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EXPANDING PUBLIC ACCESS TO HISTORIC RESOURCES: A CASE STUDY OF THE PHILADELPHIA ARCHITECTS AND BUILDINGS PROJECT

Melissa A. Steeley

University of Pennsylvania, steeley@design.upenn.edu

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A THESIS Presented to the Faculties of the University of Pennsylvania in Partial Fulfillment of the Requirements of the Degree of MASTER OF SCIENCE IN HISTORIC PRESERVATION 2009

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EXPANDING PUBLIC ACCESS TO HISTORIC RESOURCES: A CASE STUDY OF THE PHILADELPHIA ARCHITECTS AND BUILDINGS PROJECT

Abstract

Digital archives have become an important tool in the field of historic preservation. They help to remove geographical barriers for professionals while providing an ever-increasing number of interested citizens with a connection to the history of their neighborhoods. Cultural heritage institutions around the country are utilizing these web-based information management systems to further their aims of public outreach and improved access to architectural records. Each institution has a different goals and approaches, creating a wide variety of individual projects. To date, there has been no assessment of the role of these resources in preservation research. This thesis is a case study of one effort in particular, the Philadelphia Architects and Buildings Project. To assess its use as a tool in historic preservation, the themes of the historic preservation movement and its attempts at outreach. With this contextual information established, the Philadelphia Architects and Buildings project is examined to determine its strengths as a preservation tool and ways in which its position could be strengthened in the future.

Comments

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in
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Presented to the Faculties of the University of Pennsylvania in Partial
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MASTER OF SCIENCE IN HISTORIC PRESERVATION
2009

Advisor
William Whitaker
Curator
Lecturer in Historic Preservation

Program Chair
Frank G. Matero
Professor of Architecture

This thesis is dedicated to my family and friends.

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CHAPTER I: Introduction

The Philadelphia Architects and Buildings Project (PAB) is an innovative effort led by several Philadelphia-area repositories seeking to improve public access to their holdings. While the primary partners in the effort were the Athenaeum of Philadelphia and the Architectural Archives of the University of Pennsylvania (AAUP), the project ultimately included records from over 30 area repositories.

The PAB holds great potential as a tool to historic preservation professionals and the public as well. Whereas once architectural records were scattered among different repositories in the city, the PAB attempted to bring information about the holdings of these repositories into one easily-accessible web site.

The PAB could not have come at a better time for preservation. The movement has, since the National Historic Preservation Act of 1966, been expanding from a grass-roots effort to a national force. Moreover, preservationists have realized that informing and involving the public as decision-makers and stewards is essential to the long-term success of preservation projects.

The foundations of preservation research at any scale, be it a National Register nomination or a concerned citizen's investigation into their own neighborhood,

are archival materials. Documentation of the past is an essential act in meeting designation requirements, forming connections between people and places, and gaining more insight into a place.

Improving access to architectural records has, largely, been left in the dust, without a concerted national plan. Institutions across the country have recognized that this deficit exists and attempted to address it in various ways. Today there are many individual web-based resources of interest to preservationists –some of which are nationally focused. [Ancestry.com](#), [Proquest](#) and online United States Census records each focus on providing records useful to people around the country. Others choose to focus their resources on one geographical area, collection, or subject like the [Greene & Greene](#) archives, dedicated strictly to the architecture of brothers Charles Greene (1868-1957) and Henry Greene (1870-1954).¹

The focus of the [PAB](#) is unique in that it spans multiple collections in a major metropolitan area and at the same time focuses its subject matter narrowly to be a comprehensive online resource on the architects of a region. Today it has been 10 years since the database's inception, leading one to the question of how it is useful as a preservation tool and what has been done to further its development

¹ "Welcome to Greene & Greene Virtual Archives." [USC - University of Southern California](#). 23 Mar. 2009 <<http://www.usc.edu/dept/architecture/greeneandgreene/index.html>>.

as a preservation tool in the future. Or, in other words, how has it succeeded as a model for local and national documentation efforts.

The subject of the PAB, its place among web-based preservation resources and its future will be examined in several ways. Following this introduction, Chapter II provides a brief narrative of the historic preservation movement and the way it uses archival documents to further its mission, while also detailing efforts made by select archives to increase the accessibility of their records electronically.

Chapter III is comprised of a case study of the development of the PAB and its strengths as a preservation tool. Finally, in Chapter IV, we examine the information gathered in previous chapters to propose guidelines for future expansion with an eye on creating a stronger preservation resource.

CHAPTER II: Historic Preservation and Archival Resources in the United States

2.1 The Preservation Movement

Architectural scholar Anthony M. Tung, in the introduction to his book Preserving the World's Great Cities notes that “the corporeal material of the metropolis is one of the elements that tie a city's people by invisible threads to the past.” He is one of many authors who note the significance of preserving a city's heritage. Multiple articles on the same subject have been published – Robin Elisabeth Datel's article “Preservation and a Sense of Orientation for American Cities” (1985) whose title is a simple and eloquent statement on preservation's role in the urban environment. More empirical studies like that of Harvey Molotov examine the nature of a city's identity, and how it is formed and perpetuated. “History Repeats Itself, But How? City Character, Urban Tradition, and the Accomplishment of Place” (2000). These authors, among others, recognize the importance of historic fabric to the public psychology. Critical to the protection of historic buildings are the primary and secondary documents we use to establish their importance and justify listings to local or national records.

Philadelphia, the home of the PAB, is an urban area with a strong sense of history built on the remnants of the Colonial days. The Preservation Alliance of Greater Philadelphia is only one of many organizations in the metropolitan area that seeks to protect historic fabric, but they communicate the shared sentiment in the following quote: ²

"For over 300 years, generations of men and women have invested in building Philadelphia. They built churches, homes, offices, factories, and public buildings for their needs at the moment. More often than not, they recognized that those structures were investments with value beyond their own lifetimes. Today those investments constitute the rich inventory of the history, the evolution, and the soul of Philadelphia."

Efforts to protect our historic resources, by some accounts, began at the local level with groups such as the Mount Vernon Ladies Association in 1853.³ With the passage of the National Historic Preservation Act of 1966 it became an official government priority as well, thereby nationalizing the movement.⁴ With the legislative groundwork for the protection of historic resources in place, government documentation of historic structures increased.⁵ The Historic American Buildings Survey (HABS) had been in existence since 1933, but in the wake of this Act, the Historic American Engineering Record (HAER), and the

² Donovan D. Rypkema and Katherine M. Wiehagen, The Economic Benefits of Preserving Philadelphia's Past, 1999: 1, Preservation Alliance of Greater Philadelphia, 3 Nov. 2008, <<http://www.preservationalliance.com/files/Economic-Benefits-of-Preserving-Past.pdf>>.

³ Diane Barthel, "Historic Preservation: A Comparative Analyses," Sociological Forum 4 (1989): 92 JSTOR, University of Pennsylvania Library, Philadelphia, PA, 23 Feb. 2009.

⁴ National Historic Preservation Act of 1966, Pub. L. no. 89-665, 16 U.S.C. 470 *et seq.*

⁵ Richard Longstreth, "Architectural History and Practice of Preservation in the United States," The Journal of the Society of Architectural Historians 58 (1999): 326, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 20 Oct. 2008, <<http://www.jstor.org>>.

Historic American Landscape Survey (HALS) were created in 1969 and 2000, respectively.⁶ These, along with National Register and National Historic Landmark nominations provide valuable documentation of historic buildings for the public. They represent a national systematization of historic surveys that are built on "...primary materials and a careful analysis of the building itself..."⁷

The period also witnessed a widening of the scope of both architectural scholarship and preservation to include the examination of vernacular buildings and every-day streetscapes.⁸ The pioneers of vernacular architectural studies showed us how the "grammar" of construction can be a key in cultural studies. Fred Kniffen demonstrated that vernacular building types could be deciphered and used to track cultural migrations over time while his student Henry Glassie continued this line of investigation in his dissertation "Pattern in the Material Folk Culture of the Eastern United States."⁹ Because of this, preservation programs have also expanded to include buildings and neighborhoods that were

⁶ "Heritage Documentation Programs--HABS, HAER, HALS, CRGIS--of the National Park Service." National Park Service - Experience Your America, 23 Feb. 2009 <<http://www.nps.gov/history/hdp/>>.

⁷ Catherine LaVoie, "The HABS/HAER and the National Register, A Symbiotic Relationship," Cultural Resource Management 25 (2002): 14, Cultural Resource Managment Online, 10 Feb. 2009 <<http://crm.cr.nps.gov/archive/25-01/25-01-6.pdf>>.

⁸ Michael Tomlan, "Historic Preservation Education: Alongside Architecture in Academia," The Journal of Architectural Education 47 (1994): 187-96, JSTOR, University of Pennsylvania Library, Philadelphia, PA. 20 Oct. 2008 <<http://www.jstor.org>>.

⁹ Camille Wells, "Old Claims and New Demands: Vernacular Architecture Studies Today," Perspectives in Vernacular Architecture, 2 (1986): 1-2, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 22 Oct. 2008, <<http://www.jstor.org>>.

not “designed” *per se*, but represent important architectural and social patterns of American life.

As the preservation movement continues to expand, it increasingly relies on an informed and involved public for input and support. This public is formed by disparate groups, like the public-at-large, building owners, preservationists and scholars. The National Park Service is a major player in the world of preservation and offers advice on incorporating these different groups into preservation planning and seeking out different stakeholder groups who may be interested in the preservation of an area.¹⁰ A site created by the Library of Congress, called American Memory Historical Collections provides web-based access to government-owned documents like HABS and HAER studies that have done much to “enrich the field” in the words of architectural historian Damie Stillman.¹¹

To increase access levels to the wealth of materials available, many cultural heritage institutions have begun to make use of technology. In the following section, we will discuss the evolving role of digital information management in providing improved access to documents.

¹⁰ Public Participation in Preservation Planning, National Park Service, 22 January 2009, <<http://www.nps.gov/history/hps/pad/plancompan/publicpartic/index.html>>.

¹¹ Damie Stillman, "American Architectural History, 1955-2000," American Art 14 (2000): p.4, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 5 Jan. 2009, <<http://www.jstor.org>>.

2.2 The Value and Aim of Documentation

For preservationists, architectural documents have what could be called “informational value.” Each medium – whether it is a sketch, a photo, or a construction drawing presents us with certain valuable data for the interested researcher. The sketches of an individual architect can be used to examine his or her “process of mind,” or the design evolution of a building according to Mark Hewitt's article in The Journal of Architectural Education. They may also reveal a design intent that was not manifested in the final product. This information could be a key to establishing a design sequence that creates a meaningful interpretation of a particular building in the context of an architect’s development.¹²

Photographs of buildings, on the other hand, offer a view of a structure that shows very little about the architect behind it, but much more about how the final design manifested itself. They also show us valuable contextual information of buildings like conditions at a certain period of time or the nature of its surroundings.

¹² Mark Hewitt, "Representational Forms and Modes of Conception: An Approach to the History of Architectural Drawing," Journal of Architectural Education 39 (1985): 2-9, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 4 Dec. 2008, <<http://www.jstor.org>>.

For buildings that no longer stand, architectural records can be the only source of information still remaining to us if we are fortunate enough to have them. The architecture of Frank Furness is a notable example of this. He is recognized as a great talent today, but in the past fell out of favor which resulted in the demolition of a large number of his commissions. The Provident Life & Trust Company Bank and Office Building in Philadelphia was completed in 1879 and demolished not even one hundred years later, in 1960.¹³ Since the building itself no longer stands, we rely on HABS documentation, references in publications, and records from Furness's office to provide information. The photograph below shows the building as it stood in 1959, not long before its demolition. Additional photographs and plans and photographs are made available through the PAB. (See Fig.1)

¹³ "Provident Life & Trust Company Bank and Office Building." Philadelphia Architects and Buildings. 22 Jan. 2009, <http://www.philadelphiabuildings.org/pab/app/pj_display.cfm?RecordId=4FCC3F33C931-445E-B6B1B4B6B5404483>.

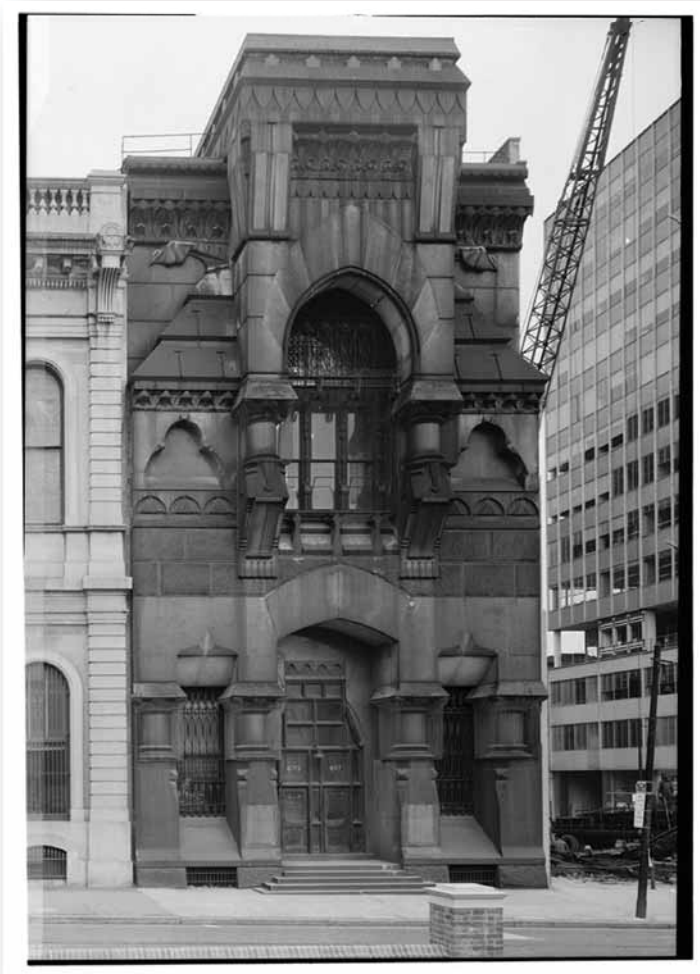


Figure 1. "Provident Life & Trust Company Bank," Theodore F. Dillon "1959 Front South Elevation," Photograph, HABS PA-1058: Provident Life & Trust Company Bank, 407-409 Chestnut Street, Philadelphia. 1959, American Memory, Library of Congress. 12 Apr. 2009, <http://memory.loc.gov/cgi-bin/query/D?hh:2:/temp/~ammem_yzFZ::>.

There are many other types of documentation available to those interested in researching historic sites. Perhaps the first thing that comes to mind when we hear the phrase "architectural record" is a blueprint, but this particular type of document represents only what the architect is trying to communicate to a

builder. There are other types of paper records as well such as design sketches, perspective views, or presentation drawings.¹⁴

In addition to paper-based documentation, more forms are becoming available as technology evolves. These exist alongside the more traditional sketches and drawings and must also be archived in some manner. Relatively new digital media formats commonly used in architecture which include but are not limited to Auto CAD and three-dimensional images which are also valid architectural documents. In fact, the authors of the article "HABS HAER at the Millennium" project that that: "Without question the twenty-first century will see the majority of recording done electronically."¹⁵

For the purposes of this thesis, materials such as photographs, which were not part of the design process, are also considered architectural documentation in that they have preserved some record of the structure in question. For that same reason, post-construction sketches, biographies of involved persons, citations, deeds, surveys, and the like can be included as well.

¹⁴ Margaret Richardson, "Architectural Drawings: Problems of Status and Value," *Oxford Art Journal* 5 (1983): 4, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 15 Jan. 2009 <<http://www.jstor.org>>.

¹⁵ E. Blaine Cliver, John A. Burns, Paul D. Dolinsky, and Eric Delony, "HABS/HAER at the Millennium: Advancing Architectural and Engineering Documentation," *APT Bulletin* 29 (1998): 34, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 6 Feb 2009, <<http://www.jstor.org>>.

Some may ask what the real “value” of an architectural record is or in other words “Why is it worthy of the expense of long-term preservation?” On the one hand, architectural drawings by master architects such as Frank O. Gehry (b. 1929) have monetary value today – a product of complex sociological-economic forces.¹⁶ Among these forces are the creation of demand for these limited resources by wealthy collectors and the significant prestige added to them when they become part of a gallery or museum collection.¹⁷ Gehry in particular has been aggressive in promoting the monetary value of his own works. He is quoted as saying “I don’t want to give it away – it’s an asset.”¹⁸ The Canadian Center for Architecture offered to buy Gehry’s documents pertaining to the Lewis House for \$1.5 million but the architect declined, instead preferring to sell his collections as a whole.¹⁹

¹⁶ Milan Z. Zafirovsky, "An Alternative Sociological Perspective on Economic Value: Price Formation as a Social Process," International Journal of Politics, Culture, and Society, 14 (2000): 289-290 JSTOR, University of Pennsylvania Library, Philadelphia, PA, 7 Feb. 2009, <<http://www.jstor.org>>.

¹⁷ Philp Crossland and Faye I. Smith, "Value Creation in Fine Arts: A System Dynamics Model of Inverse Demand and Information," Strategic Management Journal 23 (2002): 426 JSTOR, University of Pennsylvania Library, Philadelphia, PA, 4 February 2009, <<http://www.jstor.org>>.

¹⁸ Robin Progrebin, "For Architects, Personal Archives as Goldmines," Art & Design 23 July 2007. New, York Times, 23 Mar. 2009 <<http://www.nytimes.com/2007/07/23/arts/design/23arch.html>>.

¹⁹ Ibid.

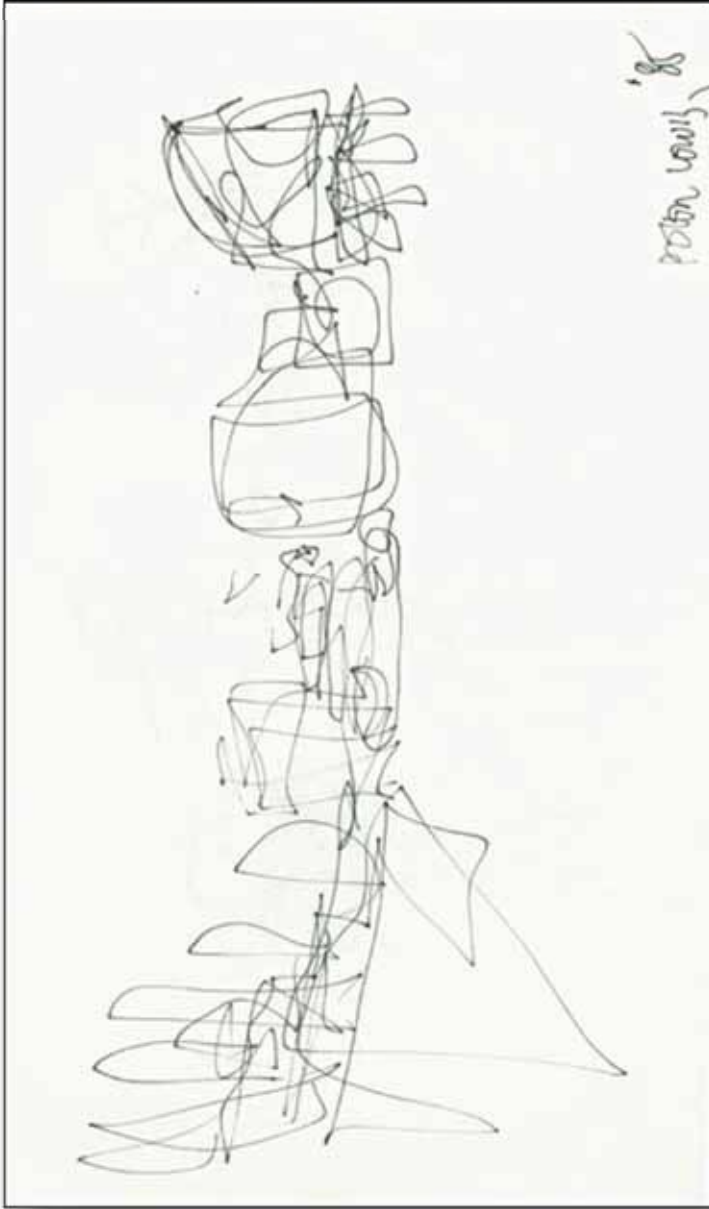


Figure 2: "Lewis Residence Sketch, 1985. Ink on paper. Courtesy of Gehry Partners, LLP."
Source: Tamarin, Nicholas. "Frank Gehry Goes Solo in Philadelphia Show." *Interior Design* 16 Oct. 2008. *Reed Business Information*. 20 Mar. 2009
<<http://www.interiordesign.net/article/CA6605891.html?nid=2068>>.

Historically, though, the value placed on architectural drawings was quite low. In Margaret Richardson's article "Architectural Records: Problems of Status and Value" she notes that architectural records "...were judged as documents, as the graphic means to an end, no matter how fascinating, unique, precious or evocative they may have been of architecture or the personality of the architect."²⁰ As such, they were not collected or given much monetary value outside of the architectural community. Rather, they were something collected by the architects who used them as examples for their own projects, as was the case with British architect Inigo Jones (1573-1652), who collected the designs of Andrea Palladio (1508-1580) for future reference – drawings which are now owned by the RIBA British Architectural Library in London.²¹

As we have seen, the monetary value of any given architectural work is not a constant. Rather, it changes over time based on societal values. The informational value in architectural documents is more of a constant. For preservationists these are all tools for establishing recognition and legal protection for a historic site.

²⁰ Richardson, 14.

²¹ Ibid., 13.

The Use of Architectural Documentation in Historic Preservation

To do research into a historic building or buildings, all classes of researchers—be they students, officials, or members of the public-- rely on the same historic records discussed above. The trail of records that a professional seeking to complete a nomination for the National Register of Historic Places is just likely to involve original deeds as is the research of a non-preservationist investigating his own house. These are two different aims—one seeks to establish a connection with a famous person or even as per the standards, while the other just looking for some sort of information. However, both groups rely on the same set of documents to serve their research needs.

But, while many groups can use the same pool of documents, problems of know-how in terms of accessing records divide them. Practitioners often have experience in locating records where members of the public may not, making access a considerable problem. They may know what is not obvious to the general public—that many documents can be found at their state Historical Commission while other types can be found in local archives. The location of records in a given area can be so complex as to necessitate publications that detail each institution and their holdings. The Boston area has several publications that attempt to gather descriptions of an area's repositories, including Nancy Carlson Schrock's Architectural Records in Boston; A Guide to

Architectural Research in Boston, Cambridge, and Vicinity (1983). This could be very useful as a directory of repositories for the public. However, they are not published in any quantity and many don't know of their existence. A large part of the public that is targeted for an increased role in preservation has little access to the information needed to actually participate.

In the following section, we will discuss how cultural heritage institutions attempted to address this situation by using digitization as a way to organize and publish data.

2.3 Digitization of Archival Materials

In terms of its use in cultural heritage institutions, “digitization” can be any process that takes information on paper and converts it into an electronic format. Digitization may mean something different for each type of record. For drawings, digitizing means scan or photography, while text from books for example could be transcribed. Taking pictures and/or text and taking the further step of putting them into a database also falls into this category. While some projects emphasize digitization as a tool for information management, or preservation others combine these databases with the internet to allow public access.

Digitization projects that emphasize public access are advantageous in several ways. The table below from “Historians' Use of Archival Sources” (2004) shows the results of a survey of scholars that use archival materials in their research. Aside from issues of permissions and copyright, digitization could solve many of these issues.²² The table below details the results of a survey which asked researchers what obstacles they felt were the greatest in the search for documents.

²² Wendy Duff, Barbara Craig, and Joan Cherry, "Historians' Use of Archival Sources: Promises and Pitfalls of the Digital Age," *The Public Historian* 26 (2004): 21-22, [JSTOR](http://www.jstor.org), University of Pennsylvania Library, Philadelphia, PA, 11 Nov. 2008 <<http://www.jstor.org>>.

Table 1: “Barrier to Accessing Information (Percentage of Respondents Who Reported Each Barrier)”

Geographic Location	63%
Lack of finding aid	50%
Fragile condition	43%
Format difficult to use	40%
Finding aid not detailed enough	37%
Permission required by donor	31%
Restricted by privacy legislation	26%
Access prohibited by donor	24%
Relevant sources in original form not available	24%
Finding aid out of date	23%
Unable to identify relevant sources	19%
Restricted by copyright legislation	8%
Finding aid too detailed	2%

Source: Wendy Duff, Barbara Craig and Joan Cherry, “Historians’ Use of Archival Sources: Promises and Pitfalls of the Digital Age,” *The Public Historian* 26 (2004): 15, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 11 Nov. 2008, <<http://www.jstor.org>>.

According to the study, a vast majority of participants responded that the main issue impacting access to archival records was the distance between the researcher and the repository. Digital resources that are available via the internet eliminate the need for trips to the institutions housing the materials that may be an inconvenience for people that work during the day or do not have the means to travel to see the original. Some studies suggest that internet availability will not dramatically increase the rate of usage among those that initially had no interest in the subject but *will* make access easier for those that already have some interest in the topic.²³ The third largest group indicated that the biggest

²³ Paul Dimaggio, Eszter Hargittai, W. Russell Neuman, and John P. Robinson, "Social Implications of the Internet," *Annual Review of Sociology* 27 (2001): 320-321, JSTOR,

problem with accessing the materials was that they were too fragile to be handled. Digitizing a document minimizes or, at the very least reduces, the need to handle an original object. By extension, it also alleviates some of the burden on the staff of the repository that houses the records.²⁴ In Duff's opinion, digitization has the potential to solve the two largest problems facing researchers at the moment.

Because they do not need to be printed and physically distributed, electronic documents are more capable of being easily modified in their display and content. This creates the potential for the interface to be altered for each user group with an experience tailored to person's needs and ability.²⁵

All of this makes public involvement in preservation easier. Obstacles of distance or condition are eliminated, thus allowing members of the public access to the same materials as a professional preservationist. Those involved in cultural heritage have known of the benefits of the digital archiving and access for some time and have been tackling the questions that surround it.²⁶ Each new

University of Pennsylvania Library, Philadelphia, PA, 10 Nov. 2008, <<http://www.jstor.org>>.

²⁴ Duff, 15.

²⁵ Anat Geva, "A Multimedia System for Organizing Architectural Documentation of Historic Buildings," APT Bulletin 27 (1996): 18, JSTOR. University of Pennsylvania Library, Philadelphia, PA, 3 Dec. 2008 <<http://www.jstor.org>>.

²⁶ Liz Bishoff, Digital Preservation Assessment: Readyng Cultural Heritage Institutions for Digital Preservation, Rep. University of Colorado at Boulder Libraries, 20 Nov. 2008, <http://www.ils.unc.edu/digccurr2007/web-abstracts/bishoff_abstract_8-3.pdf>.

effort was affected by available technology and institutional aims, and so each example is unique in subject matter and methodology.

Previous Efforts

Those interested in preservation rely on libraries, archives, museum and other cultural heritage resources to provide architectural records. These institutions, for their part, utilized new technologies to organize and improve access to these records. Some projects focused more on the organization and indexing of records, but many recognize the need to use technology to improve access as well. As we will see, each project has a unique approach owing to the period of its creation, available technology, and the organization that created it.

One early project, a 1966 Smithsonian undertaking funded by the Kress Foundation, cataloged and published a list of over 6,000 American drawings along with their vital information and where the drawing could be found. By 1969, the catalog contained 10,000 entries-- each of which was given a code. The data was entered with punch cards and thus forms what some see as the first project to digitize architectural records. This solution did not make the

information accessible outside of the Smithsonian and was only available to the public by appointment.²⁷

The Committee for the Preservation of Architectural Records (COPAR) met for the first time in 1973, in order to “investigate the question of organizing, on a permanent basis and on a national level to collect and preserve the documents and drawings of American architects and architectural offices.”²⁸

This was in an era before digitization, but essentially the goals are those common to many digitization projects today – to create a cooperative effort that would encourage the preservation of architectural records while also creating a useful resource for researchers.²⁹

When developing the project, they found that many regions had already begun to preserve and index records in their own way. Their second newsletter, dated December 1974, details projects in Georgia, Texas, New York, Kansas and Oregon as well as the Smithsonian’s project. A later newsletter lists other types of indices available – all are printed guides that are region, institution or

²⁷Alfred Willis, ed, "Newsletter 2: December 1974," The COPAR Newsletters: 1974-1980 and 1980-1985 (1991), Library of Congress, Enhanced BeCites+, Committee for the Preservation of Architectural Records. 19 Nov. 2008,

<<http://lcweb4.loc.gov/natlib/becites/prints/copar/COPARnews.pdf>>.

²⁸ Ibid., "Newsletter 1: March 1974,"

²⁹ Ibid.

collection specific.³⁰ It soon became evident that this project was of interest to scholars world-wide when requests from across the globe came in for subscriptions to The COPAR Newsletter.³¹ COPAR remained in use for some time before the data became useless because no program remained that was capable of reading it.³²

Research into web-based archives has been ongoing. The Museum Educational Project Licensing System (MESL), launched in 1995, claims to be first attempt to digitize materials and data from separate depositories into one website. Project staff then analyzed the results of their experiment concluding that "for the same dollar expenditure (as in pre-technological environments) learning effectiveness can be increased, or more students can be taught to the same level of investments."³³ Anat Geva of Texas A&M University established a model for information systems geared specifically towards architectural documents. In her APT Bulletin-published article "A Multimedia System for Organizing Architectural Documents of Historic Buildings" (1996) she details a system that could be used as a framework for organizing and analyzing information for

³⁰ Ibid., "Newsletter number 3, April 1975."

³¹ Ibid., "Newsletter number 4, November 1975."

³² Walter Rice Jr., "Interview with Walter Rice, Jr.," Personal interview, 15 Apr. 2009.

³³ Howard Besser, Digital Image Distribution: A Study of Costs and Uses, Rep. 10 Feb. 1999, UCLA School of Education & Information, 20 Dec. 2008, <<http://besser.tsoa.nyu.edu/howard/Papers/dlib-mellon.html>>.

individual preservation projects. Her model emphasizes the possibilities created by the flexible nature of these databases.³⁴

A more recent project, Boston Streets, also seeks to connect users to historic documentation. As their grant application, Boston Streets: Mapping Directory Data states: “Responding to requests for visual information about places and for contextual information about photographs is among the most time-consuming reference work done at any repository with visual images.”³⁵ In response, Tufts University created a resource, based on historic maps and atlases that related census and directory data to street addresses. Through this project, Tufts University hoped to provide a glimpse into the life of everyday Boston residents of earlier times, as opposed to the PAB, which focuses more on architects. Like the PAB, the project sought to produce a model that could be applied across the nation. It would be an inter-institutional model that could incorporate other repositories as time went on. Project staff recognized that other institutions may house valuable materials but be smaller and less able to support an independent database and that it may be more practical for a larger institution to establish the

³⁴ Geva, 22.

³⁵ Tufts University Digital Collections and Archives (DCA). Boston Streets: Mapping Directory Data: 8, 2 Jan. 2009
<<http://dca.lib.tufts.edu/features/bostonstreets/about/imls/application.pdf>>.

system and allow others to contribute as well.³⁶ Tufts University had already been involved in digitization projects, including Perseus which digitized documents pertaining to the Classical world.³⁷ They also had an established department dedicated specifically to archival digitization projects and were able to take advantage of a separate project funded through a different source, that digitized images from the Bostonian Society and Tufts University.³⁸

Boston Streets' approach to archiving their records was highly map and atlas-based. Using these historic maps and linking them to GIS files would allow linkage of points on the maps to a geographical point and would simplify the organization of the records.³⁹ Onto these maps, layers of information would be added from city directories.⁴⁰ Information from directories ending in year in "5" would be cataloged in a first phase. The second phase would incorporate census data for the intervening years ending in "0".⁴¹

This project is a good example of one that is geared to engaging the public and interesting them in the material as opposed to merely displaying data. Themed

³⁶ Ibid., 9.

³⁷ Ibid., 6.

³⁸ Ibid., 4.

³⁹ Ibid., 3.

⁴⁰ Ibid., 1.

⁴¹ Ibid., 3.

sections like “Moments” “People” “Places” and “Cow Paths” allow the site visitor to take a tour through collections of related data that tell a story.⁴²

When the visual information contained in graphic materials is supplied along with contextual information, as it is in Boston Streets, it can be a powerful tool for informing the public. In Lachappelle's “Aesthetic Understanding as Informed Experience,” (2003) he finds that to have a successful viewing of a piece of art (or a facsimile of that work) both interaction and reflection are necessary.⁴³ This is echoed in Geva's article which details the need for contextual information in the presentation of historical records.⁴⁴

There are many other types of internet resources available to the public today, besides those that furnish access to the world of architectural records. Each has their own set of information for the researcher. Ancestry.com can be a useful site for finding census records and passenger lists and records having to deal with a person's life. A project entitled Archive of Americana by Readex scans and provides access to newspapers and other printed matter published as early as

⁴² "Boston Streets: Mapping Directory Data: Welcome Page." Digital Collections and Archives Home. 232 Apr. 2009 <<http://dca.lib.tufts.edu/features/bostonstreets/>>.

⁴³ Richard Lachappelle, Deborah Murray, and Sandy Neim, "Aesthetic Understanding as Informed Experience: The Role of Knowledge in Our Art Viewing," Journal of Aesthetic Education 37 (2003): 78-98, JSTOR. University of Pennsylvania Library, Philadelphia, PA. 5Dec. 2008 <<http://www.jstor.org/>>.

⁴⁴ Geva, 18.

1690 and makes their text fully searchable.⁴⁵ The internet allows us to weave together information from this wide variety of sources to better understand the history and personalities that lie behind our historic buildings.

Concerns

The digital information system is far from an easy solution to increasing access, however. It comes with its own set of issues in addition to advantages. While creating projects, oftentimes institutions have a clear vision of what documents should be included in the project and this provides the impetus for undertaking these large and expensive projects. One of the chief problems that presented itself was that:⁴⁶

“With few exceptions, digital library research has focused on architectures and systems for information organization and retrieval, presentation and visualization, and administration of intellectual property rights... The critical role of digital libraries and archives in ensuring the future accessibility of information with enduring value has taken a back seat to enhancing access to current and actively used materials. As a consequence, digital preservation remains largely experimental and replete with the risks associated with untested methods; and digital preservation requirements have not been factored into the architecture, resource allocation, or planning for digital libraries.”

Foundations that often fund the creation of these projects have placed digitization and public access as a priority but nonetheless are reluctant fund anything past the initial construction phase, while long-term maintenance and operation is often not considered for grant money.⁴⁷ Liz Bishoff of the University

⁴⁵ Readex, A leading publisher of digital historical collections, 1 Apr. 2009
<<http://www.readex.com/readex/>>.

⁴⁶ Margaret Hedstrom, "Digital Preservation: A Time Bomb for Digital Libraries," Computers and the Humanities 31 (1998): 189-202, Personal Page of Kevin Kiernan, University of Kentucky, 08 Dec. 2008 <<http://www.uky.edu/~kiernan/DL/hedstrom.html>>.

⁴⁷ Jeffrey Cohen, E-mail to the author, 21 Feb. 2009.

of Colorado Boulder cites a Cornell University survey of 100 separate cultural heritage organizations and found that few had begun to consider long-term maintenance in addition to many other considerations.⁴⁸ In short, they had not evolved from a “digital project” to a “digital program” to quote the terms used in the study. Few had long-term plans for maintenance. This may be due to the fact that as a newer field, there is no clear picture of what long-term maintenance actually does cost—a study which is very expensive to undertake in itself.⁴⁹ In fact, the problem was so pervasive amongst digitization projects that institutions now make guarantees of funding a requirement before granting money to digitization projects.⁵⁰

Instead of placing funds in maintenance, they prefer to fund what is new and innovative and likely to attract favorable press. Maintaining an older project merely ties up funds that could be spent elsewhere.⁵¹ On occasion, a change in management at the grant-funding institution disrupts the flow of funds to a

⁴⁸ Liz Bishoff. "Digital Preservation Assessment: Readyng Cultural Heritage Institutions for Digital Preservation [Slide Show]," Northeast Document Conservation Center, 20 Apr. 2007, University of Colorado Boulder, 11 Nov. 2008: slide 5, <<http://www.nedcc.org/resources/digital/downloads/UNC-DigCCUR%20final.pdf>>.

⁴⁹ Liz Bishoff, Digital Preservation Assessment: Readyng Cultural Heritage Institutions for Digital Preservation, Rep. University of Colorado at Boulder Libraries, 20 Nov. 2008, <http://www.ils.unc.edu/digccurr2007/web-abstracts/bishoff_abstract_8-3.pdf>.

⁵⁰ Jeffrey Cohen, E-mail to the author, 21 Feb. 2009.

⁵¹ Walter Rice Jr., "Interview with Walter Rice, Jr.," Personal interview, 15 Apr. 2009.

project that is already close to completion, causing the project's failure and a waste of funds.⁵²

The lack of funding and planning has also had a great impact on what the Cornell study saw as the greatest threat to digital archives – that changing technology quickly made many storage devices and file formats obsolete and few took steps to migrate the information.⁵³

Conclusions

A large amount of architectural documentation has been collected both by private institutions and the government and the range of subjects covered in this material is increasing as well. Cultural heritage institutions have greatly improved our ability to access many of their records by transferring them to an electronic format and making them available online.

Still, the considerable advantages of digitization continue to attract more projects with promises of better organization and connection as well as the promise of

⁵² Ibid.

⁵³ Liz Bishoff. "Digital Preservation Assessment: Readyng Cultural Heritage Institutions for Digital Preservation [Slide Show]," Northeast Document Conservation Center, 20 Apr. 2007, University of Colorado Boulder, 11 Nov. 2008: slide 5, <<http://www.nedcc.org/resources/digital/downloads/UNC-DigCCUR%20final.pdf>>.

technological advances. In the following chapter, one of these efforts, the Philadelphia Architects and Buildings Project will be used as a case study of the cultural heritage archive as a public preservation tool.

CHAPTER III: The Philadelphia Architects and Buildings Project

As has been previously discussed, digital archives are popular and useful projects in the cultural heritage movement and have great potential as historic preservation resources. The Philadelphia Architects and Buildings Project (PAB) is a larger-scale, web-based project that provides "...an authoritative, image rich, fully searchable database of Philadelphia architects and architecture."⁵⁴ This project was progressive in several ways. First, it attempted to coordinate records from a large geographical area in one unified resource that would be easy to use for the public. Secondly, it took the logical step of involving multiple institutions in the planning and execution of the project. However, the project has never been properly chronicled or examined although it has been in existence for nearly a decade. A case study may help to further inform similar efforts across the country by highlighting the strengths inherent in a project of this type.

To establish an understanding of the PAB and the magnitude of what it sought it to do, this section opens with a very brief discussion of Philadelphia's architectural history, which spans over 300 years. It then moves to the discussion of the multitude of area institutions that have made it their task to collect

⁵⁴ Initial Grant Proposal (With Updated Summary), 7 Jan. 2000, "Preface," The Athenaeum of Philadelphia and The Architectural Archives of the University of Pennsylvania, 20 Sept. 2008 <<http://www.philadelphiabuildings.org/pab/final.pdf>>.

architectural records. Finally, it gives a description of the project itself and how it attempted to draw these resources together for the public benefit.

3.1 Philadelphia's Historic Architecture

Philadelphia is an excellent testing ground for collaborative information systems because of its long history of architecture and a great number of repositories with holdings documenting this heritage. In 1683, Philadelphia was surveyed by Thomas Holme, an employee of William Penn who had acquired the grant to what is now called "Pennsylvania." The results of the survey were published in the Portraiture of the City of Philadelphia which Penn used to help market the land.⁵⁵ By 1685, Robert C. Smith notes in his article entitled "Two Centuries of Philadelphia Architecture: 1700-1900," Philadelphia already contained 600 houses. After that point, says Smith, Philadelphia:⁵⁶

"... far from being an architectural backwater, was a center of constant innovation in the first two centuries of its history. Some of the results of these innovations are among the most distinguished examples of American colonial architecture. In the nineteenth century, moreover, on a number of occasions Philadelphia assumed an almost revolutionary leadership in architecture, thanks to a group of notable experimenters"

Even after 1900, Philadelphia remained a center for architectural activity, with three of the most highly-regarded practitioners of the 20th century--Louis I. Kahn (1901-1974), Bob Venturi (b. 1925) and Denise Scott-Brown (b.1931).

Throughout different architectural periods, Philadelphia has seen its share of innovative, high-style and vernacular buildings. Although not associated with

⁴⁵ Robert C. Smith, "Two Centuries of Philadelphia Architecture 1700-1900," Transactions of the American Philosophical Society New 43 (1953): 289, JSTOR, University of Pennsylvania Library, Philadelphia, PA, 17 Jan. 2009 <<http://www.jstor.org>>.

famous designers or clients, these buildings have shaped the distinctive streetscapes that create Philadelphia's identity. Today, Philadelphia contains many structures listed on national and local registers, as well as seven historic districts. Old City is only one of these recognized districts and contains within its boundaries around 800 historic buildings.⁵⁷



Figure 3: Illustration of a Philadelphia Rowhouse. Source: Rachel Simmons Schade, Philadelphia Rowhouse Manual: A Practical Guide for Homeowners, Publication, Philadelphia, PA: City of Philadelphia, 2008: 4 <<http://www.philaplanning.org/pubinfo/rowhousemanual.pdf>>.

⁵⁷ "What's Next for Philadelphia Historic Districts?" News, Preservation Alliance for Greater Philadelphia, 20 March 2009, <<http://www.preservationalliance.com/news/news-whatsnext.php>>.

3.2 Access to Architectural Records in Philadelphia

The Philadelphia Architects and Buildings Project came about at a time when the organization and access of archival materials had not yet caught up with the digital age. The complexity of the arrangement of historical records in Philadelphia and the increased rate at which they are being accessed necessitated a more coherent organizational strategy. Each institution, having differing collection policies, has emphasized the acquisition of different types of records.

Documents pertaining to one building could, theoretically, and often do, reside in a number of repositories. The grant proposal for the PAB gives an in-depth example of how someone researching only one building could possibly have to visit 4 or 5 different locations to even search for records. In their example, one researcher is looking for information on a Philadelphia landmark – the Philadelphia Savings Fund Society (PSFS) Building. The researcher begins at the American Institute of Architects (AIA), Philadelphia chapter and finds that it was named “building of the century “ in 1969 and that a separate institution, the Athenaeum of Philadelphia, houses over 30 architectural drawings from the designers of the PSFS Building, George Howe (1886-1955) and William Lescaze (1896-1969). The staff at the Athenaeum informs him that the building is on the National Register of Historic Places and that, therefore, the Philadelphia Historical Commission would have its National Register nomination form,

photographs, and more recent architectural drawings. Visiting yet another institution, the Architectural Archives of the University of Pennsylvania, turns up some of the earlier sketches of the building in the Mellor, Meigs & Howe collection. The staff at the AAUP informs the weary researcher that there are still other records at the Hagley archives which have the corporate records of the PSFS, and, still farther afield, the holdings at the Lescaze Archives of Syracuse University.⁵⁸

The Athenaeum already had some success in creating web-based archives. In 1996 they received a grant from the Connelly Foundation to create the Guide to Roman Catholic Building Resources at the Athenaeum of Philadelphia which showed that it was possible to create an easily-searchable and accessible database to address the situation.⁵⁹ The final project incorporated a total of 10,000 drawings, photographs, and other types of materials on 500 individual buildings.⁶⁰ Yet another important work, published by the Athenaeum – the Biographical Dictionary of Philadelphia Architects, 1700-1930 – occurred in only print form but saw frequent use.⁶¹

⁵⁸ Initial Grant Proposal (With Updated Summary), 2.1-4.

⁵⁹ *Ibid.*, 2.9.

⁶⁰ *Ibid.*

⁶¹ *Ibid.*, 2.10-2.20.

In 1998, the Athenaeum received a planning grant from the William Penn Foundation to explore the possibility of creating another resource like the Guide. A dialog with other institutions in Philadelphia housing architectural records produced the concept of an inter-institutional cooperative effort to build upon a core established by these two earlier examples, combined with additional records and arranged in a publicly accessible, web-based system.⁶² The initial outcome of these discussions was entitled “Universe of Philadelphia Architecture” which would incorporate primary architectural documents, secondary architectural documents, and also a third category of materials that were more interpretive.⁶³ The main participants in the project would be the Athenaeum, the University of Pennsylvania Architectural Archives (AAUP), The Philadelphia Historic Commission (PHC), and the Pennsylvania Historic and Museum Commission (PHMC). All agreed to collaborate and contribute to the project although only the AAUP and the Athenaeum would have staff funded from the grant money⁶⁴ In 2000 the project was given a four-year grant by the William Penn Foundation.⁶⁵

A further impetus to undertaking this digitization was the impending availability of Geographical Information Systems (GIS) files that could be linked

⁶² Ibid., 2.9.

⁶³ Ibid., 2.12-2.13.

⁶⁴ Ibid., 2.26.

⁶⁵ Walter Rice, E-mail to the author, 6 Apr. 2009.

to these records. This would allow each project to be linked to a set of coordinates, making indexing somewhat less arbitrary-- a major problem in organizing and accessing records.⁶⁶ The scanned documents of each institution were set to be geo-referenced to these files at the end 2002 after they were provided by the PHMC.⁶⁷

In some entries, the PAB was to include not only printed information on buildings, but also visuals to accompany the text. This included a complete digitization of the 5,000 known pre-1900 architectural drawings in the area.⁶⁸

In its initial phase, the project planned to hire a part-time researcher for the initial stages of the project to collect information on the architectural collections of each institution. Another part-time worker, an Image Technician, would begin an intensive effort to digitize and index materials from the Athenaeum and AAUP. The continuing management of the project would be undertaken by the Athenaeum and the AAUP which would both house the staff needed for the ongoing management of the project.⁶⁹

⁶⁶ Initial Grant Proposal (With Updated Summary), B.2.

⁶⁷ Walter Rice, E-mail to the author, 6 Apr. 2009.

⁶⁸ Initial Grant Proposal (With Updated Summary), 2.18.

⁶⁹ *Ibid.*, 2.26.

3.3 The Proposed Project

Goals

The goals established for the project in the Initial Grant Proposal (2000) were to create a resource, based on the information from the Athenaeum's two publications, that:⁷⁰

"...will dramatically expand free public access to information on the built environment of the five-county Philadelphia area by creating a user friendly, web-based, and image rich resource. In an ambitious example of private, academic, and public cooperation, the PAB project will bring together the collections, data, images and professional expertise of The Athenaeum of Philadelphia, the University of Pennsylvania Architectural Archives, the Philadelphia Historical Commission, the Pennsylvania Historical and Museum Commission, and several local cultural institutions. A major goal of the PAB was further to the public access to records via the most current technology. This information would be free to access and presented in a format that would be understandable for everyone. "

The goals can be distilled down to several points:

- User-friendly
- Web-based
- Image-rich
- Collaborative
- Free
- Authoritative

⁷⁰ Ibid., "Project Summary."

In addition, it was established that the approach of the database be that of providing primary sources along with citations to published works that reference a building thereby providing an authoritative resource.⁷¹

Content

The content of the database would build off of printed sources that gave biographies of Philadelphia-area architects. There were several comprehensive sources in print. The largest number of entries were the nearly 70,000 citations that came from the Philadelphia Real Estate Record and Builders Guide (PRERBG), published between 1886 and 1940. The PRERBG was a tabloid newspaper catering to the building industry. In its pages, it reported on the status of projects in a large number of the city's architectural offices.⁷²

Another invaluable resource was the previously-mentioned Biographical Dictionary of Philadelphia Architects:1700-1930 (1985) by Sandra Tatman and Roger Moss of the Athenaeum. The Biographical Dictionary was created "...to make widely available what is now known of those builders and architects who worked in Philadelphia prior to 1930 but who will never be found in national or international compilations such as the recent Macmillan Encyclopedia of

⁷¹ Walter Rice Jr., "Interview with Walter Rice, Jr.," Personal interview, 15 Apr. 2009.

⁷¹"Building Suburban West Philadelphia: Bibliography." University of Pennsylvania University Archives and Records Center. 3 Apr. 2009

<<http://www.archives.upenn.edu/histy/features/wphila/exhbts/grubel/44Bibliography.html>>.,

Architects."⁷³ As an example of the nature of the information gathered from individual sources and combined in a PAB entry, let us use Harry Sternfeld (1888-1976).

⁷³ Sandra L. Tatman and Roger W. Moss, Biographical dictionary of Philadelphia architects, 1700-1930. Boston, Mass: G.K. Hall, 1985.

is recorded as having served on the Governing Committee in 1801. He was a subscriber to Owen Biddle, The Young carpenter's assistant (Philadelphia, 1805), one of the earliest American books of architecture.

SELECTED BIBLIOGRAPHY: Hall; MCCCCP; Moss, Master Builders; Roach.
rm

STEHLE, CHARLES L. (fl. 1902 - 1903). Charles L. Stehle is listed in 1903 as an architect with a home address at 3019 North Callowhill Street. In the Pennsylvania Museum and School of Industrial Art Circular of the Committee on Instruction for 1902/03 he is noted as an architectural draftsman with Adin B. Lacy (q.v.).
st

STEIDLE, GEORGE W., JR. (fl. 1916 - 1930). George W. Steidle, Jr., was an architect employed by both McIlvain & Co. and McIlvain & Roberts (Charles McIlvain, q.v.). He appears in the Philadelphia city directories from 1917 to 1930.
st

STEINMETZ, HARRY EDWARD (fl. 1914 - 1916). H. Edward Steinmetz appears in the Philadelphia city directories as an architect for the years 1914 to 1916. For 1915 and 1916 he is noted as part of the firm of Steinmetz & Casner with C. Adrian Casner (q.v.).
st

STERN, ADIEL MARTIN (5/6/1893 - c. 1958). Adiel M. Stern was born in Dayton, OH, the son of the Rev. Benjamin S. Stern. He received his B.S. in Architecture from the University of Pennsylvania in 1914 and was associated with John T. Windrim (q.v.) and Andrew J. Sauer (q.v.). By 1914 independent projects for Stern can be found in the PHENBC and in 1920 he won the Walter Cope Memorial Prize for his design of "A Municipal Comfort Station on the Parkway."
Stern was a member of the T-Square Club.

LIST OF PROJECTS:

1914 St. Matthew's Reformed Ch., alts. & adds., 5th St. ab. Venango St., Phila.

1919 Quaker City Motor Parts Co., Phila.

1923 First Reformed Ch., New Knoxville, OH
Klopp, Ernest L., res., Gallon, OH

1924 Zion Reformed Ch., Reading, PA

1925 Whitaker, Ralph, alts. & adds. to res., Queen La. Manor, Phila.

1928 Cherin, Hermin, residences (28), Kember Ave. betw. Thorpes La. & 20th St., Phila.

1929 Karmel Reformed Ch., Sunday Schl., Elmwood Ave., nr. 72nd St., Phila.

LOCATION OF DRAWINGS AND PAPERS: UPA Archives.

SELECTED BIBLIOGRAPHY: Am. Art An'l., (1924/25), p.465; Bk. of the Schl., p.174.
st

STERNFELD, HARRY (11/21/1888 - 7/23/1976). Harry Sternfeld was another of that group of architects working in Philadelphia who came under the considerable influence of Paul P. Cret (q.v.) while studying at the University of Pennsylvania. A native Philadelphian, Sternfeld graduated from Central High School in 1907, entering the University of Pennsylvania on a city scholarship, and graduating with his B.S. in 1911. During school vacations he worked from 1906 to 1912 (except for 1909) in the Wilmington, DE office of John D. Thompson, Jr., the architect who, in association with Hornbostel and Jones, won the competition for the New Castle County Public Buildings with a Beaux-Arts influenced design. During 1900 Sternfeld spent some time in the office of Frank Miles Day & Bro. (q.v.).

Figure 4: Biographical Dictionary for Harry Sternfeld, Sandra L. Tatman and Roger W. Moss, Biographical Dictionary of Philadelphia Architects, 1700-1930. Boston, Mass: G.K. Hall, 1985.

Following his graduation, Sternfeld left the United States to work for Francis S. Swales in his Montreal office and, while there, participated in the design of the Chateau Frontenac. Swales also was Beaux-Arts educated and maintained an atelier which Sternfeld attended while in Canada. In 1912 he married Flora Maxwell of Atlantic City, NJ and in 1913 returned to Philadelphia to begin work on his Masters of Architecture at the University of Pennsylvania. In 1914 he graduated and was awarded the Paris Prize; but World War I intervened, preventing him from traveling to Europe, and he instead accepted a position on the faculty of Architecture at Carnegie-Mellon University in Pittsburgh, where he remained until 1923, with interruptions for military service and the delayed trip to Europe. During his stay in Europe he attended the Ecole des Beaux-Arts and associated with the Atelier Jausseley in Paris from 1919-1920, working on a plan for the City of Paris. From Paris he moved on to the American Academy in Rome, where he studied from 1920-1921.

In 1923 Sternfeld left Carnegie-Mellon, where he had risen to be head of the Department of Architecture, in order to join the faculty of the University of Pennsylvania as Professor of Design. At that time he also launched what would prove a long career as both architect and planner, during which he would design such projects as the U.S. World War I monument at Audenarde, Belgium, the Pittsburgh Building at the Sesquicentennial Exposition in Philadelphia (1926), and the Slovak Girls Academy in Danville, PA (1929). As a planner Sternfeld worked from 1928-1934 as City Planner for Rome, NY.

During his career Sternfeld associated from time to time with other architects, most notably John I. Bright (q.v.), whose office was close to his in the Otis Building, the Ballinger Co. (Walter Ballinger, q.v.), Edward H. Wigham, and Harbeson, Hough, Livingston & Larson (John F. Harbeson, q.v.).

Sternfeld had become a member of the Pittsburgh Chapter of the AIA in 1916, transferred to the Philadelphia Chapter in 1926 and became a fellow in 1950. In addition he was a member of the National Sculpture Society, the Illuminating Engineers Society, the Philadelphia Sketch Club, the Philadelphia Art Alliance, Tau Sigma Delta, Sigma Xi, and the Scarab.

LIST OF PROJECTS:

- 1926 Pittsburgh Bldg., Sesqui-Centennial, Phila.
- 1927 Beaux-Arts Institute of Design competition, NY (won second prize)
Peixner, H.F., res., Hill Crest, PA
- 1928 Green Hills Farms hotel, swimming pool, City Line & Lancaster aves.,
Overbrook, Phila. (w/ John I. Bright)
- Lowenberg, S.A., res., 1905 Spruce St., Phila.
- Moore, S. Lloyd, res., 1010 Dyre St., Phila.
- 1929 First Catholic Slovak Academy, Oakville, PA (w/ Bernard E. Starr)
- Morice, Mary H., res., 230 W. Willow Grove Ave., Flourtown, PA
- Reyburn Plaza, rearrangement, Broad & Market sts., Phila. (w/ Paul P. Cret)
- Troth, C.H., res. & garage, Chestnut Hill, Phila.

LOCATION OF DRAWINGS AND PAPERS: Athenaeum of Phila.; UPA Architectural Archives; UPA Archives.

SELECTED BIBLIOGRAPHY: Avery Index to Architectural Periodicals; Bk. of the Schl., p.169; Cohen, Jeffrey A., "Harry Sternfeld: Architect & Teacher," unpub. paper (Dec. 8, 1975); Koyl, p.674; UPA Gen. Alumni Cat. (1917), p.326. st

STETLER, FRANK W. (fl. 1901 - 1908). Frank W. Stetler appears as an architect in the Philadelphia city directories from 1903 to 1908. Throughout that time he resides at 6100 Ridge Avenue. st

Figure 5 : *Biographical Dictionary for Harry Sternfeld*, Sandra L. Tatman and Roger W. Moss, *Biographical Dictionary of Philadelphia Architects, 1700-1930*. Boston, Mass: G.K. Hall, 1985.

The information given on Sternfeld in the Biographical Dictionary is quite extensive. It covers details of his practice but also information on personal details like his military service and influences. The use of narrative to connect the information given creates a vivid picture of the architect's life and work.

The American Architects Directory, published in the years of 1955, 1962 and 1970, was used in addition to these other sources. The Directory is national in scope and provides information on the region's post-war architects. However, its wider focus means that entries are quite brief and factual.

Contrasting Sternfeld's entry in the Biographical Dictionary (Figs. 4 and 5) with that of the Directory (Fig. 6) allows us to see these differences. Both works contain information that can be useful to preservationists but the Biographical Dictionary's entry gives a more complete picture of the architect and his influences which may lead the researcher to different avenues of research.

While these biographical materials form the core of the PAB's contents, other types of records are included as well. The table below gives a brief description of the collection policies and contributions of some of the main contributors to the project.

Table 2: Select PAB contributors and the focus of their collections.

Institution	Focus of Collections
The Architectural Archives of the University of Pennsylvania < www.design.upenn.edu/archives/archives/index2.htm >	Post-war architectural drawings, landscape designs and archival office materials , Louis I. Kahn collection
The Athenaeum of Philadelphia < www.philaathenaeum.org >	Architectural drawings, photographic collections, correspondence and art--primarily from 1800-1945, Paul Cret documents
Historical Society of Philadelphia < www.hsp.org >	Focuses on the collection of early American printed materials, photographs and art.
Philadelphia City Archives < www.phila.gov/records/Archives/Archives.html >	Genealogical materials such as birth and death certificates, historic deeds and court records
Historical Commission < www.phila.gov/historical/ >	Maintenance documents on historic structures, standards and archival photographs
Library Company of Philadelphia < www.librarycompany.org/ >	Early American brochures, books and art
University of Pennsylvania Archives < www.archives.upenn.edu/ >	Manuscripts and publications related to the University and those with connections to it

Source: Compiled from the mission statements of each institution, available on each organization's website given above.

The founders of the PAB made a key decision to use part of the grant money to hire a "roving reporter." This person went to more than 30 institutions in the

area that were not part of the project, and make records of their holdings. As a result, the project was able to develop a more comprehensive record of documentation in the Philadelphia area, in accordance with project goals. Without this service, many of the smaller repositories in the area would not have been able to contribute records.⁷⁴

Structure

The PAB was created as a web-based database, meaning that a web site serves as a user-friendly gateway to the database storing the information. Records can be searched by architect, the name of the project, location, and a variety of other fields. The authoritative nature of the material is established through the inclusion of primary sources such as original drawings and related published citations. It is a three-tier construction – moving from the most basic building blocks to the third tier which brought together the information from the other two.⁷⁵

We will examine the PAB's presentation of information by again using the example of Harry Sternfeld, whose entries in the Biographical Dictionary and American Architects Directory we have already seen. At the first and most basic level in the database are “holdings” that “...document original drawings,

⁷⁴ Interim Report to the William Penn Foundation, Grant #21099, 3.

⁷⁵ Initial Grant Proposal (With Updated Summary), 2.12.

photographs, or manuscripts materials.”⁷⁶ Each holding is a database entry for a document or groups of documents housed a participant’s repository.⁷⁷ In this case, there are 31 holdings for Harry Sternfeld, a few of which are provided in Figure 8.

⁷⁶ Interim Report to the William Penn Foundation, Grant #21099, 2.

⁷⁷ Whether the holding is entered for one document or a group of documents depends on an institution’s method of organizing the information posted to the PAB. One repository may choose to enter each document in a collection separately, while others would prefer to create one entry for all of the documents in a given collection

Project	Type	Location
<input type="checkbox"/> Allen Residence Client: Allen, Charles	dwelling	231 HAMILTON RD [E66] Merion, Lower Merion Township, Montgomery County, PA (Merion Park) [E67]
<input type="checkbox"/> Architects Building: AIA Bookstore Client: AIA	 office building  store	121 S 17TH ST [E68] [Research this Block] NE corner of S 17TH ST and SANSON ST [E69] Philadelphia, PA [E68]
<input type="checkbox"/> Baker Residence Client: Baker, Alfred L.	dwelling stable	Manor Rd and McCLENNACHEN MILL RD [E62] Wynnewood, Lower Merion Township, Montgomery County, PA [E63]
<input type="checkbox"/> Beaux Arts Institute of Design Client: Beaux Arts Institute of Design	 school	304-306 East 44th Street [E64] New York (New York City) [E65]
<input type="checkbox"/> Benjamin Franklin Parkway: Philadelphia Parkway Client: Fairmount Park Art Association		BENU FRANKLIN PKY [E66] Philadelphia, PA [E66]
<input type="checkbox"/> Campus Development Plan & Library Client: Goucher College	university	Towson Park, (unincorporated places), Baltimore County, MD [E68]
<input type="checkbox"/> Chapel Client: Girard College	 chapel	College Ave. and CORINTHIAN AVE [E63] Philadelphia, PA [E63]
<input type="checkbox"/> Chestnut Street Association Commercial Development: Smallbusiness; Mamef's; Lippett's; The Rexall Store Client: Chestnut Street Association	 commercial  development  garage  store	1101-1131 CHESTNUT ST [E63] [Research this Block] Philadelphia, PA [E63]

Figure 7: PAB Entry for Harry Sternfeld (Holdings). Source: Philadelphia Architects and Buildings Project.

The vital information of each holding is given as well: what type of project the record pertains to, what type of document it is (plans, sketches, biographical entries, etc...) as well as the location of the project. Also at this first level are citations that tell you where information on this architect has been published. In the case of Sternfeld, he has an entry in AIA/T-Square Yearbook (1931) and one in the Philadelphia Real Estate Record and Builders' Guide, v. 49, n. 9, p. 72, 2/28/1934. Bibliographical entries allow the researcher to backtrack and verify information should they need to. Transparency in the references cited ensures that the database remains “authoritative.”

The second level is based on the information from the first . It is essentially still not interpretive in nature, instead grouping together each of the related records or “building blocks” that constitute the first layer. In the PAB construct, the second level is represented by the tabs at the top of the page; “Biography,” “Projects,” “Biographical References,” “Related Architects,” and “Images.”

Sternfeld, Harry (1888-1976)
 ARCHITECT; AND CITY PLANNER

Biography | **Projects** | **Biographical References** | **Related Architects** | **Images**

Added to [My Architects](#) | [Edit This Architect](#) | [Create New Architect](#)

Born: 11/21/1888, Died: 7/23/1976

Biography from the American Architects and Buildings database

Harry Sternfeld was another of that group of architects working in Philadelphia who ca

Figure 8: [PAB](#) entry for Harry Sternfeld (Project Cell). Source: [The Philadelphia Architects and Buildings Project](#).

The individual “building blocks” are placed in the appropriate categories in the project cell to make it easy for the reader to locate the type of holdings they need.

The illustration of level one is taken from the “Projects” section.

At the third and highest level is the biographic entry. The third level, building on the previous two, introduces narrative content that is more interpretive in nature. At this level in Sternfeld’s entry, we find the biography written by Sandra Tatman that was originally published in the Biographical Dictionary.

BIOGRAPHY

[printer-friendly version](#)

Sternfeld, Harry (1888-1976)
ARCHITECT; AND CITY PLANNER

[Biography](#) | [Projects](#) | [Biographical References](#) | [Related Architects](#) | [Images](#)

Born: 11/21/1888, Died: 7/23/1976

Biography from the *American Architects and Buildings* database

Harry Sternfeld was another of that group of architects working in Philadelphia who came under the considerable influence of [Paul P. Cret](#) while studying at the University of Pennsylvania. A native Philadelphian, Sternfeld graduated from Central High School in 1907, entering the University of Pennsylvania on a city scholarship, and graduating with his B.S. in 1911. During school vacations he worked from 1906 to 1912 (except for 1909) in the Wilmington, DE office of [John D. Thompson, Jr.](#), the architect who, in association with [Henry Hornbostel](#) and Jones, won the competition for the New Castle County Public Buildings with a Beaux-Arts influenced design. During 1900 Sternfeld spent some time in the office of [Frank Miles Day & Bro.](#) Following his graduation, Sternfeld left the United States to work for Francis S. Swales in his Montreal office and, while there, participated in the designs of the Chateau Frontenac and the Hotel Vancouver. Swales also was Beaux-Arts educated and maintained an atelier which Sternfeld attended while in Canada.

In 1912 he married Flora Maxwell of Atlantic City, NJ, and in 1913 returned to Philadelphia to begin work on his Masters of Architecture at the University of Pennsylvania. In 1914 he graduated and was awarded the Paris Prize; but World War I intervened, preventing him from traveling to Europe; and he instead accepted a position on the faculty of Architecture at Carnegie-Mellon University in Pittsburgh, where he remained until 1923, with interruptions for military service and the delayed trip to Europe. During his stay in Europe he attended the Ecole des Beaux-Arts and associated with the [Atelier Jausseley](#) in Paris from 1919-1920, working on a plan for the City of Paris. From Paris he moved on to the American Academy in Rome, where he studied from 1920-1921.

Figure 9: PAB Entry on Harry Sternfeld (Biography). Source: The Philadelphia Architects and Buildings Project.

Formation

The Interim Report to the William Penn Foundation (2001) notes that, in one year the PAB had created 11,572 records between the Athenaeum and the University of Pennsylvania Architectural Archives although only 5% were approved to for the use of the public.⁷⁸ Over 5,000 biographical entries – both from the Athenaeum's Biographical Dictionary (1985) and other sources were available to the public. Roughly 1,800 images were also scanned for the PAB. Also of note in this interim report is that the PHMC, at a meeting with other city officials, had promised to cooperate with the PAB's participants in incorporating GIS in the project. Testing of the interface at different conferences pertaining to architecture or library sciences indicated that the PAB would be a welcome resource.⁷⁹

Ultimately, the PHMC could not deliver the GIS source material to the project. Independently purchasing the requisite software was cost-prohibitive and therefore not an option. As a substitute, open-source software was used. This software can display an address for the site queried but lacks GIS's abilities to make data into a visual pattern, which was a key intent in the project.⁸⁰ And as with many other databases, the project did not secure funding for future maintenance and expansion. As a result of funding issues, the project has

⁷⁸ Interim Report to the William Penn Foundation, Grant #21099, 3.

⁷⁹ Ibid., 6-7.

⁸⁰ Initial Grant Proposal (With Updated Summary), 2.21.

entered the “maintenance” state mentioned as a contingency plan in the grant proposal, should there be no further funding available at the end of the grant period, 2004. “Maintenance” means that records are added when possible, but not as part of any concerted effort as they were in the beginning of the project.⁸¹

The William Penn Foundation, although in favor of totally free access, insisted that some money be charged for viewing high-quality images on the site in order to help fund maintenance. As a result, these became restricted to visitors who had purchased an annual membership. Costs for access to high-resolution images are \$40 per year (\$25 for students).

Today, the majority of the record-adding activity comes from the Athenaeum.⁸²

The original foundations of the project, the Philadelphia Real Estate and Builders Guide and the Biographical Dictionary of Philadelphia Architects together still contribute the largest number of entries, making this a database that is still geared toward representing Philadelphia architects. As one might expect, the contributions of each member reflect the nature of their collections--the Athenaeum has posted nearly 2,000 records from their Cret collection and roughly 2,500 from their Benson scrapbooks – their two largest contributions to

⁸¹ Ibid., 2.36

⁸² Ibid.

the PAB⁸³. Many of the Historical Commission's entries come from their archive of historic photographs.

⁸³ "Athenaeum of Philadelphia -- collections --," Philadelphia Architects and Buildings, 23 Ap 2009 <http://www.philadelphiabuildings.org/pab/app/in_display_collections.cfm/480851>.

Images on the site, although restricted, are of exceptional quality and allow the viewing of details that can be quite small and hard to see with the naked eye but quite obvious in an enlarged scan. An excellent example of this, often used by PAB staff, is Charles M. Burns's drawing of the Church of the Redeemer (Figs. 10 and 11). Upon zooming in on the digital scan made for the archive, text that was hidden in the grass toward the bottom right of the document became visible. As we can see in Figure 10, the inscription reads "GOD ALONE IS GREAT. GOD ALONE IS REAL. *18 CMB 81*"



Figure 10: Church of the Redeemer Exterior Rendering. (Charles M. Burns, architect, 1881) Athenaeum of Philadelphia. Source: Burns, Charles M. *Church of the Redeemer*. Digital image. Image Gallery. Philadelphia Architects and Buildings Project. 23 Apr. 2009 <http://www.philadelphiabuildings.org/pab/app/image_gallery.cfm/45959>.

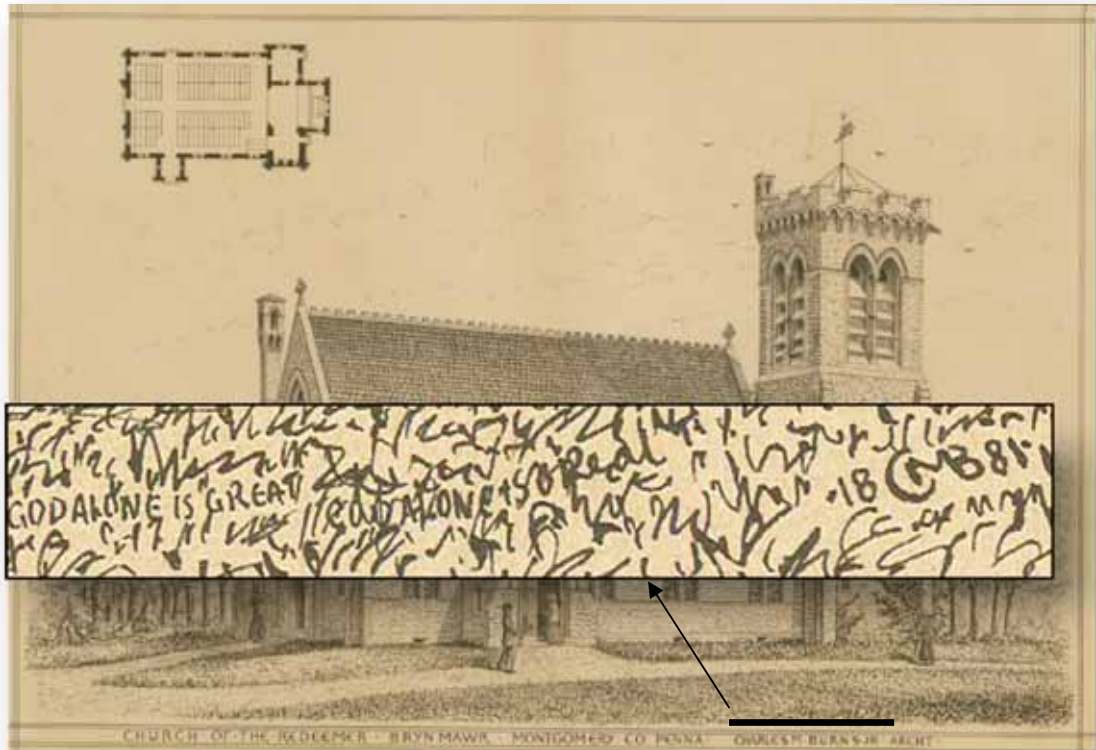


Figure 11: Detail of Church of the Redeemer Exterior Rendering, (Charles M. Burns, architect, 1881) Athenaeum of Philadelphia. Source: Burns, Charles M. *Church of the Redeemer*. Digital image. *Image Gallery*. Philadelphia Architects and Buildings Project. 23 Apr. 2009 <http://www.philadelphiabuildings.org/pab/app/image_gallery.cfm/45959>.

On the opposite side of the coin, it is not quite as image-rich as the participants wished. The grant proposal indicated that each entry would be accompanied by an image but that has not been the case and many entries have no images at all.

In many other respects, it is a very successful project. It even went beyond its scope somewhat in incorporating records for things that may not be considered

“architecture” ---everything from the Cascade Park Carousel (1897) to a 19th century design for a chicken coop to Paul Cret's designs for a bar-less bear den. In some cases, like Paul Cret's fountain for Rittenhouse Square, drawings, blueprints and present-day photos are all available. Links to PhillyHistory.org help to provide context and actual photos indexed by address. Thus, the project seems to have incorporated a larger range of records and information than might be expected through links to other information providers.

It was not by any means to be considered a comprehensive architectural resource, providing all types of records that may be useful even within research in the field. It would not, for instance, contain government census information which is another tool that could be used to track previous residents at an address or establish demographic trends for an area. It also did not try to incorporate official records like the deeds housed at the Philadelphia City Archives. Rather the PAB would be a resource that provided a comprehensive body of information pertaining to Philadelphia-area architects. The focus on the architect is, in the end, what sets this resource apart from other sites that provide scanned drawings and blueprints.

The two fictitious examples below are intended to show the ways in which the PAB is a valuable tool for different groups of people and how an architect's

biography. In the first example, a Philadelphia homeowner is curious about the design of his house after finding a scrap of information listing the name of its architect.. The second example shows how the PAB can also effectively assist preservation practitioners with their duties.

- **EXAMPLE I: A Philadelphia-Area Homeowner**

An illustrative example of the PAB's structure is the following situation in which a homeowner comes to the PAB site with one piece of information on his home—a paper found in the attic that lists “Harry Sternfeld” as its designer along with the name of the original owner. He or she sees the “Search by Architect” bar on the page and types in the architect's name. The result is a link to a biographical entry “Harry Sternfeld (1898-1976).” This tells him that Sternfeld was a distinguished architect who attended the École de Beaux Arts, was a student of Paul Cret and won the Paris Prize in 1914. Within the biographical entry are links to other architects that were associated with Sternfeld. In addition, he can click on the “Projects” tab at the top of the page and see a list of projects by Sternfeld, the types of buildings they are, their locations and the clients that commissioned them. He does not see his house in the list of 30 Sternfeld projects, but the section at the bottom entitled “Drawings, Papers, etc...” (not yet linked to a

project)” states that the Athenaeum has two drawings of residential structures that are unidentified. The researcher may then call and arrange to visit the Athenaeum in person, to see if one of these drawings could possibly be related to his own home. Links to available digital scans help to illustrate other Sternfeld projects, both residential and civic.

Should he also be looking for historic photos indexed to his address, he may not find anything on the PAB site itself, but he could check PhillyHistory.org. This site showcases photos taken by city utility companies before conducting large projects. With the name of the first owner of the house in hand, this homeowner could gain further information through a visit to Ancestry.com. As part of its services, this site makes available digital scans of historic census forms indexed by name and location may provide information on the person’s name, occupation, family, education and more.

- **EXAMPLE II: A Preservationist Completing a National Register Nomination**

Changing the above situation slightly, consider the work of a professional preservationist working for a State Historic Preservation Office (SHPO) who seeks to determine whether a building would be eligible for the National

Register of Historic Places and has reviewed the National Park Service-published criteria for a National Register listing (below):⁸⁴

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. *That are associated with events that have made a significant contribution to the broad patterns of our history; or*
- B. *That are associated with the lives of significant persons in or past; or*
- C. *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- D. *That have yielded or may be likely to yield, information important in history or prehistory.*

Having the name and address of the building, he visits the PAB site and enters the address of the building in question, the Bank of Chester County. The information on the building shows that the architect was Thomas Ustick Walter whose biography mentions that he completed hundreds of projects in the 1830s and 1840s and that he designed the United States Capitol. Thus, the building may qualify under criteria 4: “associated with an architect....whose work has influenced the development of the city, state or nation....” Of course, this information may need to be verified by the original documents, and the information on where to find these sources can be found under the “References” which lists a HABS document and several items housed at the Athenaeum.

⁸⁴ "Section II: How to Apply the National Register Criteria for Evaluation, National Register of Historic Places Bulletin (NRB 15)." National Park Service - Experience Your America. 1 Apr. 2009 <http://www.nps.gov/history/nr/publications/bulletins/nrb15/nrb15_2.htm>.

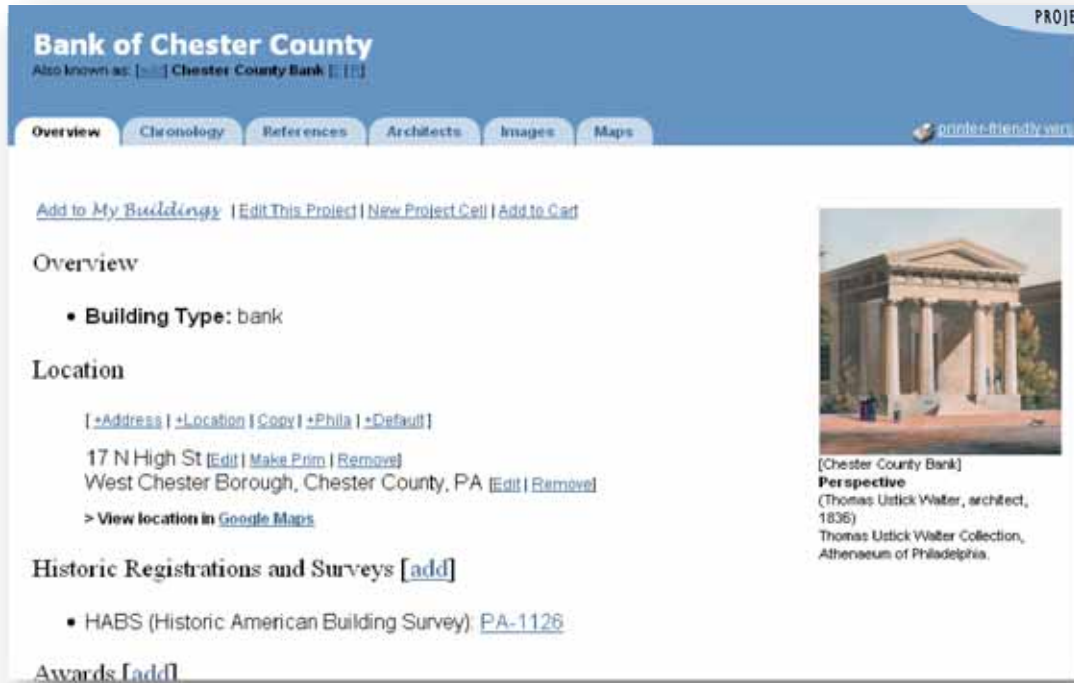


Figure 12: PAB Entry for the Bank of Chester County. Source: The Philadelphia Architects and Buildings Project.

These two examples show how the PAB can be an aid to researchers. It may not contain every useful resource, but its web of linked information provides, in one interface, a host of information. In order to establish a more thorough resource on one aspect of Philadelphia, the database's focus is narrowed to the architect. The concentration on the architect makes the PAB unique among other web resources which also tend to be quite specialized. When considered alone, they seem hopelessly incomplete, but connected to one another via the internet, they each form a small part of a larger whole. Contrasting this experience to the one described in the Grant Proposal makes the advantages clear.

Because the PAB was founded with core materials that focus on pre-World War II architects, information on current practitioners can be lacking. Currently, its entries for even the most highly-regarded architects can be lacking or omitted. When trying to find information on Denise Scott-Brown, for instance, the user finds that there is no biographical entry for her in the PAB (See Fig.13).



Figure 13: PAB Entry for Denise Scott Brown. "Scott Brown, Denise (b. 1931) --." Philadelphia Architects and Buildings. 23 Apr. 2009
<http://www.philadelphiabuildings.org/pab/app/ar_display.cfm/106612>.

3.4 The future of the PAB

It may be argued that a resource which has lost its ability to be updated has no place in our quickly-moving internet culture. The PAB however holds many resources that are widely-used and of value to those who visit the site and is a primary resource for one of the most-studied architects of the 20th century, Louis Kahn (1901-1974). While it may not be keeping pace with the digital world, it is still a valuable tool for many researchers and its data will be able to be used for generations.

Project participants continue to look for ways to improve the site while remaining faithful to its goals. Although highly interpretive materials were avoided in this project, the PAB project staff evaluates opportunities to engage members of the public with a more engaging display for their content. As the Architectural Archives of the University of Pennsylvania acquires the archives of Robert Venturi and Denise Scott-Brown, different options for presentation are under consideration. One possibility that was discussed was adding more personal touches in the form of a blog or recordings by the two architects. This is a unique opportunity, as both of these highly-regarded architects are still alive, and could actively contribute to this resource as could other, lesser-known figures. Interviews could provide insight into projects that may not be found in office documents and allow the site visitor to feel more connected to the

information presented.⁸⁵ Another possibility discussed is a customized interface built upon the foundation of the PAB database. This would allow the information from this collection specifically to be presented in a way that would show its contents to their best advantage.

The struggle over having a free site or making money through membership fees was never really resolved. The Penn Foundation had demanded that the site charge membership fees to see the larger scans available, but the institutions involved have not been comfortable with compromise. Today, they are searching for ways to fund the maintenance of the database while also providing free access to all areas of the site.⁸⁶

A partnership with the city of Baltimore, Maryland has begun to bridge the gap between the local and national. Baltimore's equivalent of the PAB, the Baltimore Architecture Project is the first to join the PAB in their ambition to create a national resource.⁸⁷ The new project is appropriately called American Architects and Buildings.⁸⁸ Records from distant areas like Michigan and Texas

⁸⁶ Walter Rice, Jr., "Interview with Walter Rice, Jr." Personal interview. 15 Apr. 2009.

⁸⁷ Baltimore Architecture Project. 12 Mar. 2009
<<http://www.baltimorebuildings.org/pab/index.cfm>>.

⁸⁸ "About the Baltimore Architecture Project." Baltimore Architecture Project. 12 Mar. 2009
<<http://www.baltimorebuildings.org/pab/about.cfm>>.

are available through the site although they are not official partners in the network.

A similar project is the Greater Philadelphia GeoHistory Project, run by the Philadelphia Area Consortium of Special Collections Libraries (PACSL) who secured a one-year grant for the project from the Andrew W. Mellon Foundation. This project will provide the geographical underpinning that GIS was to have provided in the proposed project.⁸⁹ The information gathered from the PAB as well as a variety of other layers can then be mapped upon it.⁹⁰

⁸⁹ Walter Rice, E-mail to the author, 6 Apr. 2009.

⁹⁰ Ibid.

CHAPTER IV: Recommendations and Conclusions

The PAB is, as we have seen, an excellent database for those researching pre-World War II Philadelphia architects. Thousands of records are collected in one place to detail its subject matter extensively. Resources of this type save researchers from the time-consuming tasks of archival research with materials that simply too far away to be accessed.

The building blocks that form the foundation of the PAB are the individual architect biographies. They are the most numerous and the most comprehensive type of resource on the site. Images are useful when included, but they have not been added to the database with the same amount of rigor as the biographies have been.

The project currently faces a crossroads at which it could either branch outward to other regions or subject matter or expend its resources in improving its coverage of the records in the greater Philadelphia area. The inclusion of other regions would certainly be useful to some researchers, but it would also undermine the fundamental strength of the database as it stands today. Digging further into the world of Philadelphia architects, by making more of an effort to include post-war practitioners, would fill the gap that currently exists and strengthen its position as a historic preservation resource. As it stands, the

region's architects of the mid-20th century to the present are underrepresented and the goal of creating a comprehensive resource is compromised.

How this could be carried out is open for discussion. The Phelps Dodge Reports are a post-War counterpart to the Biographical Dictionary and Builders Guide although copies of this report have not been located. Digitized newspapers like those in Readex's project, mentioned earlier, could be another possible source of information in articles where architectural projects or services are mentioned. New material will certainly come from today's architects who operate in digital and print media. With them they bring new challenges of storage and maintenance of designs created with 21st-century tools along with those of previous eras.

One important success of note is that of collaboration. The archival information management projects today rely on the connected nature of the internet to establish relationships between information, forming a more meaningful whole. Likewise, archives such as the partners in the formation of the PAB should begin to realize that strength lies in the combination of resources and ideas. One institution alone may hold a very limited amount of records and may not be able to fund the creation and maintenance of a database. But, together with several others in the same position, they can make a project that is more attractive to

grant funders, more sustainable, and richer than anything they could produce on their own.

Whether the new input come from the records of other institutions, long-lost architectural reports or some other sort as yet unidentified, it is clear that more recent architectural records are needed to correct the somewhat lopsided state of the database today. Doing so will allow it to expand, evolve, and ultimately build on its value as a preservation resource.

The Philadelphia Architects and Buildings Project is a model for a type of resource that has the potential to benefit other major metropolitan areas in the United States. It is evident in publications like Architectural Records in Boston (1983) that these cities have had difficulties in providing access to architectural records similar to those experienced by Philadelphia-area institutions. By creating similar projects that are, like the PAB information-rich, user-friendly and authoritative, cultural heritage institutions have the opportunity to ensure that the public will have access to the knowledge necessary to appreciate the historic fabric of their environment for generations to come.

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