Completed in 1965, the Salk Institute for Biological Studies in La Jolla, California, is one of architect Louis Kahn’s finest works and is widely considered to be a masterpiece of modern architecture with international significance. Kahn was commissioned by Dr. Jonas Salk, developer of the polio vaccine, to design an inspiring campus for his new scientific research institute on a coastal bluff overlooking the Pacific Ocean. Kahn worked closely with Salk on the design, which consists of two nearly identical wings of laboratory, study, and office space mirroring each other on either side of a paved central plaza. A key design feature of the Salk Institute is the physical separation of the private study spaces from the collective workspace of the laboratories.

The innovative teak-clad “window wall” assemblies, set within the monolithic concrete walls of the studies and offices, are significant components of the building. The use of individual window walls constructed with teak, softwood framing, and interior oak paneling for the studies, in contrast to the large expanses of stainless steel-framed window walls of the laboratories, helps to differentiate the private study spaces. The focus on the individual in the studies is further expressed by the functionality of the various sliding components that allow occupants to modulate light and ventilation within their work spaces.

The design of the window walls expands upon a language of custom exterior millwork established in Kahn’s office and used in projects from the Fisher House outside of Philadelphia to the Library at Phillips Exeter Academy. Though the window walls are prefabricated units—often thought of as an industrialized process—Kahn innovatively synthesized industry and craft through the customization of the units to fit many different openings in the concrete and the detailing of the teak wood by carpenters. The very use of wood together with concrete, “often conceived of as materials of opposite character, results in a contrasting but complementary effect. The fine-grained detailing of the window walls...”

**THE SALK INSTITUTE CONSERVATION PROJECT**
In 2013, the Salk Institute partnered with the Getty Conservation Institute (GCI) to develop a conservation program for the window wall assemblies. “The Salk Institute is an architectural icon, and the GCI was privileged to be invited by the Salk to work with them on the building’s long-term preservation. Our access to the site, its archives, and the institute’s staff, some of whom have worked there since the early years, has been extraordinary,” said Tim Whalen, director of the GCI. “The methodology developed by the GCI will serve as a roadmap for future conservation projects at the Salk Institute, as well as a model for other Louis Kahn buildings and buildings with similar conservation issues.”

As a first step, the GCI and its consultants engaged in historical research, including visits to the Kahn archives and listening to the collection of oral histories in order to better understand the significance of the window walls and Kahn’s original vision for the site. They also explored the extent of damage to the window walls and performed physical and laboratory analysis to identify the materials used and the various causes of damage and deterioration. Possible treatments for the wood and wood replacement options were also researched, as well as design modifications to improve the overall performance of the assemblies. Finally, the GCI, along with the architectural and engineering firm WJE, which served as the historic preservation consultant to the Salk Institute, developed a series of on-site trial mock-ups to evaluate different repair approaches and conservation treatments and identify the best way to move forward.

“We sought to address issues on a long-term basis while preserving cultural significance and addressing the needs of those managing the site,” said Sara Lardinois, project specialist at the GCI. “Our aim was to help the Salk Institute incorporate a conservation approach into its overall site management at a critical point in the building’s history—the fifty-year mark often coincides with the need for a first major repair in modern buildings.”

Drawing upon the results of the GCI’s earlier research and the trial mock-ups, WJE has fully developed the repair and conservation treatment of the window walls, with interventions ranging from in situ cleaning and treatment, to selective repairs, and replacement of deteriorated elements using一样的 materials. Construction work is currently underway and is estimated to be completed in spring 2017. Work is also nearing completion on a comprehensive conservation management plan for the site, funded by the GCI and the Getty Foundation’s Keeping It Modern initiative.

“As stewards of this designated historic architectural landmark which attracts visitors from around the world, we needed a long-term conservation plan to preserve the integrity of the Salk Institute for years to come,” said Tim Ball, Salk’s senior director of facility services. “The thorough insights and expertise provided by the GCI are invaluable for helping us move forward in repairing and maintaining these remarkable buildings.”

The second workshop, which convened ten projects dedicated to the conservation of concrete, included sites such as the Sydney Opera House, the Miami Beach Architectural District, Frank Lloyd Wright’s Unity Temple, and Charles Rennie Mackintosh’s Hill House in Scotland. Given the growing number of listed concrete buildings and the conservation challenges, this subject is of increasing importance every day, and architects are increasingly turning to the GCI and its colleagues to help them solve these problems. The workshop was attended by more than thirty participants and fifteen outstanding works of modern architecture, including the recently listed World Heritage Site, L’Appartement caché de La Closerie in Paris; Pierre Jeanneret’s Gandhi Bhawan building in Chandigarh, India; the Salk Institute for Biological Studies in La Jolla, California; and the Arthur Neive Pavilion in Rio de Janeiro, Brazil. While conservation management plans are a fundamental tool in conservation practice, they have not been universally adopted in modern heritage management. This workshop provided the opportunity for practitioners to discuss a range of challenges specific to modern heritage buildings, establish a network of colleagues, exchange ideas, and expand the understanding of this important methodology. The workshop included site visits to the National Theatre and the Barbican Centre and the opportunity to meet British colleagues engaged in this area of work.

CONSERVATION PLANNING AND CONCRETE CONSERVATION WORKSHOPS

In late July, the GCI with the Getty Foundation and the United Kingdom–based Twentieth Century Society held two workshops in London for grantees of the Foundation’s Keeping It Modern initiative, which is dedicated to the conservation of twentieth-century architecture around the world. The workshops—supported with a Getty Foundation grant to the Twentieth Century Society—brought together owners and professionals currently working on projects exemplifying a range of conservation challenges of twentieth-century built heritage to exchange knowledge and learn new skills.

The first workshop, on conservation management plans, involved nine participants and fifteen outstanding works of modern architecture, including the recently listed World Heritage Site, L’Appartement caché de La Closerie in Paris; Pierre Jeanneret’s Gandhi Bhawan building in Chandigarh, India; the Salk Institute for Biological Studies in La Jolla, California; and the Arthur Neive Pavilion in Rio de Janeiro, Brazil. While conservation management plans are a fundamental tool in conservation practice, they have not been universally adopted in modern heritage management. This workshop provided the opportunity for practitioners to discuss a range of challenges specific to modern heritage buildings, establish a network of colleagues, exchange ideas, and expand the understanding of this important methodology. The workshop included site visits to the National Theatre and the Barbican Centre and the opportunity to meet British colleagues engaged in this area of work.

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