

An Interview with Penelope Hartshorne Batcheler



Penelope Hartshorne Batcheler (Photograph by Richard Freer, Courtesy of the National Park Service)

Penelope Hartshorne Batcheler is a historical architect who served with the National Park Service from 1955 through 1992. She was born in Orange, New Jersey, and studied at Bennington College, Vermont, and the Illinois Institute of Technology in Chicago, where she graduated with a B.Arch. degree in 1953. Batcheler spent time in Sweden recording old buildings and started her National Park Service career at Independence National Historical Park, where she worked on architectural research, historic structures reports, and the restorations of Independence Hall, Congress Hall, the First Bank of the United States, Franklin Court, City Tavern, and other projects. Her later NPS career included research and historic structures reports for Boston's Old North Church, Slatford Farm and Charles S. Peirce House at Delaware Water Gap National Recreation Area, Lemon House at Allegheny Portage Railroad National Historic Site, Ellwood House at Fredericksburg & Spotsylvania National Military Park in Virginia, and Old City Hall at Lowell National Historical Park in Massachusetts. Batcheler received the National Park Service Appleman-Judd Award for outstanding contributions to cultural resource management in 1982 and the James Biddle Award for Lifetime Achievement in Historic Preservation from the Preservation Alliance of Greater Philadelphia in 2000. Antoinette J. Lee (AJL), CRM Journal editor, interviewed Batcheler at her Philadelphia, Pennsylvania, home on December 16, 2004.

AJL: Please tell us about your family and early years. What prompted you toward a historic preservation career?

PHB: I grew up in an 1825 farmhouse in East Orange, New Jersey. My mother was fond of old houses. My uncle moved two log cabins onto his farm in Chester County, Pennsylvania, and family trips usually included visits to old buildings. However, my early introduction to old buildings was not directed to a career in the field.

AJL: What were some of the early influences that steered you to study architecture?

PHB: The 1939 New York World's Fair was easy to reach from our East Orange home and the pavilions there were my introduction to "modern" architecture. The Finnish pavilion by Alvar Aalto was memorable. In seventh grade, inspired by the exhibit "Brazil Builds" at the Museum of Modern Art in New York, I

put together a report on the history of architecture of South America, saying "I chose this subject because I like architecture." *Life* magazine and the *National Geographic* supplied the illustrations, and the modern work of Oscar Niemeyer stood out.

By the time I was in high school, I had decided that I wanted to be an architect. At Bennington College, I took an introductory course in architecture. Philip Johnson's book on Mies van der Rohe was newly published and made a huge impression. My advisors recognized that I should follow this interest and attend Mies's school at the Illinois Institute of Technology (IIT) in Chicago.

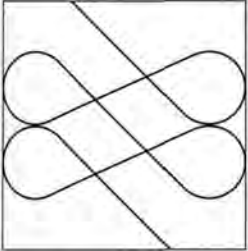


FIGURE 1
When Mies van der Rohe headed the architecture school at the Illinois Institute of Technology, learning to draw was a priority. Students were required to draw compositions on Strathmore paper with India ink and ruling pens. The curves were made with a ruling pen on a compass. The object was to have the width of the line consistent with the curves to the straight lines and to have the curves just miss each other, and just tangent to the outside borders. The original of this image is 13-inches square. (Courtesy of Penelope Hartshorne Batcheler)

AJL: Tell us about studying architecture at IIT under Mies van der Rohe. What was his method of teaching?

PHB: I was one of three women enrolled in IIT's five-year undergraduate architecture program. We were all apprentices in a sense. Each first-year student was given a set of small-scale wood bricks with which we learned how to lay up walls of varying thickness and bonds. This happened to be great preparation for eventually working in a brick city.

Learning to draw was another discipline of the school. We had life drawing once a week, and were asked to draw the same object seven times as homework. Drafting exercises were rigorous. In pencil and in India ink with nibbed ruling pens we created beautiful compositions on Strathmore paper. These required exactitude in consistent line weight or widths, precise starts and stops, and one-point tangencies. The University of Pennsylvania Architectural Archive has my plates because of its interest in Mies's teaching methods.

(Figure 1)

Other architecture schools encouraged more creativity, I believe. Mies wanted students to learn about materials and how buildings were put together, and how to make them weathertight. We drew already conceived buildings in plan, elevation, and full-size detail, all with the drafting skills previously learned. In the last years, a great deal of time was spent in design composition, placing objects in space, or a painting on a wall. Of course, all of this was accompanied by the usual strength of materials and engineering courses that all architecture schools have.

Our history of architecture classes did not require memorization of building names, architects' names, and dates. We looked at periods for their structural methods.

Mies himself held few classes with undergraduates. One that he did was held at the Farnsworth house when it was almost completed. He was clearly pleased with his work, and the students idolized him as he sat holding a big long cigar.

AJL: How did IIT's architectural education and your experience in Chicago lead you toward a career in historic preservation?

PHB: The school took us on tours of the buildings in the Loop: Sullivan's Carson Pirie Scott store and the Auditorium Building, the Monadnock Building, the steel-framed Reliance Building, and others. Of course, we made pilgrimages to the Frank Lloyd Wright buildings in Oak Park and, with a few friends, we met Wright at his Taliesin in Wisconsin. But historic preservation as a career was unheard of.

AJL: Tell us about your work in Sweden and the influence of your work there on your subsequent career.

PHB: After IIT, a Swedish relative invited me to help with a program to measure log buildings in the province of Dalecarlia. I also made a 16-mm-half-hour film on peasant craft techniques in the same area.

An ethnological team from the Nordiska Museum in Stockholm invited me to join them in a study of the log structures in the village of Saint Véran, Hautes-Alpes, France. By this time, I had also been exposed to the stave churches of Norway and the old stone and brick churches of Scandinavia. I was hooked on historic buildings. The slant of my Swedish relatives towards history, archeology, and the study of old buildings was great encouragement.

AJL: How did you come to be hired by the National Park Service in 1955?

PHB: My Swedish cousins had suggested that I look into working for Colonial Williamsburg. Instead I was led to Charles Peterson in Philadelphia. Independence National Historical Park was just getting going. Peterson had been involved in the planning of the park, but he had subsequently been transferred to the National Park Service's Eastern Office of Design and Construction to steer Historic American Buildings Survey and non-Philadelphia projects. Hearing of my active interest in old buildings, Peterson suggested that I apply to park architect Charles Grossman at Independence. Grossman had worked with log buildings in the Great Smokies, and when he saw my drawings and photographs of Scandinavian log buildings, he decided I couldn't be all that bad, and I was given a temporary position.

AJL: Describe the effort to preserve and restore Independence Hall in the 1950s. Who were your associates on this project?

PHB: From 1955 to 1959, I was at Independence, having been assigned to study Independence Hall, particularly the Supreme Court Room for which I eventually wrote a study of its historic appearance from a comparison of surviving old photographs with the existing woodwork. I also began to put together the

building's history of paint colors while painters were removing the accumulations, started under Peterson, to enable the distinction between original woodwork and modern changes.

The Bishop White and Todd Houses gave me the chance to develop skills in "above-ground archeology." With a floor chisel and hammer—when I wasn't hitting my left hand—the chisel, laid flat, removed later layers of plaster to uncover original evidence beneath.

During this period, I had the advantage of learning from other architects on the staff including William J. Murtagh; James C. Massey; William M. Campbell, a retired University of Pennsylvania architecture professor, who introduced me to 18th-century details and how they were assembled; and Frank Boeshore, a retired practicing architect, whose practical knowledge of construction was invaluable.

Independence Park also had on staff a number of historians, museum curators, and archeologists. The historians had been working since the founding of the park, gathering historical documentation from Harrisburg to London. Brown-bag lunches gave us the opportunity to compare notes on our latest findings and theories. This was an exciting time.

The only preservation work on Independence Hall that had been done in this period was the spot-repointing of brickwork, and the replacement of treads in the grand stair with removable treads, both done under Peterson while he was still at the park. When I was at the park, with the entrance hall woodwork now bare, a superb carpenter, Joe Silberholz, trained "in the old country," repaired the original 1755 woodwork that had shifted over time. This gave us a marvelous opportunity to look behind and under, and to learn a lot about the history of the building and its structural condition.

While all of this learning was going on, the park was buying up parcels of land and buildings to constitute the boundaries set by the 1948 act that established the park. With this came much demolition. Peterson had advocated retention of some of the 19th-century buildings of architectural importance: the Jayne building, the cast iron Penn Mutual building, and Frank Furness's Guarantee Trust that stood in front of Carpenters' Hall. Summer students made measured drawings, and taking photographs was about all we were able to do. Because these buildings were unrelated to the park's main story, they came down.

AJL: How were historic buildings treated at Independence, especially in the absence of today's standards and guidelines? As Constance Greiff stated in her book, *Independence: The Creation of a Park*—

There was no recognized methodology for the small staff at Independence to follow in investigating and restoring historic buildings. There was little literature on the subject, no written guidelines or manuals.... So those responsible for restoration at Independence were forced to develop techniques, learning as they went along from one another, from the draftsmen on the park's staff, and from the buildings.¹

PHB: Connie was right. In Philadelphia, Charles Peterson and Hank Judd led our historic structures office, and Lee Nelson led the small team assigned to research Independence Hall from 1960 on. We could not have had a better guide. Lee could think and write clearly and was our best proponent when dealing with National Park Service administrators who pressed for the completion of our research and to get on with the actual restoration. Blaine Cliver was a summer student intern. John Milner and Gary Dysert worked with us for several years. The public was admitted to the building during the research process. In fact, they were allowed to see some of the rooms throughout the whole structural rehabilitation and restoration.

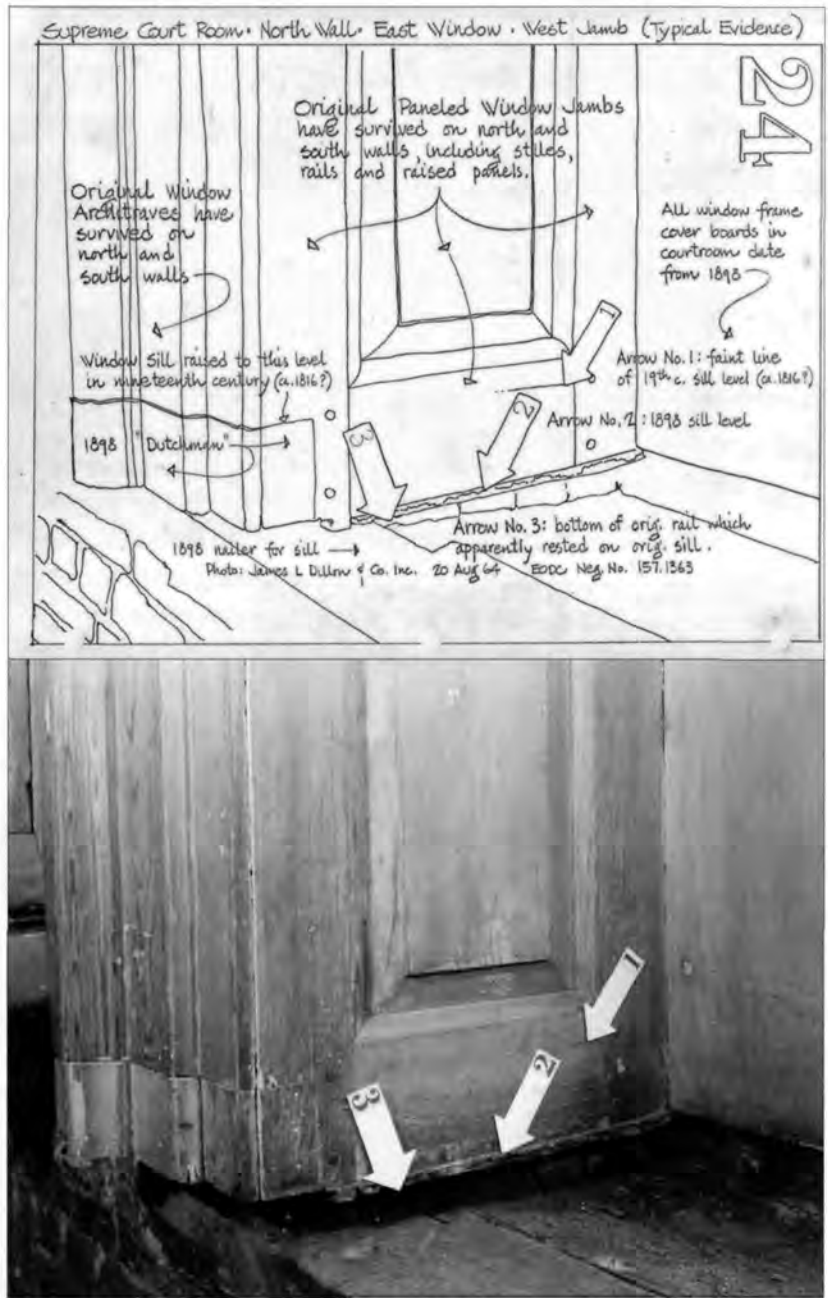
We started research on the Assembly Room. This most historic room had its original paneling ripped out in 1816 in order to "modernize" it to make it more rentable. The state government had moved away, and the county commissioners had to make ends meet. After having purchased the State House in 1818, the city hired architect John Haviland in 1831 to restore the room. Haviland designed paneling for all four walls; originally only one wall had been paneled.

My earlier study of paint layering in the building enabled us to recognize pieces of woodwork that turned up. Architect Gary Dysert came tearing back to the office one day with a small dentil he found wedged between an original floor joist and the brick wall. Under our binocular microscope, we were able to spot some of the original red iron oxide primer, the light gray second primer, and a deteriorated finish coat of blue/gray. The microscope was a great tool, and so also was the study of paint. Lee Nelson's research on the history of nail manufacture was a key tool as well. Thanks to Lee, we were readily able to identify the original hand-wrought nail types used for different purposes, the 1816 renovation cut nails, and the more perfected 1831 Haviland cut nails.

Evidence drawings were basic to our work. These included 3/4 inch to the foot interior elevations that recorded nails, nailing blocks, iron anchors, plaster remnants, and paint evidence where it occurred, marking the placement of original woodwork. In the 18th century, on brick walls wood trim was installed and primed before plaster was applied; thus we found vestiges of the original red primer on white mortar joints and the gray second primer on the red brickwork.

FIGURE 2

Lee Nelson prepared this evidence photograph and "cartoon" overlay of a splayed window jamb at the north wall of the Supreme Court Room, Independence Hall. (Courtesy of Independence National Historical Park)



Charles Peterson insisted our photographic recording of evidence be done with 8- by 10-inch black-and-white negatives. When archivally developed, there is no more lasting record. Lee Nelson developed a good technique to identify the sometimes obscure evidence in the photographs. Lee traced the photographs, and in cartoon fashion, described the evidence recorded. (Figure 2)

Recording the building's framework with summer student help increased our understanding of the original structural system of this ambitious 1730s building. Working with the structural engineers of Keast and Hood Company, they

and Lee Nelson saw to it that the rehabilitation preserved all surviving original structural members in place.

The discipline of writing historic structures reports forced definitive conclusions to our research, and gave the “powers that be” confidence to proceed.

In this era, there was no question that the buildings were to be restored to their appearance in the historic period to be interpreted. In the case of Independence Hall, however, it was accepted that the 1828 Strickland steeple would stay, out of period as it was. In the removal of the 1831 Haviland paneling, it was keyed piece-by-piece to a numbering system for potential reassembly. If we had not been able to come up with so much evidence of the original Assembly Room’s appearance, I suspect we may have put back this handsome woodwork. (Figures 3a, 3b, and 3c)

National Park Service architect Hugh Miller joined our team to run the production of the Assembly Room working drawings. As the Bicentennial deadline drew nearer, outside architects were brought in to produce contract documents for many of the projects. For example, Robert Venturi was asked to design the presentation of Franklin Court after the National Park Service had decided not to reconstruct Franklin’s house, but instead to provide a view of its archeological remains related to the house plan.

AJL: What were some of the highlights from your career in preparing historic structures reports for National Park Service historic buildings?

PHB: With Independence Hall ready for the Bicentennial, working for the Denver Service Center, I was next honored to research and write a historic structures report for Old North Church in Boston. Helping me were interns, Sally Sweetser and Mary Mish, both of whom had helped at Independence. Unwrapping the red tape around the original construction vouchers for this 1720s church was a thrill. Confirming the existence in the paint layering of the ca. 1727 painted cherubins up near the nave vaulted ceiling was another thrill, especially as I had to climb and hang onto a ladder that stood on the gallery floor, putting my head up about 35 feet above the main floor, a nervous moment.

Other out-of-town projects I worked on were so different from each other and from what I was used to. It was a challenge to learn the architectural vocabulary of each locale and era. Lowell’s Old City Hall at Lowell National Historical Park was a shock because it had been totally changed with sheet metal enrichment in 1896. The Peirce House at Delaware Water Gap National Recreation Area was equally badly renovated. It was hard to “fall in love” with this house. Slateford Farm, also at Delaware Water Gap, introduced me, among its assortment of buildings, to a Germanic timber-frame cabin of great

FIGURE 3a

This 1790s engraving, "Congress Voting Independence," attributed to Edward Savage, recorded the Assembly Room of Independence Hall before an extensive alteration in 1816. The view provides the earliest known accurate record of the focal east wall. (Courtesy of Independence National Historical Park)



FIGURE 3b

Summer student teams measured and produced evidence drawings such as this of the east wall of the Assembly Room, Independence Hall. (Photograph by James L. Dillon & Co., Inc., Courtesy of Independence National Historical Park)

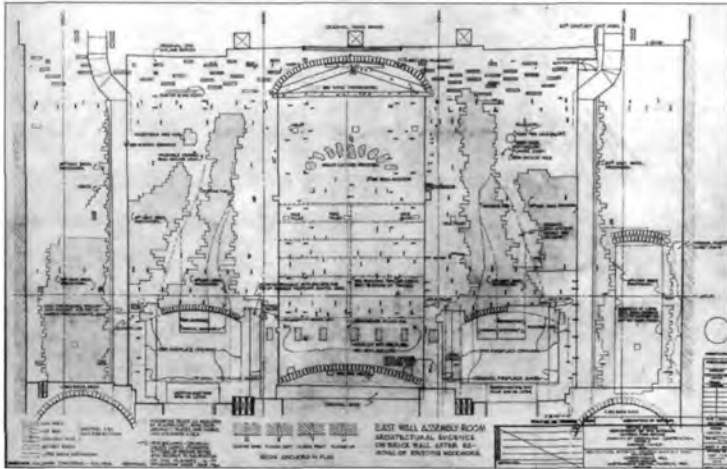


FIGURE 3c

In 1965, the missing east wall paneling of the Assembly Room, Independence Hall, was reconstructed. The paneling was installed by being pushed up into place with the help of someone holding a rope taut from above. (Photograph by James L. Dillon & Co., Inc., Courtesy of Independence National Historical Park)



character. At Ellwood House at Fredericksburg & Spotsylvania National Military Park, I met another timber frame with an interesting detail. The corner posts were, in section, hewn to an "L" shape enabling the side walls to be thin. Labor was cheaper.

In 1981, I asked Independence Superintendent Hobie Cawood if I could return to the park to write the final Independence Hall historic structures reports that had been postponed for lack of time before restoration. While I had this building's history still in my head, the reports on the Central Hall and Tower Stairhall and the second floor were completed before I retired.

In the last few years while I was at the park, we had the opportunity to set up a dendrochronology database by taking core samples from datable building roof trusses, including some from Independence National Historical Park structures. This database of white oak, spanning the years 1700 to 1828, is still used in the Delaware Valley to help date buildings that lack documentation.

William Brookover succeeded me as park architect. Before I left, he joined me in trying to institute a program of preservation maintenance at the park, including routine inspections, the use of 8 1/2- by 11-inch diagrammatic plans of the buildings to locate problems for work orders, and seasonal charts of routine maintenance tasks to prevent deterioration. To explain scaffolding and interruptions to the visitors, we hung up a huge banner that read, "Maintenance is Preservation." The present park architect, Charles Tonetti, continues to use this banner.

AJL: What was the status of the study of historic building materials in the 1950s and 1960s? How have advances in the research of building materials influenced the practice of historical architecture?

PHB: In the 1950s, when studying the Supreme Court Room of Independence Hall, we tried to date the removal of the joists for the original judges' bench by having a cement company analyze the mortar used to fill the empty holes, comparing it to datable mortars. The Forest Products Laboratory identified the wood types used in the surviving original woodwork, and paint companies came to our rescue identifying the pigments and medium of the early layers uncovered.

In the 1960s, Lee Nelson asked Gary Dysert to do a study of how exterior brickwork could safely be cleaned. Studies were also made of how to treat exterior trim for longer life. We ended up using fiberglass to replace some missing exterior carving. Hank Judd brought our attention to the use of softer lime mortars in repointing old brickwork. Old cedar shingles were studied for specifications that would produce straight grain, hand-split, and hand-dressed surfaces. The original flooring left in Independence Hall was our guide in

procuring longleaf yellow pine with as much edge grain as possible considering the width of the boards needed. Lee looked far and wide to get the new flooring, making us extra sensitive to its exposure to wear that would reduce its life. Amazingly, some original boards survive in place. Needless to say, we laid protective matting down as soon as possible.

In the early 1970s, when restoring the First Bank of the United States, we went out on a limb in consolidating the weathered and fragile exterior carved stonework on the principal facade. There was much deliberation with independent chemists, samples were made and tested, but even so, we were nervous and subject to criticism. The carvings seem to be surviving.

The establishment of the Association for Preservation Technology and materials laboratories at university historic preservation programs are certainly outcomes of the increased focus on the uses and reactions of materials in the 1950s, 1960s, and early 1970s.

AJL: Do you have a philosophy about historic buildings and their treatment?

PHB: Maintenance is preservation! Most preservation is based on a good maintenance plan and frequently taking the pulse of the building. Catch small problems before they grow, and when you find a problem, fix the cause first. Test the water shedding systems in the pouring rain.

AJL: Do you have advice for young people today about how to pursue a career in the preservation of historic architecture? What should they study?

PHB: Choose a preservation course that will have hands-on experience if their career is to be a preservation architect. Learn how buildings are put together to better recognize the causes of problems. Take chemistry to better understand the interaction and performance of materials. Learn how to prioritize restoration and repair needs and learn how to estimate the costs of needed actions. Learn the discipline of keeping good records for future generations. If a building is historic and worth preserving, it should have a life well beyond ours.

Note

1. Constance M. Greiff, *Independence: The Creation of a National Park* (Philadelphia: University of Pennsylvania Press, 1987), 13.

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