



**THE GREATER PHILADELPHIA  
RESEARCH COLLECTIONS NETWORK**

*A program of the Philadelphia Area Consortium of Special Collections Libraries (PACSCL)*

**THE GREATER PHILADELPHIA  
GEOHISTORY NETWORK**

**A Proposal to the Andrew W. Mellon Foundation  
for a One-Year Planning Grant  
January 1, 2005 through December 31, 2005**

**October 1, 2004**

**Project Description**

The PACSCL institutions have a unique opportunity to create an innovative geographically-based web resource for exploring the history, culture, and architecture of their city. By taking advantage of state of the art GIS technology, digital imaging, and the extraordinary concentration of primary historical materials held by PACSCL institutions, the set of interlinked resources we are provisionally calling the Greater Philadelphia GeoHistory Network (GPGN) promises to become a model for a new way of studying and presenting urban and regional history, culture, and sociology. GPGN will be a freely-available primary resource for scholars, professionals, and laymen, with implications that range from genealogy to community development.

In its most basic form, the GPGN will consist of a web-based GIS front-end laid over a broad relational database containing information organized along three primary axes – geography, chronology, and historical documentation. We anticipate that the GIS interface will be the primary point of access for most researchers, enabling them to select a neighborhood, street, or building. For example, users may view maps from the Civil War period, photographs from the Great Depression, information about the architects of the buildings, records of the businesses that were located there, or even diaries and letters of former residents.

Other researchers may choose to enter the GPGN through a directory or demographic search to discover where sailors, laborers, or shoemakers lived; when industries became established; or the racial or ethnic makeup of a neighborhood. Operating like archaeologists, researchers will be able to remove layer after layer to reveal the past, ask probing questions about shifts in racial composition, industrialization or deindustrialization, or simply track the history of their homes or where their ancestors lived. PACSCL is eager to make the evolving GPGN platform support interdisciplinary study in a number of ways beyond those initially considered here. For instance, Columbia University has been exploring mapping of epidemiological data and the Perseus Project incorporates archaeological data -- things potentially of great interest to PACSCL members and the users of their collections.

Ultimately, the GeoHistory Network will serve as a flexible and inclusive repository for information about the southeastern Pennsylvania region. While the initial content will center on the area's historical and cultural base, the planning and design of GPGN will ensure the development of a robust infrastructure that supports multiple layers of geographically-based data. The project will develop protocols and data interfaces to support the dissemination of data and research, allowing contributions not only from existing repositories, but also directly from scholars.

This initiative has at its foundation the extraordinary work of two partners and draws on the rich holdings of more than forty research collections, including many of the members of the Philadelphia Area Consortium of Special Collections Libraries. The founding partners and work include:

- City of Philadelphia, Department of Records – as the official record keeper of the city, the department holds authoritative land records as well as collections of photographs documenting the city's history and growth since its founding. The historical base map of land records has been scanned, and migration to fully electronic land record keeping is underway – this provides an authoritative base upon which multiple layers of geographic information can be added. So far, \$5.1 million has been invested by the city in this project, and the city has committed an additional \$900,000 to create a seamless coverage of the scanned Records Department maps.
- Athenæum of Philadelphia, Philadelphia Architects and Buildings Website – a \$2.3 million project linking information from 30 institutions in the Philadelphia region to provide historical information on the built environment and an online digital image library of items in area collections. PAB also provides the beginnings of an historical GIS, linking buildings to a particular address and location on the map. The Philadelphia Architects and Buildings website is at <http://www.PhiladelphiaBuildings.org>.

Ultimately, we plan to add layers of statistical information derived from federal censuses and other sources, linking this information to names listed in the city directories as well as addresses, along with manuscripts and printed materials drawn from PACSCL collections. An independent researcher has already begun keying information from several Philadelphia City Directories, which include the names, addresses, occupations and (in many years) the race of all heads of household in the city. These and any other data that can be correlated with individual names or addresses can be brought within the GeoHistory Network.

In the pilot study, we will develop a plan to bring the two founding projects under a common umbrella and identify and prioritize other projects (*both independent and institutionally sponsored*) and collections that can provide greater breadth and depth to the GPGN. A concept demonstration will begin to scan and georeference historical atlas plates and integrate these with textual, quantitative, and non-graphic data, as well as digitized versions of primary documents. The demonstration will include two topics: one that will exemplify a focus on a period of time, and one that will exemplify a focus on a specific place. Chronologically, the demonstration will focus particularly on the Civil War period, towards which approximately \$40,000 has been

committed by the Phoebe Haas Trust and the City of Philadelphia. We hope to use some of this additional funding to incorporate two Civil War-era city directories into the prototype website. Geographically, we will focus on two sections of the city selected for intensive documentation, the contiguous neighborhoods of Society Hill and Old City. With more than three hundred years of continuous occupancy, these neighborhoods mirror the city's profound demographic changes.

In addition to sorting out the technological demands, our priority in this pilot study will be to develop a working model for institutions to participate in GPGN, a work flow for identifying, prioritizing, scanning, and integrating data, and a plan for the on-going maintenance and development of the project. Our goal is to design a stable data environment that can be continually expanded, making the GPGN a dynamic and sustainable resource.

## **Planning**

Total Costs \$47,593 – Mellon Funds \$20,000

Responsibility for planning the GPGN lies with a steering committee drawn from staff and consultants of the Athenæum of Philadelphia, the City of Philadelphia Department of Records, and other Philadelphia Area Consortium of Special Collections (PACSCL) members. The steering committee will be supported by an Advisory Committee with local and national, technical and scholarly representation. To date, the steering committee has included Joan Decker, Commissioner of Records, City of Philadelphia; Bruce Lavery, Curator, the Athenæum (advised by Walter Rice, technical consultant), V. Chapman-Smith, Regional Administrator, National Archives & Records Administration; C. Daniel Elliott, Philadelphia Museum of Art (succeeding Katherine Stefko), and Rob S. Cox, Keeper of Manuscripts, American Philosophical Society, David Moltke Hansen (*ex officio*) and Laura Blanchard (*ex officio*). Rob Cox is leaving for the University of Massachusetts and may become a member of the advisory committee. His replacement on the steering committee will be selected shortly. A summary of steering committee member qualifications is attached. We also will solicit input and feedback from potential users of the GPGN during a scholarly symposium hosted by the Athenæum.

We have set three goals for the planning phase of this project. First, we will identify and analyze current GIS and regional data projects to formulate a strategy and set of best practices for development of the GPGN. This will be accomplished through exhaustive web searching, multiple listServ appeals, traditional correspondence, and word-of-mouth. Although no current projects approach the intended scope of the GeoHistory Network, the Boston Streets project sponsored by the Bostonian Society and Tufts University, the UNESCO "Venice Inner Canals on the Web" project, and the online GIS project of the David Rumsey Map Collection provide valuable models for aspects of the GPGN.

Secondly, one or more surveyors hired for the project will identify and prioritize potential resources in PACSCL collections, as well as other textual, quantitative, and non-graphic data that will contribute to the GPGN. They will accomplish this both by site visits and by examination of online and physical finding aids. Criteria for determining priority collections for contribution to the GPGN will include: willingness of the member institution to participate; accessibility of the

collections; ownership and copyright issues; and the potential level of cross-disciplinary scholarly interest in the material to be included.

Finally, we will investigate models for database design, user interface, and outreach with the intention of encouraging a range of scholars, including younger researchers, to consider shaping their projects both to take advantage of materials incorporated in the GPGN and to consider contributing additional data arising from their research. GPGN staff will meet with current and potential GIS users and data contributors to identify requirements and design appropriate workflows and data structures. Preliminary findings of the staff will be presented to the Advisory Committee and at the GIS Users Symposium for feedback. The potential for continued scholarly contributions to the GPGN and the development of the GPGN as a national model for serving and collection of geo-history will be an important focus of the Advisory Committee and the Historical GIS User Symposium described below.

Bruce Lavery, Curator of Architecture at the Athenæum of Philadelphia, and Director of the Philadelphia Architects and Buildings Project, will serve as the project director (principal investigator) for the GPGN planning grant. Mr. Lavery will devote 20% of his time towards the project. Mr. Lavery's curriculum vitae is an appendix to this proposal.

<i>Mr. Lavery's salary (20%) contributed to the project</i>	\$ 11,120
<i>Mr. Lavery's benefits (20%) contributed to the project</i>	5,973

Joan Decker, Commissioner of the Records Department of the City of Philadelphia, will serve as the city's representative for the GPGN planning grant. Ms. Decker will supervise selection and scanning of materials at the Records Department and will act as liaison between the city's GIS teams and the GPGN advisory committee. Ms. Decker will devote 10% of her time towards this project. Ms. Decker's curriculum vitae is an appendix to this proposal.

<i>Ms. Decker's salary (10%) contributed to the project</i>	\$ 7,500 est.
<i>Ms. Decker's benefits (10%) contributed to the project</i>	3,000 est.

Walter Rice, Jr., is a consultant who designed and implemented the technical aspects of the Philadelphia Architects and Buildings Project, and will act as staff consultant for the GPGN. Mr. Rice has significant experience in project planning, in database and website design, and in GIS applications. For the past three years, Mr. Rice has been involved in planning meetings regarding various PACSCL initiatives. He will provide consulting to the staff and advisory committees, as well as develop the interface for the demonstration project and provide day-to-day user support for project activities. Mr. Rice's curriculum vitae is an appendix to this proposal. Mr. Rice will invoice the project for his time at a rate of \$75 per hour, not to exceed the budgeted amount specified below.

<i>Consulting (budget)</i>	\$ 10,000
----------------------------	-----------

The other staffing for the planning portion of the grant will consist of one or more collection and data surveyors hired to identify and analyze possible data sources for the GeoHistory Network. The surveyors will work part-time for the project at a rate of \$20 per hour.

**Advisory Committee**

Total Costs \$6,000 – Mellon Funds \$6,000

The GPGN Advisory Committee will be selected from the existing Philadelphia Architects and Buildings Project Steering Committee and from the GIS and research communities. The committee will be composed of approximately 15 members, 5 chosen from the PAB Steering Committee, 5 from the GIS community, and 5 from the scholarly research community. We plan to include a representative from the Cartographic Modeling Laboratory at the University of Pennsylvania, the Delaware Valley Regional Planning Commission, and other stakeholders to be identified. While a regional project, we will seek to include national representation. The Advisory Committee will meet twice during the planning period.

Possible invitees to the Advisory Committee include:

- William A. Blair, Associate Professor of U.S. History and Director, George and Ann Richards Civil War Era Center, Pennsylvania State University
- Richard Boardman – Head of the Map Department, Free Library of Philadelphia
- Karl Bortnick – Special Projects / Grants Officer, Mayor’s Office of Information Services
- Jessica Branco – Project Coordinator, Boston Streets Project, Tufts University Digital Collections and Archives
- Dr. Jeffrey A. Cohen – Senior Lecturer, Growth and Structure of Cities Program, Bryn Mawr College
- Dennis Culhane – Professor of Social Welfare Policy, School of Social Work, University of Pennsylvania; Co-Director, Cartographic Modeling Lab, University of Pennsylvania
- Bernard L. Herman, Rosenberg Professor of Art History and Director, Center for American Material Culture Studies
- Jefferson Moak – Chief Archivist, Mid-Atlantic Region of the National Archives
- Jonathan Farnham – Preservation Planner, Philadelphia Historical Commission
- James Green – Philadelphia City Planning Commission
- William Stevens – Manager, GIS Systems, Delaware Valley Regional Planning Commission
- Thomas Sugrue - Bicentennial Class of 1940 Professor of History and Sociology, University of Pennsylvania
- Dr. Sandra Tatman – Professor of Art, Towson University
- Charles Dana Tomlin – Professor of Landscape Architecture, University of Pennsylvania School of Design; Co-Director, Cartographic Modeling Lab, University of Pennsylvania

We are currently working to identify other appropriate members from outside of the Philadelphia region to serve on the Advisory Committee. Most Steering Committee members are identified above.

In terms of expenses, Advisory Committee meetings will occupy most of the day, thus lunch will be provided for the members. In addition, travel and lodging expenses will be provided for members who are located a significant distance from Philadelphia. It is estimated that 5 members of the committee will be reimbursed for travel expenses, at an average of \$500 per person per meeting.

<i>Advisory Committee Food Costs (2 meetings)</i>	\$ 1,000
<i>Advisory Committee Travel and Lodging (2 meetings)</i>	5,000

**Historical GIS Users Symposium**

Total Costs \$9,000 – Mellon Funds \$9,000

While the exact format of the Historical GIS Users Symposium is still under development, we anticipate a one-day symposium during Month 6 of the project (June 2005, assuming our suggested timeline) at the Athenæum of Philadelphia for current and potential historical GIS users, researchers, and data providers. It is anticipated that both the speakers and the participants will represent not only the Greater Philadelphia region, but the nation, as we seek to develop a national model for geo-history. The symposium will have a two-fold purpose – to provide scholarly presentation of existing work by selected speakers, and to engage the symposium participants in working groups to discuss requirements, potential uses, and the future of the Greater Philadelphia GeoHistory Network. The proceedings of the symposium, including both the scholarly presentations and action items from the working groups, will be published online.

We hope to bring in at least five speakers from GIS projects outside the Philadelphia area to provide some context for the working groups. Working groups will meet in two sessions. The first will group participants into subject areas, such as architecture, social history, industrial history, and neighborhood development and transformation. The second will group participants by institutional background, i.e., academic, governmental, business, and community users. These two sessions will enable small-group discussion and feedback for the GeoHistory project, while encouraging interdisciplinary “cross-pollination.”

<i>Symposium Invitations, Postage, and Promotion</i>	\$ 3,000
<i>Symposium Food (continental breakfast and beverages for 150)</i>	1,500
<i>Symposium Travel Costs (5 speakers at \$400 estimated)</i>	2,000
<i>Symposium Honoraria (5 speakers at \$500)</i>	2,500

**Software**

Total Costs \$7,500 – Mellon Funds \$4,500

For planning and demonstration purposes, two additional licenses of ESRI’s ArcView software will be required for use at the Athenæum. The Athenæum has already purchased one license, and the Commonwealth of Pennsylvania has purchased two licenses for use by PAB staff. ArcView will be used to access and view the city’s GIS data, to georeference the scanned atlas plates to the city’s official base map (see below), and to develop the coverages (mapped data points) of data and images used in the demonstration portion of the project.

<i>ArcView Licenses to be purchased (2 licenses, \$1, 500 each)</i>	\$ 3,000
<i>Contributed Licenses already purchased (3 licenses)</i>	4,500

**Demonstration Scanning and Georeferencing**

Total Costs \$19,500 – Mellon Funds \$12,000

As part of the planning project, the 100 plates of the Hexamer & Locher Real-Estate Atlas of 1860, held by the Free Library of Philadelphia, will be scanned and digitally overlaid on the current Philadelphia map (georeferenced). The Free Library has graciously agreed to lend us these volumes to be scanned for this project. Two other atlases, the Bromley 1895 and 1910, both held by the Athenæum of Philadelphia, have already been scanned, and will be georeferenced for the concept demonstration component of this project. These maps will give us a geographic cross-section of Philadelphia’s development in three key periods of its growth.

The estimated cost for scanning each map plate is \$75. This cost includes staff time, supplies, and equipment overhead for the Athenæum’s Regional Digital Imaging Center. Because of the size of the maps, they must be scanned on a large-format flatbed scanner. The cost is lower than producing and scanning 4x5” color transparencies, and produces an image of greater clarity and resolution.

<i>1860 Hexamer &amp; Locher Atlas Plates (100 at \$75 / plate)</i>	\$ 7,500
<i>1895 Bromley Altas Plates (50 at \$75 / plate) – contributed</i>	3,750
<i>1910 Bromley Atlas Plates (50 at \$75 / plate) – contributed</i>	3,750

Georeferencing requires image manipulation, cropping and rotation, and then alignment of points on the scanned map with the same points on the Philadelphia base map. Estimated processing and georeferencing time is approximately 90 minutes per map. Georeferencing requires an intimate knowledge of the street layout of Philadelphia and proficiency with GIS and image processing applications. A technician will be hired and will work from an office at the Athenæum. Based on an hourly rate of \$15, processing of each plate will cost \$22.50.

<i>Geocoding Technician (\$22.50 / plate)</i>	\$ 4,500
-----------------------------------------------	----------

Other materials falling within the focus areas of the demonstration project will be scanned and incorporated into the pilot. All materials used for the project will be in the public domain, or

from collections for which the Athenæum of Philadelphia (or another contributing PACSCL institution) holds copyright. Participating institutions will execute whatever agreements are necessary to ensure proper use of images in the developed system.

### **Project Timeline**

- Finalize Composition of Advisory Committee – Month 1
- Survey Philadelphia-area Institutions, Identify Possible Data Contributors – Months 1-11
- Scan Atlas Plates from Free Library – Month 1
- Advisory Committee Meeting – Month 2
- Georeference Atlas Plates – Months 2-8
- Secure Speakers and Develop Participant List for Symposium – Month 3
- Design Database Structures, Interfaces, and Workflows – Month 3-12
- Develop Demonstration Website – Month 5-12
- Historical GIS User Symposium – Month 6
- Publish Symposium Proceedings and Collate Working Group Action Points – Month 7
- Advisory Committee Meeting – Month 11
- Preparation of Final Report – Month 12

### **Planning Grant Outcomes**

This application is for a one-year planning grant, with the primary purpose of producing a full grant application for the implementation of the project. This will be done through research and discussion of existing projects with the advisory committee; receipt of expectations from the various user communities; surveys of data resources, both electronic and physical; and the development of a demonstration prototype. A list of specific deliverables is below.

- A detailed proposal for grant funding for the GPGN project.
- Examination and analysis of similar projects.
- Development of a set of best practices for the implementation of the GPGN.
- Report and proceedings of the Historical GIS Users Symposium, published online.
- Scanning and georeferencing of 200 atlas plates of Philadelphia.
- Demonstration/prototype website, including a preliminary GIS interface providing the city's current GIS data with layers of historic scanned atlas plates and selected historical information documenting the focus areas and periods. This information will include building information, statistics, city directory entries, and photographs.



**Greater Philadelphia GeoHistory Network**  
**Planning Budget**  
**January 1, 2005 through December 31, 2005**

	<u>Mellon</u>	<u>Contrib</u>	<u>Total Cost</u>
<b>Planning</b>			
Staff Salaries	\$0	\$18,620	\$18,620
Staff Benefits	\$0	\$8,973	\$8,973
Consultants (\$75 / hour)	\$10,000	\$0	\$10,000
Collection / Data Surveyor (\$20 / hour)	\$10,000	\$0	\$10,000
<b>Planning Subtotal</b>	<b>\$20,000</b>	<b>\$27,593</b>	<b>\$47,593</b>
<b>Advisory Committee Meetings (2 meetings)</b>			
Food	\$1,000	\$0	\$1,000
Travel Costs	\$5,000	\$0	\$5,000
<b>Advisory Committee Subtotal</b>	<b>\$6,000</b>	<b>\$0</b>	<b>\$6,000</b>
<b>Historical GIS Users Symposium</b>			
Invitations, Postage, and Promotion	\$3,000	\$0	\$3,000
Food	\$1,500	\$0	\$1,500
Travel Costs	\$2,000	\$0	\$2,000
Honoraria	\$2,500	\$0	\$2,500
<b>Symposium Subtotal</b>	<b>\$9,000</b>	<b>\$0</b>	<b>\$9,000</b>
<b>Software</b>			
ESRI ArcView (3 licenses already purchased)	\$0	\$4,500	\$4,500
ESRI ArcView (2 licenses to be purchased)	\$3,000	\$0	\$3,000
<b>Software</b>	<b>\$3,000</b>	<b>\$4,500</b>	<b>\$7,500</b>
<b>Demonstration Scanning and Georeferencing</b>			
1860 Hexamer & Locher Atlas Plates (100 at \$75 / plate)	\$7,500	\$0	\$7,500
1895 Bromley Altas Plates (50 at \$75 / plate)	\$0	\$3,750	\$3,750
1910 Bromley Atlas Plates (50 at \$75 / plate)	\$0	\$3,750	\$3,750
Geocoding Technician (\$22.50 / plate)	\$4,500	\$0	\$4,500
<b>Scanning and Georeferencing Subtotal</b>	<b>\$12,000</b>	<b>\$7,500</b>	<b>\$19,500</b>
<hr/>			
<b>Total</b>	<b>\$50,000</b>	<b>\$39,593</b>	<b>\$89,593</b>