



NATIONAL ENDOWMENT FOR THE

Humanities

DIVISION OF EDUCATION PROGRAMS

Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Summer Seminars and Institutes application guidelines at

<http://www.neh.gov/grants/education/summer-seminars-and-institutes>

for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Education Programs staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials. The page limit for the narrative description is now **fifteen** double-spaced pages.

Project Title: Reading Material Maps in the Digital Age

Institution: Newberry Library

Project Director: James Ackerman

Grant Program: Summer Seminars and Institutes

TABLE OF CONTENTS

NARRATIVE	1
RATIONALE.....	1
PROJECT CONTENT AND IMPLEMENTATION.....	6
PROJECT FACULTY AND STAFF	11
PARTICIPANT SELECTION.....	13
INSTITUTIONAL CONTEXT.....	14
 BUDGET.....	 16
BUDGET NOTES	17
 APPENDICES	
APPENDIX A: SYLLABUS	
APPENDIX B: BIBLIOGRAPHY	
APPENDIX C: CURRICULUM VITAE	
APPENDIX D: PARTICIPANT EVALUATIONS FROM PAST NEH SUMMER PROGRAMS	

I. Rationale. Maps are among the first classroom tools. The Newberry Library's oldest maps are found in its manuscript copy of *La Sfera*, a geography text apparently composed for young scholars to incorporate maps, written by the Florentine, Gregorio Dati, around 1425. School atlases appeared in Europe during the 18th century. Today, a properly equipped American classroom may still surround students with globes, wall maps, and atlases; and maps are still sprinkled throughout social studies and history textbooks. However, these *material* maps (maps on paper and other media that are read or consumed as *physical* objects, that is, without digital mediation) are giving way to digital surrogates. Nevertheless, to paraphrase Mark Twain, rumors of the imminent death of the paper map, which have been circulating for decades, are exaggerated, as they have been for material books. Material maps are still commonplace features of the landscape, as any observant walk around the block in central Chicago, or visit to a bookstore or library, or for that matter, perusal of the travel section of Amazon.com, will confirm. Their utility in many fields of daily life, including journalism, marketing and promotion, education, travel and wayfinding, and book illustration, has been diminished but not eclipsed by digital counterparts. But there is no question that teaching cartographic literacy is complicated by the advent of the digital age. If—and this is a big “if”—material maps are in fact fading into obsolescence, is there still a pedagogic role for historical map documents to be played in K-12 teaching of the humanities? Does the content of a map (whether “historic” or not) run only image deep, or can we learn something from its materiality, its physical presence, and the material aspects of historic use and meaning? Ironically, these questions, central to the proposed seminar, come at a time when the Internet has not only put the most up-to-date maps and cartography at our fingertips, but has also laid many thousands of free high resolution images of historic maps at the feet of teachers and students.

In the summer of 2018, the Newberry Library's Hermon Dunlap Smith Center for the History of Cartography will invite sixteen schoolteachers from across the country to development

their cartographic literacy in the presence of the library's extensive and renowned collection of historic maps. Co-directed by geographer and map curator James Akerman and philosopher and historian Peter Nekola, *Reading Material Maps in the Digital Age*, in many respects will resemble five previous NEH summer programs for schoolteachers the center organized between 2004 and 2011. The seminar will, as before, consider how map documents not only reproduced geographical facts and understandings, but also reflected and shaped the social, cultural, and epistemological conditions of their time and place. The seminar, as well, will be especially mindful of how map literacy, and more specifically, the reading and use of historic map documents in the classroom and in scholarship has been affected by the challenges and opportunities posed by the digital revolution. The GPS (Global Positioning Systems)-enabled maps that are regular features of smartphones, for example, possess the remarkable ability to follow our movements and locate us in reference to a standardized map database anywhere we might be. Yet, since the interface with the map database does this for users more or less automatically, the skills that past generations used to orient themselves in relation to what they see about them may be in the state of atrophy. Similarly, the reading of a digitalized historic map may be limited by the loss of its physical qualities and associations that the transformation of the map from an object to an image entails. The new associations made possible by digital tools and media—for example, the ability to digitally overlay and compare an old map with a contemporary one—may compensate for what is lost in translation from material to digital. In any event, the apparent benefits of the digital medium still may, and indeed should, involve the type of critical and associative literacy that engaged map reading has always demanded. Access to maps does not equate with cartographic literacy, and this was no less true in the age of print than in the digital age. In fact, the historical, multicultural, geographical, and environmental readings and perspectives that access to great material map archive engenders, are perhaps more relevant to promoting critical cartographic literacy now than they ever have been.

Reading maps usually relies on a few concepts and conventions that most of us absorb early in our education. The presumption is that our comprehension of the meaning of a simple set of signs and notions of scale and map orientation are sufficient for a lifetime of effective map use. Yet, as with written texts, the meaning of a map is conditioned by the context in which it was created and its subsequent use. Throughout their education children are taught to write and to read cumulatively and with increasing complexity. Sound secondary school pedagogy builds on elementary skills by stressing the critical reading of the ideas and points-of-view underlying fictional and historical texts and the elucidation of the social, cultural, and historical contexts that produced these works. In most curricula, however, maps are treated as mere illustrations of geographical facts, references, and locational tools. While reinforcement of basic map reading skills should occur at all grade levels, a true facility with maps, both as historical sources and as tools of everyday life, also requires the development of critical cartographic literacy.

Until the advent of the Internet, the opportunities for students and teachers to use historic maps in classroom settings were severely limited. But while digitalization of map archives (that is, the creation of digital surrogates of material maps) has provided access to these historical documents on a scale scarcely imagined a generation ago, the most significant barrier to the effective use of historic maps in teaching remains the fact that teachers are often simply unaware of the relevance of historic maps to pedagogy. Over the past two decades, outreach programs at many research map collections have brought both teachers and students into more intimate contact with historic maps through workshops, exhibitions, map reproductions, and interpretive lesson plans. To extend the value of these programs, these institutions have invested heavily in the development and production of online map image resources designed to support K-12 education. Almost every major institutional map collection in the United States, including research, public, and university collections hosts or contributes to online archives of map images. Consortial sites such as Old Maps Online

(<http://www.oldmapsonline.org/>) and the intervention and support of philanthropic sources, such as the map collector and Internet innovator David Rumsey (<http://www.davidrumsey.com/>) have increased universal access to and raised the quality of map images. Through its NEH-supported *Historic Maps in K-12 Classrooms* website (<http://publications.newberry.org/k12maps/>), the Newberry Library's Hermon Dunlap Smith Center for the History of Cartography emerged as an early leader in the effort to educate with historic map documents. Drs. Akerman and Nekola have also contributed to the Newberry Library's growing Digital Collections for the Classroom, and have given many single-day seminars for area teachers dedicated to reading topics in history through old maps. Working together, they produced *Mapping Movement in American History and Culture*, an extensively curated website incorporating nearly 600 map images and (to date) thirteen interpretive essays designed for general as well as scholarly use. Further growth and innovation in classroom use of map documents will depend and *must* depend not only on enhanced online access to historic maps, but also upon encouraging teachers to develop their own cartographic literacy and awareness through continued exposure to current map scholarship, and wherever possible original map documents.

Reading Material Maps in the Digital Age will provide sixteen K-12 educators with the opportunity to develop critical map reading skills in the presence of a great archive of five centuries of material cartography. The four-week program of seminar sessions, workshops, field trips, and personal research elements designed to help them read and use map documents and digital resources effectively in their own research and teaching. Morning seminar sessions will promote discussion of selected readings on mapping and its history intended both to introduce participants to the historical diversity of mapping, to its topical range, and to strategies for reading and teaching with maps. The arc of these seminar sessions will begin with "On Mapping, History, and Culture," an overview of the history of cartography, the impact of digital cartography on map use and scholarship, and the

importance of culture in reading maps. The second part, “Mapping, Shaping, and Reading the Landscape,” will turn to the ways that historic maps can enhance critical understanding of landscapes in their historical, social, and ecological complexities. The third part, “Mapping World Views and Histories,” explores the ways in which mapping reflects and shapes views of the world and our history in broad strokes, encompassing readings of world maps and globes, atlases, and historical atlases, and literary and artistic imaginations of the world. The fourth and concluding series of sessions, “Material and Digital Cartographies,” considers more directly the continuities and discontinuities of mapping in material and digital formats, drawing on case studies of travel, propaganda, and scientific mapping.

In most instances these seminar discussions will be enriched by viewings of original maps and atlases from the Newberry’s collections. Extended workshops will ask participants to develop and share their own readings of selected objects, considering in particular how these and similar materials can be employed in the classroom. A special workshop in the final week of the seminar will gather individual reports to the group on a portion of the Newberry’s web resource, *Mapping Movement in American History and Culture*, which combines high resolution images of historic maps from the Newberry’s collections with scholarly essays. In their presentations, participants will reflect both on the potential uses of the website in the classroom and on the opportunities and limitations of the digital representation of the original, material maps. Of course, all maps, whether material or digital, are surrogates for environments and landscapes. Two daylong field trips and one mapping exercise conducted in a local park will take historic maps “outside,” building mapping skills and spatial thinking, while articulating how the landscape and historic maps can be read together to animate historical geography and natural history. Finally, each summer scholar will propose and conduct an individualized research project, giving them an opportunity to dig deeper into the

Newberry's map collections and to produce readings and insights into a body of maps relevant to their own interests as scholars and teachers.

II. Project Content and Implementation in Detail. Publicity for the seminar will be provided by the creation of a seminar website, emails, posting to newsletters, listservs, and social media. A paper and pdf brochure will be created for posting by targeted individuals and institutions.

The seminar will be held at Chicago's Newberry Library from July 9 – August 3, 2018. The participants will attend three-hour morning sessions three or four days per week. Assigned readings, 1-2 chapters or articles per session, will set the context for each day's discussion, but each session will also focus on the reading, interpretation, and discussion of maps selected from the Newberry's collections. Online digital archives relevant to the topic will be integrated into these discussions. We will provide all required readings to participants at least two months in advance via an online community or website. Giving teachers an opportunity to read materials in advance has, in the past, assured a good start to the seminar and reduced the reading burden during the seminar. On many days, after a morning break, our readings of original Newberry cartographic resources will take the form of extended hands-on workshop sessions designed to facilitate application of the ideas discussed in the seminar sessions to classroom activities.

Two field trips will be dedicated to the use of historic maps to interpret the landscape in the unique urban setting of greater Chicago. In the final week, an excursion to the park across the street from the library will engage groups of participants in surveying and mapping the park. One full day per week and most afternoons will be free for independent research, culminating in the presentation of the results of this research on the final two days of the seminar. See Appendices B and C for the preliminary syllabus and bibliography.

Part 1: On Mapping, History, and Culture. The first week of the seminar is designed to provide participants with an introduction to the conduct and major themes of the seminar, to the

Newberry's map collection, and to current themes in map scholarship and interpretation. We will begin with two sessions jointly led by the Drs. Akerman and Nekola that overview both the history of map printing and the significance of the advent of the digital age to map reading and scholarship. In Session 1 ("Paper Maps in the Digital Age") Akerman and Nekola will lead a discussion of the place of paper maps in the digital age. Rather than assigning readings for this session, we will ask participants in advance to prepare to discuss their own observations and experiences of the differences and similarities of digital and paper maps. A special Monday afternoon workshop will introduce participants to the Newberry's map collection and give them a chance to try their hand at map interpretation. Session 2 ("From Print to Digital") will survey the history of the material map, focusing on the various techniques and methods of distribution. We will then discuss how map production and distribution has changed in the digital era. Our guiding readings will be Arthur Robinson's brief overview of the history of map printing and Tom Geller's assessment of the state of online mapping. After a break for the first full research day, our discussions will continue in Session 3, Dr. Akerman's overview and discussion of past and current scholarly approaches to the history of cartography ("Traditions in the History of Cartography: Progress and Process"). Guided by readings from Robert W. Karrow, Jr. and Matthew Edney, and of library materials, he will lead a discussion of how many (but not all) map historians have shifted their emphasis of the historical progress of mapping as a science of the world to an approach emphasizing the processes of mapmaking, distribution, and use. The week will conclude with Dr. Nekola's discussion in Session 4 of multicultural and cross-cultural approaches to map history ("Mapping across Cultures"). The key reading for this session will be Barbara Belyea's study of the varied of interpretations of Native maps in North America. A special workshop session devoted to group readings of Newberry maps from different cultural traditions will immediately follow this session.

Part 2: Mapping, Shaping, and Reading the Landscape. The second part of the seminar will focus on the various ways in which historic map documents animate the reading of landscape, past and present. On Monday, Dr. Nekola will lead the group on the first of two all-day field trips, titled “Seeing and Interpreting the South Shore of Lake Michigan.” The excursion will consider how environmental conditions, industrial development, residential development, deindustrialization, preservation, and ecological restoration efforts have interpreted this unique lakeshore through maps over the past two centuries, helping shape it in the process. Readings will include historical map reproductions and texts, as well as recent work by naturalist Joel Greenwald. Next, in Session 5, Nekola discusses the early twentieth-century work of geographer and cartographic innovator J. Paul Goode, considering how Goode’s assertion of the value of visual education to the liberal arts informs today’s curricular and pedagogic challenges and trends, including of course the rise of digital media. In Session 6, Nekola will introduce participants to maps drawn to aid the quickly-developing natural and social sciences since the mid-nineteenth century, employing recent essays by Susan Schulten to help establish historical context. Experimental and increasingly systematic, many of these maps worked to represent not locations but conditions, informing policy, economic development, and social reform. The week will conclude in Session 7 with Dr. Akerman’s review and discussion of the mapping of local conditions in rural and urban contexts, considering how the maps generated by commercial cartographers and local authorities reflect and reinforce embedded notions of landscape and society. His discussion will be guided by readings from the landmark cartographic history of Boston edited by Alex Krieger and Michael Conzen’s scholarship on American county landownership maps and atlases. On the following Monday, the second full-day field trip, led by Dr. Akerman, will explore west suburban DuPage County, utilizing maps to trace the transformation of this formerly rural county into an integrated part of a modern metropolis.

Part 3: Mapping World Views and Histories. The third series of seminar considers how mapping promotes and guides visualization of the world and its history. In Session 8 (“Look at the World: Globes, World Maps, Atlases”), Akerman focuses on the three major ways in which physical mapping envisions the entire earth. Some preliminary perspectives will be provided by Susan Schulten’s study of the master World War II era cartographer, Richard Edes Harrison, and Akerman’s own work on the atlas as a “map of maps.” An extended workshop session will encourage group interpretation of examples of globes, maps, and atlases selected from the Newberry’s collections. In Session 9, Nekola then discusses the interpretive and didactic possibilities of an often-overlooked cartographic genre, the historical atlas, considering in particular the political contexts of history instruction visible in its changing form. Once again the session will be followed by an extended workshop sessions featuring group work with the Newberry’s extensive collection of historical atlases. In Session 10 Akerman will leads discussion of how maps have been contributed to the literary and artistic imagination. The discussion will range widely over the historic relationship between art and map design, contemporary art’s fascination with cartography, and the deployment of maps in travel and fantasy literature.

Part 4: Material and Digital Cartographies. We will begin the final week of the seminar with an extended workshop and discussion of the Newberry’s web resource, *Mapping Movement in American History and Culture*. We will ask each seminar participant to choose and read one of the interpretive essays in the resource. In the session itself, each participant will summarize the essay for the entire group, and choosing one or more of the high-resolution images associated with their essay, explain how they have used or might use the essay in their own research, or in a classroom setting. The participants will be able to show the original object from which the image was taken and will be asked to consider the advantages and disadvantages of working with the digital proxy. The final two seminar sessions speculate on two cartographic genres that invite comparisons across their

digital and print formats. In Session 12 (“Maps in Propaganda, Advertising, and Tourism”), Akerman will examine the use of persuasive cartography and its adaptation to digital distribution. The featured readings, articles by literary scholar Ricardo Padron and geographer John Pickles, consider the bases for these forms rooted in the imagination and the expression of power. In the final session (“Overlays”), Nekola considers the resonance and distinctions between mapping distributions of social and environmental phenomena and modern Geographic Information Systems (GIS), guided by readings by Zephyr Frank, Craig McClain, and the Environmental Systems Research Institute (ESRI). The final two days of the seminar will be devoted to presentations by the participating summer scholars of the progress and results of their research projects.

Individual Research Projects. Summer programs at the Newberry offer visiting teachers superb opportunities to renew and develop scholarly interests and skills at a premier research library. Accordingly, each participant will be expected to pursue a research project during the seminar. The projects may be continuations of work already begun and need not be completed during the seminar. However, we will ask each participant to prepare a brief (2-3 pages) report, including a bibliography. Projects may contribute to the development of new courses, course materials, teaching websites, or lesson plans; or they may contribute more generally to the participant’s teaching through scholarly development or through the development of new materials and resources. Use of Newberry Library items in their research will be expected, but we will also encourage participants to use online resources. The creation of websites resulting from individual research projects will be welcomed where appropriate.

Past individual research projects include a high school social studies teacher from rural Oregon using maps to study the history of water rights in the West. A special education teacher from an Austin, Texas middle school studied the history of the ill-fated Franklin Arctic expedition of 1845-48. A social studies teacher at a Beverly Hills high school was drawn to the emergence of

Iraq on maps because of the increasing number of students attending her school that are from Western Asia. A history teacher from Ohio researched a cartographic biography of one of his ancestors. An elementary school media specialist from a small town in central Florida did research that would form the basis of a resource tracking the history of Florida in maps. A fine arts teacher from Arlington, Texas developed an exercise for her students to create a pamphlet using maps to advertise a railroad. And, a public elementary school science teacher from Chicago developed a unit teaching the cultural and geological history of Chicago's lakefront.

In the opening days of the seminar we will hold individual and group counseling sessions with participants to help them "hit the ground running." Participants will meet individually with Akerman and Nekola to discuss their projects and Newberry resources that will support their research. The co-directors will be available for regular office hours each afternoon thereafter. Participants will be encouraged to discuss progress on their projects with the entire group during the second week of the seminar, and each participant will present their work to the group in more formally during the final two days.

III. Project Faculty and Staff. (For curriculum vitae see Appendix C.) **Dr. James R. Akerman**, Director of the Newberry Library's Hermon Dunlap Smith Center for the History of Cartography, will co-direct the seminar with Dr. Peter Nekola. Dr. Akerman is the author of many studies of the social and political aspects of mapping, transportation and travel cartography, and the history of atlases. He has edited five peer-reviewed collections of essays, the most recent of which, *Decolonizing the Map* (University of Chicago Press), will be published in spring, 2017. He has directed eleven summer seminars or institutes on a variety of map-centered topics for college faculty, graduate students, and schoolteachers between 1995 and 2015. He has curated or co-curated several exhibitions, most recently, *Maps: Finding Our Place in the World* (with Robert W. Karrow, Jr.), mounted at The Field Museum (Chicago) and the Walters Art Museum (Baltimore), in 2007-08. Since 1998 he

has led numerous workshops and seminars on mapping and the humanities for local schoolteachers at the Newberry. Since 2000 he has directed or co-directed three major digital humanities projects, all of them supported in part by the NEH: *Historic Maps in K-12 Classrooms*, *Make Big Plans: Daniel Burnham's Vision of an American Metropolis*, and *Mapping Movement in American History and Culture*.

Dr. Peter Nekola served as Assistant Director of the Hermon Dunlap Smith Center for the History of Cartography from 2012 through 2016, after a decade of teaching and curriculum building in New York City. At the Newberry he led numerous workshops and seminars for teachers and students on mapping and environmental, social, and economic history, as well as cross-cultural and comparative mapping traditions. He served as a guest faculty member for the 2014 NEH Summer Institute: Mapping Nature Across the Americas, and a staff resource for participants in several other Summer Institutes and Seminars since 2012.

Gerald A. Danzer (Professor Emeritus of History, University of Illinois at Chicago) will lead a field-based workshop in mapping. Dr. Danzer is an award-winning author of many history textbooks and teaching resources, and has published widely in American history. He has led several NEH summer institutes and seminars, including three seminars on cartographic literacy organized at the Newberry in collaboration with Dr. Akerman.

The staff of the Newberry's Map Room will provide general orientation to the Library's map collections and daily reference assistance to the participants as needed. **Patrick Morris** is the Newberry's map cataloguer and reference assistant. He is the author of several in-house map reference tools and has conducted many workshops in map reference techniques. **Meghan McCloud**, Program Assistant in the Smith Center, will provide administrative support for seminar, including preparation of publicity, management of the application and evaluation process, and day-to-day management of logistics during the seminar.

IV. Participant Selection. Sixteen schoolteachers will be selected for participation in the program from a national pool of applicants. Though the traditional emphasis of classroom map use has been on teaching history, geography, and social studies, we will encourage language arts, art, and science teachers to apply as well. We will also strongly encourage the participation of teachers from all K-12 grade levels. Past NEH summer programs organized by the Smith center have been well represented by teachers from all grade levels, public and private schools, and a broad range of subjects and interests. The applications will be reviewed, following NEH procedures, by a committee of the program co-directors, Dr. Danzer, and Mr. Morris. Participant evaluations of the Smith Center's 2016 summer institute for college faculty, "Mapping, Text, and Travel," and its 2011 seminar for schoolteachers, "Envisioning America in Maps and Art," may be found in Appendix D.

V. Professional Development for Participants. It is standard practice at the Newberry Library to enable all teachers who wish them to receive CPDU (Continuing Professional Development Units) credits for their work in the seminar. The CPDUs are administered and issued by the State of Illinois, but can be transferred to other states. Participants are not required to do any additional work to receive these credits; however, the state requires that they fill out an evaluation of the seminar to receive a certificate issued to them on the final afternoon session.

VI. Institutional Context. The Newberry Library, open to the public without charge, is an independent research library founded in 1887 dedicated to the advancement and dissemination of knowledge, especially in the humanities. The Newberry acquires and preserves a broad array of special collections research materials relating to the civilizations of Europe and the Americas. It promotes and provides for their effective use, fostering research, teaching, publication, and life-long learning, as well as civic engagement. In service to its diverse community, the Newberry encourages intellectual pursuit in an atmosphere of free inquiry and sustains the highest standards of collection preservation, bibliographic access, and reader services.

There are few institutions in the world where researchers can find a wider range of historical cartography than at the Newberry. The Library's internationally renowned collections of 500,000 manuscript and printed maps, 1.5 million books, and 5 million manuscript pages are a rich historical, literary, and geographical resource. The Library's map collection covers the entire period of modern cartographic history from the Renaissance to the twentieth century. These collections are supported by an unsurpassed reference collection in the history of cartography and an expert reference staff. These collections are used by an interdisciplinary community of scholars and teachers attracted to the Newberry from across the nation and around the world. (For a description of the Newberry's geographical and map collections, see <https://www.newberry.org/maps-travel-and-exploration>.)

The Newberry coordinates a variety of professional development programs for Chicago-area educators, including seminars focused on humanities topics. Led by college-level faculty, these seminars connect educators with the latest scholarship in the subject areas in which they offer participants the opportunity to renew their academic interests, deepen their content knowledge, and collaborate with fellow teachers in a collegial setting, inaugurated several programs reaching out to both local and national constituencies of K-12 teachers. The library continues to develop an extensive archive of online digital resources for teachers and students. Further information may be found at: <https://www.newberry.org/professional-development-programs-teachers>.

For 45 years, the Newberry's Hermon Dunlap Smith Center for the History of Cartography has advanced knowledge of the history of cartography and promoted the use of the Newberry Library's map collections by scholars, educators, and the general public. The Center has organized eleven NEH summer institutes or seminars for college and university faculty and four seminars for schoolteachers, and has consistently received highly favorable reviews of these programs from participants. The Center's NEH-funded *Historic Maps in K-12 Classrooms* (www.newberry.org/k12maps), won a 2005 Award for Excellence in Geography Media from the

National Council for Geography Education and was selected by a peer review process for posting on EdSitement, the NEH's clearinghouse for online teaching resources and lesson plans. In 2015 and 2016 the center launched two major web resources supported in part by the NEH, featuring high-resolution map images and interpretive essays: *Make Big Plans: Daniel Burnham's Vision of an American Metropolis* and *Mapping Movement in American History and Culture*. Six major cartographic exhibitions mounted since 1996 have been the occasion for school visits and the creation of teaching tools. Workshops on historic map use for local schoolteachers offered by Smith Center staff have served more than 300 teachers since 1996.

Facilities and Housing. The Newberry's facilities are well suited to support summer research by a group of sixteen K-12 educators. Participants will be given special privileges during the seminar, including a research carrel, extended reading hours, and the ability to reserve items during their stay. The participants' research and study will be facilitated by access to a full range of computing services. They will have wireless Internet access from their carrels, as well as workstations and printers elsewhere in the library. The Newberry allows the use of personal digital cameras to photograph library materials for research and teaching purposes. The Newberry has a contract for low-cost hotel accommodations through Club Quarters, an international chain with two hotels in downtown Chicago, approximately one mile south of the Newberry and readily accessible to the library. Participants may rent rooms at Club Quarters at the Newberry's reduced monthly rates (\$ (b) (4) /day for 30 days). Options include a range of single or double occupancy rooms, and many include cooking facilities. Many past NEH summer scholars have chosen furnished one-bedroom apartments at Canterbury Court, just a few blocks from the library. The current negotiated Newberry rate is \$ (b) (4) for four weeks. Participants are free as well to make their alternative housing arrangements. The Newberry has discount arrangements with several local hotels. The Newberry will provide a comprehensive list of nearby housing options to successful applicants.

Appendix A
Developing Map Literacy in the Digital Age
July 9 – August 3, 2018
Preliminary Syllabus

Part 1: On Mapping, History, and Culture

Monday, July 9

Session 1 (9 - 12): Introduction to the seminar; *Paper Maps in the Digital Age* (Akerman/Nekola)

2 - 4: Workshop: *Reading Historic Maps*

Evening: Welcome dinner

Tuesday, July 10

Session 2 (9 - 12): *From Print to Digital* (Akerman/Nekola)

Readings

- Arthur Robinson, "Mapmaking and Map Printing: the Evolution of a Working Relationship"
- Tom Geller, "Imaging the World: The State of Online Mapping"
- Presentation and discussion of library materials

Wednesday, July 11

Research day

9:30 – 12 and 1:30 – 5: Individual conferences (12)

Thursday, July 12

Session 3 (9 - 12): *Traditions in the History of Cartography: Progress and Process* (Akerman)

Readings

- Karrow, Introduction to *Maps: Finding Our Place in the World*
- Edney, "Academic Cartography, Internal Map History, and the Critical Study of Mapping Processes"
- presentation and discussion of library materials

Afternoon: free research and reading time

1-3: Individual conferences (4)

Friday, July 13

Session 4 (9-10:30): *Mapping across Cultures* (Nekola)

Readings

- Barbara Belyea, "Inland Journeys, Native Maps"

10:45 – 12: Workshop: Mapping Across Cultures

Afternoon: Free research and reading time

Part 2: Mapping and Reading the Landscape

Monday, July 16

Field Trip I (9 – 3): Seeing and Interpreting the South Shore of Lake Michigan through Maps (*Nekola*)

Reading

- Joel Greenberg, "Lake Michigan's Rim: Beaches, Dunes, and Bluffs"

Tuesday, July 17

Session 5 (9-12): *The Role of Maps in a Liberal Education* (*Nekola*)

Readings

- J. Paul Goode, "What the War Should do for Our Methods in Geography" and "The Scope and Outlook of Visual Education"
- Presentation and discussion of library materials

Afternoon: free research and reading time

Wednesday, July 18

Breakfast and discussion of research topics

Free research day

Thursday, July 19

Session 6 (9-12): *Mapping Surface Conditions and Living Conditions* (*Nekola*)

Readings

- Susan Schulten, "Disease, Expansion, and the Rise of Environmental Mapping" and "Slavery and the Origin of Statistical Cartography," from *Mapping the Nation: History and Cartography in Nineteenth-Century America*
- Presentation and discussion of library materials

Afternoon: free research and reading time

Friday, July 20

Session 7 (9-12): *Locality and Vision: Mapping Places and Their Transformation* (*Akerman*)

Reading

- Michael Conzen, "The County Landownership Map in America: Its Commercial Development and Social Transformation, 1814-1939"
- Alex Krieger, et al., *Boston in Maps*, excerpts
- Presentation and discussion of library materials

Afternoon: free research and reading time

Monday, July 23

Field Trip II (9 – 3): *Mapping the Transformation of a Suburban County* (*Akerman*)

Reading

- Anne Durkin Keating, "Commuter Suburbs of the Railroad Age," and "Regionalism through Neighbors and over Time," from *Chicagoland: City and Suburbs in the Railroad Age*

Part 3: Reading World Views and Histories

Tuesday, July 24

Session 8 (9 – 10:15): *Look at the World: Globes, World Maps, Atlases (Akerman)*

- Susan Schulten, "Richard Edes Harrison and the Challenge to American Cartography"
- James Akerman, "From Books of Maps to Books as Maps: The Editor in the Atlas Idea"

Workshop (10:30-12): *Look at the World*

Afternoon: free research and reading time

Wednesday, July 25

Breakfast discussion of research topics

Free research day

Thursday, July 26

Session 9 (9 – 10:15): *Mapping History (Nekola)*

Reading

- Jeremy Black, "Nationalism and Eurocentrism in Nineteenth-Century Historical Atlases," in *Maps and History: Constructing Images of the Past*

Workshop (10:30-12): *Mapping History*

Afternoon: free research and reading time

Friday, July 27

Session 10 (9-12): *Mapping in Art and Literature (Akerman)*

Readings

- Jordana Dym, "More Calculated to Mislead than Inform?: Travel Writers and the Mapping of Central America, 1821-1945"
- Ruth Watson, "Mapping and Contemporary Art"
- Selected library materials

Afternoon: free research and reading time

Part 4: Material and Digital Cartographies

Monday, July 30

Session 11 (9-11:30) *Workshop: Mapping Movement (Akerman and Nekola)*

Readings

- Selections from *Mapping Movement in American History and Culture*

Workshop (1-3): *Mapping Washington Square Park (Danzon)*

Tuesday, July 31

Session 12 (9-12): *Maps, Propaganda, and Tourism (Akerman)*

Readings

- John Pickles, "Maps and Propaganda"
- Ricardo Padron, "Maps Imaginary Worlds"
- Presentation and discussion of library materials

Afternoon: free research and reading time

Wednesday, August 1

Session 13 (9-12): *Overlays: Maps from Digital to Print and Back Again (Nekola)*

Readings

- Craig McClain, "How Presidential Elections are Impacted by a 100 Million Year Old Coastline"
- Environmental Systems Research Institute, "How GIS Works"
- Zephyr Frank, "Layers, Flows, Intersections: Historical GIS for 19th-century Rio de Janeiro"

Thursday, August 2

Presentations

Friday, August 3

Presentations

Farewell Lunch

Closing Session and Evaluation

Appendix B

Preliminary Bibliography

- Adorno, Rolena. "Icons in space: the silent orator." In *Guaman Poma: Writing and Resistance in Colonial Peru*. Austin: University of Texas Press, 1986.
- Akerman, James R. "Selling Maps, Selling Highways: Rand McNally's 'Blazed Trails' Program." *Imago Mundi* 45 (1993): 77–89.
- Akerman, James R. 1995. "From Books with Maps to Books as Maps: the Editor in the Creation of the Atlas Idea. *Editing Early and Historical Atlases*, ed. Joan Winearls, 3-48. Toronto: University of Toronto Press.
- , "American Promotional Road Mapping in the Twentieth Century." *Cartography and Geographic Information Science* 29 (2002): 175–91.
- , ed. *Cartographies of Travel and Navigation*. Chicago: University of Chicago Press, 2006.
- , ed. *The Imperial Map: Cartography and the Mastery of Empire*. Chicago: University of Chicago Press, 2009.
- , ed. *Decolonizing the Map*. Chicago: University of Chicago Press, 2017.
- and Robert W. Karrow, Jr., eds. *Maps: Finding Our Place in the World*. Chicago: University of Chicago Press, 2007.
- Alpers, Svetlana. *The Art of Describing: Dutch Art in the Seventeenth Century*. Chicago: University of Chicago Press, 1983.
- Anderson, Benedict. 1991. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. Rev. ed. London: Verso.
- Balm, Roger. "Expeditionary Art: An Appraisal." *Geographical Review* 90 (2000) 4: 585-602.
- Barber, Peter. *The Map Book*. London: The Walker Company, 2005.
- , *London: a History in Maps*. London: The London Topographical Society in association with The British Library, 2012.
- , and Christopher Board. *Tales from the Map Room: Fact and Fiction About Maps and Their Makers*. London: BBC Books. 1993.
- , and Tom Harper. *Magnificent Maps: Power, Propaganda and Art*. London: British Library, 2010.
- Benson, Guy Meriwether, William R. Irwin, and Heather Moore Riser. *Lewis and Clark: The Maps of Exploration, 1507-1814*. Charlottesville: Howell Press, 2002.

- Besse, Jean Marc. "Approches spatiales dans l'histoire des sciences et des arts." *L'Espace géographique* 3 (2010): 211-224.
- , "Cartographie et pensée visuelle. Réflexions sur la schématisation graphique." *Les usages des cartes (XVIIe-XIXe siècle). Pour une approche pragmatique des productions cartographiques*. I. Laboulais, ed. Strasbourg: Strasbourg University Press, 2008.
- Black, Jeremy. *Maps and History: Constructing Images of the Past*. New Haven: Yale University Press, 1997.
- Black, Jeremy. 1997. *Maps and Politics*. Chicago: University of Chicago Press.
- Bleichmar, Daniela. "Painting as Exploration: visualizing nature in eighteenth-century colonial science." *Colonial Latin American Review*, Vol. 15, no. 1 (June, 2006): 81-104.
- Bogart, Michele H. 1995. *Artists, Advertising, and the Borders of Art*. Chicago: University of Chicago Press.
- Boone, Elizabeth Hill. Writing in images. *Stories in Red and black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press, 2000.
- , and Walter D. Mignolo, eds. *Writing without Words: Alternative Literacies in Mesoamerica and the Andes*. Durham, NC: Duke University Press, 1994.
- Bowen, Margarita. *Empiricism and Geographical Thought from Francis Bacon to Alexander von Humboldt*. Cambridge: Cambridge University Press, 1981.
- Bracher, Frederick. "The Maps in Gulliver's Travels." *Huntington Library Quarterly* 8 (1944).
- Brotton, Jerry. *The History of the World in Twelve Maps*. New York: Viking, 2012.
- Brown, Lloyd Arnold. *The Story of Maps*. New York: Dover Publications, 1949.
- Browne, John Paddy. *Map Cover Art: A Pictorial History of Ordnance Survey Cover Illustrations*. Southampton: Ordnance Survey, 1991.
- Brückner, Martin. "Common Destinations: Maps in the American Experience." Winterthur Museum, April 20, 2013 – January 5, 2014. <http://www.winterthur.org/commondestinations>.
- , *The Geographic Revolution in Early America: Maps, Literacy, and National Identity*. Chapel Hill: University of North Carolina Press, 2006.
- Buisseret, David. *Historic Illinois from the Air*. Chicago: University of Chicago Press, 1990.
- , *The Mapmaker's Quest: Depicting New Worlds in Renaissance Europe*. New York: Oxford University Press, 2003.

- , ed. *From Sea Charts to Satellite Images: Interpreting North American History through Maps*. Chicago: University of Chicago Press, 1990.
- , ed. *Monarchs, Ministers, and Maps: The Emergence of Cartography as a Tool in Early Modern Government*. Chicago: University of Chicago Press, 1992.
- , ed. *Envisioning the City: Six Studies in Urban Cartography*. Chicago: University of Chicago Press, 1998.
- Burnett, D. Graham. *Masters of All They Surveyed: Exploration, Geography, and a British El Dorado*. Chicago: University of Chicago Press, 2000.
- Buzard, James. *The Beaten Track: European Tourism, Literature, and the Ways to Culture, 1800-1918*. Oxford: Oxford University Press, 1993.
- Campbell, Mary Baine. *Wonder & Science: Imagining Worlds in Early Modern Europe*. Ithaca: Cornell University Press, 1999.
- Cañizares Esguerra, J. "Spanish America in Eighteenth-Century European Travel Compilations: A New 'art of reading' and the Transition to Modernity." *Journal of Early Modern History* 2:4 (1998): 329-349.
- Carrera, Magali. *Traveling from New Spain to Mexico: Mapping Practices of Nineteenth-Century Mexico*. Durham, NC: Duke University Press, 2011.
- Casey, Edward S. *Representing Place: Landscape Painting and Maps*. Minneapolis: University of Minnesota Press, 2002.
- , *Earth-Mapping: Artists Reshaping Landscapes*. Minneapolis: University of Minnesota Press, 2005.
- Clark, Edward and John Owen. *100 Maps: the Science, Art and Politics of Cartography throughout History*. New York: Sterling, 2005.
- Cohen, Paul E. *Manhattan in Maps, 1527-1995*. New York: Rizzoli, 1997.
- Conley, Tom. 2007. Early Modern Literature and Cartography: An Overview. In *Cartography in the European Renaissance*, edited by David Woodward. The History of Cartography, v. 3. Chicago; London: University of Chicago Press. 401-411.
- Conzen, Michael P. The All-American Country Atlas: Styles of Commercial Landownership Mapping and American Culture. In John A. Wolter and Ronald E. Grim, eds., *Images of the World: The Atlas Through History*, 331-65. Washington: Library of Congress, 1997.
- , *Chicago Mapmakers: Essays on the Rise of the City's Map Trade*. Chicago: Chicago Historical Society for the Chicago Map Society. 1984.

- , ed. *The Making of the American Landscape*. 2d ed. New York: Routledge, 2010.
- and Diane Dillon. *Mapping Manifest Destiny: Chicago and the American West*. Chicago: The Newberry Library, 2007.
- Cosgrove, Denis E. *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination*. Baltimore: Johns Hopkins University Press, 2001.
- , Maps, Mapping, Modernity: Art and Cartography in the Twentieth Century. *Imago Mundi* 57 (2005), 1: 35-54.
- , *Geography and Vision: Seeing, Imagining and Representing the World*. New York: I.B. Tauris, 2008.
- , ed. *Mappings*. London: Reaktion Books, 1999.
- , and Veronica della Dora. "Mapping global war: Los Angeles, the Pacific, and Charles Owens's pictorial cartography." In *Annals: Association of American Geographers*, 95 (2005), 2.
- , and Stephen Daniels, eds. *The Iconography of Landscape*. Cambridge: Cambridge University Press, 1998.
- Craig, Ray. *Cartographic Mexico: A History of State Fixations and Fugitive Landscapes*. Durham: Duke University Press, 2004.
- Crampton, Jeremy W. "A History of Distributed Mapping." *Cartographic Perspectives* 35 (Winter 2000): 48-79.
- , "Maps as Social Constructions: Power, Communication, Visualization." *Progress in Human Geography* 25 (2001), 235-252.
- , *The Political Mapping of Cyberspace*. Chicago: University of Chicago Press, 2003.
- , "Cartography: Maps 2.0." *Progress in Human Geography* 33 (2009), 91-100.
- , "Cartography: Performative, Participatory, Political." *Progress in Human Geography* 33 (2009), 840-848.
- , *Mapping: A Critical Introduction to Cartography and GIS*. Malden, MA: Wiley-Blackwell, 2010.
- , Jay Bowen, Daniel Cockayne, Brittany Cook, Eric Nost, Lindsay Shade, Laura Sharp, and Malene Jacobsen. "Whose Geography? Which Publics?" *Dialogues in Human Geography*, 3 (2013), 73-76.

- Cronon, William, ed. *Uncommon Ground: Rethinking the Human Place in Nature*. New York: W.W. Norton, 1996.
- Daston, Lorraine and Elizabeth Lunbeck. *Histories of Scientific Observation*. Chicago: University of Chicago Press, 2011.
- and Peter Galison. *Objectivity*. New York: Zone Books, 2007.
- Del Casino, Vincent J., and Steven P. Hanna. "Representations and identities in tourism map spaces." *Progress in Human Geography* 24 (2000) 1: 23-46.
- Delano-Smith, Catherine, and Roger J.P. Kain, *English Maps*. Toronto: University of Toronto Press, 1999.
- Dillon, Diane. "Mapping Enterprise: Cartography and Commodification at the 1893 World's Columbian Exposition." *Nineteenth-Century Geographies: The Transformation of Space from the Victorian Age to the American Century*. Helena Michie and Ronald R. Thomas, eds. New Brunswick: Rutgers University Press, 2003.
- Dodge, Martin, Rob Kitchen, and Chris Perkins, eds. 2009. *Rethinking Maps: New Frontiers in Cartographic Theory*. London and New York: Routledge, 2009.
- Driver, Felix. *Geography Militant: Cultures of Exploration and Empire*. Oxford: Oxford University Press, 2001.
- Dunlap, Catherine Tatiana. *Cartophilia: Maps and the Search for Identity in the French-German Borderland*. Chicago: University of Chicago Press, 2015.
- Dym, Jordana, "More Calculated to Mislead than Inform?: Travel Writers and the Mapping of Central America, 1821-1945," *Journal of Historical Geography* 30, 2 (2004): 340-63.
- , and Karl Offen, eds. *Mapping Latin America: A Cartographic Reader*. Chicago: University of Chicago Press, 2011.
- Eco, Umberto. "On the Impossibility of Drawing a Map of the Empire on a Scale of 1 to 1." *How to Travel with a Salmon & Other Essays*. Orlando, FL: Harcourt, Inc., 1994.
- Edney, Matthew H. "Cartography without 'Progress': Reinterpreting the Nature and Historical Development of Mapmaking." *Cartographica* 30 (1993), 2-3: 54-68.
- , *Mapping an Empire: The Geographic Construction of British India, 1765-1843* Chicago: University of Chicago Press, 1997.
- , "Progress and the Nature of 'Cartography.'" *Classics from Cartographica: Reflections on Influential Articles from Cartographica*. Martin Dodge, ed. Hoboken, N.J.: Wiley, 2011.
- , "Recent Trends in the History of Cartography: A Selective, Annotated Bibliography to

- the English-Language Literature.” *Coordinates* Series B, no. 6, v. 2.1
(2006). <http://www.stonybrook.edu/libmap/coordinates/seriesb/no6/b6.htm>.
- , “Reconsidering Enlightenment Geography and Map-Making: Reconnaissance, Mapping, Archive.” *Geography and the Enlightenment*. David N. Livingstone and Charles W.J. Withers, eds. Chicago: University of Chicago Press, 1999.
- Edson, Evelyn. *Mapping Time and Space: How Medieval Mapmakers Viewed Their World*. London: British Library Board, 1999.
- , *The World Map, 1300-1492: the Persistence of Tradition and Transformation*. Baltimore: Johns Hopkins University Press, 2007.
- Ehrenberg, Ralph E. *Mapping the World: An Illustrated History of Cartography*. Washington, D.C.: National Geographic, 2006.
- Emlen, Robert P. 1987. *Shaker Village Views: Illustrated Maps and Landscape Drawings by Shaker Artists of the Nineteenth Century*. Hanover, NH: University Press of New England.
- Fernández-Armesto, Felipe. *Pathfinders: A Global History of Exploration*. Oxford: Oxford University Press, 2006.
- Fifer, J. Valerie. *American Progress: The Growth of Transport, Tourist, and Information*. Chester, CT: Globe Pequot, 1988.
- Francaviglia, Richard V. *The Shape of Texas: Maps and Metaphors*. College Station, TX: Texas A&M University Press, 1995.
- Furlough, Ellen and Shelley Baronowski. *Being Elsewhere: Tourism, Consumer Culture and Identity in Modern Europe and North America*. Ann Arbor: University of Michigan Press, 2001.
- Garfield, Simon. *On the Map: A Mind Expanding Exploration of the Way the World Looks*. New York: Penguin, 2012.
- Gassan, Richard. *The Birth of American Tourism: New York, the Hudson Valley, and American Culture, 1790-1830*. Amherst: University of Massachusetts Press, 2008.
- Godlewski, Anne Marie Claire. *Geography Unbound: French Geographic Science from Cassini to Humboldt*. Chicago: University of Chicago Press, 1999.
- Gold, John Robert, and Stephen V. Ward, eds. *Place Promotion: The Use of Publicity and Marketing to Sell Towns and Regions*. New York: John Wiley & Sons, 1994.
- Harvey, P.D.A. *The History of Topographical Maps: Symbols, Pictures, and Surveys*. London: Thames and Hudson, 1980.

- Goffart, Walter A. 2003. *Historical Atlases: The First Three Hundred Years, 1570-1870*. Chicago: University of Chicago Press.
- Goode, J. Paul. "What the War Should do for Our Methods in Geography" *Journal of Geography*, Vol. 18 (January 1919)
- , "The Scope and Outlook of Visual Education" *School Science and Mathematics* Vol. 20 No. 6 (June 1920).
- Goodey, Brian R. 1970. 'Mapping Utopia': A Comment on the Geography of Sir Thomas More. *Geographical Review* 60, 1: 15-30.
- Goss, John. 1993. *The Mapmaker's Art: A History of Cartography*. London: Studio Editions.
- Greenberg, Joel. "Lake Michigan's Rim: Beaches, Dunes, and Bluffs." *A Natural History of the Chicago Region*. Chicago: University of Chicago Press, 2002.
- Gregory, Ian and Paul Ell. *Historical GIS: Technologies, Methodologies and Scholarship*. Cambridge: Cambridge University Press, 2008.
- Griffin, Dori. *Mapping Wonderlands: Illustrated Cartography of Arizona, 1912-1962*. Tucson: University of Arizona Press, 2013.
- Grossinger, Robin. *Napa Valley Historical Ecology Atlas: Exploring a Hidden Landscape of Transformation and Resilience*. Berkeley: University of California Press, 2012.
- Haft, Adele. "Maps, Mazes, and Monsters: The Iconography of the Library in Umberto Eco's *The Name of the Rose*." *Studies in Iconography* 14 (1995): 9-50.
- , "The Poet and The Map: (Di)Versifying the Teaching of Geography." *Cartographic Perspectives* 33 (Spring 1999): 33-48.
- , "Poems Shaped Like Maps: (Di)Versifying the Teaching of Geography, II." *Cartographic Perspectives* 36 (Spring 2000): 66-91.
- , "In Search of the Day Before." *Mercator's World* 3.2 (March/April 1998): 15.
- , "The Poet and The Map: (Di)Versifying the Teaching of Geography." *Cartographic Perspectives* 33 (Spring 1999): 33-48.
- , "Maps of Memory: The Autobiographical Maps of J.B. Harley and Denise Levertov." *Mercator's World* 6.4 (July/August 2001): 30-37.
- , "Henry Reed's Poetic Map of Verona: [(Di)Versifying the Teaching of Geography, IV.] *Cartographic Perspectives* 40 (Fall 2001): 32-51, 72-76.
- , "The Poet as Map-Maker: The Cartographic Inspiration and Influence of Elizabeth Bishop's 'The Map'." *Cartographic Perspectives* 38 (Winter 2001): 26-54.

- , "The Poet's World on a Wheel: Grevel Lindop's 'Mappa Mundi.'" *Mercator's World* 8, 2 (March/April 2003): 32-39.
- Hanna, Stephen P. and Vincent J. del Casino, eds. *Mapping Tourism*. Minneapolis: University of Minnesota Press, 2003.
- Harley, J. B. "The Map and the Development of the History of Cartography." *The History of Cartography, vol. 1, Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*. J. B. Harley and David Woodward, eds. Chicago: University of Chicago Press, 1987.
- , *The New Nature of Maps: Essays in the History of Cartography*. Baltimore: Johns Hopkins University Press, 2001.
- , Ellen Hanlon, and Mark Warhus. *Maps and the Columbian Encounter: An Interpretive Guide to the Travelling Exhibition*. American Geographical Society Collection, Milwaukee [and others]. Milwaukee: Golda Meir Library, University of Wisconsin, 1990.
- and David Woodward, eds. *The History of Cartography*. 6 vols. (1-3, 6 published). Chicago: University of Chicago Press, 1987-.
- Harp, Stephen L. *Marketing Michelin: Advertising & Cultural Identity in Twentieth-Century France*. Baltimore: Johns Hopkins University Press, 2001.
- Harmon, Katharine. *You Are Here: Personal Geographies and Other Maps of the Imagination*. New York: Princeton Architectural Press, 2004.
- Harvey, Francis. *A Primer of GIS: Fundamental Geographic and Cartographic Concepts*, 2d. ed. 2016.
- Hennig, Benjamin. *Rediscovering the World: Map Transformations of Human and Physical Space*. New York: Springer, 2013.
- Herb, Guntram. *Under the Map of Germany*. New York: Routledge, 1997.
- Hill, Gillian. *Cartographical Curiosities*. London: The British Library, 1978.
- Holmes, Nigel. *Pictorial Maps*. New York: Watson-Guptill, 1991.
- Hopkins, Martha E., and Michael Buscher. 1999. *Language of the Land: The Library of Congress Book of Literary Maps*. Washington, D.C.: Library of Congress, 1999.
- Hodgkiss, Alan G. 1981. *Understanding Maps: A Systematic History of their Use and Development*. Folkestone: Dawson.
- Howse, Derek, and Michael Sanderson. *The Sea Chart: An Historical Survey Based on the Collections in the National Maritime Museum*. Newton Abbot: David and Charles; New York: McGraw-Hill, 1973.

- Hyde, Anne F. *An American Vision: Far Western Landscape and American Culture, 1820-1920*. New York: New York University Press, 1990.
- Jacob, Christian. *The Sovereign Map: Theoretical Approaches in Cartography throughout History*. Tom Conley, trans.; Ed Dahl, ed. Chicago: University of Chicago Press, 2006.
- Jacobs, Frank. *Strange Maps: An Atlas of Cartographic Curiosities*. New York: Viking, 2009.
- Jacobs, Michael. *The Painted Voyage: Art, Travel and Exploration, 1564-1875*. London: British Museum Press, 1995.
- Jakle, John A. *The Tourist: Travel in Twentieth-Century North America*. Lincoln: University of Nebraska Press, 1985.
- Karrow, Robert W., Jr. *Mapmakers of the Sixteenth Century and Their Maps: BioBibliographies of the Cartographers of Abraham Ortelius, 1570*. Chicago: Speculum Orbis Press, 1993.
- Keating, Anne Durkin. *Chicagoland: City and Suburbs in the Railroad Age* (Chicago: University of Chicago Press, 2005)
- Kennedy, Dane Keith, ed. *Reinterpreting Exploration: The West in the World*. Oxford: Oxford University Press, 2014.
- Kinsey, Joni. *Thomas Moran and the Surveying of the American West*. Washington D.C.: Smithsonian Institution Press, 1992.
- Kirsch, Scott. "John Wesley Powell and the Mapping of the Colorado Plateau, 1869-1879: Survey Science, Geographical Solutions, and the Economy of Environmental Values." *Annals of the Association of American Geographers* 92 (2002) 3: 548-72.
- Knowles, Anne Kelly. *Past Time, Past Place: GIS in History*. Redlands, Calif.: ESRI, 2002.
- Koshar, Rudy, ed. *Histories of Leisure*. Oxford; New York: Berg, 2002.
- Krieger, Alex, David Cobb, and Amy Turner, eds. *Mapping Boston*. Cambridge: MIT Press, 1999.
- Krygier, John, and Denis Wood. *Making Maps: A Visual Guide to Map Design for GIS*, 2d. ed. New York: Guilford, 2011.
- Krim, Arthur. "Get Your Kicks on Route 66! A Song Map of Postwar Migration." *Journal of Cultural Geography* 13: 27-38.
- Lears, Jackson. *Fables of Abundance: A Cultural History of Advertising in America*. New York: Basic Books, 1994.
- Lefebvre, Henri. *The Production of Space*. New York: Wiley-Blackwell, 1992.

- Lewis, G. Malcolm, ed. *Cartographic Encounters: Perspectives on Native American Maps and Map Making*. Chicago: University of Chicago Press, 1998.
- Lewis, Martin W., and Kären E. Wigen. *The Myth of Continents: a Critique of Metageography*. Berkeley: University of California Press, 1997.
- Lin, Hui, and Michale Batty, ed. *Virtual Geographic Environments*. Redlands, Calif.: ESRI Pres, 2012.
- Livingstone, David N. and Charles W.J. Withers, eds. *Geography and Enlightenment*. Chicago: University of Chicago Press, 1999.
- Lloyd, David Wharton. *Battlefield Tourism: Pilgrimage and the Commemoration of the Great War in Britain, Australia and Canada, 1919–1939*. Oxford: Berg, 1998.
- Lois, Carla. and Hector Mendoza Vargas, eds. “Historias de la Cartografía de Iberoamérica: Nuevos caminos, viejos problemas.” *Geografía para el siglo XXI, Serie: Libros de Investigación*. Mexico City: Instituto de Geografía, UNAM, 2009.
- MacEachren, Alan M. "A Linear View of the World: Strip Maps as a Unique Form of Cartographic Representation." *American Cartographer* 13 (1986): 7-25.
- , *How Maps Work*. New York: Guilford, 1995.
- and Gregory B. Johnson. "The Evolution, Application and Implications of Strip Format Travel Map." *Cartographic Journal* 24 (1987), 147-58.
- MacEachern, Jason Dykes, Alan M. MacEachren, Menno-Jan Kraak, eds. 2005. *Exploring Geovisualization*, London: Elsevier Science. 1995.
- Martin, James W. "Mapping an Empire: Tourist Cartographies of the Caribbean in the Early Twentieth Century." *Early Popular Visual Culture* (9:1), 1-14.
- Massey, Doreen. *Space, Place, and Gender*. Minneapolis: University of Minnesota Press, 1994.
- Michie, Helena, and Ronald R. Thomas. *Nineteenth-Century Geographies: The Transformation of Space from the Victorian Age to the American Century*. New Brunswick, NJ: Rutgers University Press, 2003.
- Meinig, D.W. *The Shaping of America: A Geographic Perspective on 500 Years of History*. Vols. I-IV. New Haven and London: Yale University Press, 1986-2006.
- , ed. *The Interpretation of Ordinary Landscapes: Geographical Essays*. New York: Oxford University Press, 1979.
- Modelski, Andrew M. *Railroad Maps of North America: The First Hundred Years*. Washington, D.C.: Library of Congress, 1984.

- Monmonier, Mark. 1989. *Maps with the News: the Development of American Journalistic Cartography*. Chicago: University of Chicago Press, 1989.
- *How to Lie with Maps*. 2nd ed. Chicago: University of Chicago Press, 1996.
- *Air Apparent: How Meteorologists Learned to Map, Predict, and Dramatize Weather*. Chicago: University of Chicago Press, 1999.
- *Bushmanders & Bullwinkles: How Politicians Manipulate Electronic Maps and Census Data to Win Elections*. Chicago: University of Chicago Press, 2001.
- *Rhumb Lines and Map Wars: A Social History of the Mercator Projection*. Chicago: University of Chicago Press, 2004.
- Muehlenhaus, Ian. *Web Cartography: Map Design for Interactive and Mobile Devices*. 2014.
- Mukerji, Chandra. "Visual Language in Science and the Exercise of Power: The Case of Cartography in Early Modern Europe." *Studies in Visual Communication* 10 (1984): 30–45.
- Mundy, Barbara E. *The Mapping of New Spain: Indigenous Cartography and the Maps of the Relaciones Geográficas*. Chicago: University of Chicago Press, 1996.
- "Mapping the Aztec Capital: The 1524 Nuremberg Map of Tenochtitlan, Its Sources and Meanings." *Imago Mundi* 50 (1998): 11-33.
- Nebenzahl, Kenneth. *Maps of the Holy Land: Images of Terra Sancta through Two Millennia*. New York: Abbeville Press, 1986.
- Nicholson, T. R. "Road Maps and Advertising in Britain, 1860-1940." *Cartographic Journal* 45 (2008): 43–61.
- Ohmann, Richard. *Selling Culture: Magazines, Markets, and Class at the Turn of the Century*. London: Verso, 1996.
- Padrón, Ricardo. *The Spacious Word: Cartography, Literature and Empire in Early Modern Spain*. Chicago: University of Chicago Press, 2004.
- Patton, Jeffrey C. "Maps in Children's Literature." *Cartographic Perspectives* 6 (1990): 3-13.
- , and Nancy B. Ryckman. "American School Atlases and Geographies 1784-1900." *Cartographic Perspectives* 33 (Spring, 1999).
- Pedley, Mary Sponberg. "Map Wars: The Role of Maps in the Nova Scotia/Acadia Boundary Disputes of 1750." In *Imago Mundi* 50 (1998): 96-104.
- *A Taste for Maps: Commerce and Cartography in Eighteenth Century France and England*. Chicago: University of Chicago Press, 2004.

- Peters, Jeffrey N. *Mapping Discord: Allegorical Cartography in Early Modern French Writing*. Newark: University of Delaware Press, 2004.
- Pickles, John. "Texts, Hermeneutics and Propaganda Maps." In *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, ed. Trevor J. Barnes & James S. Duncan, 192-230. New York: Routledge, 1992.
- , ed. *Ground Truth: The Social Implications of Geographic Information Systems*. New York: Guilford, 1995.
- , *A History of Spaces*. London: Routledge, 2003.
- Pickles, Rosie, and Tim Cooke, eds. *Map: Exploring the World*. London: Phaidon, 2015.
- Post, J. B. *An Atlas of Fantasy*. Baltimore: Mirage Press, 1973.
- Pratt, Marie Louise. *Imperial Eyes: Travel Writing and Transculturation*. New York: Routledge, 1992.
- Pujades, Ramon. *Portolan Charts: The Medieval Representation of a Ploughed Sea*. Barcelona: Institut Cartogràfic de Catalunya; Institut d'Estudis Catalans, Institut d'Estudis de la Mediterrània, 2007.
- Quam, L. O. "The Use of Maps in Propaganda." *Journal of Geography* 42 (1943): 21-32.
- Ramaswamy, Sumathi. 2001. "Maps and Mother Goddesses in Modern India." *Imago Mundi* 53 (2001): 97-114.
- Reitan, E. A. "Expanding Horizons: Maps in the Gentleman's Magazine, 1731-1754." *Imago Mundi* 37 (1985): 54-62.
- Reps, John William. *Views and Viewmakers of Urban America: Lithographs of Towns and Cities in the United States and Canada, Notes on the Artists and Publishers, and a Union Catalog of Their Work, 1825-1925*. Columbia: University of Missouri Press, 1984.
- Ristow, Walter W. *American Maps and Mapmakers: Commercial Cartography in the Nineteenth Century*. Detroit: Wayne State University Press, 1985.
- Robinson, Arthur H. *The Look of Maps*. Madison: University of Wisconsin Press, 1952; repr. 1966.
- , *Early Thematic Mapping in the History of Cartography*. Chicago: University of Chicago Press, 1982.
- and Barbara Bartz Petchenik. *The Nature of Maps: Essays Toward Understanding Maps and Mapping*. Chicago: University of Chicago Press, 1976.
- Rugh, Susan Sessions. *Are We There Yet? The Golden Age of American Family Vacations*.

- Lawrence: University Press of Kansas, 2008.
- Rumsey, David, and Edith M. Punt. *Cartographica extraordinaire: the Historical Map Transformed*. Redlands, Calif.: ESRI Press, 2004.
- Rundstrom, Robert A. GIS, Indigenous Peoples and Epistemological Diversity. *Cartography and Geographical Information Systems* 22 (1995) 1: 45-57.
- Runte, Alfred. *Trains of Discovery: Western Railroads and the National Parks*. Flagstaff, AZ: Northland Press, 1984.
- Rydell, Robert W. *All the World's a Fair: Visions of Empire at American International Expositions, 1876–1916*. Chicago: University of Chicago Press, 1984.
- Sachs, Aaron. *The Humboldt Current: Nineteenth-Century Exploration and the Roots of American Environmentalism*. New York: Penguin, 2007.
- Safier, Neil. *Measuring the New World: Enlightenment Science and South America*. Chicago: University of Chicago Press, 2008.
- Said, Edward. *Orientalism: Western Conceptions of the Orient*. New York: Routledge, 1978.
- Schulten, Susan. *The Geographical Imagination in America, 1880-1950*. Chicago: University of Chicago Press, 2001.
- , Emma Willard and the Graphic Foundations of American History. *The Journal of Historical Geography* 33 (2007): 542-64.
- , *Mapping the Nation: History and Cartography in Nineteenth-Century America*. Chicago: University of Chicago Press, 2012.
- Scott, Hilary. *Contested Territory: Mapping Peru in the Sixteenth and Seventeenth Centuries*. South Bend: University of Notre Dame Press, 2009.
- Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press, 1999.
- Sears, John F. *Sacred Places: American Tourist Attractions in the Nineteenth Century*. New York: Oxford University Press, 1989.
- Shaffer, Marguerite S. *See America First: Tourism and National Identity, 1880-1940*. Washington, D.C.: Smithsonian Institution Press, 2001.
- Shalev, Zur. "Measurer of All Things: John Greaves (1602–1652), the Great Pyramid, and Early Modern Metrology." *Journal of the History of Ideas* 63 (2002): 555–575.
- Short, John Rennie. *Representing the Republic: Mapping the United States, 1600-1900*. London: Reaktion Books, 2001.

- Short, John R. *Making Space: Revisioning the World, 1475–1600*. Syracuse, NY: Syracuse University Press, 2004.
- Skelton, R.A. *Explorers' Maps: Chapters in the Cartographic Record of Geographical Discovery*. New York: Frederick A. Praeger, 1958.
- Smith, Carl. *The Plan of Chicago: Daniel Burnham and the Remaking of the American City*. Chicago: University of Chicago Press, 2006.
- Southworth, Michael, and Susan Southworth. *Maps: A Visual Survey and Design Guide*. Boston: Little, Brown, 1992.
- Stafford, Barbara. *Voyage into Substance: Art, Science, Nature, and the Illustrated Travel Account, 1760-1840*. Cambridge, MA: MIT Press, 1984.
- Stilgoe, John R. *Metropolitan Corridor: Railroads and the American Scene*. New Haven: Yale University Press, 1983.
- Strachey, Barbara. *Journeys of Frodo: An Atlas of J R R Tolkien's The Lord of the Rings*. London: Unwin, 1981.
- Thrift, Nigel. *Spatial Formations*. London: Sage, 1996.
- Thongchai Winichakul. *Siam Mapped: A History of the Geo-Body of a Nation*. Honolulu: University of Hawaii Press, 1994.
- Thrower, Norman J. W. *Maps and Civilization: Cartography and Culture in Society*. Chicago: University of Chicago Press, 1996.
- Tufte, Edward. *Envisioning Information*. Cheshire, CT: Graphics Press, 1992.
- Turnbull, David. *Maps are Territories: Science is an Atlas*. Chicago: University of Chicago Press, 1994.
- , "Cartography and Science in Early Modern Europe: Mapping the Construction of Knowledge Spaces." *Imago Mundi* 48 (1996): 5-24.
- Vujakovic, Peter. "Comic Cartography." *Geographical Magazine* (June, 1990).
- Ward, Stephen V. *Selling Places: The Marketing and Promotion of Towns and Cities, 1850–2000*. New York: Routledge, 1998.
- Warhus, Mark. *Another America: Native American Maps and the History of Our Land*. New York: St. Martin's Press, 1997.
- Watson, Ruth. "Mapping and Contemporary Art." *The Cartographic Journal* 46, 4 (November 2009): 293-307.
- Wigen, Kären, Sugimoto Fumiko, and Cary Karacas, ed. *Cartographic Japan: a History in Maps*.

- 2016.
- Winchester, Simon. *The Map that Changed the World: William Smith and the Birth of Modern Geology*. New York: Harper Perennial, 2001.
- Winearls, Joan ed. *Editing Early and Historical Atlases*. Toronto: University of Toronto Press, 1995.
- Wolf, Armin. "What Can the History of Historical Atlases Teach? Some Lessons from a Century of Putzger's 'Historischer Schul-Atlas'." *Cartographica* 28, 2 (1991): 21-37.
- Wolter, John A., and Ronald E. Grim, eds. *Images of the World: The Atlas through History*. Washington: Center for the Book and Geography and Map Division, Library of Congress, 1997.
- Wood, Denis and John Fels. *The Natures of Maps: Cartographic Constructions of the Natural World*. Chicago and London: University of Chicago Press, 2008.
- , *The Power of Maps*. New York: The Guilford Press, 1992.
- Woodward, David. *The All-American Map: Wax-Engraving and Its Influence on Cartography*. Chicago: University of Chicago Press, 1977.
- , ed. *Art and Cartography: Six Historical Essays*. Chicago: University of Chicago Press, 1987.
- , ed. *Five Centuries of Map Printing*. Chicago: University of Chicago Press, 1975.
- Yonemoto, Marcia. *Mapping Early Modern Japan: Space, Place, and Culture in the Tokugawa Period (1603-1868)*. Berkeley and Los Angeles: University of California Press, 2003.
- Yorke, Douglas A., and John Margolies. *Hitting the Road: The Art of the American Road Map*. San Francisco: Chronicle Books, 1996.
- Zandvliet, Kees. *Mapping for Money: Maps, Plans and Topographic Paintings and Their Roles in Dutch Overseas Expansion During the 16th and 17th Centuries*. Amsterdam: Batavian Lion International, 1998.

With Robert W. Karrow, Jr., *Ptolemy's Geography and Renaissance Mapmakers: A Catalogue and Guide to the Exhibition at the Newberry Library*, ed. Sarah Adair Frank. Chicago: Hermon Dunlap Smith Center for the History of Cartography, the Newberry Library, 2008. (*Mapline* no. 106-107)

Co-editor and contributor, with Robert W. Karrow, Jr., *Maps: Finding Our Place in the World* (Chicago: University of Chicago Press, 2007). Contributed chapter: "Finding Our Way in the World."

"Colorado River," "Niagara Falls," and "Jedediah Smith," in *The Oxford Companion to World Exploration*, ed. David Buisseret (New York: Oxford University Press, 2007).

Editor and contributor, *Cartographies of Travel and Navigation* (Chicago: University of Chicago Press, 2006). Contributed chapter: "Directions and Destinations: Mapping and Making an American Motorized National Space."

"American Oil Company Mapping," in *The Map Book*, ed. Peter Barber ([London]: Weidenfeld & Nicolson, 2005), pp. 332-33.

(with Daniel Block) "The Shifting Agendas of Midwestern Official State Highway Maps." *Michigan Historical Review*, 31, 1 (Spring 2005): 123-65; revised and reprinted in *Mapping in Michigan & The Great Lakes Region*, ed. David I. Macleod, 287-318 (East Lansing: Michigan State University Press, 2007).

"Mercator, Gerardus," *The World Book Encyclopedia* (2005).

"Historic Maps in K-12 Classrooms" (Project Director). Educational website supported in part by the National Endowment for the Humanities (www.newberry.org/k12maps; launched 2004).

"American Promotional Road Mapping in the Twentieth Century." *Cartography and Geographic Information Science* 29, 3 (July 2002): 175-91.

(with Robert W. Karrow, Jr.) *Cartographic Treasures of the Newberry Library*. Exhibition catalogue. Chicago: The Newberry Library, 2001.

"Private Journeys on Public Maps: A Look at Inscribed Road Maps." *Cartographic Perspectives* 35 (Winter 2000): 27-47.

(with Jesse Markow, Judith K. Bock, and Ani Thompson-Smith) *Historic Maps in K-12 Classrooms*. Lesson plans and curatorial commentary. Chicago: The Newberry Library, 1999.

"Atlas: Birth of a Title." In *Gerardi Mercatoris, Atlas Europae*, ed. Marcel Watelet, 15-29. Antwerp: Fonds Mercator; Pleasant Hill, OR: Walking Tree Press, 1998.

Editor, *Cartography and Statecraft: Studies in Governmental Mapmaking in Modern Europe and its Colonies*. Guest edited monograph published as *Cartographica* vol. 35, no. 3-4, Autumn/Winter 1998.

(with Gerald Danzer) *Paper Trails: Geographic Literacy via American Highway Maps*. Chicago: The Newberry Library, 1996.

"From Books with Maps to Books as Maps: The Editor in the Creation of the Atlas Idea." In *Editing Early and Historical Atlases*, ed. Joan Winearls. Toronto: University of Toronto Press, 1995.

"The Structuring of Political Territory in Early Printed Atlases." *Imago Mundi* 47 (1995): 138-54.

"Atlas, la genèse d'un titre." In *Gerardi Mercatoris, Atlas Europae*, ed. Marcel Watelet, 15-29. Antwerp: Bibliothèque des Amis du Fonds Mercator, 1994.

"Blazing a Well-Worn Path: Cartographic Commercialism, Highway Promotion, and Automobile Tourism in the United States, ca.1880-1930." In *Introducing Cultural and Social Cartography*, ed. Robert Rundstrom, 10-20. *Cartographica* monograph no. 44. *Cartographica* 30, 1 (Spring 1993).

"Selling Maps, Selling Highways: Rand McNally's 'Blazed Trails' Program." *Imago Mundi* 45 (1993): 77-89.

(with Robert Karrow and David Buisseret). *Two by Two: Twenty-two Pairs of Maps from the Newberry Library Illustrating 500 Years of Western Cartographic History* [exhibition catalogue]. Chicago: The Newberry Library, 1993.

"Het verkopen van kaarten door wegen te markeren: Rand McNally's 'Blazed Trails' Programma." *Kartografisch Tijdschrift* 18, 3 (Fall 1992).

(with Robert W. Karrow, Jr.) "Fourteenth International Conference on The History of Cartography, Uppsala and Stockholm, 14-19 June 1991." *Imago Mundi* 44 (1991): 126-29.

(with Michael P. Conzen and David T. Thackery) *Illinois County Landownership Map and Atlas Bibliography and Union List*. Springfield: The Illinois Cooperative Collection Management Coordinating Committee, The Illinois Board of Higher Education, 1991.

(with David Buisseret) *Monarchs, Ministers, and Maps: A Cartographic Exhibit at the Newberry Library on the Occasion of the Eighth Series of Kenneth Nebenzahl Jr. Lectures in the History of Cartography*. Chicago: The Newberry Library, 1985.

"Cartography and the Emergence of Territorial States in Western Europe." *Proceedings of the Tenth Annual Meeting of the Western Society for French History, 14-16 October, 1982, Winnipeg, Manitoba*, pp. 74-84.

Contributions to *Mapline*, newsletter of the Hermon Dunlap Smith Center for the History of Cartography, since 1987.

OTHER EDITORIAL:

Series editor for The Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, University of Chicago Press, 1996-.

Editor, *Mapline*, 1988-99

Associate Editor, *Terrae Incognitae*, 1988-95

Hermon Dunlap Smith Center for the History of Cartography Occasional Publications (Nos. 2-7), 1988-95

BOOK REVIEWS in *Journal of American History*, *Cartographica*, *Imago Mundi*, *The Map Collector*, and *Renaissance Quarterly*

Manuscript reviews for *Imago Mundi*, *Cartographic Perspectives*, *Cartographic Journal*, *Cartography and Geographic Information Systems*, Duke University Press, University of Chicago Press

LECTURES AND CONFERENCE PRESENTATIONS (since 1995):

“Mapping the Roads of Chicago’s North Side,” West Ridge-Budlong Woods Historical Society, Chicago, April 2016.

“A Luddite’s View of Twentieth-Century Cartography,” Rocky Mountain Map Society, Denver, May 2015.

Panelist, “Geography and the Humanities at the NEH,” Annual Meeting, Association of American Geographers, Chicago, April 2015.

“American Road Mapping’s Age of Discovery,” Annual Meeting, Association of American Geographers, Chicago, April 2015.

“Mapping the Roads of Chicago’s North Side,” Edgewater Historical Society, Chicago, March 2015.

“Road Mapping on the Margins,” From Terra to Terabytes: The History of 20th Century Cartography and Beyond, symposium organized by the Philip Lee Phillips Map Society of the Library of Congress, Washington, May 2014.

“World-Views, Empire, and Mobility in American Cartography.” *Bridging Cultures: US and Atlantic History, 1450-1850*, NEH Bridging Cultures Seminar organized by the American Historical Association, Library of Congress, January 2014.

“Rivers, Lakes, Travel Cartography and the Frontier, 1800–1848.” *The War of 1812 and American Cartography*, the Seventeenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, the Newberry Library, October 2013.

“Map, Text, and Image in Early American Travel Cartography.” *Common Destinations: Maps in the American Experience*, Winterthur Museum, Garden & Library, Winterthur, DE, October 2013.

Panel presentation, “Envisioning Places as They Change: Roundtable on Susan Schulten’s *Mapping the National: History and Cartography in Nineteenth-Century America*.” Annual meeting, Pacific Coast Branch of the American Historical Association, Denver, August 2013

“American Travellers’ Map Use and Annotation in the 19th Century.” The 25th International Conference on the History of Cartography, Helsinki, June-July 2013.

“Science, Wonder, and Tourism in the Early Mapping of Yellowstone National Park.” *Pictures from an Expedition: Aesthetics of Cartographic Exploration in the Americas*, symposium, the Newberry Library, Chicago, June 2013.

With Diane Dillon, “Maps: From Geography and Navigation to Art and Consumption.” Northern Illinois University Art Museum, DeKalb, Illinois, April 2013.

“Rivers, Roads, and Rails: Travelers and Maps in the Early United States.” *Cultural Histories of Cartography*, symposium, Department of English at the University of Michigan, Ann Arbor, October 2012

“Maps, Marketing, and Memories: An Appreciation of the Twentieth Century American Road Map.” *The Mapping of North America: The Westward Expansion Conference*, organized by the Rocky Mountain Map Society and the Texas Map Society, Denver Public Library, July 2012

“A Brief History of the Atlas.” Lecture to Club 44 collectors group, Rare Book and Manuscript Library, University of Illinois Urbana-Champaign Library, April 2012

“John Melish’s *A Military and Topographical Atlas of the United States*: The War of 1812 and the Emergence of American Commercial Cartography.” Annual meeting, American Historical Association, January 2012.

“Maps and World Views.” Passport Foreign Relations Lectures, Oakland Community College, Skokie, Illinois, April 2011.

“In the Rear View Mirror: An Appreciation of the Twentieth-Century Road Map.” Miami Map Fair, February 2011.

“Directions and Destinations: Road Maps and American Identity in the Twentieth Century.” Center for Prairie Studies, Grinnell College, Grinnell, Iowa, November 2010.

“Making Connections: Road Maps and the Nation.” Arthur Holzheimer Maps and America lecture series, American Geographical Society Library, University of Wisconsin-Milwaukee, April 2010.

“Tracing Illinois History on Maps.” Historic New Salem, Illinois, April 2010.

Discussant, Workshop, Researching Geographical Collections, Royal Geographical Society/Institute of British Geography, London, November 2009

“Maps, Itineraries and River Routes in the Early United States.” The 23rd International Conference on the History of Cartography, Copenhagen, Denmark, July 2009.

“Between Art, Science, and Narrative: Travel Cartography.” Guest lecture, University of Chicago, February 9, 2009.

“Illinois in Maps, and Maps in Illinois: A Brief History of Illinois Cartography.” Keynote lecture, Illinois Geographic Alliance Fall Event, Utica, Illinois, November 2008.

Workshop (with Gerald Danzer), “Finding Our Way to Geographical Insights with Road Maps.” Annual meeting, National Council for Geography Education, Dearborn, Michigan, October 2008.

“Mapping a Nation in Motion: A Brief History of American Travel Cartography.” Co-sponsored by National University’s Center for Cultural and Ethnic Studies and the San Diego Public Library, May 2008.

Round-table presentation, *The Geographic Revolution in America* by Martin Brueckner. Southeastern American Society for Eighteenth-Century Studies annual conference, Auburn, Alabama, February 2008.

Lectures (with Robert W. Karrow, Jr.) about “Maps: Finding Our Place in the World” and “Ptolemy’s *Geography* and Renaissance Mapmakers.” Presented at the Contemporary Club (Chicago), The Field Museum, Fortnightly Club (Chicago), Friends of the University of Wisconsin-Milwaukee

Library, the Newberry Library, Racquet Club (Chicago), University Club (Chicago), and Winnetka (Illinois) Rotary Club, May 2007- February 2008

"Ptolemy as a Geographer." Featured speaker at *Cosmic Cartography* conference sponsored by the University of Chicago Department of Astrophysics, December 2008.

"Mapping 'Wonderland': Explorers, Tourists, and the Cartography of Yellowstone National Park." The 22nd International Conference on the History of Cartography, Bern, Switzerland, July 2007.

"Travelers and Maps in the United States to 1860." *Maps for the New Nation: Mapping and Cartography of the United States 1776-1860*, Louis Round Library, University of North Carolina at Chapel Hill, November 2006.

"Depicting the World: A History of the Atlas, 1500-1800." Guest lecture, Benedictine University, April 2005.

(with Daniel Block) "The Shifting Agendas of Midwestern Official State Highway Maps." Presented at *Mapping in Michigan and the Great Lakes Region*, Central Michigan University, June 2004.

"Mapping a Nation on Rails: Railroad Cartography and American Identity, 1865-1941." 20th International Conference on the History of Cartography, Cambridge-Portland, June 2003.

(with Jesse Markow) "Historic Maps in K-12 Classrooms: A Workshop." Annual Meeting, National Council for Geographic Education, Philadelphia, October 2002.

"Teaching with Historic Maps on the Web: The Newberry Experience." Annual Meeting, North American Cartographic Information Society, Columbus, Ohio, October 2002.

"American Promotional Road Mapping in the Twentieth Century." *Twentieth-Century Cartography* preconference, Annual Meeting, Association of American Geographers, March 2002.

"Reaching Out to Consumers: American Promotional Road Mapping in the Twentieth Century." *Cartography in the Twentieth Century*, a symposium of the History of Cartography Project, Los Angeles, March 2002.

"Road Maps and American Society in the Twentieth Century." Exhibit Lecture, the Newberry Library, January 2002.

"From Rails to Trails: American Tourist Mapping in Transition, 1900-1940." Annual Meeting, Association of American Geographers, New York, February 2001.

"Books as Maps, Maps as Books: Looking for Narratives in Atlas Design," The History of the Book Seminar, Center for Renaissance Studies, The Newberry Library, January 2001.

"Riders Wanted: Maps as Promotional Tools in the American Transportation Industry." *Maps and Popular Culture*, the Second Biennial Virginia Garrett Lectures on the History of Cartography, Arlington, Texas, October 2000.

"Early Modern European Atlases: Views across the Atlantic." Keynote address to Transatlantic Graduate Research Symposium, University of Texas at Arlington, October 2000.

"Regional Identity and the Narrative Organization of Space in Early Atlases." Presented at *Narratives and Maps: Historical Studies in Cartographic Storytelling*, the Thirteenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, October 1999.

"Theatres and Titans: Atlases as Little Worlds." University of Chicago Library Society, October 1999.

"Atlases" and "Road Maps." *Cartographic Traditions in World History*, NEH summer institute, Department of History, University of Illinois at Chicago, July 1999.

"Private Journeys on Public Maps: A Look at Inscribed Road Maps." The 18th International Conference on the History of Cartography, Athens, July 1999.

"The Social Dimensions of Cartography." Annual Spring workshop of the Harvard Atlantic Seminar, Cambridge, April 1999.

"Old Maps, New Geographies: Historic Maps in the K-12 Classroom." *Maps and Minds: A History of Cartography in Geography Education*, a symposium sponsored by the Newberry Library and the North American cartographic Information Society, Milwaukee, October 1998.

"Atlases." *Literature and Cartography in France, 1450-1690*, NEH Summer institute, Harvard University, July 1998.

"Beyond the Grid: Interpreting Pictorial and Ephemeral Maps of Chicago." *Putting Chicago's History on the Map*, a series of workshops and lectures funded by the Illinois Humanities Council, the Newberry Library, April 1998.

"Teaching Geography with Old Maps." Panel, Annual Meeting, Association of American Geographers, Boston, March 1998. (Organizer, chair, and panelist)

"Private Journeys, Public Mapping: Automobile Road Maps and American Memory." Map Society of Wisconsin, Milwaukee, March 1998.

"Maps for Good Roads: The Cartography of the League of American Wheelmen and the National Highways Association." The 17th International Conference on the History of Cartography, Lisbon, Portugal, July 1997.

"On NEH Summer Institutes." ICA Teaching the History of Cartography Symposium, 17th International Conference on the History of Cartography, Lisbon, Portugal, July 1997.

(with Gerald Danzer and Victoria Hollister) "Historic Highways and Paper Trails: Teaching the Geography Standards via Road Maps." Workshop, Annual Meeting, National Council for Geographic Education, Santa Barbara, November 1996.

"Directions and Destinations: Mapping and Making an American Motorized National Space." *Maps on the Move: Cartography for Transportation and Travel*, the Twelfth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, The Newberry Library, October, 1996.

"Assembling Materials for an Exhibit on Automobile Road Maps and Automobile Tourism." Midwest Archives Conference, May 1996.

"Road Maps" and "Atlases." Given to "Cartographic Traditions in American History," a summer institute organized by Gerald Danzer and Mark Newman, Department of History, University of Illinois at Chicago, July 1995.

"Automobile Road Maps: A Visual Geography of America." Friends of the Detroit Public Library and the Michigan Map Society, May 1995.

"Rand McNally, Road Maps, and the Motorized National Space, 1894-1942." Annual Meeting, Association of American Geographers, Chicago, 1995.

<pre-1995:>

"Happy Motoring!: Tourists and the Good Life in American Road Map Cover Art, 1918-1973." Annual Meeting, Popular Culture Association/American Culture Association, Chicago, April 1994.

"Aesthetics and Thematic Mapping: The Relation between Form and Content in Cartographic History." Annual Meeting, Association of American Geographers, Detroit, April 1985.

"Early Modern Atlas Map Sequences: The Fall of Ptolemy and the Rise of Nationalism." Annual Meeting, Association of American Geographers, Washington, April 1984.

MAJOR EXHIBITIONS

(with Diane Dillon) *Make Big Plans: Daniel Burnham's Vision of An American Metropolis*, traveling photo-panel exhibition, metropolitan Chicago, June-December, 2009.

(with Robert W. Karrow, Jr. and Diane Dillon) *Maps: Finding Our Place in the World*, The Field Museum, Chicago, November 2007-January 2008; and The Walters Art Museum, March-June 2008.

(with Robert W. Karrow, Jr.) *Ptolemy's Geography and Renaissance Cartographers*, The Newberry Library, November 2007-February 2008.

(with Robert W. Karrow, Jr.) *Cartographic Treasures of the Newberry Library*, The Newberry Library, October 2001-January 2002.

Paper Trails: Maps, Highways, and American Journeys in the Twentieth Century, The Newberry Library, September- December 1996

(with David Buisseret and Robert W. Karrow, Jr.) *Two-by-Two: Twenty-Two Pairs of Maps from the Newberry Library Illustrating 500 Years of Western Cartographic History*, The Newberry Library, June-August 1993.

(with David Buisseret) *Monarchs Ministers & Maps*, The Newberry Library, October- December 1985.

PROFESSIONAL ACTIVITIES AND GRANTS

Organizer and Chair, "Maps, Their Collecting and Study: A Fifty Year Rerospective," the Nineteenth Kenneth Nebenzahl Lectures in the History of Cartography, October 2016.

Co-director (with Jordana Dym), “Mapping, Text, and Travel,” NEH summer institute for college and university faculty, July-August 2016.

Co-director (with Kathleen Brosnan), “Mapping Nature across the Americas,” NEH summer institute for college and university faculty, July-August 2014.

Organizer and chair, “The War of 1812 and American Cartography,” the Eighteenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, October 2013.

Project Director (Ernesto Capello and Julia Rosenbaum, organizers), “Pictures from an Expedition: Aesthetics of Cartographic Exploration in the Americas,” symposium supported in part by the Terra Foundation for American Art, June 2014

Co-director (with Diane Dillon), “Envisioning America in Maps and Views,” NEH summer seminar for school teachers, July-August 2011.

Project Director, “Mapping Movement in American History and Culture,” a Web-based archive and resource supported in part by a grant from the National Endowment for the Humanities, under development, 2010-present.

Organizer and chair, “Mapping the Transition from Colony to Nation,” the Seventeenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, November 2010.

Co-director (with Diane Dillon), “Mapping and Art in the Americas,” NEH summer institute for college and university faculty, July-August 2010.

Project Director, “Make Big Plans: Daniel Burnham’s Vision of An American Metropolis,” traveling photo-panel and online exhibition and Web resource (under development), 2009-2010, funded in part by the National Endowment for the Humanities.

Co-director (with Gerald Danzer), “Developing Cartographic Literacy with Historic Maps,” NEH summer seminar for schoolteachers, forthcoming, June-July 2009.

Co-organizer, Annual Meeting, The Society for the History of Discoveries, Chicago, November 2007.

Co-organizer (with Richard Talbert), “Ancient Perspectives: Maps and Their Place in Ancient Mesopotamia, Egypt, Greece and Rome,” the Sixteenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, November 2007.

Co-director (with Gerald Danzer), “Developing Cartographic Literacy with Historic Maps,” NEH summer seminar for schoolteachers, July-August 2007.

Program committee and supporting host “Early American Cartographies,” annual conference of the Society of Early Americanists, March 2006.

Local organizing committee, Annual Meeting of the Association of American Geographers, Chicago, March 2006.

Organizer and Chair, “Reading Popular Cartography,” thematic paper sessions at the Association of American Geographers, Annual Meeting of the Association of American Geographers, Chicago, March 2006

Co-organizer (with Yolanda Theunissen), "Promoting the Use of Historic Maps in Schools," a round-table discussion, Twenty-First International Conference on the History of Cartography, Budapest, Hungary, July 2005.

Co-director (with Gerald Danzer), "Developing Cartographic Literacy with Historic Maps," NEH summer seminar for schoolteachers, June-July 2005.

Organizer, "The Imperial Map," the Fifteenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, October 2004.

Director, "Reading Popular Cartography," an NEH summer institute for school teachers, July-August 2004

Project Director (Anne Knowles, convener and chair), "History and Geography: Assessing the Role of Geographical Information in Historical Scholarship," a symposium supported in part by the National Endowment for the Humanities, March 2004.

Director, "Everyday Maps: Historical and Teaching Perspectives," an NEH summer institute for school teachers, June-July 2003.

Director, "Historic Maps in K-12 Classrooms," a National Education Project funded in part by the National Endowment for the Humanities, 2000-2003.

Co-organizer and Co-Chair of three sessions on popular cartography, Annual Meeting, Association of American Geographers, Los Angeles, March 2002.

Organizer and Chair, "A Taste for Maps: Commerce and Cartography in Early Modern Europe," The Fourteenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, The Newberry Library, October 2001.

Chair, Organizing Committee, Twentieth Annual Symposium, International Map Collectors' Society, Chicago and Milwaukee, October 2001.

Director, "Popular Cartography and Society," an NEH summer institute for and college and university faculty, July-August 2001.

Member, Local Organizing Committee, Annual Meeting, National Council for Geographic Education, 2000.

Organizer and Chair, "Narratives and Maps: Historical Studies of Storytelling in Maps," The Thirteenth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, The Newberry Library, October 1999.

Director, "Mapping Chicago's History," a workshop series funded by the Illinois Humanities Council, March and September, 1999.

Director, "Maps and Nations," a summer graduate seminar funded by the Andrew W. Mellon Foundation, June-August 1998 and June-August 1999.

Director, "Historic Maps in K-12 Classrooms," an educational outreach program funded by the Lloyd A. Fry Foundation, 1999.

Organizer and Chair, *Maps and Minds: A History of Cartography in Geography Education*, a symposium sponsored by the Newberry Library and the North American Cartographic Information Society, Milwaukee, October 1998.

Organizer and Chair, "Teaching Geography with Old Maps," Annual Meeting, Association of American Geographers, Boston, March 1998.

Director, "Putting Chicago's History on the Map," a series of workshops and lectures funded by the Illinois Humanities Council, 1998.

Director, "Using Historic Maps in Geography Education," an educational outreach program funded by the Lloyd A. Fry Foundation, 1997-98.

Organizer and Chair, "Maps on the Move: Cartography for Transportation and Travel," The Twelfth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography, The Newberry Library, October 1996.

Director, "Cartography and History: Using Maps in Teaching the Humanities," National Endowment for the Humanities Summer Institute, 1996.

Conference Coordinator, 15th International Conference on the History of Cartography, Chicago, June 1993.

(with David T. Thackery) Selected to implement the Illinois County Atlas Preservation Project, administered by the Illinois Cooperative Collection Management Coordinating Committee, 1990-91.

HONORS AND AWARDS

Fellow, Hermon Dunlap Smith Center for the History of Cartography, 1984
University Fellow, Pennsylvania State University, 1981-82
Phi Beta Kappa, Denison University, 1977

MEMBERSHIPS

Association of American Geographers
The Chicago Map Society
International Society for the History of the Map

OTHER PROFESSIONAL SERVICE

Program Selection Committee Chair, International Conference on the History of Cartography, Ghent, Belgium, July 2015

Adult education seminars at the Newberry Library Lyceum, 1986, 1992, 1995, 1996, 2001

Chicago Map Society, Board of Directors and Program Chair, intermittently since 1989

Academic Council, The Newberry Library, 1995-present

Board of Directors, Geographic Society of Chicago, 1996-; First Vice President, 1998-2000; President 2000-02

Professional Development Programs for Teachers: Newberry Library “Teachers and Scholars” program, 2001, 2002, 2004, 2007, 2009; Newberry Library “Teacher’s Consortium program, 2000, 2005, 2007-09

Advisory Panel, The National Geographic Society-Geographical Society of Chicago Geography Education Fund, 2001-2007

Archives and History Committee, Association of American Geographers, 2005-08, 2012-present

Board of Review, Osher Map Library and Smith Center for Cartographic Education, University of Southern Maine, 2007-present (chair, 2014-15)

Board of Review, The Norman Leventhal Map Center, Boston Public Library, 2008-present

Board of Directors, Imago Mundi, Ltd., 2012-present

Review committee, National Endowment for the Humanities, Division of Public Programs, 2012

Review committee, Herbert Feis Award for Distinguished Service in Public History, 2012-13

Dissertation Reader (Jamie McGowan), University of Illinois Urbana-Champaign, Department of History, 2013

Editorial Board, volumes 5-6, *The History of Cartography*