Mapping Racial Covenants in the United States: A Technical Toolkit

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Introduction

Thanks to generous support from the National Endowment for the Humanities (NEH), the Mapping Prejudice team at the University of Minnesota has worked with volunteers and researchers around the country to re-write urban history in the United States. Mapping Prejudice mobilizes community members to document racial covenants, which were clauses that were embedded in property records to keep people who were not White from buying or occupying parcels of land. In Minneapolis, one common restriction stipulated that the "premises shall not at any time be conveyed, mortgaged or leased to any person or persons of Chinese, Japanese, Moorish, Turkish, Negro, Mongolian or African blood or descent." In Hennepin County—where Minneapolis is located—thousands of other deeds stated that “said land or buildings thereon shall never be rented, leased or sold, transferred or conveyed to, nor shall same be occupied exclusively by person or persons other than of the Caucasian Race.”

Over the last century, a wide range of scholars have examined the history and impact of racial covenants. When Mapping Prejudice launched in 2016, it fundamentally transformed this interdisciplinary field of research by weaving

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powerful new digital technologies into a public history practice. The result was a process that invited community members to read historical property deeds and transcribe the information necessary to locate racial restrictions on a digital map. Mapping Prejudice used a newly digitized set of property records in Hennepin County to experiment with Python scripts, optical character recognition software, and community crowdsourcing to mine those public records for covenants. Its transdisciplinary approach brought together public historians, academic librarians, coders, big data architects, GIS experts, property researchers, human geographers, policymakers, real estate professionals, and community activists to create new understandings of how systemic racism has shaped access to housing, property ownership, and urban amenities like parks. This innovative methodology created the first comprehensive spatial dataset of racial covenants for a large American city. This broke a longstanding research logjam, unleashing a flood of interest in both the project’s data and its methods.

In 2020, Mapping Prejudice asked the National Endowment for the Humanities for the resources necessary to refine this suite of digital tools and explore whether they could be used outside of Hennepin County. The resulting NEH award (award #HAA-271653-20) allowed the project team to improve these disparate tools and bind them together in a software application that technical lead Michale Corey dubbed the “Deed Machine,” which is the Mapping Prejudice open-source software application. The Deed Machine makes it possible for researchers to efficiently cull millions of pages of property records to identify those likely to contain racial covenants, so that local volunteers can read those records and extract the information necessary to locate these restrictions on a modern map. The software exports covenant data into standardized geospatial and tabular formats to facilitate easy analysis by policymakers and researchers across many fields. The team developed the Deed Machine with support from researchers around the country, who requested digitized property records from
their local county recorders and engaged their community members in the work of transcribing covenants. These collaborations provided the opportunity to extract racial covenants from property records in different geographies that vary in format, recording protocols, and language and test a variety of search terms relevant to racial covenants to determine those that work best. The resulting datasets demonstrate that the Deed Machine will work in any community that has digitized property records and a county recorder willing to provide digitized public records in a format legible to technologically-adept researchers. The Deed Machine has exponentially boosted the speed and accuracy of this work, opening a plethora of new possibilities for identifying and mapping racial covenants in the United States.3

The original dataset generated by Mapping Prejudice encompassed close to 25,000 racial covenants in Hennepin County, Minnesota, an area that includes Minneapolis and its suburbs.4 Thanks to the NEH award, Mapping Prejudice expanded its geographic focus and has now generated the world’s largest dataset of racial covenants.5 Volunteers have identified over 50,000 modern properties with racist restrictions in four of the metropolitan counties that make up the Twin Cities of Minnesota; Milwaukee, Wisconsin; Washington D.C.; and Essex County, Massachusetts. This resource has already proved valuable to researchers and policymakers working to analyze and dismantle the legacies of racist land use

practices in the urban environment. These efforts have established the University of Minnesota Libraries as a place where researchers from all parts of the United States can find open and accessible racial covenant data and maps; technical support for identifying and mapping covenants; and advice about how to approach this kind of community-powered mapping work. The project has garnered accolades from urban planners, public historians, civil rights activists, geospatial information science professionals, advocates for government transparency, and librarians.

Mapping Prejudice has also made the University of Minnesota Libraries into a hub for community members interested in exploring both the history and contemporary legacies of these racist property records. It has demonstrated the power of engaging community members in the creation of new knowledge. It has created resources for educators that have changed the local history narrative

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7 Mapping Prejudice received the following awards: Academic Innovator Award, Minnesota Library Association and the Governor’s Geospatial Commendation Award, State of Minnesota (2019); Catalyst award from the National States Geographic Information Council (2020); Sweet Potato Comfort Pie award from Golden Valley community activists (2021); The John R. Finnegan Freedom of Information Award from the Minnesota Coalition on Government Information (2021); Outstanding Public History Project of 2021 from the National Council of Public History (2021); Advancing Diversity and Social Change Award from the American Planning Association Minnesota Chapter (2023).

8 Walker et. al., “Mapping Prejudice: The Limits and Opportunities of Data for Anti-Racist Planning.”
communicated to Minnesota high school students. It has sparked artistic responses, historical narratives, new land use policies, and legislation in more than 20 states that allows homeowners to renounce these racist restrictions. Mapping Prejudice has inspired an Emmy-award winning documentary with millions of views; a nationally-recognized museum exhibit; more than 400 speaking invitations from a wide range of civic, professional, educational, and research groups. It galvanized lawyers, local policymakers, and real estate professionals to create a coalition that helps homeowners “discharge” covenants while promoting awareness about these practices within local government and professional organizations. These outcomes have inspired the project mantra: “The Process is the Product.” This phrase encapsulates the project’s theory of change.

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11 Jim Crow of the North, Daniel Bergin, Twin Cities Public Television, 2019; Jim Crow of the North Stories, Daniel Bergin, Twin Cities Public Television, 2023; Kacie Lucchini Butcher and Denise Pike, “Owning Up,” Digital Exhibit, Accessed 08-31-2023, https://humanloll35w.org/owningup/. As of March, 2023, Jim Crow of the North has been viewed 434,953 times via broadcast (locally and nationally) after being aired 373 times in 44 markets. In addition, Jim Crow of the North has been viewed 3,423,676 times via digital platforms (YouTube, the PBS app, PBS.org and TPT.org), for a total of 3,858,629 views. The popularity of Jim Crow of the North inspired another set of digital shorts, Jim Crow of the North Stories. As of March, 2024, they have been viewed 20,454 times on digital platforms.

Results of grant activities

Transformation of technical platform

The Deed Machine is Mapping Prejudice’s cloud-hosted web application that knits together parallel computing, optical character recognition, data processing and programmatic GIS to help volunteers identify and map racial covenants using images of historical property records. The Deed Machine’s open-source code is hosted on Github.\textsuperscript{13} The Deed Machine is the culmination of years of development and refactoring that began with the pioneering work of Mapping Prejudice’s co-founder and first technical lead, Kevin Ehrman-Solberg.

Ehrman-Solberg’s tragic death in 2021 was a devastating blow to the project that halted all covenant work for more than six months. As the project team grieved and began to assess the status of work that had been in progress, a vulnerability inherent in the pre-existing workflow rose to the surface. Between several of the steps involving Python scripts in the original workflow, team members or volunteers performed data cleanup or manual research and data entry in Excel worksheets that had been exported from the previous steps. That manually edited output was then fed into succeeding scripts. However, the spreadsheets did not provide any ability to track who had already made changes to which rows, since edits to the information in the spreadsheets were made directly in the fields output by the automated process.

This presented two major problems. First, for the current county undergoing research, just how much of the manual process had been completed was only known to Ehrman-Solberg. This meant that, unfortunately, team members had to abandon what manual work had been done, and start over from

\textsuperscript{13} “The Deed Machine.” Python, Django and AWS Lambda software, 2024, University of Minnesota Libraries. \url{https://github.com/UMNLibraries/racial_covenants_processor}.
an earlier stage in the process. Second, team members realized that the existing manual correction process was analogous to what in audio and video production is known as “destructive editing.” Once a change to a field was made manually, there was no way to know what value the change had replaced, who had made it, or when. This meant that potential errors were difficult to detect and even more difficult to fix at scale.

The time needed to run property record images through the OCR and term search steps in the original workflow presented another significant bottleneck. These steps were being accomplished by loading subsets of property records images onto desktop computers in the Mapping Prejudice office. Each computer then looped through those records one at a time to locate potential “hits.” This procedure required the team to monitor multiple desktop machines to make sure they were running correctly, and further required that the output from each computer be brought back together and reconciled at the end of the process. This single-loop approach required several months to process a large county.

With these pitfalls in mind, when new technical lead Michael Corey joined the team, he set out to design a new, unified web application so that all of the steps of the workflow would be integrated and all manual work could be tracked. All manual edits were designed to be reversible through the use of non-destructive editing. To achieve this, when edits were made, rather than replacing existing values in the database (see below), additional “correction” records in new tables were created. Final output then involved the system checking to see if any manual changes had been added, and prioritizing those over the original output, if present.

This revamped workflow has allowed Mapping Prejudice to work with a wide range of geographies and at an unprecedented scale. The original Hennepin County dataset required the processing of 4.5 million pages, which required several months for initial processing. The Deed Machine can process that same
volume in a few days, and can be configured to run even faster, limited only by upload speeds and processing costs. The revamped Deed Machine has now processed 9.1 million additional pages, and we are on track to double that volume in 2024.

Figure 1: Basic Deed Machine workflow

The Deed Machine is currently composed of several main components:

- An initial processing stage, which uses parallel computing, a step function, and AWS lambda functions to efficiently OCR millions of pages of property records and flag potential racial covenants for review by volunteers. After uploading, images and metadata generated by the process are stored in an AWS Cloud Object Storage (S3) bucket.

- A Django application hosted by AWS using Elastic Container Service (ECS) and a PostgreSQL database running on AWS Relational Database Service (RDS), which is used to manage the “hits” generated by the first stage of the process.

- A private Zooniverse project, where each deed is reviewed by 5 volunteers who answer a series of questions about each suspected racial covenant and transcribe the covenant’s text.
• A series of GeoDjango functions embedded in the Django application to facilitate automated and manual mapping of covenants using modern parcel shapefiles.

• Django scripts to generate uniform exports of racial covenants data suitable for mapping and further analysis.

Figure 2: Deed Machine schematic, March 2024
Future development directions

Redundancy of expertise

The most urgent risk factor facing the Deed Machine is that currently, there is only one person (Technical Lead Michael Corey) who has the knowledge to build and maintain the codebase. As Mapping Prejudice has experienced firsthand on two occasions, the sudden loss of a colleague temporarily or permanently whether because of a job change or medical emergency or death is a very real risk factor.

In order to have credible redundancy, the two most important goals should be to write much more extensive documentation and to involve other developers in the regular building and maintenance of the code to give them real world experience with the evolving systems.

FOSS + SaaS/Consulting: Centralization vs. installability

In order to meet the goals set forth in “Mapping Racial Covenants in the United States: A Technical Toolkit,” the Deed Machine needed to evolve into a complex set of tools to meet the scale and variety demanded by this work. This complexity has yielded dramatic performance and productivity gains. The team has also solved several problems that face any group seeking to find and map racial covenants: tackling the large scale of records via computing and integration with the Zooniverse crowdsourcing platform; an integrated and non-destructive editing interface for making manual corrections; automated iterative mapping of addition/block/lot physical descriptions; and export of covenants data into commonly used and uniformly structured geospatial formats.

Despite these gains, there is no scenario in which it is feasible for the University of Minnesota to successfully map covenants for the 3,100 counties in
the United States. Part of the reason the NEH DHAG required Mapping Prejudice to publish its code was so that other researchers could realistically leverage the publicly-funded technology and not reinvent the wheel. However, the complexity of the codebase presents major challenges to anyone without years of experience with a wide variety of software and web technologies who seeks to install their own copy of the Deed Machine. While more and more covenant mapping projects include digital humanities or other technical expertise in their teams, many other projects consist of fewer than five researchers with zero digital expertise. Even though the codebase is technically now open-source, it is not realistically available to other researchers.

In order to facilitate the wide use of the Deed Machine, it is therefore important to both contemplate how to make the software more installable while at the same time considering options to support the work of teams that have no chance of installing the Deed Machine even with a streamlined installation experience. The team anticipates meeting these challenges by pursuing a hybrid FOSS + SaaS (Free and Open Source Software + Software as a Service) framework for future development.

Re-architecture of large DeedPage table to search engine

After initial processing, the Deed Machine collects results from Amazon S3 and saves information about each processed document into a PostgreSQL table. For each page, this information includes the file name, whether or not it is a suspected covenant, which terms (if any) were matched, what the previous and next pages are, and links to the OCR text and a web-friendly copy of the image. The OCR text is not saved to the database table, as this would not be an efficient use of space, speed, or money. This data is then used to determine which records should be uploaded to Zooniverse for transcription and to allow browsing of adjacent page images. This table has necessarily become much larger (9.2 million
rows) than the other tables in the database, which relate mostly to suspected covenants, a much smaller subset of records. Even though the information stored in this table amounts to only metadata, this table is already too large to be performant and cost-effective at its current AWS tier. As new records are added to the main Deed Machine instance, and particularly as new geographies are added with larger record sets, investing more money into larger database memory capacity will rapidly bring diminishing speed returns.

The good news is that a search engine such as Solr or ElasticSearch can very likely provide dramatic speed improvements to use of this table for a lower price than expanding current database capacity.

Additional user documentation

For additional documentation, see the Deed Machine repository on Github.¹⁴

Covenants search terms

For a full list of Mapping Prejudice’s search terms for flagging racial covenants, see Appendix A.

Mapping Prejudice website

Support from the National Endowment for the Humanities allowed Mapping Prejudice to redesign its website into a rich resource for community members, educators, policymakers, and professional researchers. Everything on the website is covered by a Creative Commons Attribution-NonCommercial license, which allows anyone to reuse the content, provided they cite the source and are using it for noncommercial activities. This website provides a vehicle for

historical narratives as well as datasets and maps that have been archived in the Data Repository for the University of Minnesota. It also directs visitors to datasets that are still under construction in the University of Minnesota Libraries GitHub site; and links to other covenant research projects around the country. These sites require no special permissions for users, making the data freely available. As a result, it has been downloaded nearly 10,000 times, opening new avenues for research and education. Inspired by the Mapping Inequality project at the University of Richmond, the project team had originally envisioned a website that could host and display covenant data from cities from across the country. But as the work developed, the team determined that it was both more practical and more effective to link to datasets and maps on the websites of its collaborative partners. This conclusion was part of a larger recognition that one research team could never generate a single dataset of racial covenants for the more than 3,000 counties across the United States. Moreover, the project’s co-creative methodology requires partnerships with local research teams that are embedded in their communities. The research has the greatest impact when it is led by the people who live in the community being investigated. This recognition has prompted Mapping Prejudice to focus its attention on creating tools and methodologies to share with partners in communities across the country. The team believes that this will encourage local research teams to generate datasets that are compatible with one another.

National Covenants Research Coalition

As outlined in its 2020 NEH proposal, Mapping Prejudice obtained property records from different regions of the country that it used to refine its technical platform and methodologies. This plan emerged from existing relationships with teams in Milwaukee, Wisconsin and Washington D.C. Without these partnerships, Mapping Prejudice could have never gained access to these records, as local property recorders were reluctant to share their digitized deeds with a research team in another state. Moreover, as the Mapping Prejudice team developed its crowdsourcing methodology, the pivotal importance of having local organizers on the ground in the community became obvious. Co-creative community-powered mapping work requires collaborators in the community who guide volunteers to make new knowledge and meaning from the research. By working with teams across the country, Mapping Prejudice gained access to more raw materials (digitized property deeds) and expertise (technologists, librarians, researchers and activists) than it could ever have found at the University of Minnesota. These collaborations have allowed Mapping Prejudice to leverage its resources and have a much larger impact.

Funding from the NEH helped to nurture these collaborations by providing travel money that allowed Mapping Prejudice to visit the communities it was mapping and learn about their geographies and histories. These in person visits complemented regular Zoom meetings, which now include an ever-larger group of researchers. These discrete collaborations have now blossomed into a loose coalition of researchers who meet regularly to share information, challenges, and strategies for researching covenants. The National Covenants Research Coalition currently includes teams working in Ann Arbor, MI; Chicago, IL; Milwaukee, WI; Philadelphia, PA; St. Louis, MO; Washington, D.C.; Arizona; Marin County, California; several communities in Virginia; Colorado; Iowa; and
Washington state. This coalition continues to attract researchers who are intrigued by the new avenues for research, education, and civic conversations that have been opened up by Mapping Prejudice and its collaborators around the country. The group is facilitating efforts to put covenant data from different geographies in conversation with one another. This national coalition allows Mapping Prejudice to build relationships and trust with other projects, in the hopes that this will facilitate work that will result in more collective resources that can be shared openly. In addition to facilitating future humanities research, this will also spur meaningful work to address the harms of these past policies.

Covenants located to date

Mapping Prejudice and its volunteers have used the Deed Machine and its antecedents to map covenants on more than 50,000 (and counting) modern properties in Minnesota and Milwaukee County, Wisconsin. We have also mapped covenants for Mapping Segregation DC in Washington, D.C. and identified (but did not attempt to map) covenants for Harborlight Community Partners in South Essex County, Massachusetts. This ever-growing data set represents the largest archive of racial covenants available worldwide.

Mapping Prejudice has found racial covenants in a wide range of document types that make up property records, including deeds, Torrens certificates, plat maps, “restrictions” or “agreements,” petition covenants, court orders, wills, and other miscellaneous documents. Many of the racial covenants

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16 “National Covenants Research Coalition,” accessed March 27, 2024, https://www.nationalcovenantsresearchcoalition.com. This growing group includes teams from St. Catherine University; the University of Iowa; Virginia Tech; University of Wisconsin, Milwaukee; University of Washington; Eastern Washington University; University of Michigan, Ann Arbor; Prologue DC; Harborlight Homes, Essex County, Massachusetts; the Philadelphia Federal Reserve; Mapping C’ville; Marin County, California; and the University of Arizona.

17 Our work in Washington, D.C. and South Essex County, Massachusetts began before the main development of the revised Deed Machine, and were not able to be easily integrated into our primary dataset.
were found in records that were “unindexed” by the county and rarely accessed. This wide range of document types make it essential that researchers ensure that they have examined records of all relevant document types, and must repeatedly confirm with records custodians that all of these relevant document types are included in the records they receive or the county’s pre-OCRed data.

So far, Mapping Prejudice has completed or nearly completed work in three counties, with active transcription ongoing in four more counties. One additional collaborator, Justice InDeed, a multi-institution project centered on Washtenaw County, Michigan, has installed the first external instance of the Deed Machine on servers maintained by the University of Michigan. Volunteers there are now also transcribing records in their own version of the Deed Machine. The team has received records that are awaiting processing from three more counties, and are negotiating with an ever-growing number of counties for more records. Mapping Prejudice is currently in some stage of exploration with more than 20 counties nationwide.

Table 1: Current county status

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>Status</th>
<th>Completion/estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN</td>
<td>Hennepin</td>
<td>Completed</td>
<td>2020</td>
</tr>
<tr>
<td>MA</td>
<td>South Essex</td>
<td>Completed</td>
<td>2023</td>
</tr>
<tr>
<td>MN</td>
<td>Dakota</td>
<td>Final cleanup</td>
<td>2024</td>
</tr>
<tr>
<td>WI</td>
<td>Milwaukee</td>
<td>Transcribing</td>
<td>2024</td>
</tr>
<tr>
<td>MN</td>
<td>Anoka</td>
<td>Transcribing</td>
<td>2024</td>
</tr>
<tr>
<td>MN</td>
<td>Washington</td>
<td>Transcribing</td>
<td>2024</td>
</tr>
<tr>
<td>MN</td>
<td>Olmsted</td>
<td>Transcribing</td>
<td>2024</td>
</tr>
</tbody>
</table>

19 Excludes Washtenaw County, Michigan, where volunteers with Justice InDeed are currently transcribing racial covenants using the first-ever external installation of the Deed Machine.
<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>Status</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN</td>
<td>Ramsey</td>
<td>Records received</td>
<td>2024</td>
</tr>
<tr>
<td>MN</td>
<td>Sherburne</td>
<td>Records received</td>
<td>2024</td>
</tr>
<tr>
<td>DC</td>
<td>Washington</td>
<td>Records received</td>
<td>2024</td>
</tr>
<tr>
<td>MN</td>
<td>Carver</td>
<td>Project Agreement signed</td>
<td>2025</td>
</tr>
<tr>
<td>CA</td>
<td>Contra Costa</td>
<td>Negotiating for records</td>
<td>Unknown</td>
</tr>
<tr>
<td>WI</td>
<td>Brown</td>
<td>Negotiating for records</td>
<td>Unknown</td>
</tr>
<tr>
<td>NJ</td>
<td>Mercer</td>
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<td>Dane</td>
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</tr>
<tr>
<td>NC</td>
<td>Forsyth</td>
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</tr>
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<td>MN</td>
<td>Scott</td>
<td>Waiting for response</td>
<td>Unknown</td>
</tr>
<tr>
<td>MN</td>
<td>Benton</td>
<td>On hold</td>
<td>Unknown</td>
</tr>
<tr>
<td>MN</td>
<td>Stearns</td>
<td>On hold</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Prerequisites for using the Mapping Prejudice process

Mapping Prejudice has built its technical processes to facilitate racial covenants work in a wide range of geographies and with an understanding that each county or other jurisdiction has unique record-keeping histories and practices. There are a few prerequisites that must be met if communities wish to utilize Mapping Prejudice’s full process.

Digital images of historic property records

Contact the county recorder (or other office responsible for holding property records) to determine if they have digitized images of property records from the correct time period. Mapping Prejudice generally requests records spanning the years 1900 to 1970, which covers the period during which racial

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20 While we have completed an initial map of Ramsey County, we discovered in the process that the county had not delivered at least 30,000 relevant records in their original delivery. We are currently re-running all of Ramsey County in order to take advantage of the new features of the Deed Machine. Before transcription, we will filter out hits that have already been classified and transcribed by volunteers to avoid duplication.
Covenants were popularized by real estate professionals and federal policymakers. “Digital images” includes file formats like JPEG, TIFF, and PNG. The PDF format is not technically an image format, but some counties have digitized their records to PDF, which may or may not include text that has been previously OCRed.

The Mapping Prejudice process does not currently work, and may be unnecessary, in locations where property records from this time period have already been transcribed or OCRed. However, if counties have previously OCRed or transcribed their historical data, it is important to find out when this work was done and how much was hand-verified. The quality of OCR technology has vastly improved in the last few years, and even the best OCR process will not be error free without human verification, so it is critical to evaluate the quality and completeness of pre-existing OCR text.

County recorders may or may not be able to estimate how many files or pages they will need to deliver to cover the years 1900 to 1970. Researchers should be prepared to handle a large number of images. For example, in Milwaukee County, the property records vendor eventually delivered more than 5 million image files to Mapping Prejudice.

Moving this number of files around can be unwieldy and time-consuming, so making a plan with the record custodian or vendor before delivery is important. If it’s possible, using a physical external hard drive may be the most convenient, but counties may prefer to use a file transfer system such as FTP. If

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21 In some communities, racial covenants were put in place in the 1870s and 1880s. As the work expands to new geographies, this start date will have to be re-examined. Researchers should expect that records from this earlier period are likely to be handwritten. Mapping Prejudice decided to request records through 1970 to include covenants put into place before the Fair Housing Act made them illegal across the United States. The earliest racial covenant that has been identified in the United States was found in Brookline, Massachusetts and dates from 1843. See Larry Santucci, “How Prevalent Were Racially Restrictive Covenants in 20th Century Philadelphia? A New Spatial Data Set Provides Answers,” (SSRN Scholarly Paper. Rochester, NY): November 18, 2019. https://doi.org/10.21799/frbp.dp.2019.05 and Kevin McGruder, Race and Real Estate: Conflict and Cooperation in Harlem, 1890-1920 (New York, New York, New York: Columbia University Press, 2015).
using a file sharing service like SharePoint, Google Drive, or something similar, be sure that it is possible to download bulk records all at once, without the need to re-zip the files together, which may prove impossible with large sets of images.

**Property records custodians with a commitment to public records**

In the United States, property records are public records maintained at taxpayer expense. Laws vary from state to state, but the overarching purpose of public records laws is to facilitate public access to as much information as possible, with a presumption that whatever is not expressly exempted from public disclosure laws should be disclosed.

In practice, it can be difficult and time-consuming to successfully persuade records custodians to make digital property records available in bulk. Many county governments are significantly underfunded, and may view such requests as an unwanted burden. Others have been paid by private vendors in the past for access to public records, which can lead to a perception that bulk records are a potential source of revenue that should be protected. In many cases, local governments have never received a request for such a large cache of records at once, and may be unsure of how difficult it would be to fulfill that request.

When approaching records custodians with a large request, it’s important to be aware of and acknowledge these dynamics. In cases where an office does not have experience fielding bulk data requests, it is critical to be patient but also persistent.

In some cases, counties have immediately handed over a hard drive containing their property records. In others, it has taken well over a year to successfully obtain the necessary records.

Rather than filing formal open records requests, Mapping Prejudice establishes a “Project Agreement” with each county. While it is tempting to assert the public’s right to access these documents, the formal open records request
process in most places is unfortunately often cumbersome, and can easily become confrontational. Successful projects will need to develop a sustained and functional working relationship with records custodians.

Modern parcel records that can be parsed by addition/block/lot

Once racial covenants have been identified and transcribed, mapping their locations can be a daunting challenge. Mapping Prejudice uses standardized components of each lot’s physical description in order to join historical racial covenants to modern parcel maps. Mapping Prejudice has found that in most single-family subdivisions, where racial covenants are mostly commonly found, properties can generally be identified by a unique Addition-Block-Lot combination used. However, not all properties can be identified by Addition, Block and Lot. In rural or unincorporated areas, properties are often identified only by a long physical description.

Example of an Addition-Block-Lot combination:
Hill View Addition, Block 3, Lot 10

Example of a long physical description:
Commencing at an iron pipe on the South line of said Northwest Quarter of the Northwest Quarter distant 808.5 feet East of the West line of said Section Nineteen (19), thence North on a straight line parallel to and distant 808.5 feet East of the West line of said Section 19, a distance of 122.83 feet to an iron pipe, which is the point of beginning, thence continuing North on the same line a distance of 146.73 feet to an iron pipe, thence West on a straight line parallel to and distant 269.56 feet North of the South line of said Northwest Quarter of the Northwest Quarter, a distance of 200 feet to a point, thence South on a straight line a distance of 132.56 feet to a point on the South line of a private roadway; thence Easterly along the South line of said private roadway to the point of beginning, the center line of the 12-foot private roadway referred to above, being described in that certain Warranty Deed between the parties hereto, dated May 10, 1952, and filed for record in the office of the Register of Deeds, Dakota County, Minnesota, on June 18, 1952, at 3 o’clock p.m. in Book 238 of Deeds, pages 601-602.
The best ways to determine the proportion of properties that have Addition-Block-Lot combinations is to ask the county recorder or to download a modern parcel shapefile and click around to see if and how properties are identified.

If a modern parcel shapefile is available, it may store Addition, Block and Lot in separate data fields, or only in a single “physical description” or similar field. In order to successfully automate the mapping of a large portion of racial covenants, it will be necessary to extract the Addition, Block and Lot into separate data fields, if they are not already stored that way.

When attempting to automate the mapping process, it’s important to understand that no process will successfully match every covenant. The goal should be to accurately automate as many matches as possible, in order to spend as little time on manual cleanup as possible.

Willingness to do community engagement to generate volunteers

Doing community engagement work to generate volunteers to transcribe covenants is absolutely essential to replicating the work of Mapping Prejudice. Practically speaking, assembling a team of volunteers is the only way to accurately and efficiently handle the volume of transcription that is necessary to map covenants in any sizable community.

One of Mapping Prejudice’s guiding principles is that “the process is the product.” The project has embraced crowdsourcing not just as a logistical necessity. These community transcription sessions prompt much of the transformative learning about racial covenants and longer history of structural racism. Volunteers work together, share their experiences, and are put into contact with primary source documents from their own community.

While this type of community engagement and reliance on public crowdsourcing is likely new for many researchers, Mapping Prejudice has found
time and again that if projects put in the work to generate volunteers, they will come.

Commitment to open access to resulting data and maps

Zooniverse is a powerful platform for crowdsourcing. Research teams need to be cognizant that Zooniverse’s terms of service require resulting data to be publicly available in some form. Mapping Prejudice also believes on principle that this type of research, based on public records and possible only through community co-creation, should always be publicly available and shared.

It’s important to emphasize to hesitant custodians of records that this does not mean that all of their images will be public, or that this will create a new set of their full set of records out of their control. In Mapping Prejudice’s process, volunteers are only shown images that the OCR software thinks includes a racial covenant, which means that generally, over 90% of the delivered images will never be seen by anyone. And the final published data will only include confirmed racial covenants.

Lessons learned

Getting records is the hardest part

When Mapping Prejudice began in 2016, the team was focused on the technical barriers that had prevented researchers from creating comprehensive datasets of racial covenants for the last century. As the work has evolved and many of those technical challenges have been addressed, the team has realized that often the most significant barrier to this work involves access to public records.
For many reasons, Mapping Prejudice was fortunate to have begun its work in Hennepin County, Minnesota. The county’s historical property records had already been digitized, and its geospatial parcel data was well-maintained and featured mostly easy-to-parse residential lots. But most importantly, the Hennepin County Recorder, Amber Bougie, was immediately supportive of the work, proactively handed over copies of county records, and encouraged her staff to be helpful. Since then the team has learned that building a positive relationship with county officials and negotiating access to records is often the most difficult and time-consuming part of the process. For example, it took the Mapping Prejudice team—working with local researchers from the University of Wisconsin-Milwaukee—nearly three years to finally receive record images from Milwaukee County, Wisconsin. These repeated delays were rooted in the reluctance from public officials, a distracting scandal in county government, and the need to negotiate both with the county and their external records vendor for technical access. Fortunately, technical lead Michael Corey’s previous experience as a data journalist provides the team with a level of expertise in and comfort with public records access work that is unusual in a public history project.

Over the last eight years, Mapping Prejudice has developed these best practices for successfully gaining access to large troves of public records.

Expect an ongoing relationship, not a one-time transaction

Researchers should expect that they will need to be in regular contact with records custodians throughout the duration of their work. Records that are delivered are rarely complete and free of error on the first try, and researchers will surely encounter issues that stem from the unique record-keeping and historical practices from each county. Researchers should let county officials know that they will need to consult with them as the research unfolds.
Seek partnership over antagonism

Researchers will very likely need to develop an ongoing relationship with records custodians that is likely to last several years. For this reason, it’s better for everyone to approach county officials as professionals who have unique expertise in their own records, and with the assumption that they are trying to do their job to the best of their ability. Even when running into resistance, researchers should avoid the urge to quickly adopt a confrontational approach to public records access, which is likely to alienate officials whose help they will need to succeed.

Avoid a formal public records request

Mapping Prejudice uses a “Project Agreement” between the University of Minnesota Libraries and each county. See Appendix B for the boilerplate “Project Agreement” developed by University of Minnesota Libraries’ Director of Copyright and Scholarly Communication Nancy Sims. Sims wrote this agreement in consultation with the Office of General Counsel at the University of Minnesota and in conversation with attorneys representing counties in Minnesota and Wisconsin. The project has never filed a public records request, and would advise others to avoid doing so if possible. While property records are unquestionably public records, in most places the process of using formal records requests is often more time-consuming and confrontational than an agreement-based approach. Using the public records request process may also result in being charged for (at minimum) realistic production costs, and unnecessary redaction of data, which can be quite time-consuming.
No substitute for showing up

The best way to build a relationship with records custodians is in person. Offer to come in person to meetings, and members of the research team should make themselves available to speak with elected officials if it can help staff members make the case for participation. Meeting in person makes it harder for officials to say no, and putting a face to a name can help the research team and the custodian of records understand each other better.

Build relationships with both front-line staff and elected officials

Depending on the county, the position of recorder (or similar office) may be elected or may be appointed. It is important to learn about administrative and political dynamics that may affect how free or constrained the recorder’s office may be to approve an MOU on their own authority rather than requiring county board approval. Generally speaking, elected recorders have more leeway than appointed recorders, but some appointed recorders — especially officials that have held that office for a long time – also have wide leeway to act on their own. Even recorders with more authority will likely need to consult with the county attorney before agreeing to sign an MOU.

If county board approval is required, it’s important to find ways to support and not undermine county staff. If the team is already in contact with the recorder, be cognizant that reaching out to elected officials may be seen as going over their head or bringing them unwanted scrutiny. So be sure to keep the recorder informed (at minimum). If the research team has a good relationship with them, ask for their advice about who to contact and how to contact them. In cases with appointed recorders, there may also be a county executive who serves as the liaison between county staff and elected officials, who should also be in the loop.
Be sure to cultivate relationships with both top officials and front-line employees, who often are the most experienced in working with these records. They are likely to be interested in this work and may well know where at least some racial covenants will be found, so be sure to bring them into consultations.

The request may be unfamiliar, but it is reasonable

Some counties will have received one or more requests for bulk digital data, but for others, this will be the first time they have been asked for something like this. They may not know how to fill that request or may feel that such an unusual request (from their perspective) is an unwanted burden that will require a departure from their normal policies and workflows. It’s important to acknowledge those concerns and take them seriously.

Researchers should feel confident that while bulk requests might be new for an individual county, they are a very common type of data request that should be available to the public under most state’s open records laws.

Work to understand their systems and constraints

Sometimes, there are real technical barriers to fulfilling this kind of request, but generally speaking, there are usually ways to export or extract data and images from any county computer system, even if in the county’s mind it is outdated or obsolete. Counties may have their records stored on government servers, or may use an external vendor. Even when held by external vendors, the documents remain public records and should be made available.

Ask questions about how the county’s records are stored. Is there a database of historical property records? Are staff members able to see images of those records by clicking on a link inside the records system? If so, it is likely that there is a way to export that data.
County officials may also be under-resourced, and due to downsizing and privatization, there may not be anyone in house who can facilitate a custom export of data. If that is the case, it’s possible that someone at the vendor can assist. If a team is working with more than one county in a single area, county staff usually know one another and may be able to assist each other.

**Demonstrate authentic public interest**

Some counties will be excited to hear that a team wants to research racial covenants using the public’s data, and some will not. In counties where the case for doing this work is not obvious or even unwelcome for county officials, the research needs to build a coalition of community supporters. Public officials are unlikely to be convinced that they should devote public resources to supporting a research agenda unless they believe that it will serve the greater good. That’s why it is important to involve the broader community and bring in local people who see the value of this work. Public officials are most likely to be moved to collaborate if there is widespread interest in this work from their constituents.

Consider reaching out to local realtor associations, business roundtables, coalitions for racial equity, primary and secondary educators, civic clubs, and other professional organizations. Mapping Prejudice has worked deliberately to cultivate relationships and communication with the land title industry and the national professional association for property recorders, who are keen to ensure that well-meaning legislation around racial covenants does not impose untenable demands on their members.22 Many people who are interested in a more just and equitable future will readily see the value in unearthing the truth about this

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history so the community can move forward with a more authentic understanding of itself. This outreach will also lay the groundwork for the work of mobilizing volunteers to read the deeds. Once these groups are invested in the project, it will be easier to engage them as active participants in the transcription of the racial covenants. Again it is important to approach this work from a non-confrontational perspective. Getting activists to show up to protest at a meeting is unlikely to build goodwill and may encourage reluctant officials to dig in their heels.

Be patient, be persistent

Public records work is a marathon, not a sprint. Get comfortable with the idea that this may be a long-term process that will move at the speed of trust. While hopefully exceptional, it took nearly three years to get records from Milwaukee County, Wisconsin. Researchers need to start slowly and introduce themselves. Build relationships and ask a lot of questions before making a concrete ask. At the same time, even if officials are dragging their feet or say no at first, keep showing up. While it is important to be more collaborative than confrontational, it is critical to remember that these are public records, and the public has the right to access them in this way. By continuing to show up and building a broad coalition, research teams will demonstrate that this request is not going away. But it is important for research teams to keep in mind that due to the time and patience required, this work often cannot be shoehorned into university timelines and academic schedules.

If a records custodian says they cannot fulfill this request because of technical constraints, ask a lot more questions about how their systems work and what might be possible. If they argue that something is not part of the public record, politely ask them to cite an exemption to local public records laws. In almost every jurisdiction, records are presumed to be open unless there is a
specific exemption. The relevant records are likely to be available one at a time to any person who walks up to their service window, so there should be no impediment to getting more of them at once. Even if there is data that the county insists is private, most public records laws require custodians to provide access to the non-private portions of that data, either by removing some records or redactions. It can be helpful to consult with a local freedom of information organization for information about relevant laws and procedures.

The process is the product

As the Mapping Prejudice dataset expands, it will continue to transform understandings of how structural racism was built into the American urban environment. Yet the true impact of this work will be determined by the way that the data is created. Mapping Prejudice data draws so much of its power from the process of transformation experienced by its volunteers. Mapping Prejudice has made innovative use of new technology. But the more than 9,000 volunteers who have signed into Zooniverse to identify and transcribe racial covenants have communicated an important lesson. They have demonstrated that the process of coming together in a collective effort to read these racist property records was doing much of the educational work that the research team had assumed would be done by the finished dataset and visualization. These volunteers are best positioned to advance the overarching mission of Mapping Prejudice, which is to peel back the willful amnesia around these racist practices. That’s why Mapping Prejudice embraces the “Process is the Product” as a guiding principle for its work.

Mapping Prejudice is grounded in the assumption that ordinary people want to be actively involved in the creation of new knowledge and
understanding. It regards volunteers as co-creators rather than free data entry labor. Research that seeks to power social change must be co-creative. For history to do work in the world, it needs to have people outside of the university actively invested in its production. This is the reason that Mapping Prejudice has always invited community members into the generation of geospatial data, maps, and historical narratives. This praxis has illustrated the expansive pedagogical possibilities of crowdsourcing. Researchers have observed that this kind of engagement can generate “new non-institutional communities around a humanities subject, question or a topic, and in turn these communities can carry out interesting or valuable work that may go beyond what was envisaged by the research team.”

The people who transcribe racial covenants become invested in the work of documenting and dismantling structural racism. Mapping Prejudice volunteer sessions encourage participants to slow down and think about these sources. This process helps volunteers to cultivate new epistemological frameworks. The work of community co-creation builds credibility for the project findings and mobilizes participants to take action.

This co-creative work is framed by visual storytelling, which has become the main vehicle for what one scholar calls “mental transport” in this digital age. This emphasis on visual communication made Mapping Prejudice different from much of the earlier body of traditional scholarship on covenants, which employs maps and charts to illustrate deep textual analysis. Its communication strategy has been anchored by a powerful geospatial timelapse that illustrates

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how racial covenants spread across the landscape of the Twin Cities in the twentieth century. Viewers have been electrified by this visualization, which provides a transformative history lesson for people who had never heard of racial covenants. This animated map has become a powerful tool for explaining the history and operations of systemic racism in Minnesota. In less than one minute, it shows how covenants spread through the Twin Cities between 1910 and 1955, illuminating the devastating impact of these racially-restrictive deeds. The map helps the people who interact with Mapping Prejudice to make sense of this history and how it influences the current moment. It also allows volunteers to see how their contributions of time manifest in this dataset.

This visual strategy has allowed Mapping Prejudice to forge deep connections to a broad audience of community members who gave their labor to the production of the dataset and their guidance to the project team. It has sparked dialogue that demonstrated how critical it is to share the dataset while it was being created. This approach has opened doors for the team, prompting invitations from hundreds of faith organizations; civic clubs; private businesses; gatherings of state policymakers and elected officials; professional organizations; neighborhood groups; and classes. The team has made it a priority to ensure that the data was both visible and totally accessible. In addition to making it available through its website and the University of Minnesota Libraries’ repositories, it has made time for one-on-one consultations with community researchers and changemakers, and curated resources to share through community programs and tables at community events.

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27 During the years when Mapping Prejudice was funded by the National Endowment for the Humanities, project staff delivered 210 presentations, in addition to curating regular transcription sessions with volunteers.
Mapping Prejudice organizes weekly volunteer sessions that have attracted people with a rich range of experiences. High school and college students have worked alongside realtors, bankers, librarians, urban planners, and lawyers to learn how to read property records to identify racial covenants. Curious and committed people come to the sessions from civil rights organizations, community non-profits, faith groups, professional associations, and learning communities. The process of identifying racial covenants offers an opportunity for experiential learning, opening people from diverse backgrounds up for dialogue around the history of structural racism and its connection to contemporary inequalities. Participants share their reactions, which range from “I didn’t know covenants existed” and “no one ever taught us this in school” to “I am so surprised and shocked by how blatant this language is.” They describe these encounters with these racist property records as: "eye opening" and "mind-blowing." Seeing this racist language in real estate contracts reveals how “insidious” these words can be. They say that their interactions with these primary sources gave them "CONCRETE evidence of structural racism." One participant told us that “you grow up learning that it was long ago and far away - not true. I see why Minnesota is what it is.” At this time of collective distrust in scholarly expertise, this way of doing research can build a connection between researchers and the communities they serve. That’s why the Deed Machine is designed to facilitate the work of community members who document how we arrived at the place that we are today. This co-creative community work builds credibility for the project findings and mobilizes participants to take action.

The COVID pandemic forced the team to reconfigure its volunteer engagement strategy. After the lockdown, the team moved weekly transcription sessions to Zoom, which actually made these sessions more accessible and effective. Teachers in search of digital resources started using Mapping Prejudice in their classes. The website and project Zooniverse page offered an opportunity
for engaged learning in the online learning environment. Incorporating regular Zoom sessions into the outreach strategy has made it easier for the Mapping Prejudice team to create effective collaborations with research groups locally (St. Catherine University was a key partner) and in other parts of the country. In addition to sharing technical tools, platforms, and workflows, the project team can share the work of engaging local volunteers. This has opened up new opportunities for collaboration that the team could not have anticipated before the pandemic.

Mobilizing volunteers to read antiquated property records is labor intensive. It’s daunting for many researchers who are trained to value speed and easy-to-measure outputs. This focus on volunteer engagement is also confounding to those who have a singular focus on erasing disturbing language from the public record. This is why some people have questioned whether it is worth the time and the effort to involve community members in this process of historical documentation. In the last year, these doubts have been reinforced from a new quarter. New efforts to identify racial covenants in communities across the country have dovetailed with surging interest in AI, which has prompted some researchers to focus their attention on digital platforms that can eliminate human participation in this process. This has forced the team to emphasize that the PROCESS of bringing volunteers into the work is the heart of Mapping Prejudice. That’s why this work should not be automated in a way that dispenses with human volunteers.

Community co-creation requires a paradigm shift for researchers, who are forced to work against the grain of traditional research practices, which are frequently extractive. Most researchers have been conditioned to expect that they can collect information from community members without offering them full access to the resulting data or control over research products. This is especially troubling for projects that investigate structural racism, which documents harms
done to people who are not White. This data needs to be available first and foremost to the people targeted by these practices, who can use it for liberatory purposes.

Mapping Prejudice is an academic research project. Yet it is not designed to plug into the traditional system of scholarly incentives. The work requires transdisciplinary collaboration in a system driven by individual need for academic promotion. It is animated by community need rather than the ambition to make an intervention in a research subfield. It centers visual and oral storytelling. It prioritizes publicly-engaged explanations of its work over more traditional academic outputs like journal articles, focusing its attention on creating regular, accessible explanations of its work in community presentations and its website.

Conclusion

Over the last three years, Mapping Prejudice has demonstrated that it is feasible to expand its groundbreaking work to every region of the United States. The development of the Deed Machine has opened up a flood of new possibilities for identifying and mapping racial covenants in the United States. It has inspired a groundswell of interest from researchers across the country who want to document racist restrictions in their own communities. Further development of the project’s technical platform and crowdsourcing model will bolster efforts to build a national dataset of racial covenants that would allow researchers to aggregate and compare information about racist deeds in communities across the country.

Mapping Prejudice owes its success to its methodological innovations. Yet its willingness to embrace transdisciplinary, iterative, open-ended, community-engaged and unpredictable research work complicates its
sustainability. The project team has been forced to think strategically about the best home in the modern research university for work that falls outside of traditional budgeting processes and is difficult to fit into more conventional grant requests. The project has found the environment of an academic library most hospitable to its unconventional approach. Libraries have both the values and the infrastructure necessary to make co-creation a tangible praxis. They have the processes to support interdisciplinary collaboration and project management. The University of Minnesota Libraries has provided Mapping Prejudice with key infrastructure for data curation, storage, and sharing.

Mapping Prejudice has also drawn power from the professional values of librarians, who have emerged as some of the most vocal champions of a “vision of free and equitable access to knowledge as an essential aspect of the common good.”28 Higher education is currently under intense pressure to privatize, corporatize, and abandon its commitment to the creation of new knowledge. Librarians have been leaders in resistance, championing open access and new paradigms for knowledge production that honor public service. Mapping Prejudice has been able to leverage this institutional commitment to open access, baking it into every aspect of its work. The project team has noted elsewhere that while academic librarians often support faculty and researchers, "projects like this allow space for community-engaged research and data creation that originates in the library" and also "deepen the library connection to the community and opens up new avenues of collaboration."29 Research projects like Mapping Prejudice have the potential to reposition libraries as drivers of research that is legible and valued by funders and the broader public. Librarians are

uniquely situated to serve as a bridge between public institutions of higher education and the communities they are mission-bound to serve.

While Mapping Prejudice has concluded that an academic library is the best incubator for this kind of public history work, the project team is cognizant that libraries are under siege from many directions. Academic libraries are grappling with some of the most intense budgeting pressures in higher education. These trends have been tracked over the last 20 years by the Association of Research Libraries, which has created visualizations that demonstrate how resources of academic libraries have been drained by corporate publishers and administrators working to plug catastrophic campus deficits. Over the last 20 years, staffing levels have fallen in tandem with exponential increases in the cost of collections.\(^3\) The University of Minnesota is not an outlier on this national arc. In this same period, the University of Minnesota Libraries have been awarded an ever smaller percentage of the overall budget of the University, which has shrunk Libraries’ share by 16 percent.\(^4\)

Mapping Prejudice began in a watershed moment for Minnesota, creating data and visualizations that fueled intense soul-searching as the Twin Cities found itself at the epicenter of global protest against racial injustice. In the intervening years, the urgency of this work has intensified. Requests for presentations, educational resources, collaborations, and additional maps that incorporate historical, environmental, social, narrative, and other data continue to climb. This burgeoning interest in the history of structural racism has developed in tandem with a frontal assault on the humanities. Activists on the

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\(^4\) University of Minnesota Financial Statements.
right are working to ban books as well as any discussions of painful histories, structural racism, and critical race theory. These attacks are grounded in larger campaigns against the institutions that support humanities research, namely libraries and universities. These institutions were already struggling to regain their footing in the wake of a massive loss of public support, as Americans have called into question the value of the humanities and the research and education provided by colleges and universities.

Fresh courage and creativity will be required to support co-creative projects like Mapping Prejudice in the future. Administrators will need to be willing to take chances and give staff resources to experiment. Community members must be willing to advocate for collective examinations of structural racism, pushing local governments to collaborate with research teams. Academic leaders within university departments will have to find inspiration to devise new alliances that breach traditional administrative divides. And researchers must learn to make their work legible to the broader community they are mission-bound to serve. While this may seem a tall order in this moment of exhaustion and widespread institutional crises, the success of Mapping Prejudice demonstrates that it can be done. As Kathleen Fitzpatrick has argued in Generous Thinking, inviting community members into the creation of new knowledge is not an altruistic gesture. It is imperative for the survival of research institutions, which draw their energy from the active participation of public constituents. For those of us who have embraced a humanities vocation, it is not so much a choice but rather the logical expression of our commitment to this discipline, which is intended to help humans recognize the “responsibility each of us bears toward one another.”

32 Kathleen Fitzpatrick, Generous Thinking: A Radical Approach to Saving the University (Baltimore: Johns Hopkins University Press, 2019): 69.
Appendix A: racial covenants search terms

Here is a list of search terms that the Deed Machine uses to flag potential racial covenants for review by volunteers. Please note the extra spaces, which are used to avoid matching innocuous words, for example to avoid the name “Maryann” matching the term “aryan.” Also note the intentional misspellings, since terms are often misspelled in historical records and to address some OCR errors.

'african',
'armenian',
'aryan',
'caucasian',
'cau-casian',
'cauca-sian',
'caucasian',
'cau-casian',
'cauca-sian',
'caucasian',
'chinese',
'colored',
'domestic servants',
'ethiopian',
'hebrew',
'hindu',
'indian',
'irish',
'italian',
'japanese',
'jew',
'jewish',
'malay',
'mexican',
'mongolian',
'moorish',
'mulatto',
'nationality',
'not white',
'negro',
'occupied by any',
'persian',
'person not of',
'persons not of',
'polish',
'rational',
'semetic',
'semitic',
'simitic',
'syrian',
'turkish',
'white race'

Discontinued terms

These terms were used in earlier workflows, but have proven to be poor predictors of covenants that overwhelmingly generate false positives.

'alien',
'citizen'

Exception terms

These are used to flag death certificates and military discharges, document types that we don’t want to show to volunteers that often appear in property records, particularly in “miscellaneous” documents.

'death certificate',
'certificate of death',
'date of death',
'report of transfer',
'report of separation',
'transfer or discharge',
'blood group'
Appendix B: Sample Project Agreement

Mapping Prejudice Project Agreement
Between the University of Minnesota's Libraries and XXXX County

This Agreement ("Agreement") sets out the terms, rights, duties, obligations and understanding between the Regents of the University of Minnesota, a Minnesota constitutional corporation, acting through its University Libraries (the "University of Minnesota Libraries"), on behalf of the Mapping Prejudice Project, and XXXX County ("XXXX County"), a political subdivision of the State of XXXX, on behalf of the XXXX County Register of Deeds Office ("County Office").

Background
The University of Minnesota Libraries is undertaking an effort to identify restrictive covenants associated with real property in the region, and to publicly share data about them as extracted from public records, which they have named Mapping Prejudice (the "Project").

Term and Definitions
This Agreement shall commence on {DATE} and shall expire on {DATE}, unless terminated earlier in accordance with the terms herein.

Pursuant to the terms herein, XXXX County shall provide The University of Minnesota Libraries with images of relevant property records ("Records Images") covering the time period between {YEAR1} and {YEAR2}, in an agreed-upon file format. These images may include deeds, Torrens certificates, agreements, restrictions, plat maps, and other relevant miscellaneous or unindexed documents. Further, the term "Records Images" shall include any subset, portion, piece, view, duplication, copy, or sampling of said images of documents.

References herein to the University of Minnesota Libraries shall include all University of Minnesota Libraries personnel with access to the Records Images including but not limited to the University of Minnesota Libraries' employees, directors, officers, subcontractors, partners, volunteers and all other agents and representatives that may have access to the Records Images or that may participate in or perform services related to the Project on behalf of the University of Minnesota Libraries (said individuals may, collectively or individually, be referred to as "Personnel").

Obligations & Conditions
Subject to the terms herein, XXXX County acknowledges that the University of Minnesota Libraries will make use of the Records Images for the Project during the term of this Agreement. XXXX County agrees to waive any and all claims against the University of Minnesota related to copyright in the Records Images.

The University of Minnesota Libraries shall extract substantive information from the Records Images using Optical Character Recognition ("OCR") technology, and other methods, including but not limited to human review.

Access to the aggregated Records Images shall be restricted to University of Minnesota Libraries Personnel that need access for the purpose of the Project. Prior to receiving any Records Images, University of Minnesota Libraries shall advise any Personnel that may have access to the Records Images.
Images about the obligations imposed by this Agreement. The University of Minnesota Libraries shall not use, disclose, further develop, sell, market, distribute or otherwise make available the Records Images for any use or purpose other than the Project except as required by law or with the County Office's express written consent.

Regardless of any other clauses herein, the parties recognize that the University of Minnesota Libraries and associated researchers will make occasional use of individual Records Images for educational, illustrative, didactic, or other similar purposes. Such uses may continue subsequent to the term of this Agreement. Despite the expectation of occasional use of individual images, the University of Minnesota Libraries agrees not to provide systematic access to multiple or aggregated Records Images to anyone not covered as Personnel, as defined above.

The University of Minnesota Libraries will regularly provide public updates via its project website as to any uses of the Records Images.

Technological assistance by the County Office is limited to the extraction and delivery of the Records Images through physical media. The University of Minnesota Libraries acknowledge that Records Images are provided by XXXX County as-is, and without warranties.

The parties shall abide by the provisions of all applicable state and federal laws, rules, regulations and orders relating to data privacy or confidentiality.

Nothing in this Agreement is intended to convey, nor shall be construed as conveying, to the University of Minnesota Libraries, either expressly or by implication, any right, title or interest in any Records Images including but not limited to any copyright, trade secret or other right, whether intellectual or otherwise. Similarly, nothing in this Agreement is intended to nor shall be construed as limiting any rights of the University of Minnesota Libraries, or associated researchers to make use of the images and information contained therein as provided by existing state and federal law, nor of the public to make use of the information publicly shared as a result of this Project as provided by law.

Funds
This Agreement is not a commitment of funds of either party and there is no cost associated with the County Office providing the Records Images. For clarification and not limitation, neither party shall pay the other party any amount for the services performed by the party in fulfillment of its obligations hereunder.

Liability
Each party shall be responsible for their own acts and omissions and the results thereof to the extent authorized by law. As applicable, XXXX County's liability is governed by the provisions of Minnesota Statutes, Chapter 466.

Suspension, Termination and Amendment
This Agreement may be canceled/terminated with or without cause by either party upon thirty (30) day written notice.

Upon expiration of this Agreement or upon termination of this Agreement for any reason, the University of Minnesota Libraries shall delete, destroy and remove all aggregated Records Images in the University of Minnesota Libraries’ possession or control.
At all times during the term of this Agreement, and subsequent to expiration or any termination, the University of Minnesota Libraries and associated researchers may retain and continue to use individual images as outlined above, and will continue to retain and use substantive data extracted from the Records Images without limitation or restriction.

Any alterations, variations, modifications or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing as an amendment to this Agreement signed by the parties hereto.

Contact Information

{County Contact Information}

Mapping Prejudice - University of Minnesota Libraries
Michael Corey
{MP Contact Information}

XXXXX COUNTY

_______________________________________            __________________
{NAME}                                                 {DATE}   
{Title}

UNIVERSITY OF MINNESOTA

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Lisa German                                             {DATE}         
University Librarian
Appendix C: Sample Project Partnership Shared Expectations

1. Background

The University of Minnesota Libraries ("the Libraries") is undertaking an effort to identify restrictive covenants associated with real property, and to publicly share data about them as extracted from public records, which they have named Mapping Prejudice ("MP").

[Partner Organization ("Partner")] and MP wish to collaborate on research, education, and other related collaborative work around mapping restrictive covenants in real property deeds.

This document outlines the shared expectations of MP and Partner (together, "the Collaborators") for this collaborative effort ("the Collaboration").

2. Shared Responsibilities

- This Collaboration will begin on [Date] and end on [Date]. The Collaboration may be extended beyond this time if the Collaborators mutually agree.
- The Collaboration may be ended early if either Collaborator wishes to withdraw, and gives the other Collaborator 30 days' notice using their usual means of communications.
- These Shared Expectations extend to all individuals working on the Collaboration, and both Collaborators will make sure that all such individuals are aware of the Shared Expectations.
- The expectations outlined in sections 5 and 6 will extend beyond the time of the Collaboration.

3. Collaboration Phases & Responsibilities

The phases below may proceed in parallel at times. For each phase, the responsible collaborator (MP or Partner ("PO") or both) is indicated.

PHASE 1

A. Obtain Deeds

- Draft and sign an MOU with the appropriate county office [MP + PO]
- Transfer digitized property records from county to MP servers [MP]

B. Digital Processing of Deeds

- Convert images to text using optical character recognition (OCR) [MP]
- Use python and AWS scripts to flag racial language in property deeds [MP]
- Reformat/process flagged images to meet Zooniverse "subject set" conventions [MP]
A. Zooniverse Technical

- Build Zooniverse county workflow under MP main Zooniverse page [MP + PO]
- Upload flagged deeds to the MP Zooniverse page and connect them to county workflow [MP]

B. Community Workshops and Training Sessions

- MP will highlight deeds from geographies across the country in its regularly-scheduled online transcription sessions; Partner deeds will be featured periodically during the partnership. [MP]
- MP expects that partner organizations will consult with the MP team to learn best practices for transcription sessions to ensure project integrity and data quality. [MP + PO]
- As part of its community engagement strategies, the partner organization may decide to do any or all of the following:
  - Additional transcription sessions, live or virtual [PO]
  - Hold community workshops on racial covenants to recruit citizen researchers [PO]
  - Visit high school and college classes to recruit citizen researchers [PO]
  - Develop social media to recruit citizen researchers [PO]
  - Develop website to share stories/maps/events with community [PO]

PHASE 3

A. Data Cleaning and GIS

- Process Zooniverse export data into consensus answers in MP deed machine [MP]
- Clean non-auto-joining property data in MP deed machine to match county specific naming conventions [PO]
- Edit spatial data in instances where the historic property records do not match contemporary parcel boundaries [PO]
- Export spreadsheet, shapefile and geoJSON exports of mapped covenant data [MP]

B. Interactive, collaborative mapping

- Add covenant data to DRUM repository at UMN and Github [MP]
- Create a hosted ArcGIS feature layer of covenant data that can be used in internal and external online mapping applications [MP or PO]
- Add link to PO website if applicable [MP]
- Create interactive map of covenants on PO website if applicable [PO]

[4. Additional Collaboration Responsibilities]

[Description of any additional work to be done by the Mapping Prejudice team (MP) and the partner organization (PO).] These are contextual tasks that help add meaning to the covenants map and further engage community stakeholders but are not critical to the task of identifying and mapping racial covenants.

A. Documentation of the urban racial context

- Compilation and analysis of historical census data on race, 1910-1970 [PO]
5. Collaboration Output

- No materials produced by or for this Collaboration will be subject to individual ownership or control by any individual contributor or Collaborator, except:
  - Academic publications related to the Collaborators, authored by individual contributors (solo, or with other collaborators) will be the property of their individual authors in alignment with relevant institutional policies.
  - Some materials may be appropriately credited to individual contributors. All contributors agree to maintain such credits as intact as is possible in any subsequent uses. (Credit does not imply ownership or an ability to exercise unitary control.)
- All copyrightable materials produced and publicly shared as part of the Collaboration shall be released with an open license (Creative Commons BY-NC) for text, images, videos, and other creative content; MIT License for code.
- Any new data generated via the Collaboration shall be considered to be subject to a Creative Commons CC 0 waiver if the data is ineligible for copyright protection, or a Creative Commons CC BY-NC license if the data is arranged or selected in such a way as to give rise to copyright eligibility. This reflects principles and values expressed in the University of Minnesota Libraries Open Sharing Policy.
- Any ideas, concepts, procedures, processes, practices, or methods developed within the project shall be considered the joint property of the Collaborators and shall not be developed for proprietary or exclusive use or commercialization. To the extent possible, all such materials will be made available for broad use by the public.
- As with some of the copyrightable content mentioned above, credit to individual contributors may be appropriate for some ideas, methods, etc. All contributors agree to maintain such credits as clearly as is possible in any subsequent uses.

6. Limitations

- This Collaboration is not a commitment of funds of either party and there is no cost associated with the Collaboration. For clarification and not limitation, neither Collaborator shall pay the other any amount for the services performed as part of this collaborative work.
- Each Collaborator shall be responsible for their own acts and omissions and the results thereof to the extent authorized by law, and not for those of the other Collaborator. The Collaborators agree to comply with all applicable laws, rules, and regulations.
- These expectations can be altered if both Collaborators agree.
Appendix D: Sample racial covenants

In the proposal for “Mapping Racial Covenants in the United States: A Technical Toolkit,” Mapping Prejudice outlined its plan to sample deeds from four separate communities that it would use to revamp its digital tools and workflows. The team ultimately surpassed this initial goal and has acquired deeds from nine counties (in addition to Hennepin County) to date. This appendix includes examples from three of the four counties specified in its initial work plan. These documents from Ramsey County, Minnesota; Milwaukee County, Wisconsin; Essex County, Massachusetts; and Washington D.C. illustrate how the format of property records varies by place and over time. This is one of the major challenges that has long vexed researchers trying to enumerate covenants. Mapping Prejudice was unable to acquire deeds from Orange County, California, which was one of the communities named in the original grant text.
Example from Ramsey County, Minnesota.
Example from Milwaukee County, Wisconsin.
Example from Essex County, Massachusetts
To The Recorder of Deeds
Washington, D.C.

Silas Shelton, et ux

No. 47

Deed
Recorded Jan. 4th, 1927

Frank W. Sampalik, et ux

This Deed Made this 3rd day of January in the year one thousand nine hundred and twenty-seven, by and between Silas Shelton and Yulce V. Shelton, his wife, as joint tenants, both of the District of Columbia, parties of the first part, and Frank W. Sampalik and Lillian Sampalik, his wife, both of said District, parties of the second part:

Witnesseth, That in consideration of Ten Dollars, the parties of the first part do hereby grant unto the parties of the second part, in fee simple, as tenants by the entirety, all that piece or parcel of land, together with the improvements, rights, privileges, and appurtenances to the same belonging, situate in the District of Columbia, described as follows, to wit: Lot numbered One Hundred and Twenty-eight (128) in Joseph Paul's Subdivision of lots in Square numbered Twenty-five (25) in Stellwagon and Edmonton, Trustees' Subdivision known as "Addition to La Droit Park", as per plat of first mentioned subdivision recorded in the Office of the Surveyor for the District of Columbia in Liber County 20 at Folio 26; subject to the covenants that said lot shall never be rented, leased, sold, transferred or conveyed to any negro or colored person under a penalty of $2,000.00 which shall be a lien against said property, that no building or structure other than bay windows or porches shall be erected or constructed beyond a line drawn 5 feet North of and parallel with the North building line of Adams Street, as now established and that bay windows and porches shall in all things conform to the regulations governing buildings beyond building lines within the City of Washington, said covenants to run with the land.

And the said parties of the first part covenant that they will warrant specially the property hereby conveyed; and that they will execute such further assurances of said land as may be requisite.

Witness their hands and seals the day and year hereinafter written.

In presence of

Silas Shelton (Seal)

Yulce V. Shelton (Seal)

Henry Gilligan
Notary Public, D. C.
Bibliography


“Mapping Racism Resistance |.” Accessed March 25, 2024. [https://sites.uwm.edu/mappingracismresistance/](https://sites.uwm.edu/mappingracismresistance/).


