure 2) that are now available online.

Figures 1 and 2



Visitors to the Mapping Du Bois Web site (www.mappingdubois.org) can further explore the household composition of each property in the interactive Seventh Ward GIS by clicking on that property on the map. The African American Draper family at 1013 Rodman Street, for example, included Pennsylvania-born Harry, who worked as a contractor, and his wife of 12 years, Henrietta, who worked as a dressmaker and whose family was from Virginia. They had five daughters and a son as well as seven boarders, three of them men. This is no doubt the kind of arrangement that worried Du Bois. This direct connection to the rich census database also allows visitors to search for people or households by particular keywords—such as first or last name, place of birth, and occupation. They can also create their own color-coded maps based on a number of different census variables and scanned versions of the original Du Bois map and 1896 Bromley fire insurance map.

GIS maps, however, tend to be static while we know that communities are dynamic. To show change over time, therefore, we need to make multiple maps, each representing a different time period. With new animation tools, it is possible to create videos from separate map layers,

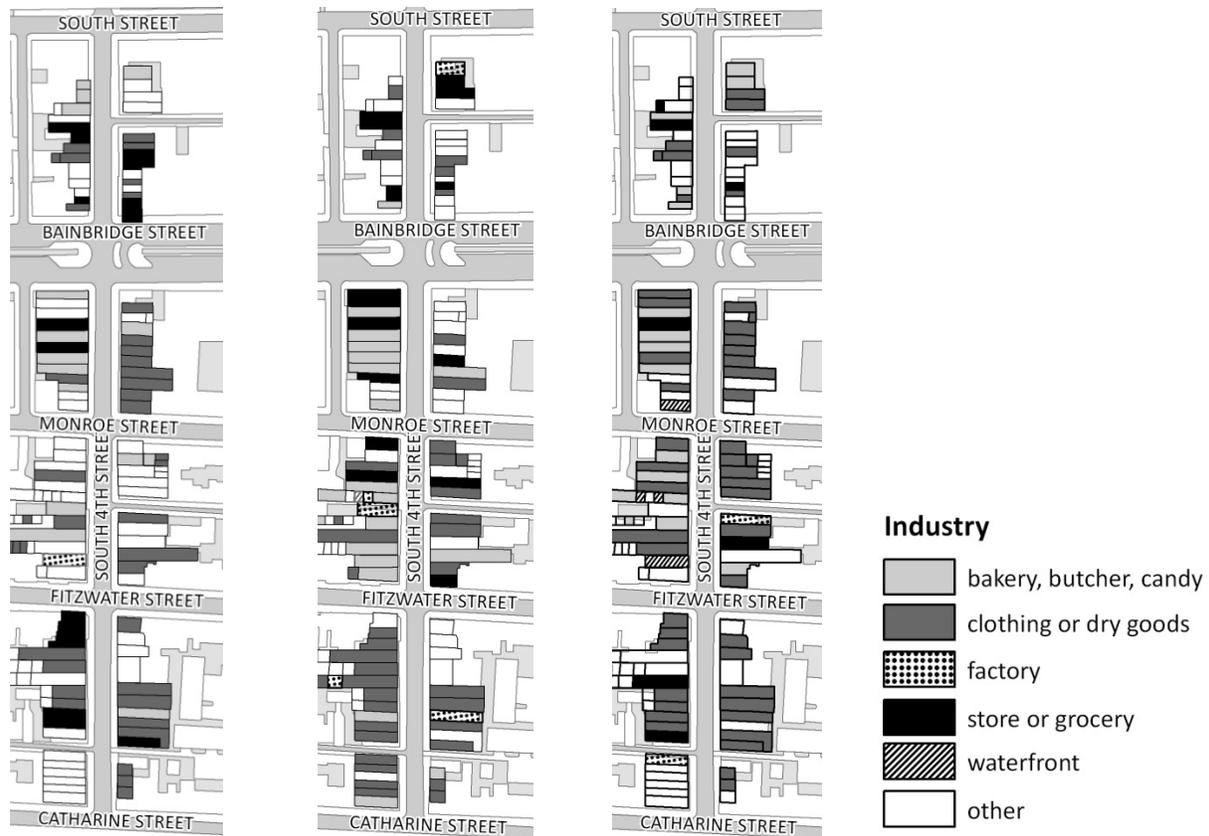
but even a series of static maps represents a significant improvement over analyzing data in tables, which does not allow spatial patterns to emerge. The Historical Society's PhilaPlace project uses such map layers to show change over time. The project has recorded census and land data over several decades in order to see the changes in places such as the Ninth Street Market and "Fabric Row" (Fourth Street) in South Philadelphia and Paschall's Alley in Northern Liberties. "Fabric Row" emerged during the early part of the 20th century when Russian, Polish, Romanian, and Austrian immigrants moved into the area and established retail stores and clothing and dry goods businesses. As the maps in Figure 4 show, the number of households where the head of household was employed in the textile industry increased while a relatively low percentage of household heads found work in factories.

Figure 4. Emergence of "Fabric Row" in South Philadelphia, 1900 – 1930

1900

1920

1930



Census and land-use maps of South Ninth Street similarly show how between 1900 and 1920 the street became predominantly Italian, with mixed-use properties typical of a “market”; many row houses had commercial store fronts and residences on the second and third floors. The changes along both of these famous South Philadelphia streets correspond with the high point in European immigration to the United States. Northern Liberties experienced a similar influx of immigrants during this time period, but census data show that the 400 block of Lynd Street—originally named “Paschall’s Alley” and now called Wallace Street—remained predominantly African American between 1880 and 1930. The nearby African Zoar Church on Brown Street (now Mother African Zoar United Methodist Church at 12th and Melon streets) helps to explain the existence of this enclave, as congregation members chose to live nearby. Most of the other

residents of Northern Liberties were immigrants from Germany and, later, eastern European countries.

While GIS technology helps us turn “locations” into “places,” the limited options for symbolizing maps in GIS—using colors, hatchings, line thickness, and various point symbols—still make it difficult to represent all of the meanings that places hold for us. Through the PhilaPlace project, the Historical Society is exploring innovative ways of linking stories, photographs, and videos to locations in order to show how neighborhoods and specific sites, as well as our stories about them, change over time. Visitors to the Web site can follow tours through a GoogleMaps interface that shows a suggested route and provides links to descriptions and photographs of various places—such as Gloria Dei Old Swedes Church, the oldest church in Pennsylvania, and Sparks Shot Tower, the first place in the nation where molten lead was dropped to form perfectly round musket balls.

Visitors to PhilaPlace can also post their own stories and photographs to locations on the map that have meaning for them. The Historical Society hopes that multiple visitors will post stories about the same locations, commenting on one another’s descriptions and creating a dialog and network of meaning. The same location may have different meaning for residents based on differences in time period, ethnicity and national origin, religion, occupation, schooling, and their own personal experiences. By inviting visitors to post these sometimes competing, sometimes complimentary, meanings, the PhilaPlace Web site allows them to represent the meaning of places that are special to them. By combining these personal stories with historical census and land-use data, PhilaPlace hopes to discover patterns across time and space that weave together the diverse experiences of residents—past and present—in the culturally rich neighborhoods of South Philadelphia and Northern Liberties. As with the Mapping Du Bois

Project, PhilaPlace also hopes to demonstrate that GIS technology is not just for figuring out where we are going; it can help show us where we have been.