SPATIAL HISTORY OF NINETEENTH-CENTURY NEW YORK CITY

Course Information

Course number:	HIST BC2405
Course credits:	Lecture (4.5 credits) & lab (0 credit)
Prerequisites:	None
Cap:	25 students
Instructor:	Gergely Baics
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Office hours:	TBA

Course Description (short)

Spatial history of New York City in the 19th century. Students explore key topics in New York City spatial history in lectures, and learn historical-GIS skills in a co-requisite lab (instead of a discussion section). They will use newly constructed GIS data from the Mapping Historical New York project, and conduct spatial history assignments.

Course Description (long)

This course builds on "Mapping Historical New York: A Digital Atlas," a public-facing spatial history project developed by the Center for Spatial Research (GSAPP) and the Department of History at Columbia University. The course has two objectives. Thematically, it introduces students to key developments and debates in 19th-century New York City spatial history. Lectures and readings explore a range of relevant topics including urban form, built environment, land use; the creation of 19th-century socio-spatial knowledge via surveys and maps; the geography of public health; the formation of ethnic, racial, and class neighborhoods. Methodologically, the course approaches these topics through the lens of historical GIS (geographic information systems). Students therefore also enroll in a co-requisite lab (instead of a discussions section) to acquire technical skills of GIS research. They learn how to work with spatial data, create GIS maps, and conduct spatial historical analysis. In a series of assignments, they create their own maps and conduct spatial analyses on the built and social environment of 19th-century New York, using the "Mapping HNY" project's newly constructed, high-quality geocoded census data for Manhattan and Brooklyn in 1850, 1880, 1910. The course is open to all undergraduates. Previous GIS knowledge is not needed. Students enrolling in the lecture (4.5 credits) must also enroll in a co-requisite lab (0 credit).

Learning Objectives

Students who complete this class will:

- Acquire solid knowledge of the history of New York City in the 19th century, focusing on spatial history.
- Demonstrate critical understanding of urban spatial historical analysis, in particular, historical-GIS research.

- Conduct original mapping analysis by acquiring technical skills of historical-GIS, and applying those to historical built environment data and recently published geocoded census microdata.
- Demonstrate interdisciplinary thinking by engaging with the ongoing dialogue between history and the social sciences, especially geography.
- Develop written, visual, and oral communication skills through weekly labs and spatial history assignments.
- Apply key techniques of spatial historical analysis, including formulating historically grounded questions, working with relevant GIS data, and developing historical arguments in short mapping and writing assignments.

Course Assignments & Grading
(Students must complete ALL assignments to pass this course)
Four Mapping & Blog Post Assignments (10% each)

Students will complete four short "mapping and blog post" assignments (consisting of a few maps and 3-4 paragraphs of written analysis), in which they practice specific GIS skills, create new maps, and briefly explain the specific points and methodological choices they have made. Students are encouraged to use this assignment to experiment with the new methods they have learned in the lab. They are also encouraged to read and comment on each other's posts. Each "mapping and blog post" assignment comprises 10% of the final grade. For setting up your Columbia blog, visit http://blogs.cuit.columbia.edu.

Schedule
Assignment #1: Manhattan Grid and Urban Growth Patterns (due Sunday of week 4)
Assignment #2: Tracing the Built Environment (due Sunday of week 5)
Assignment #4: Public Health Thematic Map (due Sunday of week 9)
Assignment #5: Socio-Spatial Patterns by Subgroup (due Sunday of week 12)

Two Case Study Assignments (15% each)

Students will prepare two case studies on the model of the "stories" functionality of the "Mapping HNY" website. The first case study (due on week 7) will focus on form and built environment; the second (due on week 14) on social environment. Students will work in pairs to develop their case studies based on their interests using "Mapping HNY" resources. They are also welcome to incorporate maps prepared in the labs as well as outside materials. On weeks 7 and 14 each pair will present their case study to the class (c. 10 mins per presentation, 7-10 slides). Each case study comprises 15% of the final grade.

Schedule
Assignment #3: Built Environment Case-Studies (presentations in class on week 7; finalized slides due on Sunday)
Assignment #6: Social Environment Case-Studies (presentations in class on week 14; finalized slides due on Sunday)

Spatial History Final Essays (20%)

The final for this class will be a take-home essay assignment, consisting of open-ended questions on topics of 19th-century New York City spatial history covered during the semester. Students

will need to write on two essays out of four options. For each essay, they need to prepare a few GIS maps using "Mapping HNY" data, and write a brief spatial historical analysis (circa 1,000 words in length) based on the maps. Students will have three days to complete their essays. The final essay assignment comprises 20% of the final grade.

Schedule
#7: Spatial History Final Essays (completion time: 3 days; due on official exam date for class)

Participation (10%)
Students are expected to come to each lecture and lab well-prepared: having completed the assigned materials, and with thoughtful questions and well-reasoned arguments about them. Active class participation—including in lectures, labs, field trips, workshops, presentations, blog posts, etc.— comprises 10% of the final grade.

Attendance
Participation is crucial to succeeding in this class. Attending lectures and labs is the first step to participating. If you are absent from class (excused or unexcused), contact me for alternative ways to participate in the lesson you missed.

Readings
Materials for this class come from articles, book chapters, websites, and data sources. All of the materials will be made available on Canvas in PDF and in ArcGIS Pro via My Groups and ArcGIS Online. You are responsible for accessing all course materials. Please note: changes to the syllabus may be made via email or announcement in class. You will be responsible for any such changes.

Zoom Etiquette
This course is in person. Still, it is possible that at some point(s) in the semester we will need to switch to remote instruction, or that due to a Covid-related illness or isolation, members of our class cannot attend in person, and therefore we need to incorporate a hybrid format. We will do our best to make accommodations so that everyone can fully participate. It is important that if/when we switch to online instruction, we abide by common "house rules." After two years of online instruction, there is no need to detail such rules. Basically, I ask that you treat the Zoom sessions as you would treat in-person classes.

Honor code
We will follow as a guide both the Columbia College and Barnard College Honor Codes.

Barnard College
Established 1912, updated 2016, the Code states:
"We, the students of Barnard College, resolve to uphold the honor of the College by engaging with integrity in all of our academic pursuits. We affirm that academic integrity is the honorable creation and presentation of our own work. We acknowledge that it is our responsibility to seek clarification of proper forms of collaboration and use of academic resources in all assignments or exams. We consider academic integrity to include the proper use and care for all print, electronic, or other academic resources. We will respect the rights of others to engage in pursuit of learning in order to

uphold our commitment to honor. We pledge to do all that is in our power to create a spirit of honesty and honor for its own sake."

Columbia College
The Columbia College Student Council, on behalf of the whole student body, has resolved that maintaining academic integrity is the preserve of all members of our intellectual community – including and especially students. As a consequence, all Columbia College students will now make the following pledge:

"We, the undergraduate students of Columbia University, hereby pledge to value the integrity of our ideas and the ideas of others by honestly presenting our work, respecting authorship, and striving not simply for answers but for understanding in the pursuit of our common scholastic goals. In this way, we seek to build an academic community governed by our collective efforts, diligence, and Code of Honor."

In addition, all Columbia College students are committed to the following honor code:

"I affirm that I will not plagiarize, use unauthorized materials, or give or receive illegitimate help on assignments, papers, or examinations. I will also uphold equity and honesty in the evaluation of my work and the work of others. I do so to sustain a community built around this Code of Honor."

Wellness statement from Committee on Instruction

It is important for undergraduates to recognize and identify the different pressures, burdens, and stressors you may be facing, whether personal, emotional, physical, financial, mental, or academic. We as a community urge you to make yourself—your own health, sanity, and wellness—your priority throughout this term and your career here. Sleep, exercise, and eating well can all be a part of a healthy regimen to cope with stress. Resources exist to support you in several sectors of your life, and we encourage you to make use of them. Should you have any questions about navigating these resources, please visit these sites:

- http://barnard.edu/primarycare
- http://barnard.edu/counseling
- http://barnard.edu/wellwoman/about
- Stressbusters Support Network

Disability Support Services

If you are a student with a disability and have a DS-certified Accommodation Letter please let us know to confirm your accommodation needs. If you believe that you might have a disability that requires accommodation, you should contact Disabilities Services:
Barnard: https://barnard.edu/disabilityservices
Columbia: https://health.columbia.edu/content/disability-services

SYLLABUS & SCHEDULE
(Subject to Change)

INTRODUCTION
Week 1
Lecture 1   *Course Introduction*

- Gergely Baics, Wright Kennedy, Rebecca Kobrin, Laura Kurgan, Leah Meisterlin, Dan Miller, and Mae Ngai, "Mapping Historical New York: A Digital Atlas" (Columbia University, 2021). [Explore website, watch launch video]

Lab 1   *What is Spatial History?*

- Read: Ian N. Gregory and Alistair Geddes, *Toward Spatial Humanities: Historical GIS and Spatial History* (Indiana UP, 2014), ix–xix.

PART I: FORM & BUILT ENVIRONMENT
Week 2
Lecture 2   *New York's Rise in the U.S. Urban System #1, 17-18th Centuries*

- Jacob Price, "Economic Function and the Growth of American Port Towns in the Eighteenth Century," *Perspectives in American History* 8 (1974), 121-186.
- Sam Bass Warner & Andrew Whittemore, *American Urban Form: A Representative History* (MIT Press, 2013), 1-29.
- "Welikia Project" [Watch Sanderson's TED talk; use map explorer; explore Mannahatta features on Oasis Map]

Lecture 3   *New York's Rise in the U.S. Urban System #2, 1790-1860*

- David Ward, *Cities and Immigrants: A Geography of Change in Nineteenth-Century America* (Oxford UP, 1971), 11-49.
- Warner & Whittemore, *American Urban Form*, 32-61.
- "Visualizing Early Baltimore" [To supplement Warner & Whittemore for 1820]

Lab 2   *Intro #1: Working in ArcGIS Online [AGO]*

- Navigating the software, online resources, etc.
- Blog setup
- Read: Jon A. Kimerling, Aileen Buckley, Phillip Muehrcke, and Juliana Muehrcke, *Map Use: Reading, Analysis, Interpretation* (Esri Press Academic, 2016), introduction.

Week 3
Lecture 4   *New York's Rise in the U.S. Urban System #3, 1860-1920*

- Warner & Whittemore, *American Urban Form*, 64-98.
- Robert A. Beauregard, "Aberrant Cities: Urban Population Loss in the United States, 1820-1930," *Urban Geography* 24, 8 (2003), 672-90.

Lecture 5   Morphology #1: Urban Growth Patterns

- James E. Vance, Jr., *The Continuing City: Urban Morphology in Western Civilization* (Johns Hopkins UP, 1990), 4-11, 17-26.
- Myles Zhang, "Here Grows New York" (2019).
- Exploring growth patterns with "Mapping HNY": Expansion into farmland: Flatbush [read "Farm to City Brooklyn"]; 2) Densification: Orchard St, Lower East Side [read "German Enclaves"]; 3) Industrial zone: around Gowanus canal [read "Intro to Historical NY"]; 4) Waterfront: around Chelsea [read "Working Waterfronts"]

Lab 3   Intro #2: Working in ArcGIS Pro [AGP]

- Creating a project, navigating the software, catalogue, etc.
- Bringing data into AGP: Importing layers, downloading data, feature services, web layers
- Read: Mark S. Monmonier, *How to Lie with Maps* (U of Chicago Press, 2018), chapters 1-2 [Introduction, Elements of a Map].

Week 4

Lecture 6   Morphology #2: 1811 Manhattan Grid Plan, Historical Precedents

- Reuben Rose-Redwood, "Genealogies of the Grid: Revisiting Stanislawski's Search for the Origin of the Grid-Pattern Town," *Geographical Review* 98, 1 (2008), 42-58.
- John W. Reps, *The Making of Urban America: A History of City Planning in the United States* (Princeton UP, 1965), selections.
- Museum of the City of New York, "The Greatest Grid Online Exhibition". Focus on: 1) "Before the Grid": 1796 Goerck Plan, 1803 Mangin-Goerck Plan, 1782 British Headquarters Map; 2) "Other Grids": Earlier Grids.

Lecture 7   Morphology #3: 1811 Manhattan Grid Plan, Spatial Logics

- Hilary Ballon ed., *The Greatest Grid: The Master Plan of Manhattan, 1811-2011* (Columbia UP, 2012), selections.
- "The Greatest Grid Online Exhibition". Focus on: 1) "Before the Grid": Interactive 1818-20 Randel Composite Map; 2) "The 1811 Plan": Interactive Map.
- Jason M. Barr & Gerard Koeppel, "The Manhattan Street Grid Plan: Misconceptions and Corrections," *The Gotham Center for New York City History Blog*, 2017. Read: Myth #2, #4, #5, #6.
- Fieldtrip: "Manhattan grid walking tour" and field observations using ArcGIS Field Maps.

Lab 4   Intro #3: Manhattan Grid Field Observations Workshop

- Incorporating ArcGIS Field Maps field observations into AGP
- Overlaying features
- Discussion of field trip observations

Assignment #1: Manhattan Grid and Urban Growth Patterns (map & blog post due by Sunday)

Week 5

Lecture 8   *Surveying the Built Environment #1: Maps, Atlases, House Numbering, Directories, Censuses*

- Antoine Picon, "Nineteenth-Century Urban Cartography and the Scientific Ideal: The Case of Paris," *Osiris, 2nd Series* 18 (2003), 135-49.
- Richard Dennis, *Cities in Modernity: Representations and Productions of Metropolitan Space, 1840-1930* (Cambridge UP, 2008), 52-79.

Lecture 9   *Surveying the Built Environment #1: Maps, Atlases, House Numbering, Directories, Censuses [Class meets in Avery Library Classics reading room]*

- Reuben Rose-Redwood, "Indexing the Great Ledger of the Community: Urban House Numbering, City Directories, and the Production of Spatial Legibility," *Journal of Historical Geography* 34, 2 (2008), 286-310.
- Jeremy Lechtzin, "150 Years Ago Brooklyn Renumbered All Its Streets," *The New York Times,* Jan 27, 2021.
- Example of Digitized City Directory: Doggett's New York City Directory, for 1849-1850.
- Tenement Museum, "The Census: Reading Between the Lines".

Lab 5   *Early Skills #1: Spatial Data Creation*

- o Georeferencing
- o Heads-up digitizing of fire insurance maps
- o Read: Monmonier, *How to Lie with Maps*, chapter 11 [Data Maps: A Thicket of Thorny Choices].

Assignment #2: Tracing the Built Environment (map & blog post due by Sunday)

Week 6

Lecture 10   *Land-Use Development #1: Mixing, Separation*

- Jason M. Barr, *Building the Skyline: The Birth and Growth of Manhattan's Skyscrapers* (Oxford UP, 2016), 75-106.
- Gergely Baics & Leah Meisterlin, "Zoning before Zoning: Land Use and Density in Mid-19th-Century New York City," *Annals of the American Association of Geographers* 106, 5 (2016), 1152-75.
- Rachel Eu, "Sunlight and Gaslight: Mapping Light in Mid-Nineteenth-Century New York City," *Journal of Urban History* 48, 2 (2022), 243-64.

Lecture 11   *Land-Use Development #2: Density, Housing Types, Periphery*

- Jason M. Barr, *Building the Skyline*, 107-37.
- Steven M. Moga, *Urban Lowlands, A History of Neighborhoods, Poverty, and Planning* (U of Chicago Press, 2020), 31-54.

Lab 6   *Early Skills #2: Tabular Data*

- o Tables: Tabular join, calculate geometry, field calculator

- o Download data from NHGIS
- o Read: Paul A. Longley, Michael F. Goodchild, David J. Maguire, David W. Rhind, *Geographic Information Science and Systems* (Wiley, 2015), chapter 8 [Data Collection].

Week 7

Lectures 12-13   Built Environment Case-Study Group Presentations

Lab 7   Preparation Time for Built Environment Case-Studies

Assignment #3: Built Environment Case-Studies (presentations during lectures 12-13; finalized slides due by Sunday)

PART II: SOCIAL ENVIRONMENTS
Week 8

Lecture 14   Surveying the Social Environment #1: Thematic Maps of Health & Housing

- Laura Vaughan, *Mapping Society: The Spatial Dimensions of Social Cartography* (UCL Press, 2018), 24-60.
- Citizens' Association of New York, Council of Hygiene and Public Health, *Report of the Council… upon the Sanitary Condition of the City* (1866), selections.
- Finding nuisance environments with "Mapping HNY".

Lecture 15   Surveying the Social Environment #2: Thematic Maps of Health & Housing

- Robert W. De Forest, Lawrence Veiller, *The Tenement House Problem* (Macmillan Co., 1903), selections.
- Explore: 1) Fourth Ward Sanitary Map (1864); 2) Tenement House Committee Strong-holds of Poverty Maps (1899); 3) Tenement House Committee Prevalence of Disease Maps (1899).

Lab 8   Early Skills #3: Mapping Datasets and Thematic Mapping

- o Mapping by XY, geocoding
- o Thematic Mapping: Data classification, symbology, etc.
- o Read: Monmonier, *How to Lie with Maps*, chapter 4 [Blunders that Mislead].

Week 9

Lecture 16   Geography of Public Health #1: 19th-Century Urban Mortality Trends

- Michael R. Haines, "The Urban Mortality Transition in the United States, 1800-1940," *Annales de démographie historique* 1 (2001), 33-64, including "Mortality in Five U.S. Cities Data".
- Elizabeth Blackmar, "Accountability for Public Health: Regulating the Housing Market in Nineteenth-Century New York City," in David Rosner ed., *Hives of Sickness: Public Health and Epidemics in New York City* (Rutgers UP, 1995), 42-64.
- Gergely Baics, "The Social Geography of Near and Far: Built Environment and Residential Distance in Mid-Nineteenth-Century New York City," *Urban History* 47, 3 (2020), 512-34.

Lecture 17   *Geography of Public Health #2: Disease Environments and Social Stigmatization*

- Alan M. Kraut, *Silent Travelers: Germs, Genes, and the Immigrant Menace* (Johns Hopkins UP, 1995), chapters 2-3.
- Sonia Shah, "Mapping Cholera".
- Tenement Museum, "Beyond Statistics: Living in a Pandemic".
- Reflections: Social stigmatization during COVID-19 (2020-22) and cholera (1832).

Lab 9   *Design Skills: Cartography and Design*

- Thematic Mapping: Cartography
- Mapping health environments with Historical Urban Ecological [HUE] and/or MHNY data
- Read: Monmonier, *How to Lie with Maps*, chapter 5 [Color: Attraction and Distraction].
- Read: Kimerling et al., *Map Use*, chapter 6 [Map Design Basics].

Assignment #4: Public Health Thematic Map (map & blog post due by Sunday)

Week 10

Lecture 18   *Socio-Spatial Patterns by Ethnicity, Race, Class, and Gender #1: Immigrant New York, early to mid-19th Century*

- Tyler Anbinder, *City of Dreams: The 400-year Epic History of Immigrant New York* (Houghton Mifflin Harcourt, 2016), 149-88.
- Christine Stansell, *City of Women: Sex and Class in New York, 1789-1860* (U of Illinois Press, 1987), 41-129.
- Tyler Anbinder, Simone Wegge, and Cormac Ó Gráda, "Moving Beyond 'Rags to Riches'", & "Tracking the Famine Immigration from Ireland to New York".
- Exploring socio-spatial patterns of gender and class with "Mapping HNY".

Lab 10   *Advanced Skills #1: Geoprocessing*

- Geoprocessing: Spatial Joins, Buffers, Clipping
- Read: Longley et al., *Geographic Information Science and Systems*, chapter 13 [Spatial Data Analysis].

Week 11

Lecture 19   *Socio-Spatial Patterns by Ethnicity, Race, Class, and Gender #2: Immigrant New York, late 19th to early 20th Century*

- Tyler Anbinder, *City of Dreams: The 400-year Epic History of Immigrant New York* (Houghton Mifflin Harcourt, 2016), 354-409.
- Samuel L. Baily, *Immigrants in the Lands of Promise: Italians in Buenos Aires and New York City, 1870-1914* (Cornell UP, 1999), 121-71.
- Exploring residential clustering, dispersal, and succession cycles with "Mapping HNY".

Lecture 20   *Socio-Spatial Patterns by Ethnicity, Race, Class, and Gender #3: Tenement Museum Fieldtrip [Class meets at Tenement Museum]*

- Jacob Riis, *How the Other Half Lives: Studies among the Tenements of New York* (Charles Scribner's Sons, 1890), selections; including Museum of the City of New York, "Jacob Riis Photographs Collection".
- Fieldtrip: "Tenement Museum" and area field observations with "Mapping HNY".

Lab 11   *Advanced Skills #2: Measures of Spatial Distributions*

- Spatial Analysis 1: Avg. nearest neighbor, near analysis, high-low clustering
- Read: Ian Gregory, "'A Map is Just a Bad Graph': Why Spatial Statistics are Important in Historical GIS?" in Anne K. Knowles and Amy Hillier eds., *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, (ESRI Press, 2008), 123-49.

Week 12

Lecture 21   *Socio-Spatial Patterns by Ethnicity, Race, Class, and Gender #4: Black New York, early to mid-19th Century*

- Shane White, "'We Dwell in Safety and Pursue our Honest Calling': Free Blacks in New York City, 1783–1810," *Journal of American History* 72, 2 (1988), 445-70.
- Leslie M. Harris, *In the Shadow of Slavery: African Americans in New York City, 1626-1863* (U of Chicago Press, 2003), chapters 3, 8-9.
- Exploring spatial scales of racial segregation, and the formation of Black neighborhoods in 1850 and 1880 with "Mapping HNY".

Lab 12   *Advanced Skills #3: Density and Interpolation*

- Spatial Analysis 2: Kernel density, interpolation

Assignment #5: Socio-Spatial Patterns by Subgroup (map & blog post due by Sunday)

Week 13

Lecture 22   *Socio-Spatial Patterns by Ethnicity, Race, Class, and Gender #5: Seneca Village Fieldtrip [Class meets in Central Park at Seneca Village Site]*

- Alexander Manevitz, "'A Great Injustice': Urban Capitalism and the Limits of Freedom in Nineteenth-Century New York City, *Journal of Urban History* (2021).
- "Central Park Planning Map" 1853 [Atlas sheets covering Seneca Village: #1, #2, #3, #4, #5]
- Fieldtrip: "Seneca Village Walking Tour" and field observations using ArcGIS Field Maps.

Lecture 23   *Socio-Spatial Patterns by Ethnicity, Race, Class, and Gender #6: Black New York, late 19th to early 20th Century*

- John R. Logan, Weiwei Zhang, and Miao David Chunyu, "Emergent Ghettos: Black Neighborhoods in New York and Chicago, 1880–1940," *American Journal of Sociology* 120, 4 (2015), 1055-94.

- Stephen Robertson, "Constrained but Not Contained: Patterns of Everyday Life and the Limits of Segregation in 1920s Harlem," in Wendy Z. Goldman, Joe William Trotter, Jr. ed., *The Ghetto in Global History: 1500 to the Present* (Routledge, 2017).
- Digital Harlem [Explore case-studies from Digital Harlem blog].
- Exploring spatial scales of racial segregation, and the formation of Black neighborhoods in 1910 with "Mapping HNY".

Lab 13   *TBD*

Week 14

Lectures 24-25 *Social environment case-study student presentations*

Lab 14   *Preparation time for social environment case-studies*

Assignment #6: Social Environment Case-Studies (presentations during lectures 24-25; finalized slides due by Sunday)

Assignment #7: Spatial History Final Essays (due on official exam date for class)