

# A Pragmatic Rehabilitation

## The Continuing Use of *Arisbe*, Home of C.S. Peirce

In our struggle to understand *pragmatism*, noted architect Robert Venturi reminds us that “Pragmatism is the kind of thinking that keeps doors opening, rather than operates in closed rooms.” After three years of closed doors and extensive rehabilitation, the doors of *Arisbe*, Greek name for the home of American philosopher and father of pragmatism—Charles S. Peirce (pronounced “purse”) are at long last open. Appropriately, a public open house and commemorative ceremony were held on Peirce’s birth date, September 10, in 1998.

What follows is a description of what took place at *Arisbe* and an explanation of why the Delaware Water Gap National Recreation Area took a *pragmatic* interest in its long-term preservation through a difficult process of rehabilitation and continued adaptive use as park scientific offices.

### **Building Evolution**

The building as seen today reflects some 27 years of expansion and remodeling carried out by Charles and Juliette Peirce between 1887 and 1914. In their attempt to create an “institution for the pursuit of pure science and philosophy” they nearly tripled the size of what had once been a modest farmhouse belonging to the John Quick family. “It is not in the least in the Queen Anne

nor any other style. It is our own original style,” Peirce proudly wrote at the beginning of his remodeling campaign. At that time the building had assumed a New England Shingle Style appearance. (In her Historic Structure Report, now retired NPS historical architect Penny Batcheler would later consider this to have been the building’s “architectural zenith.”) As Peirce continued to add on to the building, however, he became less positive in his thinking. Acting as his own architect, he lamented instead on how his unending construction endeavors were diverting him from doing the very writing he was more suited for.

The Peirces wished to establish a summer school for philosophical studies or alternatively, a year-round country resort—*Arisbe Villa*. In the end though, *Arisbe* would become an albatross. Being too big, it eventually drained them of their energy and their funds. The third floor, added between 1909-1914, like many of Peirce’s writings, was never completed in his lifetime. He died on April 14, 1914. His wife Juliette’s attempts to procure a second mortgage with which to continue the work and enhance the saleability of the property failed. Thus, at the time of her death in 1934, *Arisbe* was in poor condition. A builder, Robert Phillips, would carry on construction after purchasing the property for \$3,600 at the auction of her estate in 1936. In the process of completing what Peirce had begun, Phillips renovated and altered *Arisbe*, yet did not significantly change its 1914 exterior appearance. The Phillips family sold the property to the National Park Service in 1972 for \$60,000.

### **The National Park Service**

Much of what we know today about the evolution of this complex building is documented in Penny Batcheler’s Historic Structure Report written in 1977 (and published in 1983). There was both public and congressional interest at the time in establishing a Charles S. Peirce memorial museum. Accordingly, the Historic

*Arisbe today is the home of DEWA’s Division of Research and Resource Planning—the scientific branch for natural resource management in the park.*





Peirce's former study during destructive investigation. Exhibit Specialist Paul Jaeger points to decaying exterior wall framing damaged over the years by moisture wicking through the riverstone veneer installed by Peirce in 1909.

Structure Report contained a preliminary estimate for the cost of such an undertaking, dated November 1977, for the amount of \$659,000 (a figure which included additional research, planning and design, construction and construction supervision—all under the direction of the National Park Service Denver Service Center).<sup>\*</sup> That estimate did not include the cost of exhibits and furnishings.

Congressional funding of that magnitude was not forth-

coming, however. Nor was sufficient participation from potential cooperators such as the Charles S. Peirce Society, save for a study prepared by architect Robert Venturi titled *A Preliminary Presentation of Ideas for the Charles S. Peirce Museum*. The museum idea subsequently faltered. In its stead, the NPS, with modest expenditures, established park housing, and later, a few scientific offices in the building in 1985. Just prior to this, limited structural interventions had been introduced in an attempt to stabilize what would later prove to be a failing first floor framing system. Over time, the entire building would be occupied by the Division of Research and Resource planning, the scientific branch for natural resource management in the park. This seemed at the time, and still does to this day, to be an ingenious adaptive use for Peirce's home. Rather than "petrify" the building for posterity as a museum, we converted it to office space for scientists. Peirce himself was a scientist and had always wanted the building to become a scientific "think tank" for the pursuit of pure science. However, *Arisbe* still faced serious unresolved structural deficiencies, the drastically uneven and spongy first floor being only the tip of the iceberg. Mechanical and electrical systems were inadequate and unsafe, too.

<sup>\*</sup>Final cost of the project was \$662,000.

### The Rehabilitation

In 1993, using programmed cyclic maintenance funds, the park hired Ortega Consulting of Media, Pennsylvania, to perform a structural evaluation of the building and determine what was behind the drastic settlement and weakness of the first floor. The prognosis was not good. The first floor framing was "afflicted by pervasive and extensive fungal attack, insect damage and poorly executed alterations." Total replacement of that floor system and significant structural repairs elsewhere would be required. Existing conditions and structural repair drawings were prepared by Ortega Consulting. To address *Arisbe's* generally poor condition, we decided to rehabilitate the **entire** building while the interior was wide open and undergoing structural repair. This was an opportune time to replace and upgrade antiquated plumbing, heating, and electrical systems which were hopelessly intertwined with the first floor framing system and would be disturbed anyway during the process of rehabilitation. Interior finishes disrupted along the way would be repaired later on. A *rehabilitation* rather than a *restoration*, the building's current altered state was accommodated.

This decision to repair the building did not come easily, even considering Peirce's renown. Due to steep projected costs, we actually considered abandoning the building and establishing a new home for its occupants elsewhere in the park. But other vacant structures required an equivalent if not a greater amount of expenditure. In the end we proceeded with the rehabilitation, thus preserving not just bricks and mortar, but the energy expense embodied in the building. Old buildings like *Arisbe*, after all, represent not just memories, but a calculable amount of resources. To quote Stewart Brand, "An old building, like an old forest, has intergenerational equity."

To finance the project, construction work was phased over a three-year period in sync with anticipated annual cyclic maintenance funding. For economy, work was overseen by park staff, engineered by private engineering firms, and constructed by a combination of local subcontractors and NPS employees. As a result, the project was completed for significantly less cost than previous large construction projects here at Delaware Water Gap. The general contractor for the project who oversaw the extensive structural and mechanical repair work was R. I. Williams &

Associates of Glenside, Pennsylvania. They were selected from the Small Business Administration's 8(a) minority contracting program. The proposed work was divided into four zones, each corresponding to one quadrant (approximately one-half of the first or second floors of the building.) Intense construction activity would be limited to one zone at a time. In theory, this would enable the occupants and construction crews to co-exist. The contract was awarded in September 1995. With the occupants relocated to the second floor, we were ready to begin the first phase.

The work of Phase I entailed extricating the front half of the first floor framing and then installing new framing using modern "sustainable" lumber products such as wood I-joists and parallel-strand laminated beams. Only a small amount of structural steel was used. Maintained within the new framing scheme were references to historic elements that may in the future be reconstructed. Original hardwood-finish flooring made of chestnut was carefully salvaged from the front half of the building for reinstallation in Peirce's former study at a later date.

Phase II repeated this same procedure over the back half of the building. Once the new first floor was in place, mechanical and utility upgrades, already underway, could proceed in full. The basement and unfinished third floor of the building provided an ideal location from which to feed up or down respectively the new utilities into occupied spaces on the first and second floors. At about this time a decision was made to remove the building occupants from what were becoming impossible working conditions. Dust and noise control measures were

proving unsuccessful, so the occupants were relocated to two on-site office trailers for the remainder of the project.

Phase III proved to be the final phase of the project. It focused on the replacement of services including the installation of a new four zone heating and air conditioning system; rewiring the electrical, computer networking, and phone systems; replumbing and repairing the toilet rooms, lunchroom, and laboratories; and completing all interior finishes. Persons with disabilities were accommodated at the first floor level by constructing a new access ramp with adjacent parking. Interior finish carpentry and cosmetic work were the responsibility of NPS day labor. A core work crew of three-to-five employees was detailed to the project, assisted by other employees when conditions permitted. This NPS crew performed demolition, carpentry, sheetrock and spackling, plaster repair, wood-floor restoration, millwork and finish carpentry and interior painting.

As a final touch, the exterior was freshly painted using a grayish-brown color scheme. This recalls the appearance of the unpainted and weathered wood shingle siding visible in historic photographs. The resulting rehabilitated first and second-floor-level office areas total some 5,000 square feet. The unfinished basement and third-floor levels house mechanical, electrical and plumbing equipment. Site work, to be completed this summer, will bring to closure the rehabilitation of *Arisbe*.

Charles S. Peirce, on the other hand, implied there is no closure. Peirce left his work incomplete, to be completed by others. Peirce wished above all else to provoke thought leading to further thought and inquiry—"Do Not Block The Way Of Inquiry," he said. In other words, keep an open door—an open mind. Indeed, were he alive today, while he would not recognize the technological improvements since visited upon his former home, he would, I believe, recognize the building as an example of the physical reality inherent in a space-time continuum. More than any other human artifact, buildings change over time. When the practical consequences of such change result in the continuing use of a historic property such as *Arisbe*, then perhaps its rehabilitation can in fact be referred to as *pragmatic*.

In closing—Pragmatism has as its object and criterion the generation of "useful knowledge." I think Charles S. Peirce would be

*The crew of structural repair subcontractor H.R. Bixler installs a steel girder below the interior bearing wall partition separating Peirce's parlor and study.*



delighted to know that his former home is being used for just that purpose today.

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Photos by the author.

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## Charles S. Peirce

Charles Peirce was born in Cambridge, Massachusetts on September 10, 1839. By the age of 16 Charles had enrolled at Harvard. There he received an undergraduate degree and an M.A. From Harvard he went on to attend the new Lawrence Scientific School and earned a B.S. in chemistry.

Peirce pursued his interest in philosophy, logic, and methodology contemporaneously with his scientific education. During the Civil War, Peirce was a regular aide for the U.S. Coast and Geodetic Survey. From there he embarked upon a career that would take him from chemistry into astronomy, geodesy (the mathematical measurement of the earth’s surface), metrology (the science of measurement), and spectroscopy (the study of the light spectrum). Peirce lectured on epistemology and logic at Harvard and Johns Hopkins, though he was never granted a full professorship at either institution.

To the philosophical world, Charles Peirce is considered the father of pragmatism, a method of sorting out conceptual confusions by relating meaning to consequences. While still in Cambridge he met with the Metaphysical Club whose members consisted of famous philosophers such as Oliver Wendell Holmes, Chauncey Wright, and William James. With these men Peirce developed the theory of pragmatism that would later develop into a school. The idea of pragmatism is considered by some philosophers to be a uniquely American style of philosophy.

Peirce worked for the Harvard observatory from 1867-1875 and was appointed superintendent of a survey within the U.S. Coast and Geodetic

Survey (USC&GS) in 1867. From research accomplished at the observatory emerged Peirce’s only published work, *Photometric Researches*. By 1872 he was in charge of the pendulum and gravity operations within the USC&GS. With the Coastal Survey he gained world recognition for his pendulum work. While with the USC&GS he created the quincuncial map projection in 1876, which allowed for an accurate projection of the earth’s surface on a flat map. This cartographic tool is still used today as an international air route chart. Peirce also determined the length of a meter from a wavelength of light in 1879 and in 1884 he was assigned special assistant to gravity research with the USC&GS. After Congress discontinued funding the pendulum studies in 1891 he focused mainly on writing.

One of Peirce’s projects in mathematics during this later period was a series of “existential graphs.” The significance of these existential graphs, however, was not recognized until the development of a computer-based representation of graphical inference. A version of his graphs is currently being used by computer scientists around the world as a knowledge representation schema for artificial intelligence applications.

On April 19, 1914, he died of cancer surrounded by piles of unpublished works. Harvard purchased many of these papers from his wife, Juliette. Almost two decades after Peirce had died unappreciated, two American philosophers, Charles Hawthorne and Paul Weiss, began to publish his writings in 1931. Universities throughout the world have since created establishments such as the Peirce Edition Project at Purdue University of Indiana. Scholars today have just begun to take account of Peirce’s uncanny propensity to suggest scientific and philosophical themes a century ahead of their day.

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