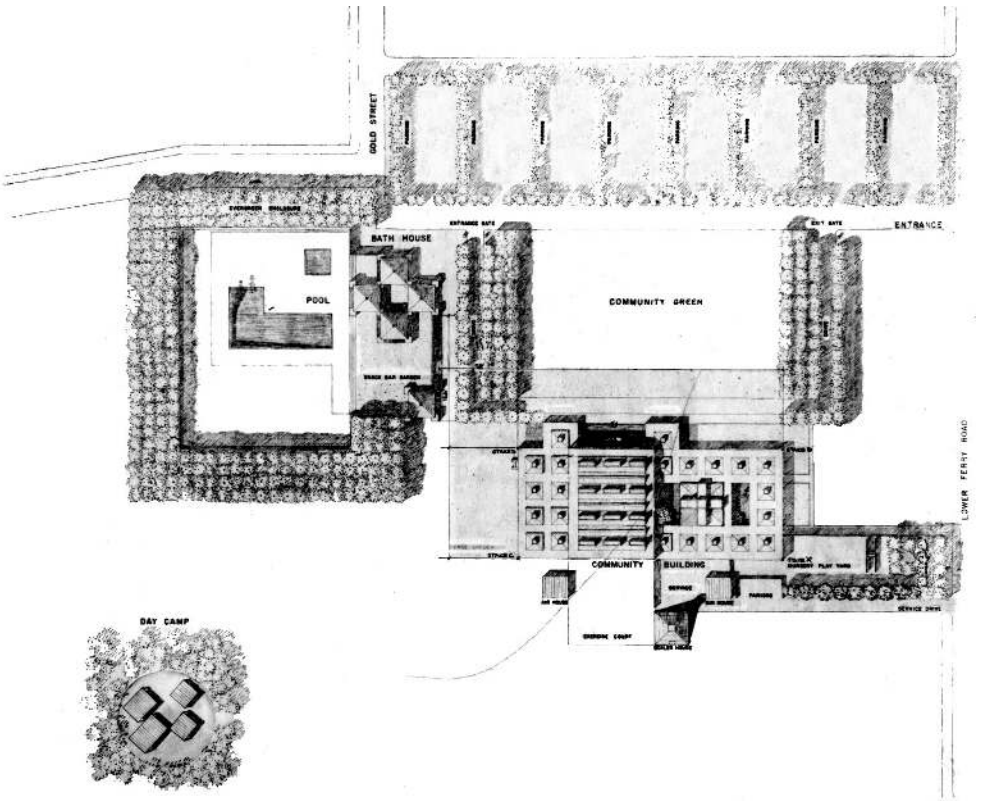
Three Aspects Of Integrity

Michael J. Mills

Change Over Time, Volume 10, Number 2, Fall 2021, pp. 142-158 (Article)

Published by University of Pennsylvania Press
DOI: *https://doi.org/10.1353/cot.2021.0006*



THREE ASPECTS OF INTEGRITY

MICHAEL J. MILLS
Partner, Mills+Schnoering Architects LLC

Figure 1. Kahn's Bath House and Day Camp structures were part of a larger design vision for the site that was unrealized. Architectural Archives of the University of Pennsylvania

Integrity in differing contexts is illustrated by three short case studies.

Louis Kahn Trenton Bath House: Integrity of an Unrealized Design

The design for Kahn's Trenton Bath House was not fully constructed. A preservation project gave an opportunity to create elements that interpreted Kahn's original intentions. The renovations allow the integrity of unrealized site design to be appreciated.

Statue of Liberty Renovations: Integrity of Original Materials

Visitor facilities were replaced at the statue for fire safety and accessibility by a reimagination of the interior. The NPS defined integrity as limited to the sculptural and structural materials. The two new stairs and three elevators installed within the pedestal create a lively journey to the observation areas and highlight the integrity of the original features.

Renovation of Saarinen's Hill College House: Integrity of a Design Idea Expanded

Hill College House at the University of Pennsylvania is a Saarinen-designed dormitory of cast concrete. While the hierarchy of the building's major spaces was preserved, the integrity of its design details had been lost. The goal for the renovation was to balance the preservation of a mid-century modern design with expanded facilities for twenty-first-century students.

The concept of integrity in the conservation of the built environment encompasses a range of characteristics. Integrity can have different meanings in different contexts. The goal of this article is to show how the history and significance of a site determined the integrity of three rehabilitation projects and how integrity guided the approach to the projects' different objectives.

The use of the word "integrity" has evolved over time in both the discourse and practice of conservation. Cesare Brandi, an early modern theorist and the first director of the Instituto Centrale del Restauro in Rome from 1939 to 1959, postulated that the existential reality of a work, its materials and patina, are necessary components to understand and conserve works of art and architecture.[1] His ideas for the conservation and restoration of monuments and sites were further developed in the Venice Charter of 1962, and the word "integrity" was used in Article 16 with respect to the protection of historic sites.[2] The charter mainly discussed safeguarding historic monuments as works of art, inseparable from their history and reflecting their settings.

In the United States, integrity is used as a measure of cultural significance by many public agencies and private institutions to guide interventions in listed historic structures. The National Register of Historic Places' criteria define integrity as "the ability of a property to convey its significance." And seven aspects of integrity are articulated with explanations on how to interpret them: location, design, setting, materials, workmanship, feeling, and association. Properties with historic integrity must always retain several, usually most, of these aspects. Determining which are applicable to a particular property requires research on why, where, and when the property is significant.

Several examples of how the integrity of the property guided the restoration approach are explored in the three brief case studies that follow.

Louis Kahn Trenton Bath House: Integrity of an Unrealized Design

The Trenton Bath House, designed by Louis I. Kahn is a landmark of modern architecture and a product of one of the most important phases of the architect's professional career. Kahn worked on the design from 1954 to 1957 and completed two components: (1) the Bath House itself, which comprises dressing rooms, lockers, and a ceremonial entrance to the pool (1955); and (2) the Day Camp Pavilions (1957). His master plan for the complex, never fully executed, included a large, modular building for the Jewish Community Center, a community green bordered by rows of trees, a snack bar defining a paved plaza, a circular drive giving access to all components, and parking on the perimeter of the open space. A comprehensive rehabilitation project offered a unique opportunity to interpret the site according to Kahn's design intentions and to achieve a large measure of its integrity.

The Bath House marked a turning point in Kahn's career, representing a new way of defining space, and it reflected an important stylistic advancement in the way that his modernist principles were infused with lessons from the past. The crisp, geometric volumes of the Bath House capped by pyramidal roofs formed Greek crosses in plan and were arrayed around an open courtyard that served as a forecourt to the pool, which was located on an elevated mound beyond them. The classical plan was articulated by readily available modern materials such as concrete block walls, wood roof framing, and concrete floors. The square plans of the dressing areas were divided between program areas and circulation or utility zones, which in Kahn's lexicon became the "servant" and "served" spaces. This spatial division was more famously developed a few years later in Kahn's Richards Medical Building at the University of Pennsylvania. The Day Camp Pavilions consisted of two enclosed square structures and two open rectangular ones with their grids slightly askew. Their relationship to one another was Kahn's interpretation of classical temples he had sketched in Corinth, Greece.

As Kahn's former associate and Princeton professor Carlos Vallhonrat said in his letter of support for the National Register nomination of the Bath House, "It has always been my belief that within the work of Louis I. Kahn the Trenton Bath House is the project and the building which represented the real breakthrough in the evolution of his architectural creative powers. . . . It shows the strength of pure originality, and the search for the most elementary and profound meanings of form."[3]

While the original Kahn design for the Trenton Bath House and Day Camp was retained in terms of material integrity and basic form, his intended Community Center building and site plan were never fully realized. Kahn was let go in 1957 after his main supporter on the JCC board died and concerns were raised about the cost of the design and schedule delays. The Community Center building was not constructed until 1960, to the designs of the firm, Kelly and Gruzen.

The elements designed by Kahn at the Bath House and Day Camp were not well respected by the Jewish Community Center, who added to the structure and the site in unsympathetic ways that did not sufficiently maintain its fabric. Soon after Kahn's departure, a landscape committee of the JCC planted evergreen shrubs around the perimeter of the Bath House. The effect compromised the geometric integrity of the design. Worse than that intrusion was the appearance of a plywood snack bar along one wall of the women's dressing room, which was later made more permanent in concrete block and extended across the length of the structure. Kahn's intentions for the snack bar were to locate another pyramidal-roofed structure at a distance from the dressing rooms to create an open dining plaza. A circular gravel fountain structure was removed from the atrium space and replaced with plain concrete. The distinctive mural at the main entrance of the Bath House, painted by Marie Kwo of Kahn's office, was painted over in gray. And the circle of gravel that originally encompassed the Day Camp pavilions was not maintained and allowed to devolve into unkempt grass and weeds. The community green, the access drive, the bosques of trees, and the perimeter parking were never realized, and the entire open area between the Community Center building and the Bath House became an asphalt parking area.

In 1997, the Bath House and Day Camp were included on Preservation New Jersey's Ten Most Endangered buildings list when the JCC applied for a demolition permit for two of the Day Camp Buildings. Because of the outcry, the JCC was dissuaded from taking further action and merely closed the Day Camp structures. In 2000, architectural historian Susan Solomon published a monograph focused on the Trenton Jewish Community Center and the significance and vulnerability of its fabric. Our predecessor firm, FMG Architects, was hired by the JCC in 2001 to assess the structures and prepare a preservation plan. International attention was focused on the Bath House in 2003 with the release of the film *My Architect*, by Nathaniel Kahn, Louis Kahn's son, in which he highlighted its declining condition and precarious future.

In 2005, with no restoration work undertaken, the JCC announced that it would sell the property. The prospect of the sale raised questions about the fate of the structures and the difficulty of rescuing a building of the modern era. In 2007, Mercer County retained our firm, with structural engineering consultants Keast and Hood, and Heritage Landscapes to update the existing preservation plan and to prepare a historic landscape assessment. In 2008, using state and county funds, Mercer County purchased the entire property and conveyed the site with preservation easements to Ewing Township. The county, together with our firm, began to plan the restoration of the Bath House and improvements to the site with grant assistance from the New Jersey Historic Trust. The transition in stewardship was smooth, and the pool facility remained open each summer without interruption.

The rehabilitation project presented an opportunity not only to repair and conserve the original fabric but also to make the site safer and more accessible with improvements true to Kahn's design intentions. It was a chance to recreate the integrity of the Kahn design for the site that had never been realized. And in the end, it was to make the site a more attractive and appropriate setting for the architectural landmark.

One of the key questions for the new site development plan was the location and design of the new snack bar. Kahn's intentions for the design were clearly articulated in his original drawings, but the question became, Would we damage or enhance the integrity of the site by constructing it according to his design? We ultimately decided, in line with Cesare Brandi's thoughts on the existential reality of an artistic work, that we should not mimic the original design by building a fifth pavilion for the snack bar. Instead, we placed the new snack bar in the intended location and constructed in a manner compatible with the Kahn design but differentiated from it so that no one would mistake the new snack bar as original fabric. The intent was to interpret Kahn's design idea while preserving the integrity of its built fabric.

Anne Tyng, the design architect for Kahn on the Bath House, was still living when the rehabilitation project was envisioned. We consulted her on design-related questions pertaining to the location and construction of the Snack Bar and the introduction of a new access ramp to the upper level of the pool. She agreed with the approach of making the new features contemporary, functional, and differentiated, while revealing and restoring such original design features as the entrance mural and the circular gravel feature in the atrium, which she identified as a fountain. We utilized a gravel aggregate concrete for this feature that is fully compliant with the requirements of the Americans with Disabilities Act. We also reinterpreted the gravel ring encompassing the Day Camp in a tennis court paving material that is fully accessible to wheelchairs but softer on children's knees in a fall. Tyng indicated that she and Kahn were interested in having rainwater flow over the masonry walls, eroding them over time, and not having gutters along the edges of the roofs. We respected the integrity of their design by managing rainwater in other ways than adding hung gutters.

The new Snack Bar was constructed of compatible materials such as concrete masonry, with walls built of standard gray block as opposed to the brownish gray and textured block specified by Kahn. It has a wood-framed roof like the Bath House but an inverted butterfly design separated from the block by glazing so that it "floats" over the masonry in the same way that Kahn's pyramidal roofs hover above the Bath House. The perimeter block wall intended to enclose the plaza between the Bath House and Snack Bar was not acceptable to the county or the township for environmental and security reasons, so a partial wall with steel fencing according to Kahn's design details was proposed and constructed.

The larger site development also reflects more of the Kahn master plan, with modifications related to the later design of the Community Center building and to practical requirements of access and parking. The perimeter drive that gives access to the buildings was reconstituted around a new community green space. While somewhat smaller than shown on the Kahn site plan, it created a forecourt for both buildings and a useful

Figure 2. View after restoration of the atrium. Photo by Brian Rose

Figure 3. View after restoration showing entrance mural, the new Snack Bar, the plaza, and the Kahn-designed perimeter fence. Photo by author

gathering space for public functions. The green space was bordered with lines of trees and sidewalks and pervious ground cover that define circulation paths between the buildings and to the parking. The parking as Kahn envisioned was relegated to the perimeter areas of the site. The lot closest to the pool was developed with pervious paving and below grade drainage retention as part of a sustainable storm water management strategy. Lines of trees regularly spaced along the pathways add green elements to the site circulation and parking, and also reinforce the overall design of the community green.

Historical research in the Kahn Archives at the University of Pennsylvania, at Yale University, and in interviews with designer Anne Tyng revealed Louis I. Kahn's design intentions for elements never constructed. One of the opportunities presented in this rehabilitation project was to create new elements that interpreted the original design. In the process of making the site more accessible, safe, and resilient, the renovations allowed the integrity of an unrealized design to be appreciated.

Statue of Liberty Renovations: Integrity of Original Materials

At the Statue of Liberty, a World Heritage Site, the safety of both the public and the monument were deemed to be of utmost importance. Following the events of 9/11, it was determined that most of the visitor facilities and circulation systems installed during the one-hundredth anniversary project in 1986 needed to be replaced for fire safety and accessibility reasons. The renovation design would involve a complete reimagination of the interior of the pedestal designed by Richard Morris Hunt while preserving the integrity of the landmark.

The National Park Service defined integrity concerns in this project to be limited to the materials of the landmark design by Auguste Bartholdi, the designer/sculptor, and by Gustav Eiffel, the original structural engineer. Not only were those materials to be respected; they were not to be touched by any new elements that might affect their material and artistic integrity. The exterior granite of the Hunt pedestal was also placed in this category, although its interior concrete walls had been changed radically over the history of the monument and needed to be changed again.

The Statue of Liberty National Monument consists of several elements: (1) the statue itself and the crown observation platform, accessed by a double helix stair; (2) the pedestal, a granite-faced concrete structure; (3) Fort Wood, the star-shaped nineteenth-century fort that surrounds the pedestal, and its terreplein, a large public plaza at the top of the fort walls; and (4) the American Museum of Immigration space, which is a granite-faced "donut" structure built in the 1960s on the terreplein around the base of the pedestal (and which housed the American Museum of Immigration before it moved to Ellis Island).

The first phase of the project, begun in the spring of 2009, was to reopen the crown, which had been closed since 9/11. This involved replacing the existing handrails in the double helix stair with new, higher-placed code-compliant ones, along with inserting new glass panels at the landings to provide additional safety. To preserve the material integrity of the Eiffel support structure of the statue and the views of the interior, the new glass panels were clipped to the structure to avoid drilling new holes into the historic fabric.

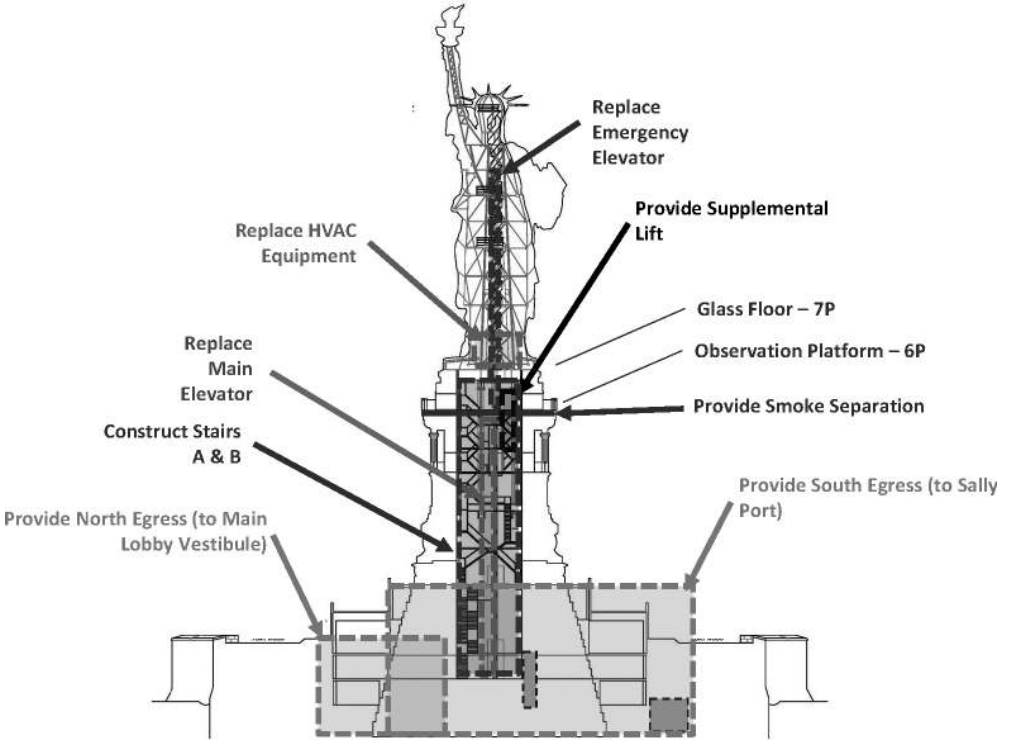


Figure 4. Overview schematic of Statue of Liberty project components. Image by author

Design for a more comprehensive project started soon after the crown access project was dedicated on July 4, 2009. Its major components were based on a prior fire safety report and included (1) removing all non-original material in the pedestal, including the stairs and the obsolete hydraulic elevator, which was a fire hazard; 2) installing two new code-compliant fire stairs in two-hour-rated enclosures; (3) installing a new, faster, elevator without a machine rooms; (4) creating smoke separation between the statue and the pedestal, stair pressurization, and smoke exhaust; (5) providing a new emergency elevator to the shoulder of the statue; (6) replacing the statue HVAC equipment to improve comfort; (7) providing terreplein egress replacing the temporary wood stairs installed in the 1990s; and (8) providing barrier-free access to the pedestal observation deck for the first time in its history.

The physical constraints in the pedestal were daunting, made more so by the requirement to avoid connections to the Eiffel structure to preserve its integrity. There was only a small, square interior void measuring 27 feet on each side in which to fit the two required fire stairs and an elevator. At the lower levels, there was a "pinch point" of solid concrete that reduced the opening to a square of 17 feet on a side. Grids of historic Eiffel-designed girders at two levels crisscross the void and reduce the available locations for the new features, which created a challenging three-dimensional puzzle.

To meet the challenge, we decided at the outset to model the project three dimensionally. Utilizing our model, we presented the National Park Service with three stair and

Figure 5. Cutaway view showing the two new stairs in the pedestal. Image by author

elevator design options and then undertook a value analysis of each. The final design solution selected by the National Park Service was to have one stair (Stair A) from the lowest level of Fort Wood to the Observation level of the pedestal to serve as the up stair, and the other (Stair B) serving as the down stair from the observation level to the terreplein. We enclosed the elevator in a two-hour rated concrete shaft, which was a key fire safety code requirement. We kept Stair A as open as possible so that one could have the experience of exploring the statue and seeing and touching the Eiffel beams. Stair B was enclosed in fire-rated panels sheathed in metal, and we designed it as a rated glass tube for part of its length to allow views of historic features. Because Stair B and the elevator have separate two-hour enclosures, Stair A in effect is also rated, as it is within the original concrete shaft of the pedestal.

Figure 6. View of the two new stairs moving through the original Eiffel structure. Photo by Brian Rose

The most challenging condition created by the "do not touch" integrity requirement was the lower level of Eiffel beams, at levels 3.5–4.5. Here, both fire stairs were required by the available open spaces in the Eiffel structure to leave their perimeter locations and move through the center opening amid the original structure without touching it. In the current design, visitors are treated to an Escher-like experience of traveling through space in a museum of historic features that includes views into the large girders and bolts that secure the statue to the pedestal. The original interior infrastructure is further enhanced by new lighting that creates destinations along the path toward the observation level.

We also designed two means of egress from the terreplein to the ground to provide full compliance for the hundreds of visitors that congregate there. To minimize intrusions to the integrity of Fort Wood, we excavated through the terreplein in areas that had already been disturbed and documented by archeology and connect to the new egress stairs: one to the main entrance and the other to an existing sally port on the harbor side of the monument.

The project was finished on time and rededicated by the Secretary of Interior on the 126th anniversary of the statue in October of 2012. The new stairs, three new elevators, and other visitor facilities installed in the interior of the pedestal now create a lively journey to the observation levels and assist one's appreciation of the integrity of the original features, which were not touched in executing this project.

Renovation of Saarinen's Hill College House: Integrity of a Design Revealed and Extended

The integrity of a landmark of modern architecture, Hill College House at the University of Pennsylvania, was severely compromised by age, heavy usage, and ad hoc alterations. Designed by the renowned Finnish American architect Eero Saarinen and completed after his death in 1960, Hill College House is a five-story, 195,000–square foot concrete and brick residence hall. Saarinen is considered one of the most influential architects of the twentieth century. His worked ranged from the spare and Miesian (like the John Deere Headquarters) to the sensual and sculptural (like the TWA Terminal at JFK Airport). During his long association with Florence Knoll, he designed many important pieces of furniture such as the "womb" chair and the Tulip group of furniture.

Hill College House was the first purpose-built women's residence hall at the university, and Saarinen created a building that would protect its occupants, keeping the outside world away. It was situated in its urban context like an Italian palazzo with textured masonry walls, a landscaped moat, a long entrance bridge, and an iron perimeter fence. This was complemented by a landscape developed in collaboration with Dan Kiley, which featured honey locust trees with sharp thorns.

In contrast to the fortified exterior, the interior is bright, light filled, and open. Saarinen's design was based on the idea of a small village, self-sufficient and inwardly focused. The village is broken down into smaller units, or "houses," in the four quadrants of the building that are reflected on both the exterior and interior. The centralized plan features

Figure 7. Exterior view of Hill College House after renovation. Photo by Aislinn Weidele

a grand central atrium ringed with dormitory rooms and common lounges. The theme of an urban palazzo is continued in the interior with the atrium, or piazza, containing dining facilities and a central fountain on the lowest level, overlooked by lounges with open balconies and shutters. The atrium is open to all floors, with a range of vertical and horizontal vistas. The space is activated by the students, by the changing quality of light that floods the space from the clerestory level and the upper-level sun decks, and by a marble fountain at the lowest level that was nonfunctional at the start of the project.

No major renovation had been performed since Hill College House was built, and the building was misunderstood and diminished by wear and tear, removal of original furniture, and loss of its original vibrant color scheme. While the hierarchy of the building's major spaces was preserved, the integrity of the overall design was diminished without the original colors, textures, and design details to support it. Although the architecture continued to foster a strong sense of community, the dated systems, worn finishes, and lack of air conditioning combined to make the building unappealing to prospective residents. The university wanted the renovation to bring the building into the twenty-first century while retaining its unique character and architectural integrity.

Hill College House is designated Distinguished 1, the university's highest rankings of significance for its campus buildings. The renovation was designed to meet both the Secretary of the Interior's Standards for Rehabilitation and Penn's Design and Engineering Guidelines, which specify a minimum LEED rating of silver. Ultimately, LEED gold certification was achieved. Design and repair choices were inspired by the integrity of the architecture and contemporary student experience, with the final design meant to balance the two

Figure 8. Hill College House atrium after renovation. Photo by Aislinn Weidele

aspects in a welcoming, accessible residence. The overarching goal was first and foremost to regain and reveal the integrity and legacy of Saarinen's mid-century modern design.

In undertaking renovation of a historic structure, our process is to first research the history of the building, the architect, and the purpose. We visited the Cranbrook Archives where Saarinen and his father taught, and the Yale archives where much of his office's archival records are kept. The University of Pennsylvania archives had a set of original drawings and specifications, which was most helpful. In addition to accumulating information on the building, we researched the original colors and fabrics and assembled a palette appropriate to the building.

In reviewing the original drawings, we learned that Saarinen's intent was to decorate the walls of the lounges with brightly colored stripes, and these were no longer evident. Our conservator conducted paint analysis and confirmed patterns of color that were both intentional and unique to each lounge. Saarinen also designed patterns of floor tile, usually in stripes, unique to each room. We documented an incredible array of colors, and representative samples were restored. While it was impractical to restore original colors in all the lounges, we adapted several designs that became the signature patterns for each house within the residence hall.

Our objective for the exterior of the building was to make the envelope more energy efficient and sustainable, including a new heavily insulated roof and exterior walls. The robust exterior walls built of rough, handmade Eno brick from New Hampshire were repointed with mortar of appropriate strength, color, and texture. The brick flairs at the

Figure 9. Corridor lounge after renovation. Photo by Aislinn Weidele

outside corners were either repaired and restored or rebuilt where missing to regain the integrity of the original design. The perimeter steel fence and eyelash cornice were also restored and repainted. More than four hundred existing steel windows were removed, straightened and repaired, double-glazed, repainted, weather-stripped for energy efficiency, and finally reinstalled. Replacement curtain walls in the atrium made use of the existing framing but were double-glazed with laminated glass in gasketed mullions to match the original profiles.

The entrance bridge was in poor condition, and the decision was made to document and rebuild it to a near-identical appearance but with better-performing, sustainable, and more welcoming details. The new bridge maintains the integrity of the original design in its basic structure and architectural details, but it has new and better flashing details for moisture protection and improved lighting that make it glow at night, inviting residents and visitors into the building. New equipment was added to the roof in unobtrusive locations for smoke evacuation of the atrium, exhaust fans for the kitchen, new air handlers for air conditioning, and heat recovery systems for energy conservation.

The interior work was comprehensive and transformative and can be grouped in categories:

Accessibility

The plan of the building looks simple, with perimeter dormitory rooms around a central atrium. But sectionally, the design is actually quite complex and features multiple half levels, with student rooms on the main floors and shared social spaces located at intermediate

levels. The building had only a single elevator that provided access to residential floors only and was not acceptable by current accessibility standards. To address this issue, a new front and rear entry elevator as well as two supplemental platform lifts were carefully inserted within the structure to connect all ten levels, making the entire building, both its private and public spaces, accessible to all.

Program

The building was reinvigorated by the development of new student facilities in underutilized spaces such as fitness rooms, dance and yoga rooms, small kitchens for private dining, TV screening rooms, and a project work area. We enlarged and reenvisioned the main kitchen and the dining facilities, developing small specialty kitchens around the dining room. We made the seating choices more diverse, including partial reconstruction of Saarinen's table layout. The original marble fountain was restored and made operational again, which returns the sound of flowing water to the atrium. The sound recreated the original aural environment that was an important component of interior integrity. In addition, a large study center as well as a club room / lounge were designed on opposite sides of the atrium on the third floor.

Comfort

Air conditioning was added to the entire building, which was a huge benefit to the interior environment never considered in the original design. This was a challenge in a concrete structure not designed for ductwork. We took some small rooms out of service to provide pathways for vertical distribution of large ducts, piping, and electrical mains. We upgraded the student rooms with new, flexible furniture systems that are compact and make more efficient use of space. This was the first University of Pennsylvania residence hall to be retrofitted with gender-neutral restrooms. Each of the four "houses" in the building was given its own bank of gender-neutral, private toilet rooms and showers with bright Saarinen-esque finishes coordinated with the house colors.

Code Compliance and Safety

Stair halls, described as disorienting and dark, were made safer through the addition of raised railings modeled on existing Saarinen details and more navigable through the use of supergraphic wayfinding signage. On the residential floors, which had long, dark hallways, fire-rated glass replaced solid walls at the interior lounges, making the activity within these spaces more visible and providing the benefit of borrowed light to the corridors from the atrium. Throughout these spaces, new lighting emphasized the organization of student rooms around common lounges. The outdoor terraces at the fourth level were enlivened with new furnishings, landscaping, and lighting, which made them attractive destinations during the day as well as at night. Fire alarm, sprinkler, exit sign, emergency lighting, and egress hardware improvements were made throughout the building.

Figure 10. Study lounge interior after renovation. Photo by Aislinn Weidele

The overarching goal for the renovation of Hill College House was to preserve its unique character and material integrity while creating welcoming, accessible spaces for contemporary living. The Saarinen color palettes were reintroduced where possible and appropriate, but new furniture, fixtures, and equipment were installed to add vibrancy and expand the design. This can especially be seen in the lighting, furniture, and carpet choices for the various lounges at all levels. One small lounge was fully restored with Saarinen tables and chairs and Knoll fabrics. Where new work was added, it was done in a way to complement what was there before, but discernably different than the original. For example, our new light fixtures were circular pendant lights, which added a new layer of fabric that we believe is respectful, functional, and maintainable, while not the same as the former rectilinear lights. We view our work as regaining the integrity of Saarinen's design ideas while extending them with our own overlay of respectful architectural design, as in a dialogue with an admired predecessor.

Summary

These projects had clear differences in their history, architectural significance, material integrity, and the goals of the renovation/restoration work. However, all three projects share a basis in historical research that yielded an understanding of aspects of their integrity to be reinforced by new design or regained by restoration. The goal of these projects was not just to recognize and respect their design and material integrity, but also to clarify and enhance that integrity with conservation, carefully documented restoration, and appropriate design interventions. As stated in Article 5 of the Venice Charter, "The conservation of monuments is always facilitated by making use of them for some socially useful purpose."[4]

These projects share the overarching goal of continuing use, and each example illustrates a different way of conveying integrity within the context of a rehabilitation project.

NOTES

1. C. Brandi, "Teoria del Restauro, Edizioni di Storia e Letteratura, Rome," in *A History of Architectural Conservation*, by Jukka Jokilehto, Butterworth-Heinemann Series in Conservation and Museology, Butterworth-Heinemann, 1999.
2. International Charter for the Conservation and Restoration of Monuments and Sites, Second International Congress of Architects and Technicians of Historic Monuments, Venice, 1964; adopted by International Council on Monuments and Sites (ICOMOS), 1965.
3. Carlos Vallhonrat to Historic Sites Council Review Board, Office of New Jersey Heritage, Trenton, N.J., October 6, 1983.
4. International Charter for the Conservation and Restoration of Monuments and Sites, Second International Congress of Architects and Technicians of Historic Monuments, Venice, 1964, art.1.