Mapping 20th Century America

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Over the last several years, spatial humanities have grown in prominence. Initiatives such as the University of Virginia's Institute for Enabling Geospatial Scholarship and Stanford's Spatial History Project have signaled and begun exploring the impact of the spatial turn. Writing for UVA's institute, historian Jo Guildi states, "The spatial turn represents the impulse to position these new tools [i.e. GIS] against old questions" (Guildi, 2010). In this panel, we challenge the idea that the spatial turn simply asks old questions and rather argue that it helps pose new as well as answer old questions in twentieth-century American history. In particular, we employ the idea of deep mapping as theorized by historian David Bodenhemer to discuss new scholarship and directions in digital spatial analysis. We also explore the role public humanities plays in framing these projects. The 45-minute panel entitled "Mapping the 20th Century United States" will focus on the role of the spatial analysis in the digital, public humanities and its impact on historical scholarship.

Robert Nelson will begin the panel with "Reckoning with Redlining: Public Engagement with 'Mapping Inequality.'" The Mapping Inequality project provides unparalleled access to the infamous redlining maps and area descriptions created by the Home Owners' Loan Corporation during the Great Depression. Accessed by tens of thousands of visitors in the first two weeks following its release, this paper will draw upon hundreds of contributions to a public conversation about redlining and urban inequality around "Mapping Inequality" in social media and the comment threads of press the project has received. Nelson will analyze the design decisions he and his colleagues made to prompt public engagement with these maps and the history of redlining. He will also critically use the reaction to the project to critically assess how successful this public-facing digital humanities project has been in prompting productive conversations about redlining and urban and racial inequalities.

Continuing with our exploration of the 1930s, we will turn to Taylor Arnold and Lauren Tilton who will discuss combining archives spatially in order to produce new knowledge about and public access to documentary expression in the era. They will focus on layering the Federal Writer's Project, which documented through text the life histories of thousands of Americans, with 170,000 photographs from the Farm Security Administration-Office of War Information. Placing these archives for the first time in conversation, their deep maps incite new questions about the role of the federal government in documenting the lived experiences of Americans during the Great Depression and the types of representation produced.

Next we will turn to the work of Jason Heppler on post-war America. Silicon Valley represented one of the twentieth century's greatest modernizations of urban space. Beginning in the 1950s, the formation of a new high tech suburbanism led the Valley to become identified not only with a center of hopeful possibility as the Industrial Age industries of the Midwest and Northeast began to decline, but also gave expression to an environmental politic that attempted to reconcile an environmentally conscious pursuit of the American Dream. Yet the claim for high tech's "clean" industrialization fell short as environmental concerns -- ranging from controlling growth to widespread chemical contamination of water supplies -- reshaped discussions about public and private space. Deep maps help explore the transformation of urban space over time.

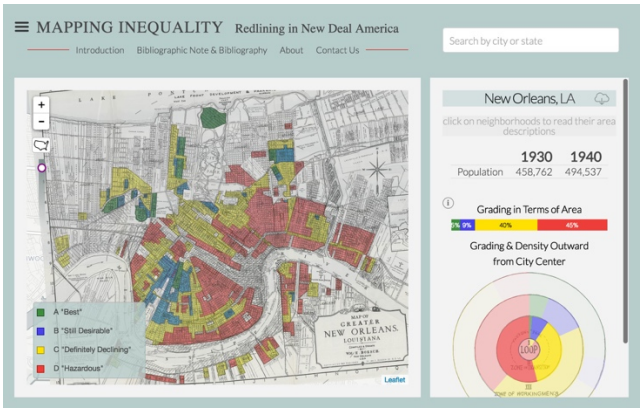
Along with addressing the role of spatial analysis in cutting edge humanities scholarship, each paper will outline which technologies they are using along with their possibilities and challenges. In particular, Robert Nelson will address a cutting edge spatial toolkit the University of Richmond Digital Scholarship Lab and

Statmen Design are developing for use across the digital humanities. The panelists will also discuss the role of collaboration, the process of developing cross-institutional partnerships and designing for public audiences.

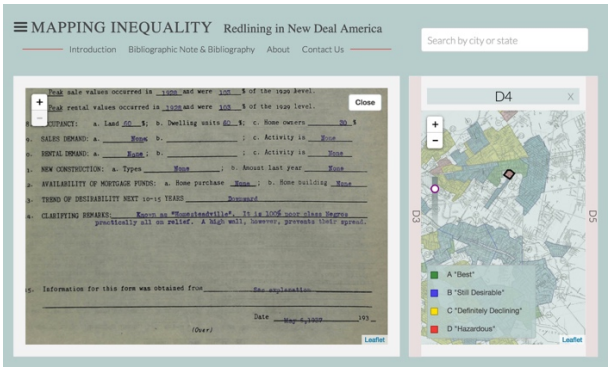
Reckoning with Redlining: Public Engagement with "Mapping Inequality"

Robert Nelson

In keeping with the conference theme of access and its emphasis upon public-facing scholarship, this presentation will reflect upon hundreds of comments and several conversations from the lay public about "Mapping Inequality". A collaboration of teams at four universities, "Mapping Inequality" currently includes nearly all of the more than 150 "security maps" and nearly 10,000 "area descriptions" created by the Home Owners' Loan Corporation during the Great Depression. These maps assessed mortgage risk for thousands of neighborhoods in U.S. cities large and small on a scale of "A" to "D". "A" neighborhoods were deemed "best," presenting minimal risks for banks and lenders; "D" neighborhoods were deemed "hazardous" for mortgage financing.



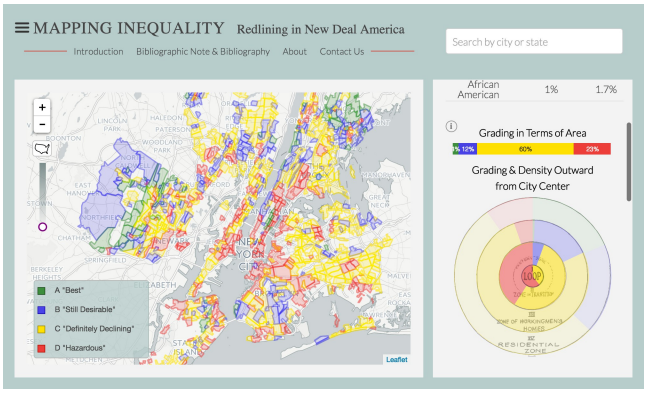
These grades were explicitly racialist and racist. HOLC's survey instruments asked local agents to quantify the "infiltration of" undesirable populations of African Americans and immigrants. To cite just a few examples, a small subsection of a Tacoma neighborhood was graded "D" though otherwise identical to the surrounding "B" neighborhood because "Three highly respected Negro families own homes and live in the middle block of this area facing Verde Street. While very much above the average of their race, it is quite generally recognized by Realtors that their presence seriously detracts from the desirability of their immediate neighborhood." Proximity to black neighborhoods was enough to impact HOLC's risk assessment. A subsection of a neighborhood in Richmond was graded "C" rather than "B" because "Respectable people but homes are too near negro area D2." In contrast, a Camden neighborhood kept an"A" grade despite bordering an African American neighborhood, but only because "High walls separates this section from the colored area to the south" that effectively prevented their "spread."



These grades had real consequences. Through this HOLC program, the federal government reinforced redlining as a best practice within the real estate industry, in effect cutting off hundreds of thousands of African Americans off from equitable access to mortgage financing and thus homeownership, which arguably was the most significant mechanism of familial wealth accumulation in twentieth-century America. While of course it is by no means the only or even primary cause, this redlining program helped to contribute to generational wealth disparities between white and black Americans, where today the median wealth of white households is a shocking 13 times that of black households.

We designed "Mapping Inequality" not only with researchers but activists and the general public in mind. More than 150 of the HOLC maps have been georectified (nearly all of them, though we still have a few to add and undoubtedly a few more will surface), and polygons for each neighborhood added. The site is location aware and asks new users if they want to view their, or alternately the nearest, city. The opacity of the raster maps can be adjusted to help viewers connect the grades to the contemporary cityscape.

Nearly all of the neighborhoods polygons can be clicked to read the area description survey. In short, we designed it hoping to encourage viewers to grapple with the materials related to their own localities and to prompt them to make connection to the present.



The introduction and other contextual materials on the site convey the authors' collective assessment that "New Deal era housing policies ... helped set the course for contemporary America." We also include a visualization inspired by Ernest Burgess's concentric circle theory to suggest that HOLC policies definition of the interior of cities as "slums" functioned as a self-fulfilling prophecy. Nevertheless, the site prioritizes access, exploration, and reuse of these important primary source materials. We do not provide these materials completely without commentary, but through our design choices we do facilitate and encourage relatively direct engagement with HOLC's maps and surveys.

All of these materials were available in the National Archives. While materials for many cities had been digitized, to date there has been no comprehensive collection let along one offering the functionality of "Mapping Inequality." We have no doubt that these materials will be useful to researchers--not just historians but economists, urban planners, artists, medical doctors, etc.--and will facilitate a far more nuance understanding of HOLC and its consequences. We also have abundant evidence that these materials are a boon for activists working on fair housing and other social justice causes as well.

While we're excited about this, we intentionally developed the site as a public history project that aimed to spark conversations about wealth and racial inequality in American cities past and present. By that measure, the project so far has been a success. Two and a half weeks after being released, the map has received about 44,000 visits and been the subject of online coverage from NPR, National Geographic, Slate, CityLab, FastCo., Forbes, and Curbed, all of which have narrated the state's role in fostering redlining and wealth inequality.

In the comment section of these stories, in stories in local news sources, and in social media there has been a broad-ranging conversation about wealth and racial inequalities. On one of the spectrum, some respondents have been dismissive of the project, suggesting that this happened 80 years ago and is a remnant of the past that has little relevance today; one person notably characterizing the site as nothing more than "historical racism porn." Others have responded to such comments that this is important inasmuch as many of these 80-year old maps resemble the racial and class landscapes of America today and that the government's role in reinforcing redlining and racial disparities of wealth isn't widely understood.

Beyond these arguments about the impact of HOLC and relevance of redlining for understanding inequality in twenty-first-century cities, some of the most interesting and revealing comments have come from people for whom the maps have prompted reflection upon their own family histories. "I grew up in Detroit in the late 50's and 60's," one man wrote. "My address was 20400 Monte Vista, the corner Monte vista and Norfolk. Two streets east, starting at the corner of Birwood and 8 mile, was a wall. The wall was 12-15 feet high, made of grey concrete blocks and ran behind the homes towards 7 mile, extending to an abandoned army base at the corner of Pembrook and Birwood. The wall was built to divide the neighborhoods, one side was all African Americans, The other all Caucasian. My mother lived on one side of the wall, it was all African American. She once (just once) told me that one could hear the White families on the other side of the wall talking, see them occasionally if a ball came over the fence and they asked for it, most times they did not. One had no contact, ever. The wall is still there, physically and emotionally." While so far this story is rather exceptional in its detail, it has prompted us to think about the possibility of using the site to solicit and collect stories about the consequences of redlining and segregation on particular individuals, families, and communities.

Given that "Mapping Inequality" has been at the center of several online conversations and hundreds of comments on websites two and a half weeks after it was first released, I'm optimistic that it will continue to occasion more conversations about the role of racism, redlining, and the state in inequalities of wealth in American cities. This presentation will provide an opportunity to critically reflect upon these materials and gauge the success and failures of this particular digital humanities project and perhaps the

digital humanities more generally in informing socially and politically important public conversations. This presentation will also reflect upon the pros and cons of interpretive framing in digital humanities projects aimed at the public.

Mapping the Federal Writers Project

Lauren Tilton and Taylor Arnold

"Mapping the Federal Writers Project" will explore the role and implementation of deep mapping and spatial analysis in interpreting and understanding documentary expression in 1930s America. As Bodenhamer argues, deep maps are "visual, time-based genuinely multimedia and multilayered" (Bodenhemer, 11). These maps allow for nuanced spatial analysis in the service of new humanities questions and arguments. We will focus on the application of these concepts in a new extension of Photogrammar (photogrammar.yale.edu), a digital and public humanities project focused on print and visual culture in 1930s America.

Photogrammar (photogrammar.yale.edu) uses methods from the digital humanities and digital resources to further contextualize and open new avenues of research into the federal project and documentary record of the era. In its current version, Photogrammar maps 170,000 photos from the Great Depression and World War II that comprise the United States Farm Security Administration and Office of War Information (FSA-OWI) photographic archive. Importantly, the collection includes some of the most prominent documentary photographers of the 20th century including Dorothea Lange and Walker Evans. Users can explore the collection through interactive maps through the use of spatial analysis; search by photo captions, photographer and time through text analysis; and browse by color and the faces depicted in the photographs through the use of image analysis. This new stage - funded by the American Council of Learned Societies- involves adding a new layer to Photogrammar - the Federal Writer's Project (FWP), which funded writers to capture and describe the complexities of American life during the Great Depression (Couch, Hirsch, Mangione, Penkower, Stewart). Dozens of writers were sent to document through words the impact of the great depression on people's lives across the country. Prominent literary scholars such as Nelson Algren, known for The Man with the Golden Arm , and Ralph Ellison, known for Invisible Man. In the process, they asked people to provide their life histories pioneering the practice of oral history, a critical methodology in the field of history and in the humanities more broadly.

Using deep mapping to expand our understanding of 1930s America, Photogrammar is creating links across archives in order to place the FSA-OWI in the larger federal effort to document America during the Great Depression. Merging collections from the University of North Carolina - Chapel Hill Libraries and the Library of Congress, the FWP includes over 4,000 life histories. Interviews are being plotted on a new geographical layer allowing search by space and time. For example, a user will be able to follow an interviewer as they move across a state and the country to collect oral histories in the same way they can now follow documentary photographs like Dorothea Lange and Walker Evans. Users will be able to search the new FWP layer independently or along with the geographical layer of FSA-OWI photographs and photographers. As a result, they will be able to compare the oral histories to the photographs taken in the same area allowing user to compare and contrast the documentary record created and funded by the federal government. As well, the new and cleaned transcripts created over this year are allowing for refined search functionality including faceted browsing and full text search. We are also experimenting with the role Natural Language Processing techniques such as Named-Entity Recognition to create new ways to browse the collection (Finkel and Manning 2005). In all, users will be able to explore the FWP and FSA-OWI spatially, temporally and through faceted searching allowing the public to explore the broader documentary record of the era relationally through deep mapping.

The second half of the paper will focus on methodology. We will start by discussing the potential benefits and potential difficulties of cross-institution collaboration in the cleaning and processing of data. In our experience, working with institutionally and spatially separated groups requires careful planning, but this extra up-front work improves both the general workflow and final products. We will touch on what scholarly and which technical questions guided our creation of a database schema for inputting metadata from the Federal Writer's Project. We take into consideration theoretical work regarding the creation of "smart data", best practices regarding TEI markup (Schöch, TEI Initiative on Libraries), and principles for creating normalized database tables (Codd 1971). The discussion will culminate in showing how these carefully curated data sources are made interactive and public on our website. The geographic data are

plotted using custom layers created in CARTO (formerly CartoDB), giving a great deal of interactivity out of the box. Specifically, we will extrapolate on how we designed the interactivity to enhance the other data collections on the Photogrammar website, to make new arguments and pose new questions about about documentary expression in 1930s America, to realize the principles of deep mapping and to engage with various publics.

Mapping Silicon Valley

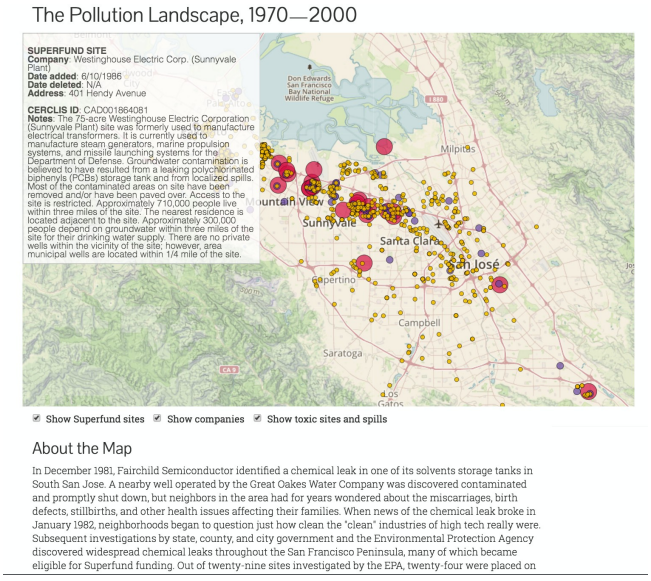
Jason Heppler

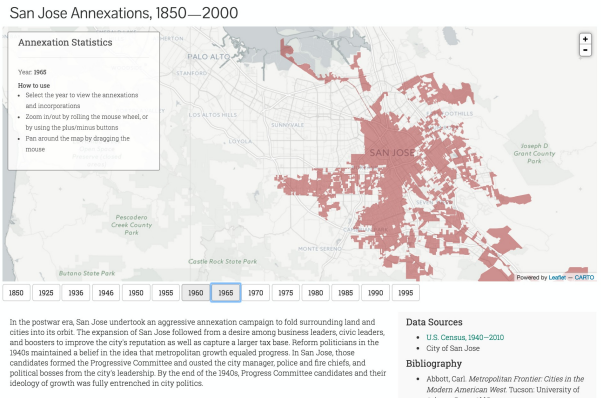
“Mapping Silicon Valley” explores the role of spatial history in the urban environment of post-World War II Santa Clara Valley. Silicon Valley is the product of competing landscapes. The geographer D. W. Meinig refers to landscapes as “a naïve acceptance of the intricate intermingling of physical, biological, and cultural features which any glance around us displays" (Meinig, 1979). Wildlife refuges, fenced military installations, city and neighborhood districts, and polluted sites all hold definitions on the land. Historian Richard White has referred to this as "hybrid landscapes," where cultural ideologies clash over conflicting uses of natural resources. The hybrid landscape is neither purely wild nor purely built, but instead a construction of natural and cultural systems that shape and create place (White, 2004). People define places by embedding ideas on the landscape. In cities, urban planners lay down grids of roads, zones, and regulations that divide cities along labor, leisure, and consumption, thus imbuing certain places with particular meaning. Landscapes, as Meinig notes, are “a great exhibit of consequences," and are “symbolic, as expressions of cultural values, social behavior, and individual actions worked upon particular localities over a span of time" (Meinig, 1979).

By viewing Silicon Valley through the lens of landscapes and space, I argue for the importance of place in shaping a suburban vision of what urban historian Margaret O'Mara has called high-tech urbanism. Silicon Valley has come to represent the future of post-industrial economic development. Places as varied as Atlanta, Georgia; Philadelphia, Pennsylvania; Cleveland, Ohio; Omaha, Nebraska; Bangalore, India; Mission Hills in the Guandong Province of China; and Shenzhen, China, have looked to Silicon Valley as a model for economic and urban revitalization through high-tech economic development. Indeed, high tech is often drenched in green--from high-tech office campuses to "smart cities" that promise to transform work, leisure, transportation, and urban space into a more sustainable future.

The work of this high-tech landscape has been decades in the making and has come with high environmental costs, despite the promise of clean and green cities. Silicon Valley epitomized the trend of conflating a lack of smokestacks as a proxy for sustainable industrial development. High-tech landscapes centered around industrial research and scientific industry promised growth without pollution, but that promise was an impossible standard.

"Mapping Silicon Valley" is a broad discussion of three map-centric projects that have moved through different stages. The first set of maps were data driven thematic maps, produced largely during the course of my dissertation research. These maps were created largely out of a desire to understand the transforming landscape in Silicon Valley, from city growth and conflicts over urban space to the widespread presence of pollution and neighborhoods most threatened by toxic chemicals. The first section of this paper will reflect on the methodological underpinnings of these maps and their application to environmental humanities, while also discussing some of the potential shortcomings and enhancements that would make these maps more useful for historical research.





The second mapping project is oriented around digital public history. Called Silicon Valley Historical (http://svhistorical.org) and built on the Curatescape platform, the project seeks to collect archival material and narrate the importance of specific places to the Valley's history. Contributions to Silicon Valley Historical are not solely driven by scholarly contributions, but also rely on contributions by students and volunteers in close association with area universities, colleges, historical associations, and historical societies. The material contained in Silicon Valley Historical is meant, in part, to step away from the business-centric stories so often associated with Silicon Valley and consider more fully the urban spaces that were affected by the growth of this high-tech region. Still in its early stages of planning, this section will discuss the challenge of working with community partners and developing a sustainable and scalable digital history project that seeks to serve both the community it studies as well as students and scholars who will find the project useful.

The final mapping project, still under planning and a partnership with the Stanford Spatial History Project, is tentatively titled From Orchards to Suburbs: Changing Landscapes in Silicon Valley and will represent the most technological and research heavy aspects of the project. As I investigate the politics surrounding the creation of place, this project will allow for the spatial exploration of zoning laws, general plans, government reports, and city council meeting minutes. The current design envisages the ability to navigate through a map and, depending on the viewport, presenting a list of primary sources available for reading about particular places in Silicon Valley. These will be accompanied by some computational and statistical tools for doing text analysis to uncover more about the kinds of conversations happening about particular places in the city and how they are being thought about.

Collectively, "Mapping Silicon Valley" will critically reflect on these projects and their evolution as research and public history projects. The paper will further delve into the opportunities for deep mapping and interactivity for exploring the changing landscapes of Silicon Valley.

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