Félix Candela’s Concrete Shells: An Engineered Architecture for Mexico and Chicago

January 19–March 3, 2018

Curator: Alexander Eisenschmidt
Originator: Juan Ignacio del Cueto

December 5, 2017–Chicago, IL—Félix Candela’s Concrete Shells: An Engineered Architecture for Mexico and Chicago roots Félix Candela (1910-1997) as one of the most prolific architects of the 20th century in his designs with advanced geometries and lasting influence in contemporary architecture. The exhibition sheds light on his visionary work through photographs, architectural models, plans, and videos, as well as his time as a professor at the School of Architecture at the University of Illinois at Chicago (UIC) from 1971-1978.

Born in Spain and exiled to Mexico at the end of the Spanish Civil War in 1939, Candela spent thirty years in Mexico, where he established his career as an architect. In the 1950s, Candela debuted his experimental signature shell structures by designing a continuous curved surface of
minimal thickness. His designs evolved as feats of architectural engineering, using hyperbolic paraboloid geometry. Through architectural models, plans, and photographs of construction sites, Félix Candela’s Concrete Shells tracks the evolution of his designs and emphasises their ingenuity.

In addition to structural advancements, these curved and cantilevered forms brought new textural and atmospheric qualities to the social and communal spaces they shelter. Candela saw aesthetic implications as inseparable from engineering concerns. He argued that in architecture, “Form cannot be arbitrary; rather, it must satisfy an innumerable series of requirements… the two that I consider most important in the elaboration of architectural form [are]: the aesthetic factor and the structural factor.” Working not only as an architect, but also as a builder and a contractor, Candela recognized the great importance of structural efficiency, and his experiments pushed architecture’s formal and material limits. The exhibition documents fourteen of his gravity-defying concrete shells, including the Pavilion of Cosmic Rays at UNAM in Mexico City (1951); the Chapel Lomas in the outskirts of Cuernavaca (1958); Los Manantiales Restaurant in Xochimilco, Mexico City (1958); and the Palace of Sports for the Olympic Games in Mexico City (1968).

In addition to his structures in Mexico, Félix Candela’s Concrete Shells, examines Candela’s time in Chicago as a professor of architecture at UIC through archival material, oral histories, and student projects, which are brought together in an effort to illuminate a period in his life that is relatively unknown. Yet Candela’s influence preceded his relocation to the city. In fact, UIC displayed exhibitions of his work at Navy Pier in 1958 and 1961—more than a decade before his arrival. His appointment as professor at UIC in 1971 was an acknowledgement of his influence on the discourse. Buckminster Fuller, for example, allegedly called him “one of [the] outstanding architects of this age.” As a professor in the School of Architecture, Candela became the inspiration for a public sculpture on UIC’s campus in 1977 that pays homage to his architectural forms and the use of concrete. In the city of Chicago, parallels to Candela’s work can be seen in the experiments with concrete architecture of the 1960s, including Walter Netsch’s UIC Campus and Bertrand Goldberg’s Marina City. Beyond Chicago, formal influences of his innovations can be found in recent works such as Zaha Hadid’s Heydar Aliyev Center (Azerbaijan, 2013), FOA’s Yokohama Terminal (Japan, 2002), and UNstudio’s Burnham Pavilion (Chicago, 2009).

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Félix Candela’s Concrete Shells was originated through the research of architecture professor Dr. Juan Ignacio del Cueto of the Universidad Nacional Autónoma de México (UNAM), Mexico City. The models presented in the exhibition were created at the Faculty of Architecture of UNAM. They and some of the exhibition’s photographs first appeared in the exhibition Félix Candela 1910-2010 presented at Valencian Institute of Modern Art-IVAM, Valencia, Spain (2010); the Museum of Modern Art, Mexico City (2011); and the Miriam and Ira D. Wallach Art Gallery at Columbia University, New York (2012).
The models were later presented in Cascarones de Candela (Candela’s Shells) at UNAM Faculty of Architecture (2012); Universidad Iberoamericana, Mexico City (2013); Clavijero Cultural Center, Morelia, Mexico (2013); Kukuruchos Cultural Center, Guadalajara, Mexico (2014); National Polytechnic Institute, Mexico City (2014); and the Mexican Embassy, Guatemala City, Guatemala (2014). Later they were presented in the U.S. at the Art Museum of the Americas, Washington, D.C. (2015); Mexican Cultural Center of New York (2015); Mexican Cultural Center of San Antonio, Texas (2016); University of Texas at Austin (2016); and UNAM-Chicago (2017).

Promotional Images for Félix Candela’s Concrete Shells: An Engineered Architecture for Mexico and Chicago can be found here.

**Gallery 400 Félix Candela’s Concrete Shells Programs:**

Friday, January 19, 2018, 5-8pm—**Opening Reception: Félix Candela’s Concrete Shells**

Saturday, January 20, 2018, 3-4pm—**Curator Conversation: Alexander Eisenschmidt and Juan Ignacio del Cueto**

Saturday, January 27, 2018, 3-5pm—**Creating Candela’s Cascarones: UIC Arquitectos Workshop**

Additional program details to be announced. For a complete list of programs visit [gallery400.uic.edu/events](http://gallery400.uic.edu/events)

**Tours:**

Gallery 400 also offers guided tours for groups of all ages. Tours are free of charge but require reservation. Please complete our online form (accessible at [gallery400.uic.edu/visit/tours](http://gallery400.uic.edu/visit/tours)) to schedule a tour of Félix Candela’s Concrete Shells: An Engineered Architecture for Mexico and Chicago. For more information, or to discuss the specific needs and interests of your group, please contact us at 312-996-6114 or gallery400@uic.edu.

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the College of Architecture, Design, and the Arts at the University of Illinois at Chicago (UIC), Gallery 400 endeavors to make the arts and its practitioners accessible to a broad spectrum of the public and to cultivate a variety of cultural and intellectual perspectives. Gallery 400 is recognized for its support of the creation of new work, the diversity of its programs and participants, and the development of experimental models for multidisciplinary exhibition.