

# The Lionel Pincus and Princess Firyal Map Division: Expanding Access through Transformative Projects at the New York Public Library

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THE LIONEL PINCUS AND PRINCESS FIRYAL MAP DIVISION is the primary cartographic collection in the Stephen A. Schwarzman Building (Figure 1), one of four research libraries in the New York Public Library system. With origins reaching back to the formation of the research library at the end of the 19<sup>th</sup> century, the Map Division is a quintessential New York institution: its collections have been formed by the intellectual, political, artistic, and ethnic elements of the city's history. As such, it is the documentation of the city's growth and development over the centuries that comprise the driving force behind our collection development strategy and our digital strategy.

An early historian of the library describes the primary purpose of the Division to be that of "building the collection to secure maps which will help solve the everyday problems of the reading public" (Brown 1941, 253). While fulfilling this aim is admittedly a moving target, the Map

Division, its collections, staff, and programming have kept pace of trends and transformations in research and in addressing the needs of its community of researchers. Currently, the holdings stand at approximately 433,000 maps; 28,000 atlases; gazetteers and monographs; globes; and a good deal of odds and ends, such as jigsaw puzzles, postcards, magnets and other "carti-facts." While some pieces in the collection date back to the late 1500s, the bulk of the collection starts in the mid-17<sup>th</sup> century and continues to the present day. This enormous range of materials runs the gamut, from treasures of the golden age of Dutch cartography, such as Blaeu's *Atlas Maior* (Figure 2), to the city's most recent bicycling map. Historically, the Division has collected cartographic material on the global to local scale, with our deepest collections being those



**Figure 1.** Lionel Pincus and Princess Firyal Map Division Reading Room at the Stephen A. Schwarzman Building.



**Figure 2.** "Nova Belgica et Anglia Nova." 1662. From Joan Blaeu's *Atlas maior, sive, Cosmographia Blaviana*.  
[digitalcollections.nypl.org/items/510d47da-ef37-a3d9-e040-e00a18064a99](https://digitalcollections.nypl.org/items/510d47da-ef37-a3d9-e040-e00a18064a99).



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materials covering the areas of the United States, the Mid-Atlantic states, and New York City. Recently, the Division has fine-tuned its collection development policy: while renewing our commitment to complete global coverage at

a scale of 1:250,000, we began to focus most of our acquisition activities on contemporary and historical collections that build upon our rich holdings of local historical cartographic materials.

## BRINGING THE COLLECTIONS ONLINE: AN EVOLVING DIGITAL STRATEGY —

THE NEW YORK PUBLIC LIBRARY is justifiably proud of the complete accessibility of its historical collections; its holdings are open to all members of the public with an interest in research, regardless of institutional affiliation,

or lack thereof. For the first ninety years of its existence, one merely needed to show up and speak to a librarian to access the map collections. With the inception of the library's digitization program in the late 1990s however,



**Figure 3.** A map from the Slaughter Collection: *Virginia, Marylandia et Carolina in America septentrionali Britannorum industria excoltae / repraesentatae à Ioh. Bapt. Homann, S.C.M. Geog. 1714-1730[?]*. [digitalcollections.nypl.org/items/510d47da-eeab-a3d9-e040-e00a18064a99](https://digitalcollections.nypl.org/items/510d47da-eeab-a3d9-e040-e00a18064a99).





**Figure 4.** "Plate 10: Map bounded by Chatham Street, James Street, South Street, Dover Street, Franklin Square, Frankfort Street, Fose Street, Duane Street." William Perris, 1857. [digitalcollections.nypl.org/items/510d47e0-bf3f-a3d9-e040-e00a18064a99](https://digitalcollections.nypl.org/items/510d47e0-bf3f-a3d9-e040-e00a18064a99).

even this lightest of requirements, that of being physically present, began to diminish in importance. Then as now, our digitization efforts were primarily grant funded and our early scanning projects served to bring unique and heavily accessed collections online, such as the stunning Lawrence H. Slaughter collection of English maps and atlases (Figure 3) and thousands of sheets from our fire insurance and county atlases of New York and New Jersey (Figure 4). Bringing the collections online not only allowed us to exponentially expand access to meet the expectations of our researchers, it also set the stage for further public engagement and reuse of these digital assets.

After nearly a decade of scanning maps and placing the images online for perusal, the library began to develop a more comprehensive and researcher-focused digital strategy. The Map Division, led by former curator and

Geospatial Librarian Matt Knutzen, and supported by the NYPL Labs department ([nypl.org/collections/labs](https://nypl.org/collections/labs)), began to understand digitization not as an end, nor solely a means to bring the collections to remote users, but as the first step in a process that would allow for new forms of user interaction with digital maps (Vershbow 2013). We began to see ways to generate entirely new pathways to the information embedded in maps. Our ambitions coalesced in the idea of creating a historical gazetteer of New York, a tool that could be described as a kind of Google Maps for exploring the city's history. This atlas would enable the user to query and engage with historical maps of New York City, exploring the institutions and businesses that existed in it, tracking its changing infrastructure, and meeting the people that lived in the city at different points in time. This idea provided the framework within which subsequent public-facing mapping tools and projects took



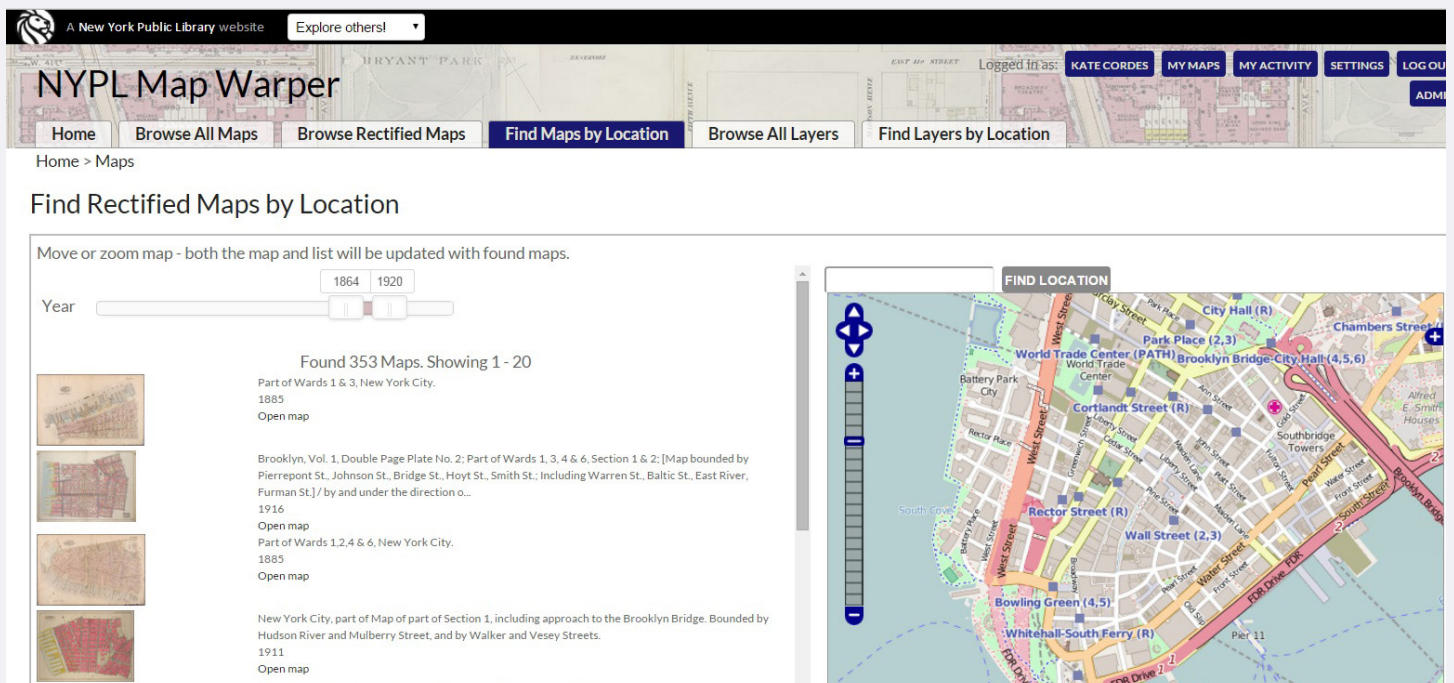
form and has since shaped our cataloging, processing, and digitization work in recent years.

The first step in this strategy was to build up our digital map content, focusing on the most heavily requested public domain collections, namely our maps of New York City. Through successive grants, the library scanned nearly 15,000 sheets from our New York and New Jersey collections of maps and atlases, including fire insurance atlases, farm maps, transit maps, and nautical charts (Figure 5). At the same time, the Division developed a public-facing tool called the Map Warper ([maps.nypl.org/warper](https://maps.nypl.org/warper); Figure 6) that facilitated geographic access to these digital images through a process called georectification. In this process, staff and volunteers, with a few clicks, could align a digital image of an historical map with coordinates on a contemporary digital map. This work transformed static image files into geographically accurate historical maps. Taken together, they formed a series of historical base maps for New York City, covering centuries of urban life and development. These maps, transformed by the Warper's tools, would provide the foundation for the historical atlas and gazetteer.

After the initial launch of the Map Warper in 2010, the library began to incorporate new processes into its suite of tools, specifically cropping and tracing. The first of these actions served to rid the rectified map of its marginalia



**Figure 5.** “Map of the Borough of Brooklyn showing location of racial colonies.” 1920. [digitalcollections.nypl.org/items/ff3b6210-d2ad-012f-97ad-58d385a7bbd0](https://digitalcollections.nypl.org/items/ff3b6210-d2ad-012f-97ad-58d385a7bbd0).



**Figure 6.** Map Warper screenshot, [maps.nypl.org](https://maps.nypl.org).



and non-cartographic information, while the second served to extract data, such as building footprints on property maps. A few years later, the data extraction process was given a tremendous boost when the NYPL Labs team developed the means to automate the labor-intensive tracing task, and launched the “Building Inspector” site in the fall of 2013 ([buildinginspector.nypl.org](http://buildinginspector.nypl.org)). This tool focuses the user’s energy on cleaning up the automated tracing work, extracting address information and other building data, and transcribing the names of the thousands of business, church, and institutional names, the majority of which have changed many times over (Figure 7).

In 2014, an award from the Knight Foundation provided the funding necessary to jumpstart the historical atlas and gazetteer project, which is now called the NYC Space/Time Directory ([spacetime.nypl.org](http://spacetime.nypl.org); Figure 8). Though today the project is still in its infancy, within a few years this searchable atlas will incorporate our georectified historical map collections and the data that thousands of online volunteers have extracted from those maps, such as defunct business names, shuttered restaurants, and locations of paved-over streams and creeks. The possible uses of this research portal are numerous. Through the Space/Time Directory, users will be able to rediscover place names long since erased from living memory, search for Roman Catholic churches in early 20<sup>th</sup> century Brooklyn, locate Gilded Age hotels on actual maps produced during the late 19<sup>th</sup> century, or call up an image of all the small cemeteries scattered throughout Queens County in 1900. Beyond the massive amounts of data extracted from maps, the Space/Time directory aims to incorporate other historical collections from the research library, materials that have some geocodable elements in them, from photographs of buildings, to menus, and institutional records in our archives. Our goal is to

provide researchers with a temporally and spatially accessible catalog—one that would allow a genealogist to search for all the Catholic churches within one mile of an ancestor’s house, and then to pull up the catalog record and links to archival records for that church. Similarly, a historic preservationist could review property maps of a particular block, then pull up photographs of the buildings and other records regarding the neighborhood’s history that the library might have in its collections.

The Space/Time directory is at its heart a mapping tool—one that was built and developed around the Division’s cartographic collections. It has taken us beyond the physical transaction of delivering maps and atlases in the reading room, to the digitization of maps, through the extraction



Figure 7. Building Inspector screenshot, [buildinginspector.nypl.org](http://buildinginspector.nypl.org).

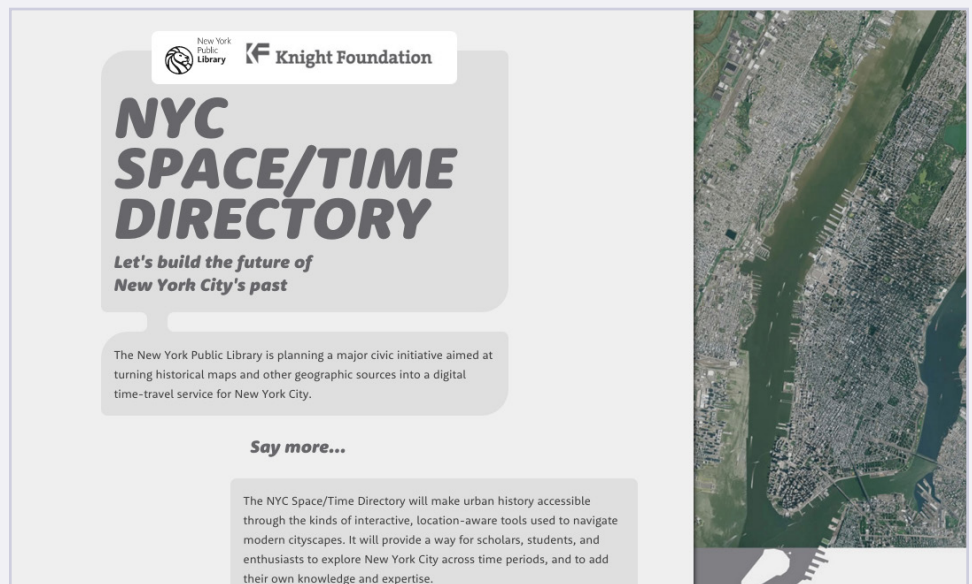


Figure 8. Space/Time Directory screenshot, [spacetime.nypl.org](http://spacetime.nypl.org).

of place-based data, and towards an open-source platform that will facilitate new discoveries and will reveal an entirely new historical and geographic context for the New York Public Library's collections. Our hope and our guiding principle remains that of our predecessors: to assist our

"reading public" with their research needs by providing an innovative and intuitive portal for navigating and accessing historical collections and data sets by means of a familiar interface: the map search.

## GRANTS

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2009. New York City Historical Geographic Information Systems. NEH, PW-50717-10.

2014. Mapping the Nation 1568–1899. NEH, PW-228237-15.

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