Abstracts of Papers

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Table of Contents

PS01 All Ado About Bomarzo
Anatole Tchikine, Dumbarton Oaks, USA, Chair

PS02 The Architecture of Commercial Networks, 1500-1900
G. A. Bremner, University of Edinburgh, and Katie Jakobiec, University of Oxford, Co-Chairs

PS03 Alternative Histories of the Pavilion
Ashley Paine, University of Queensland, and Susan Holden, University of Queensland, Co-Chairs

PS04 Architecture of Diplomacy and Defense
Cynthia G. Falk, Oneonta, State University of New York at Oneonta, and Lisa P. Davidson, HABS - National Park Service, USA, Co-Chairs

PS05 Life to Architecture: Uncovering Women's Narratives

Anna P. Sokolina, International Archive of Women in Architecture, and Paola Zellner, Virginia Tech, USA, Co-Chairs

PS06 Global Concrete: Aesthetics, Technics, Politics, 1945–1975

Eran Neuman, Tel Aviv University, and Inderbir Singh Riar, Carleton University, Co-Chairs

PS07 Open Session

Carol Krinsky, New York University, USA, Chair30

PS08 Michelangelo Architect: New Approaches

Fabio Barry, Stanford University, and Alexandria Brown-Hedjazi, Stanford University, Co-Chairs

PS09 Thalassic Architecture: Medieval and Renaissance Italy and the Seas

Lauren Jacobi, Massachusetts Institute of Technology, Chair

PS10 Exploring "Form" across Geopolitical Divides

Alona Nitzan-Shiftan, Technion – Israel Institute of Technology, Chair

PS11 Architecture and Politics in Germany, 1918–1945 Reconsidered

Paul B. Jaskot, Duke University, Chair

PS12 The Audience for Architectural History in the 21st Century

Danielle Willkens, Auburn University, and Jonathan Kewley, Historic Buildings and Monuments Commission for England, Co-Chairs

PS13 Shaping Muslim Sacred Space in the Diaspora

Alisa Eimen, Minnesota State University, Mankato, Chair

PS14 Burnt Clay, Cross-Cultural Experiences
Changxue Shu, KU Leuven / University of Leuven, and Fernando Martínez Nespral, University of Buenos Aires, Co-Chairs

PS15 Causes for Admiration: Objective Beauty in Architecture
Maarten Delbeke, ETH Zürich, and Nele De Raedt, Ghent University, Co-Chairs

PS16 Architectures of Finance: Commodities, Securities, and Urban Space
Gretta Tritch Roman, Bard College, and Aaron Shkuda, Princeton University, Co-Chairs

PS17 Climatic Landscapes
Jacob Boswell, The Ohio State University, Chair

PS18 Modern Architecture and the Rise of the New South

Lee E. Gray, University of North Carolina at Charlotte, and Virginia Price, Independent Scholar, Co-Chairs

PS19 Archive and Discourse: What Architecture Award Programs Tell Us

Sabir Khan, Georgia Institute of Technology, Chair

PS20 Digitizing Architectural Heritage: What Role History?

Kelly Greenop, The University of Queensland, and Chris Landorf, The University of Queensland, Co-Chairs

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

PS22 Histories of Architecture Against

Ana María León, University of Michigan, Chair

PS23 Designing Homo sapiens: Architecture, Environment, and the Human Sciences

Ginger Nolan, University of Basel, and Alla Vronskaya, Swiss Federal Institute of Technology, Zurich, Co-Chairs

PS24 Infrastructure as Artifact

Prita Meier, University of Illinois, Chair

PS25 Constructing Memory in Ancient and Pre-Modern Architecture

Anne Hrychuk Kontokosta, New York University, Chair

PS26 Affordable Housing Design: Histories of Cross-Cultural Practices

Nelson Mota, Delft University of Technology, and Dick van Gameren, Delft University of Technology, Co-Chairs

PS27 Architectural Preservation in Asia

Phi Nguyen, Harvard University, Chair

PS28 The Legacy of James Ackerman

Cammie Brothers, Northeastern University, Chair

PS29 Medieval Structures, Digital Tools, and Architectural Knowledge

Jelena Bogdanović, Iowa State University, Chair

PS30 Atmosphere and Architecture

Nadine Helm, University of Zurich, and Claudio Leoni, ETH Zurich, Co-Chairs

PS31 Working with Mr. Gilbert: Cass Gilbert and His Collaborators

Marjorie Pearson, Summit Envirosolutions, and Mary Beth Betts, Public Design Commission, Co-Chairs

PS32 Colonial Past in the Neo-Colonial Present

Daniel E. Coslett, University of Washington, Chair

PS33 Fleeing the City? The Tragedy of the Commons in the 21st Century

Lara Schrijver, University of Antwerp, and M. Christine Boyer, Princeton University, Co-Chairs

PS34 Architecture and Disability

Sun-Young Park, George Mason University, Chair

PS35 Reconsidering Renaissance Architecture and Urbanism

Carla Keyvanian, Auburn University, Chair

PS36 Visualizing Ruined Asias

Carrie L. Cushman, Columbia University, and Nicholas Risteen, Princeton University, Co-Chairs

PS37 Queer History at the Intersection

Dirk van den Heuvel, Delft University of Technology, and Hadas A. Steiner, University at Buffalo, SUNY, Co-Chairs

PS38 Contemporary Religious Architecture in Latin America

Lucia Santa-Ana, Universidad Nacional Autónoma de México, Chair

PS39 Architectures of the Slave Economy: Past and Present

Patrick D. Haughey, Savannah College of Art and Design, Chair

PS40 Unheard Voices: New Interpretations of Minnesota's Landscapes

Victoria Young, University of St. Thomas, Chair

PS41 The Architecture of the Political Realm beyond the Assembly Room

Thomas-Bernard Kenniff, University of Quebec in Montreal, and François Dufaux, Laval University, Co-Chairs

PS42 A Matter of Life and Death: Spaces for Healing in the Premodern Era

Mohammad Gharipour, Morgan State University, and Stuart W. Leslie, The Johns Hopkins University, Co-Chairs

PS43 Caribbean Architectures from Emancipation to World Heritage

Itohan Osayimwese, Brown University, Chair

PS44 Temporal Junctures
Lisa D. Schrenk, University of Arizona, Chair

PS45 Religion in Secular American Architecture
Azra Dawood, Massachusetts Institute of Technology, Chair

PS46 The Stagecraft of Architecture
Anooradha Iyer Siddiqi, New York University, and Claire Zimmerman, University of Michigan, Co-Chairs

PS47 Cold War Architecture
Ruth Verde Zein, Universidade Presbiteriana Mackenzie, and Hugo L. Mondragón, Pontificia Universidad Católica de Chile, Co-Chairs

PS48 Open Session
Greg Donofrio, University of Minnesota, USA, Chair

PS01 All Ado About Bomarzo
Anatole Tchikine, Dumbarton Oaks, USA, Chair

"Impressions so alien": The Postwar Afterlife of the Sacro Bosco

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Abstract

In the mid-twentieth century Bomarzo received an unprecedented amount of attention – caught on moving film and camera, described and analysed in newspapers and academic journals. Why did the Sacro Bosco become of such interest in this specific moment of post-war Italian history? When visiting Bomarzo for the first time in 1949 Mario Praz described his astonishment at finding a site "without apparent order" and with "impressions so alien to Italian art." Is it possible that the Sacro Bosco became such a pivotal garden site in this moment because it offered an alternative to the ubiquitous *giardino all'italiana*, fostered by scholars such as Luigi Dami and Ugo Ojetti during the Fascist regime?

Following this line of thought, this paper investigates the underlying political, intellectual and artistic factors behind post-war outputs on Bomarzo, to consider how they influenced its presentation and interpretation. Framed as chaotic, exotic and mysterious, the Sacro Bosco, it shall be argued, provided broader, international parameters for Italian Renaissance gardens at a moment in time when Italy sought to distance itself from its recent past. Yet, as will become clear, the various outputs on Bomarzo are also rarely straightforward, highlighting the disorientation and complex pressures of this period. Teasing out the sometimes conflicting views on the Sacro Bosco from the mid-twentieth century, this paper thus reveals the far-reaching power political and social concerns have had over the fate of both Bomarzo, and Italian garden historiography more broadly.

PS01 All Ado About Bomarzo
Anatole Tchikine, Dumbarton Oaks, USA, Chair

Niki de Saint Phalle's Tarot Garden and the Legacies of Bomarzo

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Abstract

Niki de Saint Phalle's Tarot garden near Grosseto in Tuscany, Italy, begun in 1979 and continued until her death in 2002, has received very little discussion either in the contexts of garden history or the histories of landscape architecture. Visually, it falls within the tradition of twentieth-century vernacular sculpture gardens. Created by a largely self-taught artist, its 22 esoteric figures suggest the influences of Gaudí's Park Güell, but respond to Etruscan remains in its immediate surroundings as well. In addition, the garden displays tantalizing parallels with Bomarzo, which have been suggested but not really developed in scholarly literature. Most obviously, both parks are sculpture gardens on a monumental scale, fantastical assemblages of narrative sculptures in dialogue with their surrounding landscapes; they reveal analogous themes and motifs, such as the "Mouth of Hell". More broadly and intriguingly, however, there are analogies in the thematic and spatial ambiguities among the elements in both instances, which seem to suggest but do not really add up to a coherent narrative or spatial sequence. This presentation will interpret the Tarot Garden in the context of spatial configuration and experience.

PS01 All Ado About Bomarzo
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Cannibals, Grottoes and Vicino Orsini's Sacro Bosco

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Abstract

Michel de Montaigne was equally fascinated by Italian garden grottoes and Brazilian cannibals. This paper proposes that these two themes are uniquely combined in Vicino Orsini's late sixteenth-century Sacro Bosco (Sacred Wood) in Bomarzo. The colossal Hell Mouth in Orsini's garden occupies a threshold between tradition and projection. On the one hand, it suggests a vestigial interest in the chthonic symbolism of the monstrous gaping maw. The portal to hell is relocated to the secular environment of the Renaissance garden. On the other, the gaping mouth in the garden implies a peculiar transaction with the visitor. Like François Rabelais's alter ego Alcofrybas in *Gargantua and Pantagruel*, upon entry, one willingly - perhaps even ritualistically - submits to one's own consumption, replicating the process in miniature inside the grotto (which doubled as an outdoor dining room).

On the level of aesthetics, the effect is grotesque. The Hell Mouth epitomizes Mikhail Bakhtin's definition of the grotesque body as an incomplete body perpetually on the brink of transformation. On the level of cultural reference, however, this paper argues that the Hell Mouth alludes to ancient and contemporary fantasies about monstrous cannibals, once hypothesized as inhabiting the unknown outer edges of the world, but by the end of the sixteenth century, thought to actually exist in the Americas.

Orsini's exposure to American artifacts, along with his demonstrable interest in travellers' tales, implies a particular context for the Hell Mouth. Without contradiction or constraint, Orsini's curiosity could embrace, as could Montaigne's, cannibalism and garden grottoes. These two ostensibly quite different themes are both present in the Sacro Bosco, which, in its reference to non-Western visual cultures, provides an example of cross-cultural representation in late Renaissance landscape design.

PS01 All Ado About Bomarzo
Anatole Tchikine, Dumbarton Oaks, USA, Chair

Botanicals and Symbolism in the Landscape of Bomarzo

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Abstract

As the patron Vicino Orsini (1523-1585) established his *sacro bosco* at Bomarzo with sculptors carving figures and architectural features from the native stone, the flora of the sloping hillside looked very different than it does today. In fact, when the current owners, the Bettini family, acquired the site in 1954, it had been cleared almost entirely of trees and vegetation.

Recent research into the flora of the valley has been conducted by scientists affiliated with the nearby Riserva Naturale Regionale Monte Casoli and the Università degli Studi della Tuscia (Viterbo). The data distinguishes between indigenous and introduced flora, and provides a starting point for recreating the original Renaissance landscape. This paper applies those findings to the nearby flora of the *sacro bosco* in Orsini's time. Given Orsini's literary knowledge and patronage, several species of plant offer symbolic associations that amplify themes previously identified in the sculptural program of the grounds. In this way, the man-made monuments find completion in the *natura* (both botanic and lithic) from which they emerge.

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Landscape Architecture without Architects: Bomarzo and the Vernacular

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Abstract

While the oddity and eccentricity of Bomarzo has often been likened to the *meraviglie* of the Medici villa at Pratolino or the Grotta di Buontalenti in Florence, the Sacro Bosco's uniquely stony characteristics share a far closer affinity with the rupestrian traditions of the surrounding region than to any other landscape architectural projects of the late sixteenth century. Given the complete anonymity of the site's sculptors and their seemingly unorthodox preference for the living rock, the *bosco* might best be understood as a monstrous outgrowth of a distinctly Tuscian vernacular. An examination of these architectural practices in Tuscia—which have generally been associated with "low" or peasant culture—provides a necessary window onto the world of *tufo* that both the site's sculptors and patron inhabited. The relationship between the people of Tuscia, the surrounding landscape, and the omnipresent volcanic stone helps re-cast the Sacro Bosco as an extension of prevailing attitudes about the role of *tufo* in the crystallization and projection of regional identity.

PS02 The Architecture of Commercial Networks, 1500-1900
G. A. Bremner, University of Edinburgh, and Katie Jakobiec, University of Oxford, Co-Chairs

The East Asia Branch Buildings of Jardine, Matheson & Co.

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Abstract

This paper deals with the architectural planning and site layout of the branch buildings of Jardine, Matheson & Co. (Jardines), a British commercial firm that had its headquarters in Hong Kong. Since being founded as a partnership company in Macao in 1832, the company played an important commercial role in 19th-century East Asia, especially in the opium trade. Later, in accordance with the expansion of its trade, including in general commodities and business commission, Jardines dispatched agents to establish company branches at various ports in China and Japan. In most cases the company constructed its own branch buildings, including warehouses and related infrastructure, with the help of British architects and native builders.

Making use of the Jardines archive, as well as other printed sources, this paper discusses the company's branch buildings in different parts of East Asia. In particular, it will focus on the influence of the firm's business on the layout and floorplans of Jardines buildings (warehouses, inspection rooms, strong holds etc.), the arrangement of residential areas and office space, the siting of buildings, and the architectural networks for supplying plans, building materials and architects. Both plans and correspondence will be considered to understand the relationship between architecture and the firm's business, and how this changed or was modified over time according to the transformation of the company's business models.

The paper will include analysis of buildings erected by Jardines during the 19th century in Hong Kong and branch buildings in Shanghai, Beijing, Tianjing, Canton, Hankow, Yokohama and Kobe. In so doing, the intention will be to describe the architectural history of Jardine's branch buildings across the East Asia region.

PS02 The Architecture of Commercial Networks, 1500-1900
G. A. Bremner, University of Edinburgh, and Katie Jakobiec, University of Oxford, Co-Chairs

For Export: Buildings for Colonial Agriculture in Asia Pacific

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Abstract

A lasting legacy of 19th-century colonialism in South East Asia and the Pacific is the fragmented historiography of the region's colonial built environment. Boundaries established by European colonization continue to govern the production of historical studies as these generally adopt geographical frameworks corresponding to the nation-states that emerged from particular colonial empires. Overlooked by this paradigm is the region's intricate interconnectivity in the late nineteenth century. The industrialization of agricultural production and the emergence of international commercial shipping routes opened up territories while facilitating fluid movement of goods, labour, capital and ideas. Crossing colonial boundaries, regional networks transformed the Asia Pacific region in the late colonial era. They left built traces in the form of buildings for trade, travel and export-oriented agriculture.

This paper seeks to bring into view the architectural settings of such commercial enterprises and the cross-cultural encounters they entailed. The paper will focus on the architectural infrastructure emerging in key sites of large-scale agricultural production in different Asia Pacific colonies, such as the tobacco plantation estates in North Sumatra, copra estates in the South Pacific, and wool production in Australia and New Zealand. It will also consider the built traces of the inter-regional operation of major shipping companies such as the Australian firm of Burns Philp and the Dutch Koninklijke Paketvaart-Maatschappij (KPM) that facilitated rapid industrialization of agricultural production in Asia Pacific. These trade operations were also intertwined with the development of tourism by the same companies. Exploring several museum collections of nineteenth-century photographs of the Pacific and South East Asia, the paper examines images of mostly anonymous commercial built forms from across the region and reflects on how their production was informed by interconnectivity and movement.

PS02 The Architecture of Commercial Networks, 1500-1900
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Lazarettos and Bazanas *in Dalmatia in a Cross-Cultural Context*

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Abstract

The lazaretto in Split (1583-1629), a town on the eastern shore of the Adriatic Sea, then part of the Venetian Republic, functioned both as a hostel for traders and their goods and as a place of quarantine against infectious diseases. Lazarettos were integral to the commercial networks connecting Venice with Ottoman territories in the Balkans, and were created as joint Venetian-Ottoman enterprises. The lazaretto in Split, which would eventually assume the architectural form of the Ottoman *khan*, is another example of how commercial networks facilitated cross-cultural transfer of architectonic models. Instead of building a *fondaco*, which was a building type used for lodging and trade in ports through-out the western Mediterranean, the lazaretto at Split was originally conceived as a form of Ottoman *khan*, and adapted for the new practice of quarantine and sanitation.

Merchants travelled from the Venetian-Ottoman border in the Dalmatian hinterland, toward the lazarettos on the Adriatic coast, following a strict route. Their voyage included overnight stays in *bazanas*. *Bazanas* (a name of Ottoman origin) were buildings developed by Ottomans during their reign over the Dalmatian hinterland. With the movement of the Venetian-Ottoman border further from the coast, *bazanas* were adopted by Venetians who eventually delegated the building of new *bazanas* to engineers of Venetian origin in the 18th century.

This paper analyses the formal characteristics of these building types in early modern Dalmatia, accentuating how neither territorial boundaries nor cultural conventions could impede the circulation of architectonic models. It is argued that the vicinity of these structures to borderlands rather facilitated exchange via newly established trade routes. The paper will consider further how this circulation of architectonic models occurred, adapting to new trading conditions, as well as the movement of people and goods.

PS02 The Architecture of Commercial Networks, 1500-1900
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The Ottoman Stable: Architecture at the Crossroads of Empire

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Abstract

On the outskirts of the Ottoman city of Giannitsa (*Yenice-i-Vardar*), on the ancient Egnatia road in Greece, there is a stable in ruins dating from the late 18th and early 19th centuries. It is one of the few remaining buildings on the historic road and constitutes an unknown piece of history, both of the city and of the wider road network associated with the "Via Egnatia". It was probably a *mentzilhane* – a station for changing horses owned by the Ottoman postal network. The official postal service within the Ottoman empire, equivalent to the *cursus publicus* of the Romans, was called *Ulaḳ*. It involved a system of *menzilhanes*, which corresponded to the "mansions" and "mutations" of the former Roman Empire.

From the beginning of the 16th century, and for more than three centuries, the Egnatia road facilitated the central administration in controlling conquered lands, as well as encouraging inter-Balkan and wider international trade. The traffic along the Egnatia road grew considerably during the first half of the 18th century. During the Ottoman period, records mention that the western part (*orta kol*) of the road as it traversed *Yenice-i-Vardar* contained the district of tanners and the town market. Numerous wandering merchants, caravans, and travellers passed this point, resulting in many caravanserais and temporary residences for travellers and animals to rest.

This paper discusses the importance of these roads for the economic growth of the Ottoman empire, having as its case study the Giannista stable. It will analyse this structure in the context of trade, paying particular attention to the repair and maintenance of roads within the empire, as well as the construction of infrastructural installations such as bridges, inns, baths, fountains and stables, all of which constituted a network through which people, goods, ideas, and culture flowed.

PS02 The Architecture of Commercial Networks, 1500-1900
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French Trading Houses: Serial Design in the 18th Century

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Abstract

In the 1720s, European draftsmen working in Louisiana on behalf of the French Company of the Indies drew a diagram of an ideal storage house: a simple wood-framed structure with a gable roof. Years later, in 1735, a group of Malagasy, East African, Indian, and West African slaves erected a dwelling that conformed to these principles, even though it stood on the French Indian Ocean island of Mauritius. This building was the Military Hospital of Port Louis, an infirmary and trading house that belonged to the Company of the Indies. Like the diagrammed structure, the Military Hospital contained a wooden framework and a gable roof, two features that indicated its adherence to the Louisiana precedent. Studies of French colonial architecture have often overlooked the relationship between plans and buildings in the Atlantic and the Indian Ocean.

Taking such research into account, this paper engages the worldwide standardization of the built environments of eighteenth-century French imperialism. It maintains that standardization unfolded as the monopolistic legal and economic culture of the Company of the Indies fostered a protocol of architectural representation. This index drove diverse groups to pool their analogous skills and produce recognizable buildings that could meet commercial needs. Company illustrations worked in concert with absolute control to compel settlers and slaves to simultaneously combine their shared architectural knowledge. The result was the global coalescence of African, Indian, and European expertise in wooden construction and the development of the recurrent typology that was the wood-framed, French commercial house.

In positing the Company of the Indies as responsible for the emergence of this form, this paper critiques the ways in which the serial architecture of French mercantilism constituted one of the earliest iterations of corporate assemblage in the modern world.

PS03 Alternative Histories of the Pavilion
Ashley Paine, University of Queensland, and Susan Holden, University of Queensland, Co-Chairs

Exhibiting a New China: The 1910 Nanyang Industrial Exposition Pavilions

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Abstract

The Nanyang Industrial Exposition, held in Nanjing in 1910, was the last and most monumental effort by the Qing government (1644 – 1912) to prove its capability to modernize before the demise of imperial China in 1912. The core aims of the exposition were to showcase the Qing Empire's strength in face of foreign invasions, and to evoke continuity of China's cultural history, which was considered to represent the country in an international context. This paper examines pavilions at the exposition that had distinctive architectural styles. It illuminates how late imperial China conceptualized exposition architecture as an ideological tool, which proliferated messages about China's progress and level of civilization in a Western-centric modern world, while showcasing China's cultural heritage to an international audience. This paper traces how China's participation in world expositions from 1876 subsequently shaped the design of the Nanyang Industrial Exposition pavilions. The exposition largely featured pavilions emulating classical Western architecture, and included traditional Chinese structures, as well as hybridized pavilions that mixed classical Western and traditional Chinese architectural elements, old and new construction materials, as well as traditional building processes and new construction methods. At the exposition, classical Western pavilions represented China's ambition for progress, while pavilions with ancient Chinese architectural components became symbols of China. This paper argues that the exposition pavilions captured late imperial China's early conceptualization of architecture as a cultural representation of the country's identity, and they registered tension between China's ambition of catching up with its Western counterparts, and its reluctance to risk destabilizing its own cultural heritage. This paper theorizes pavilion as an architectural type not only for translations of Euro-American concepts of architecture into China, but also for early modern China to experiment with how tangible built forms could visualize both China's contemporary culture and history.

PS03 Alternative Histories of the Pavilion
Ashley Paine, University of Queensland, and Susan Holden, University of Queensland, Co-Chairs

The Temporalities of Lundy's Inflatable AEC Pavilion

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Abstract

In November 1960, the US Atomic Energy Commission (AEC) opened the exhibition "Atoms for Peace" in Buenos Aires as part of its Latin American outreach program. The exhibition was housed in an inflatable pavilion designed by architect Victor Lundy. Measuring 300 feet in length and reaching a maximum height of 53 feet, the pavilion consisted of two connected domes that were made of a double nylon skin filled with air. Lundy's design constituted an ingenious solution for a temporary exhibition pavilion. Once the site was prepared and the skin anchored to the foundation, it took a mere thirty minutes for the domes to be erected. After the six-week run of the exhibition, the pavilion was deflated, folded, and packed onto a truck to be shipped to its next venue in Rio de Janeiro. From there it traveled across the South American continent to Lima, and then to its final venue in Mexico City.

Drawing on newly accessible primary sources in the Victor Lundy Archive at the Library of Congress, this paper recovers the significance of the little-known AEC pavilion, in which Lundy turned the limited temporality of the pavilion into a design principle. Not only did the inflatable nature of the pavilion allow the AEC to move the structure through time and space, but the pavilion itself with its air-filled nylon skin seemed like a breathing organism living in time. It unfolded, moved with the wind, and was sensitive to touch. Lundy's concept of an organic architecture marks a worth predecessor to today's efforts in designing smart buildings that respond to environmental conditions and the changing times.

PS03 Alternative Histories of the Pavilion

Ashley Paine, University of Queensland, and Susan Holden, University of Queensland, Co-Chairs

The Chaff of U.S. Diplomacy: The Forgotten Pavilion of the 1959 World Agricultural Fair

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Abstract

Minoru Yamasaki's work is often associated with "the image of America," including his overlooked pavilion at the 1959 World Agricultural Fair in New Delhi. This gilded pavilion was an eleventh hour, face-saving commission from the Department of Commerce to avoid being publicly upstaged by the Soviet Union and other Communist nations at a time of growing tensions at the outset of the Cold War.

Situated within the context of the pavilion-as-nation-building exercise during the Cold War, this paper seeks to reclaim a forgotten pavilion representative of a pivotal point in Yamasaki's career and in the United States' foreign presence as a superpower. Given its South Asian location, the selection of an Asian-American architect known for delicate ornamentation complicated the project's diplomatic message. In the pavilion's execution, Yamasaki became both an "instrument of orientalization" on behalf of the U.S. Department of State and exploited western orientalist tropes in formal aspects of the project. These included gilded concrete domes rising forty feet above pools, gardens, and fountains that evoked a vague sense of the Orient without referencing particular source material.

Critical of pavilions in Brussels'58 and Moscow'59, Yamasaki sought to present this project of cultural diplomacy through a form that appeared "friendly rather than boastful." The message of American exceptionalism, however, was only barely hidden beneath this exoticized façade. The pavilion showcased how American farmers increased agricultural yields through the employment of advanced technology and by harnessing atomic energy for productive means in the lingering shadow of World War II. I argue that from its last-minute inception, the U.S. pavilion was a hybridized object foregrounding U.S. – Indian relations through agricultural aid. At the same time, its form complicated issues of cultural diplomacy by calling into question an American identity in relation to an "Oriental fantasy" produced by an architect of Japanese heritage.

PS03 Alternative Histories of the Pavilion
Ashley Paine, University of Queensland, and Susan Holden, University of Queensland, Co-Chairs

The Fire Test Pavilion in Modern American Architecture

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Abstract

In this paper I reconsider the roots of modern architectural pavilions by a focusing on a building typology that was, by its very nature, designed to be destroyed.

Between 1870 and 1900, American architects used temporary pavilions to test the effectiveness of early fireproofing products. These structures condensed key elements of typical commercial buildings into small mock-up structures. These test buildings were then lit on fire. If the structure survived the fire, observer could be confident that actual buildings using the same technologies would perform similarly well during a conflagration.

Fire test pavilions first rose to prominence as idiosyncratic tools that were only used by the most innovative architects. The tests were not conducted in a laboratory, but instead were built on the actual construction sites of individual buildings and then set ablaze while key stakeholders observed the results. Over time, architects refined the design of these pavilions to increase their technological and rhetorical authority. For a fire test to be seen as valid, the pavilion needed to correspond exactly to the building that it was replicating—in both the materials and labor used to build the structure. For decades, tests were conducted covertly, for no one would benefit from a "failed" test. However, just like the buildings that they imitated, by the late 1890's these fire test pavilions were entirely uniform in their design.

My project examines these fire test pavilions through the lens of vernacular forms of industrial architecture. Much like the great exhibitions of the nineteenth century, these structures encapsulated modernity in miniature. They brought together the newest materials and amenities into a single building—and then they were engulfed in flames, thereby revealing the violent contradiction of industrial urbanism. These fire test pavilions existed within a protected precinct where the city could watch itself burn.

PS03 Alternative Histories of the Pavilion
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The Inverted Sphere: Birth of the Georama

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Abstract

On October 20th, 1850 The Observer indicated that James Wyld, a renowned map-maker and Geographer to the Queen, had a team of 56 working on a model globe of 'huge dimensions' for the Great Exhibition of 1851 in London. Later known as the Monster Globe, the model of the earth was inverted so that the exterior surface of the earth is conveyed on the interior surface of the hollow sphere: *a georama*. The largest model of the earth ever constructed, the Monster Globe was emblematic of an emerging architectural type, the exhibition pavilion. Representative of newly forming global economies, visitors accessed the center of the sphere through a small doorway, which provided a panoramic view of a global map from an interior viewpoint. It stood in Leicester Square for ten years, and was called by The Observer, 'one of the most interesting and perfect geographical monuments that has ever been constructed in any country.'

Although the largest and most detailed of its kind, Wyld's Monster Globe was not the first georama. Twenty-five years earlier Charles Delanglard opened a georama in Paris. The Royal Geographical Society boasted that the spectator 'sees every country of the world in its true dimensions and form, and its correct relative position.'

Drawings from primary sources, this paper goes beyond mere historical document to contend that Delanglard's Georama originated in what sociologist Tony Bennett named the 'exhibitionary complex,' which spurred a compulsion for visitors to enter what we now call pavilions - where people come face to face with the world. During the mid-nineteenth century there was an inherent human desire to visit spectacles such as Delanglard's Georama, a global project embedded within what Peter Sloterdijk calls an 'architecture of immersion.'

PS04 Architecture of Diplomacy and Defense
Cynthia G. Falk, Oneonta, State University of New York at Oneonta, and Lisa P. Davidson, HABS - National Park Service, USA, Co-Chairs

Border Stakes: Architecture as Diplomatic Tool in Contested Interwar Italo-Yugoslav Territories

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Abstract

In 1939, a well-known architect in Mussolini's Italy scouted sites in neighboring Yugoslavia for a war memorial for fallen Italian soldiers from World War I. His mission likely served as a cover for military reconnaissance in a contested borderland, and also aimed to plant a domestic memorial in Yugoslavia, thus laying claim to the land where the soldiers died. This was not an unusual event. In the decades following World War I, Italy and Yugoslavia competed for the valuable territories along the Adriatic border between them. The border shifted repeatedly, and architecture played a prominent, if often subtextual, role in these contestations. Relying on original primary sources from a range of Italian and Yugoslav archives, including drawings, correspondence, and architectural and engineering journals, this paper analyzes the ways that architecture became a convoluted tool of communication, territorial defense, and military offense at strategic sites along this border. From ostentatiously dueling towers at the most prominent Italo-Yugoslav border crossing, to customs houses that taunted the adjacent state, to the exploitation of international protocols on memorialization, the architectural professionals and bureaucrats of both Yugoslavia and Italy prove to have been ambiguously complicit agents in diplomacy, defense, and state-building along this unstable border. The paper concludes with analysis of how this interwar legacy left an imprint on the region's architectural and cultural politics when the same border solidified after World War II as two sides of the Iron Curtain.

PS04 Architecture of Diplomacy and Defense
Cynthia G. Falk, Oneonta, State University of New York at Oneonta, and Lisa P. Davidson, HABS - National Park Service, USA, Co-Chairs

The Architecture of Peace in the Middle East

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Abstract

Since the 1950s the State of Israel consciously employed export of planning and architectural expertise as a diplomatic tool. The ability to offer technical assistance to other nations was seen as a means in the state's efforts to create stronger international diplomatic relations. While this approach was sometimes successful in the short term, it usually proved to be an unreliable tool in the longer term. Many of the nations that invited Israeli architects to build numerous projects, eventually decreased or even stopped their cooperation with Israel. This was particularly true after the 1967 war and the occupation of the West Bank. Even after a decade of failures, the State of Israel continued to encourage architectural endeavours abroad, in the hope of sustaining better bilateral relations.

Therefore, it was not surprising that the State of Israel tried this tactic again, though it did so with great cautiousness, with its new alley - Egypt - after the 1977 Peace accords. Believing that financial development would help to stabilize the region after years of war, Israel presumed that promoting international tourist facilities in higher standards in Egypt would be the best way to secure this relation. As part of these efforts, Israeli architects worked in Egypt mainly on large hotels and resorts. The architects, cooperating with the Israeli government, created a new vision for the region, one of peace, prosperity, and international tourism.

The paper will present newly researched case studies of Israeli architects' projects in 1980s Egypt, specifically hotels, scrutinizing these plans as manifestations of diplomatic efforts for peace in a neo-liberal age. Even though these hotels never became symbols of Israel in Egypt, they did symbolize of the opportunities brought by peace. While the Israeli hopes for an amicable peace never materialized, the architecture born out of this hope, however, did.

PS04 Architecture of Diplomacy and Defense
Cynthia G. Falk, Oneonta, State University of New York at Oneonta, and Lisa P. Davidson, HABS - National Park Service, USA, Co-Chairs

Building and Abandoning U.S. Naval Station Tutuila

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Abstract

American politicians and land speculators with an expansionist drive looked to the Pacific to compete with the imperial ambitions of Great Britain, France, and Germany during the late nineteenth century. The American-Samoa Treaty of 1878 and the Berlin Act of 1889 tied the once independent Samoan Islands to Western colonial powers through land procurement. Specifically, Samoan *matai* (leaders of the *'āiga*, kin group) granted the United States government access to Tutuila Island and its deep-sea inlet, Pago Pago Harbor. The U.S. Department of the Navy established a significant military presence with the erection of a coaling depot and naval station complete with a customs house, commissary, radio station, bake shop, and administration building. Naval Station Tutuila, adjacent to Fagatogo Village, served as a stopover location for military vessels and servicemen from 1900 to 1951.

This paper examines architectural structures erected at Naval Station Tutuila in order to analyze the complex negotiations between the federal government, the military, and indigenous actors. I explore the ways in which the needs of the Navy encouraged the proliferation of modern technological conveniences in "westernized" Fagatogo. I also analyze the ways in which indigenous agency and moments of resistance through land 'ownership' and native participation in the Fita Fita Guard (as a unit of the Navy) (re)conceptualized the island landscape and disrupted hegemonic processes. Finally, the post-World War II transformation of these militarized spaces to venues for cultural tourism offers a capitalist critique of the American colonial enterprise in the South Pacific. Taken together, an analysis of Tutuila's edifices allows for a critical interrogation about the (dis)unity of militarized spaces and indigenous imperatives.

PS04 Architecture of Diplomacy and Defense
Cynthia G. Falk, Oneonta, State University of New York at Oneonta, and Lisa P. Davidson, HABS - National Park Service, USA, Co-Chairs

Architectural Mechanism of the Frontier Villages at the Korean Border

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Abstract

This paper examines series of 'frontier villages' in Cheorwon, the border region of South Korea that have experienced multiple shifts of territory and a mixing of a population. The region was quickly repopulated by the government's post-war resettlement efforts between 1950s–70s in the form of frontier villages, which have developed through close interactions with the Strategic Hamlet Program that was carried out in the Greater East Asia – including the Malay Peninsula, Philippines and Vietnam.As part of the U.S.-led nation-building process during the Cold War, the U.S. emphasised on strengthening 'anti-communist agendas' and proliferation of 'American values and policies' as a premise for the development of East Asian countries and actively intervened on their rural development strategies using architecture as its central mechanism.

The frontier villages, built over the course of the post-Korean War period, have become known as a by-product of the hostile division and the ideological inter-state competition that still continues today. Mainly analysed as disappearing relics of the authoritarian regime's instruments of control and propaganda, the space of frontier village is rendered powerless and excluded, inhabited by secondary citizens. The proliferation of border studies that accentuate the surreality of the DMZ as an empty no man's land often contributes to this perception that has sustained and developed over time.

By analysing the everyday life of the people at the frontier, the paper will discuss how the frontier villages have been used by actors from different sides of the political spectrum as an architectural tool, whether to serve state objectives as ideological symbols of wealth, power and security or as a space of political struggle of the people at the border. In the end, the study reveals a condition of competing duality present at the frontier villages – empowerment and disempowerment.

PS05 Life to Architecture: Uncovering Women's Narratives
Anna P. Sokolina, International Archive of Women in Architecture, and Paola Zellner, Virginia Tech, USA, Co-Chairs

Reclaiming the Work of Women Architects in Mandatory Palestine

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Abstract

The awakening of the Zionist movement at the beginning of the twentieth century generated immigration waves of European Jews to Palestine under the British Mandate (1920-1948) particularly after the rise of the Nazi regime in Germany. The work of women architects in the country had begun in 1921 with the emigration of architect Lotte Cohn from Berlin. During the 1930s, fifteen women architects had already been active in the country, most of them graduates of technical universities in Germany and Austria. They had left their distinctive mark on planning and building of the new Jewish society.

The accelerated growth of the Jewish population during the "nation building" phase, created a surge of building and afforded local architects hugely challenging opportunities. Apart from planning neighborhoods and apartment buildings, women architects planned urban projects and large-scale public buildings, enhancing the social and cultural fabric of the nascent Jewish community. Owing to their common roots in Europe, and similar characteristics in terms of their private and professional lives in Mandatory Palestine, it is possible to describe this group of women architects as a unique phenomenon.

The notable presence of women architects in laying the foundations of the new society lasted all through the British Mandate, and was embedded in cooperative frameworks that afforded both genders a wide and less discriminative range of professional opportunities. Unlike women architects in Europe, who worked in more conservative professional and social circles, women architects in Mandatory Palestine could take an active role in planning the Jewish community's institutions, fostering and promoting the ideas of modern architecture in the country. Regrettably, their work has been largely excluded from the historiography of modern architecture in Israel despite their outstanding achievements. They deserve to be fully reclaimed.

PS05 Life to Architecture: Uncovering Women's Narratives

Anna P. Sokolina, International Archive of Women in Architecture, and Paola Zellner, Virginia Tech, USA, Co-Chairs

Hilde Reiss: A Narrative of Teaching, Consultancy and Curatorship

Erin McKellar
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Abstract

In 1946 *Mademoiselle* published an article promoting design as a modern career for women. Encompassing varied fields of architectural design, the article featured work by an accomplished professional: Hilde Reiss. The Bauhaus-trained Reiss cultivated a career that spanned diverse areas of interior architecture. Throughout the 1930s and 1940s, she built a reputation as a teacher, writer, editor, consultant and curator. In the 1930s she taught at the Laboratory School of Design and the New School for Social Research, while simultaneously publishing her own projects in *Arts and Decoration*. As World War II commenced, Reiss became technical consultant for the Vallejo Housing Authority in California, editing *Your Home*—a brief magazine that advised inhabitants of Vallejo's war housing projects on how to transform their temporary dwellings into homes. In 1945 Reiss became the curator of the newly established Everyday Art Gallery and editor of the *Everyday Art Quarterly* of the Walker Art Center in Minneapolis.

By examining Reiss's different professional activities, and in particular by focusing on her work with the Vallejo Housing Authority, this paper argues that Reiss's career presents a model for evaluating women's roles in the architectural profession. Although she never practiced architecture, Reiss occupied various positions in which she influenced professionals as a teacher and writer. Moreover, she also guided ordinary Americans' conceptions of modern architecture in her careers as a consultant and curator. This paper thus contends that architectural practice represents only one way to conceive of women's architectural narratives, illustrating that platforms such as teaching, consultancy, and curation represent significant yet largely unexplored modes of women's architectural agency. As revealed by the presence of an article on women's design-related careers in the 1946 *Mademoiselle*, women have long recognized the significance of such careers thus necessitating their scholarly reconsideration.

PS05 Life to Architecture: Uncovering Women's Narratives

Anna P. Sokolina, International Archive of Women in Architecture, and Paola Zellner, Virginia Tech, USA, Co-Chairs

Uncovering Her Archive: Ayla Karacabey in Postwar Architecture

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MIT, visiting scholar 2014-2016., Cambridge, USA.

Abstract

This paper examines, interprets and analyzes Ayla Karacabey, a Turkish woman architect and her career history in the U.S., Europe and the Republic of Turkey in between the 1950s and the 1970s. As a graduate of American College for Girls in Istanbul (1954) and Vassar College (1956), she pursued her architecture education under the academic leadership of Joseph Lluis Sert (1902-1983), the dean of Harvard University, Graduate School of Design between 1956 1960, and obtained her Master of Architecture in Urban Design degree from that school. With this noteworthy background, Ayla indicate a significant historical point: As a result of the transformation of architecture education in postwar U.S. and Joseph Lluis Sert's influence on her education, the core arguments of her architecture reflect the importance of regional values in modernism, large-scale planning effort, teamwork and interdisciplinary understanding instead of the rigid principles of International Style modernism, individualistic creativity and the dominant influence of the aesthetic codes on architecture. Working for Marcel Breuer and Edward Larrabee Barnes Associates in the beginning of her career, she also gained a deep understanding of modernist design thinking derived from local sensitivity in the 1960s. Within this perspective, she is one of the early figures among Turkish women architects who emphasized the integration of urban design and urban planning with architectural history and design throughout her career. In spite of those facts, her education and professional career could not intersect with an architecture historian. Based on her archive at the International Archive of Women in Architecture, this paper will discuss some significant projects by her as the chief designer, urban planner, the project team member; indicate how she offers new and creative solutions on architectural, urban design and regional planning problems within her male-dominated profession; and critically discuss feminist architecture history on Turkish women architects.

PS05 Life to Architecture: Uncovering Women's Narratives

Anna P. Sokolina, International Archive of Women in Architecture, and Paola Zellner, Virginia Tech, USA, Co-Chairs

Network as Process: Flora Ruchat-Roncati's Modes of Practice

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Abstract

Flora Ruchat-Roncati (1937-2012) was a leading Ticino-born Swiss architect and full Professor at ETH Zurich between 1985 and 2002 – notably, the first woman to gain this position since ETH's founding in 1855. As one of the most effective agents connecting the heterogeneous architectural productions of Italian, German and French-speaking Switzerland between the 1970s and 2000s, her legacy combines a variegated built production and prominent role in ETH pedagogy. Ruchat-Roncati's contributions to teaching and practice are difficult to define due to her fluid mode of research, eschewing rigid positions and thus capable of bridging between the monolithic positions of male colleagues. Her built production was programmatically and formally heterogeneous, rejecting the creation of a recognizable signature style in favor of hybrid, tailored solutions. In practice, she operated by means of professional partnerships with mostly male colleagues, reflecting a long-term preference for shared authorship. Conversely, in her teaching she involved a gender-balanced team of assistants and delivered the first course on Women in Architecture at ETH, becoming an important role model for her students – both female and male.

Using new archival material, this paper frames the device of the 'network' in the narrative underlining Ruchat-Roncati's output as a practitioner and teacher. It argues that her approach combined a rigorous work ethic with a fluid modus operandi, developing a pliant yet resilient network of colleagues and friends through which she could achieve her professional goals alongside theirs. Rather than viewing such a device as coldly instrumental, the argument views this modality of a woman's practice as poignantly reliant on the supporting network. Its regional specificity is also relevant: networks shaped Ruchat-Roncati's role as a catalyst in transcending cultural boundaries, with Italy and within Switzerland itself.

PS05 Life to Architecture: Uncovering Women's Narratives
Anna P. Sokolina, International Archive of Women in Architecture, and Paola Zellner, Virginia Tech, USA, Co-Chairs

The Professional Couple in Histories of American Modernism

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Abstract

Married architect couples have failed to attract scholarly treatment recognizing their individual contributions and evaluating the effectiveness of the partnership, especially for women. Our paper examines the professional partnerships of modernist architect couples from the interwar and postwar periods to demonstrate that while the model of collaboration was central to modernism, its results were mixed.   Professional collaboration for women was often too socially and politically unfamiliar in the US to lead to their widespread career success, nor could the work produced by a couple—as opposed to a singular (male) architect—be understood within modernist paradigms.

Many of the modern "masters" had wives who supported their husbands's work and fostered their legacies. But working partnerships of married women and men architects were less common. The partnership of Aino Marsio-Aalto and Alvar Aalto has been considered an anomaly in the modernist movement and has attracted recent scholarly attention. However, there were others just as significant, including Matthew and Stanislawa (Siasia) Sandecka Nowicki, whose collaboration critic Lewis Mumford described as "the closest of partnerships," and the firm of Victorine and Samuel Homsey whose partnership produced well-published modernist as well as traditional buildings and was made all the more remarkable by their marriage and family. Victorine Homsey was a graduate of the all-women Cambridge School of Architecture and Landscape Architecture, which produced many graduates who worked collaboratively with spouses. The Architects Collaborative was composed of Gropius and seven other architects, including two married couples, Norman and Jean Fletcher and John and Sarah Harkness, who lived close to one another to facilitate their support of each others' professional and family responsibilities. Such personal innovations often produced formal experimentation as we will demonstrate through an examination of several key works produced by each of the couples whose partnerships we will also evaluate.

PS06 Global Concrete: Aesthetics, Technics, Politics, 1945–1975
Eran Neuman, Tel Aviv University, and Inderbir Singh Riar, Carleton University, Co-Chairs

Building with the "hands of God": The Construction of the Collège du Saint-Esprit, Bujumbura, Burundi (1952-1961)

Johan Lagae
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Abstract

Already mentioned as noteworthy in Udo Kultermann's 1963 survey *Neues Bauen in Africa*, the *Collège du Saint-Esprit* in Bujumbura, Burundi, constructed between 1952 and 1961 according to plans of the Belgian architect Roger Bastin, soon became a « mediated monument » because of its exceptional educational program : as a secondary school run by Jesuit fathers, the college was established as the first « interracial » institute of its kind, where the future elite of Central Africa would be trained. The educational experiment was explicitly used by the Belgian government to legitimize its rule in the mandate territory of Ruanda-Urundi vis-à-vis the United Nations and largely drew in official media campaigns on its progressive tropical modernist architecture.

In this paper, I will discuss the challenging execution of this concrete edifice, which required dealing with a specific topography of the « pays des milles collines », as well as with an architectural design that did not take into account the local constraints of labor and building expertise available. As construction could not be outsourced to a professional building contractor because of economic constraints, the college was built by members of the local community who worked under the supervision of a skilled missionary brother, Engelhemus Supersaxo. As such, the case of the Collège du Saint Esprit forms a case in point to investigate the locality of both the rather generic idiom of « tropical modernism » and the « global concrete » underlying its tectonics. I will argue that if the Collège du Saint-Esprit was intended first and foremost as the institution par excellence where the future elite of the region would be formed, its building site in fact functioned as much as a site for emancipating the local African population, by introducing numerous laborers in the new art of concrete construction.

PS06 Global Concrete: Aesthetics, Technics, Politics, 1945–1975
Eran Neuman, Tel Aviv University, and Inderbir Singh Riar, Carleton University, Co-Chairs

Casting Concrete and Defining Civil Belonging in Gaza City, 1967-1982

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Abstract

This paper seeks to fill a glaring lacuna in the modern historiography of Gaza City through a micro historical-architectural analysis of the neo-brutalist Rashad a-Shawa Cultural Center – the first to be built in post-1948 Palestine. It is part of a broader study of the city's development from 1975-1982.

The 1949 Armistice Line left Gaza trapped in a narrow strip, without sovereignty, struggling to regain its historical status as a major port city and trade routes junction. That moment blinded many to the materiality of the city and trapped us in the narrative of occupation and violence. Refusing to be blinded this way, Mayor a-Shawa saw architecture as a means to promote modernization and welfare for Gaza's citizens. He considered the center one of the flag projects in reconnecting Gaza to global economy and culture.

A-Shawa commissioned Syrian-British architect Saed Mouhafel to plan the center and draw an urban master plan. Mouhafel considered neo-brutalism and exposed concrete expressive of the new authenticity of life under Israeli occupation. The approach of the Team X architects that the discipline could be open to all, contain all and be consistent with a democratic and egalitarian society informed Mouhafel's attempt to use the building's architecture to free the city from its cultural siege.

The paper describes the building's planning from 1974 until its inauguration 14 years later. During those years, Mouhafel not only imparted new values to the historical city, but also enabled its residents to take part in the construction and acquire technological skills. This enables an examination of the role played by neo-brutalism in modern Palestinian culture, two decades before it came to symbolize fencing and the denial of Palestinian freedom of movement.

PS06 Global Concrete: Aesthetics, Technics, Politics, 1945–1975
Eran Neuman, Tel Aviv University, and Inderbir Singh Riar, Carleton University, Co-Chairs

The War-like Architecture of Logistics: Wheat, Concrete, and the Cold War in India

Ateya Khorakiwala
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Abstract

This paper investigates the emergence of governmental technologies like cybernetics and logistics in India, around the use and management of concrete, in the 1960s and 70s, given post-World War 2 conditions: US Aid to India under Keynesian monetary policies, food scarcities that dogged the Third World, and the developmental state as a theater of the Cold War. "Logistics"—the French technique of moving troops across a battlefield—fashioned global supply chains, central to postwar capitalist expansion. The Indian Concrete Journal, my key primary-source, proselytized concrete for developmental projects ranging from prefab and low-cost housing to dams and silos, publishing calculations for their unique stresses and strains as a pedagogical project in concrete technology. Further, infrastructural logistics of food distribution were developed as governmental techniques to manage emergent political geographies, thus entangling the commodities of wheat and concrete. In 1964, the central government inaugurated the Food Corporation of India (FCI)—a government arm designed to manage foodgrain distribution after India's Green Revolution. Anoop Kothari's design for the FCI office-building (New Delhi, 1971) mimicked the postwar aesthetics and corporate-monumentality of Ponti and Nervi's concrete Pirelli Tower (Milan, 1956). Kothari eschewed LeCorbusier's academic modernism, to display concrete as a commodity while developing a corporate model for architectural practice in New Delhi. Simultaneously, concrete-absorbing infrastructure (silos built and managed by the FCI) acted as "logistics junctions" that managed the spatial and temporal movement of grain. This paper argues that cybernetics and logistics—governmental techniques developed in the quest for food and other security in the Third World—were rooted in wartime technologies, and entangled with the Cold War. Global concrete, in its managerial form, was a key material of modern statecraft and postwar governmentality. It helped consolidate the Indian state as a *dirigiste* and capitalist entity, exemplified in the concrete aesthetics of the Food Corporation of India.

PS06 Global Concrete: Aesthetics, Technics, Politics, 1945–1975
Eran Neuman, Tel Aviv University, and Inderbir Singh Riar, Carleton University, Co-Chairs

The Reflexive Ruin: Concrete, Conflict, the Work of Amancio Guedes in Mozambique

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Abstract

At the height of the war of independence in Mozambique in the late 1960s and early 1970s, Portuguese-born architect Amancio d'Alpoim Miranda Guedes produced a voluminous body of work and writing centered on the capital city of Maputo (formerly Lourenço Marques). Concrete construction was an important part of the urban context during this period, as a nearly ubiquitous material that drove a building boom in the center city. However, in the context of Guedes's projects for schools, churches, and houses built on the gritty edges of the caniço—settlements surrounding the city, built and inhabited by black Mozambicans—Guedes's use of concrete took on another valiance as a material designed to stand up to the struggles of this environment and the historical moment, to be used, stained, altered, scarred by bullets, and even deserted.

Through an examination of Guedes's writing, drawing, and building, I will argue that his work evolved into extraordinary, iconoclastic, and even angry meditations on a divided and war torn city, and the violent lifecycle of concrete construction and destruction. This approach can be understood as something like a reflexive ruin—buildings positioned between the paralysis of domination and the violence of liberation, neither ephemeral object, nor monument. Through projects such as the Clandestine Nursery School (1968) and The House of the Broken Pediment (1969–71), I describe Guedes's almost surrealist adaptation of TEAM 10 studies of informal habitat to include the damage, partitions, and disintegration of the urban fabric resulting from centuries of colonialism and years of revolutionary war. In this way, Guedes's work offers a new reflection on the nature of concrete brutalism in architecture, as a complex and necessarily incomplete answer to his question: "When is a building most real?"

PS06 Global Concrete: Aesthetics, Technics, Politics, 1945–1975
Eran Neuman, Tel Aviv University, and Inderbir Singh Riar, Carleton University, Co-Chairs

A Concrete Alliance: Modernism and Communism in Postwar France

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Abstract

"It is often tempting to accuse concrete of being responsible for the inhumanity of the environment, the same way as it was easy in the nineteenth century to accuse the exploiting machine." With these words Nanterre's communist mayor reprehended in 1974 the promotion of land speculation in the adjacent La Défense while at the same time absolved the modern features and techniques of the business district, which were embodied by concrete. On the eve of France's postmodern twist, with the election of President Giscard d'Estaing and the promotion of the individual house as a replacement for the *grands ensembles*, it was necessary for French communists to defend concrete: the material was their very image. Masses of mid-century concrete not only shaped the numerous collective housing programs and public facilities that were promoted in the so-called "municipal communist," but the material ultimately symbolized the Party's *aggiornamento* through its new headquarters designed by Oscar Niemeyer in 1965. This paper discusses the privileged relation with concrete that was engineered in French architecture by modern architects affiliated with the French Communist Party (PCF). They established what could be called a "concrete" alliance with political leaders and elected officials in French cities to develop a brutalist language, new public typologies, and a critical perspective that reoriented modernism in France away from the utopian rigidity of earlier years. They changed the built environment through a more pragmatic conception of architectural modernity made possible by concrete.

PS07 Open Session
Carol Krinsky, New York University, USA, Chair

Foundation of the First Planned Refugee Towns in the Ottoman Balkans: The Medgidia Case

Ahmet Erdem Tozoglu
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Abstract

The victims of forced migration are on display every day through the social and conventional media especially in the context of the Syrian civil war. As a consequence of wartime, more than 10 million people were forced to displace; about 5 million of those had to flee their homes and are now trying to resettle in a neighboring country. Thousands of refugees embarked on a tortuous journey in search of a welcoming destination in Europe or other destinations. However, for the greater region, being a refugee and forced migration are not recent phenomena.

The victory of the Ottoman Empire and its allies after the Crimean War (1853-56) foreshadowed the expulsion of Muslims from Crimea and the Balkan Peninsula, resulting in the Ottoman government settling the Muslims who piled up at the borders. The arriving refugees were settled in various parts of the empire. They significantly changed the demography and economic structure of the regions where they had settled. Accordingly, the Ottoman government considered the resettlement of refugees as an opportunity in the Balkans and Anatolia: the vast empty lands suitable for agriculture were granted to the refugees in order to increase revenue.

This paper presents the foundation of the first planned towns for the refugees after the Crimean War in the Ottoman Balkans. They were organized by following urban patterns imported from Europe. In this respect, they were not only shelters for the refugees but also the settings for new urban reforms. Among them, Medgidia (in Romania now) stands as a distinct example, which might be considered as an experimental laboratory for new urban forms after reforms of land administration and urban politics. The paper covers the project development, finance and implementation of the new town in the 1860s.

PS07 Open Session
Carol Krinsky, New York University, USA, Chair

Japonisme Revisited

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Abstract

The influence of Japanese design on Western art and architecture has preoccupied scholars of Japonisme for nearly half a century. In the American context, this body of work has focused on the ways Japanese design ideas entered the work of major architects such as Greene & Greene and Frank Lloyd Wright. The life and career of a little-known Japanese immigrant, Iwahiko Tsumanuma, who attended Syracuse University from 1908-12 and became a practicing New York architect from 1912-21, complicates the prevailing story of America's "love affair" with all things Japanese. Drawing on a rich cache of previously unknown diaries and letters by Tsumanuma and his American-born wife Agnes Asbury, this paper argues that American Japonisme was distinguished by complex and contradictory tensions between aesthetic appreciation for Japanese things and racialized hostility to Japanese immigrants.

Tsumanuma's projects illustrate the problematic position of Japanese immigrant designers under the logic of Japonisme, which valued them for their putative knowledge of Japanese traditions, but limited their opportunities to work outside of that narrow genre. Three of Tsumanuma's projects completed around 1916 are particularly useful for understanding the racialized dynamics of Japonisme in architecture: his interior design for the great Japonophile Burton Holmes' NYC studio; his redesign of the importer Yamanaka Company's NYC galleries; and a competition he ran for Japanese architects to design American suburban homes. The architect's repeated calls to work on Japanist projects and difficulty securing clients who appreciated his Beaux-Arts training, which ironically was valued in Asia, shed new light on previously unexamined racial dynamics of Japonisme in America.

PS07 Open Session
Carol Krinsky, New York University, USA, Chair

Socio-Political Dynamics, Immigration Networks and Religious Spatial Re-practice in Boat-People's Settlement, Xiamen, 1910–30

Yongming Chen
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Abstract

After the mid-I7th century, the port of Xiamen (Amoy) became one of the most prosperous harbors along the coast of southeastern China. The lure of potential wealth for overseas Chinese, and increasing population pressure made Xiamen a labor-exporting area. The city also became a destination for migrating inland provincial people. The boat people were among them. This paper examines tensions in socio-political dynamics, immigration networks, and religious spatial re-practice within the context of boat people's settlement in Xiamen from the l9l0s to the present.

The *Shapowei* area in the southern part of Xiamen Island has long served as a safe harbor for houseboats and fishermen. During the century-long span which this research covers, dramatic transformations in China's socio-political system affected the boat people's settlement. How did the specific system influence the harbor area and religious re-practice? How did boat people settle on land and build social networks based on their beliefs as they moved from water to land, and developed cross-Taiwan-Strait practices? How did they manage to get homesteads or plots for fishing temples through various institutional regulations? Whether for legitimate or illegitimate activities, how did the socio-political system confirm or amend regulations so as gradually to bring the boat people's religious practices under 'legitimate' control? How did the boat people's religious practices adapt to or adjust their relationships with local political dynamics?

I have examined typical cases, local historical documents, images, maps, and field surveys, and have conducted lengthy interviews. The resulting paper reveals how immigrants translated their local knowledge, traditions, and cultures to religious re-practice. It also demonstrates the production of space that embodies political visions in China's urbanization process.

PS07 Open Session
Carol Krinsky, New York University, USA, Chair

The Problem of the Prototype: Mika'el Amba in Tigray, Ethiopia

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Abstract

Three large rock-hewn monasteries/parish churches--Abreha wa-Atsbeha, Wukro Cherqos, and Mika'el Amba-- are the only representatives of the centralized plan in medieval Ethiopia. While it has long been understood that Wukro Cherqos and Mika'el Amba are architectural copies of Abreha wa-Atsbeha, I find that the copies display structural problems unique to mimesis in rock-cut architecture. In the seventy years since Richard Krautheimer's foundational work on architectural mimesis, no scholar has engaged with the specific implications of this practice as it pertains to rock-cut (reductive) architecture. This paper presents an archeological study of Mika'el Amba -- a structure that differs from its prototype. In attempting to copy faithfully the plan and articulation of Abreha wa-Atsbeha, the builders encountered several problems that caused them to abandon the initial building campaign at Mika'el Amba. Abreha wa-Atsbeha, built into a cliffside, provided the masons with ample height and depth for creative control over height and articulation. Mika'el Amba, carved into a flat-topped mesa, had less workable space so it was not possible to copy the grandiose proportions of Abreha wa-Atsbeha. This resulted in a broad, low, and poorly-lit church without any spatial hierarchy. I propose that in response to these inherent problems, the church was left incomplete in its initial building program and that to solve these problems, it was finished in a later building campaign independent of the prototypical design.

PS07 Open Session
Carol Krinsky, New York University, USA, Chair

Architectures from Memory: Indigenous Design Practices and Traditional Knowledge Keepers

Daniel Millette1, Rebecca Lemire2
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Abstract

While much work has been done in terms of understanding the traditional knowledge that persists in the form of Indigenous languages, art and ceremonial practice, very little is known of the traditional architectural thought that continues to exist in many Indigenous communities. This manifests itself beyond place and program; it remains within the way architecture is articulated by community elders and related knowledge-keepers. Indigenous architectural mnemonics, ways of designing, and methods to communicate "the plan" remain underappreciated within the architectural history profession and the canon in general. These methodologies often privilege oral histories and are based upon what Opaskwayak Cree scholar Shawn Wilson defines as a 'relational' Indigenous epistemology, in which knowledge itself is seen as held in the relationships and connections formed with one's environment.[1]

This paper will focus on two notions: First, the ways through which architectural design tenets are communicated to architects and builder, which often follow a protocol of relational accountability[2] that may not be immediately recognizable within a Western framework. Second, the architectural mnemonics that might be involved in this process. These ideas will be demonstrated by way of two case studies: the design and subsequent construction of the Coast Salish longhouse within the Tsawwassen First Nation community, and Alfred Waugh's process as Design Architect for the Nicola Valley Institute of Technology by Busby, Perkins + Will.

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[1] Shawn Wilson *Research is Ceremony: Indigenous Research Methods* (Black Point, N.S.: Fernwood Pub, 2008), 87.

[2] A specific system of data collection, analysis, and presentation which adheres to an Indigenous paradigm and is based in "a community context..and has to demonstrate respect, reciprocity and responsibility." as defined by Shawn Wilson in the chapter "Relational Accountability" in *Research is Ceremony: Indigenous Research Methods*, 99.

PS08 Michelangelo Architect: New Approaches
Fabio Barry, Stanford University, and Alexandria Brown-Hedjazi, Stanford University, Co-Chairs

Paper, Profile, Petrarch: Michelangelo's Poetry on Architecture

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Abstract

Following definitive publications in Italian (Girardi, 1960) and English (Saslow, 1991), Michelangelo's poetic oeuvre has remained largely uncontested, particularly among architectural historians, for whom the poems are largely cited, if at all, as static support for the artist's otherwise muted commentary on his own creative process. A curious clue emerges, however, where poetic verse appears on three of Michelangelo's 1:1 scaled template drawings, known generally as *modani*. The tantalizing image of the artist reaching for a left-over architectural template while scratching lines of poetry begs the question of what might be discovered by looking closer at these three paper *modani* (*Corpus* 536, 538, 539).

The verses on the *modani* are merely fragments and revisions, part of a lineage of multiple and incomplete sources. At the same time, as 1:1 scaled templates, the *modani* empowered in a unique way Michelangelo's well-known propensity toward the fragmentation and re-assembly of the profile line. What emerges is how the paper enabled parallel processes of iteration, cutting and substitution, each operating within rather strict formal boundaries (for the poem, the Petrarchan sonnet; for the architecture, the antique lexicon). By working them out together on the same sheet, the boundaries erode between whittling lines of poetry and carving blocks of stone.

Unlike previous attempts to connect Michelangelo's architecture and poetry, this paper focuses on the materiality of the paper as a meeting point between the written word and the architectural imagination. Building on recent scholarship that has exposed the non-arbitrary role of paper in connecting Michelangelo's drawing and writing, it introduces the three *modani* as unique cases of this crossover. Being products of *disengo* as well as direct translations for construction, the *modani* already offered a singular connection between drawing and building. Now, by composing verse on the *modani*, he was, by extension, sketching poetry on the architecture itself.

PS08 Michelangelo Architect: New Approaches
Fabio Barry, Stanford University, and Alexandria Brown-Hedjazi, Stanford University, Co-Chairs

Michelangelo's Fortification Designs Reconsidered

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Abstract

Michelangelo's extraordinary designs for the fortifications of Florence (c. 1529-1530) are widely recognized as a turning point in his architectural career. Yet despite considerable scholarly attention the rationale behind these unconventional drawings remains a mystery. Lack of familiarity with the practice of siege warfare and fortress design has led art historians to offer implausible explanations for the admittedly bewildering formal appearance of Michelangelo's plans. To this day they are interpreted as formalist, irrational works intended to frighten the enemy with their aggressive, zoomorphic appearance, and even, in downright psychoanalytic terms, as panic drawings expressing Michelangelo's subliminal fear of death. But such interpretations fail to explain how Michelangelo arrived at this startling variety of unprecedented architectural forms. This paper argues instead that eccentric forms do not require eccentric explanations. A fresh analysis of the twenty drawings will show that they are not enigmatic doodles of an inscrutable genius but the result of a specific design process. I aim to elucidate Michelangelo's method by demonstrating that his complex plans were essentially generated by ingeniously combining a limited set of rational design principles. Dating from a uniquely fertile moment in the history of fortification – after its basic design precepts were overturned by advances in artillery, but just before the angle bastion became the standard solution – Michelangelo's drawings document his characteristically idiosyncratic attempt to rethink the core problem of military architecture – how to reconcile the conflicting demands of attack and defense? – from first principles. Conceived not for heavy cannon but for portable and medium-sized firearms (which explains the absence of massive earthworks and the proliferation of gun positions for short-range frontal and flanking fire), Michelangelo's fortifications are not whimsical fantasies but reasoned, even overwrought proposals to respond to the actual siege methods of the time.

PS08 Michelangelo Architect: New Approaches
Fabio Barry, Stanford University, and Alexandria Brown-Hedjazi, Stanford University, Co-Chairs

Food for the Soul: Michelangelo, the Laurentian Library, and the Transmission of Spiritual Nourishment

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Abstract

Over the last half century, Michelangelo's Library of San Lorenzo in Florence has come to exemplify the architecture-body metaphor in early modern Italy. Building on James Ackerman's analysis of 1961, students of the monument have compared its windows to eyes, its columns to bones, and its volutes to ears. This paper resituates the anthropomorphism of the Laurentian Library in the fifteenth and sixteenth-century medical discourse on the body. Based on evidence in the architecture and planning of the library as well as in the anatomical studies of Michelangelo and his contemporaries, it argues that the artist designed the building as one cohesive organism, unifying the central longitudinal axis of its planned rare books room, reading room, and vestibule in a metaphorical representation of the brain and vertebral column. In the Hippocratic, Platonic, Galenic, and Mondinian tradition, the brain was believed to be the seat of the divine soul and intellect, which both received sensory information from the body via the spinal column and, reversely, transmitted volition to the body through the same channel, directing movement. The library, then, may have been intended to anatomically transmit knowledge to its users, who may have been expected to internalize that "*nutrimentum spiritus*" (food for the soul) through their own body's sensory faculties.

PS08 Michelangelo Architect: New Approaches
Fabio Barry, Stanford University, and Alexandria Brown-Hedjazi, Stanford University, Co-Chairs

Dissections, Bodies, and Michelangelo's "Crustacean Monsters"

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Abstract

This essay focuses on the implications of Michelangelo's appropriations of the human body for the designs of his Florentine fortifications, 1528-29. As one of the master's architectural designs that explicitly evoke the themes of the dynamic and organic, Michelangelo's fortifications have been attributed with a beastly appearance - an "aggressive biological force," and labeled as "crustacean monsters with claws." I suggest a reading that problematizes interpretations of the fortifications' appearance by locating within the designs early adaptations of the city fortress to contemporary weaponry developments and the siege's changing nature. My questions probe particularities pertaining to the fortification's *form* – the organic relationship between its innovative pragmatic aspects and its expressive character – and its connection to Michelangelo's anatomical explorations of the human body. I ask: How human dissections might have influenced Michelangelo's "muscular" fortifications designed for an act of war?

Using interdisciplinary studies between formal architectural analyses and analyses of place in terms of accommodating bodily actions derived from the field of somaesthetics, which challenges aesthetics' focus on metaphysics and language, I re-examine Michelangelo's fortifications by giving primacy to the moving body as imminent constituent of understandings that are not representations. I argue that for Michelangelo, during dissections, the human body epitomized a nonrepresentational scaffolding for creation, from which the artist derived elemental qualitative principles that extended and evolved into material inventions through multiple fortification sketches. Through analyses of possible bodily movements, the "crustacean monsters" surface as defensive and offensive enablers, or, extensions of combatants engaged in a conflict happening amidst shifting technologies of war. Thus, the fortifications' practical purpose appears explicitly entwined with its expressive form - an elemental bond derived as principle from dissections. This study positions the human body as the artist's nexus of crucial *nonrepresentational* capacities, and notably questions the applicability of the "Scattered Beauty" theory to Michelangelo's architectural opus.

PS09 Thalassic Architecture: Medieval and Renaissance Italy and the Seas
Lauren Jacobi, Massachusetts Institute of Technology, Chair

State Building and Port Construction in the Angevin Kingdom of Naples

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Abstract

This paper examines the construction of artificial ports and their constituent parts, including breakwaters, arsenals, and fortifications, in the Angevin kingdom of Naples from c. 1270 to c. 1300. Specifically, it frames Angevin port construction within the context of urban development and state building in late medieval southern Italy, arguing that the construction of artificial ports and the cities they operated served as conduits for centralization. As such, the term *state building* here has a double meaning. On the one hand port construction is an example of Angevin state-sponsored construction. One the other hand both the processes under which these ports were created and their end products are signs of the construction of an Angevin state in southern Italy.

The paper examines port construction overall in the Kingdom of Naples, including the expansion of the port of Naples and Arsenals of Amalfi, but focuses on port construction and repair along the kingdom's Adriatic coast in Apulia at sites including Brindisi, Villanova, Mola di Bari, Trani, and Manfredonia. The Adriatic coast was the location of the most intense port construction and urban development in the kingdom and these projects along the kingdom's east coast served several purposes. The construction of ports was intended to curb piracy and in general increase coastal defense; create new staging grounds for the crown's ambitions East in the Kingdom of Jerusalem, the Peloponnese, and the Byzantine Empire; and ports served as nodes not only for interregional trade but also for robust intraregional exchange. Through an analysis of dozens of surviving royal documents related port construction; contemporary chronicles; and archaeological work, issues examined include building techniques for hydraulic architecture, strategic siting of ports and approaches to counteracting currents and silting, and security at Angevin ports.

PS09 Thalassic Architecture: Medieval and Renaissance Italy and the Seas
Lauren Jacobi, Massachusetts Institute of Technology, Chair

Shaping the Littoral: Urban Innovations in Early Modern Messina and Palermo

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Abstract

At the crossroads of Eastern and Western Mediterranean, the newly conquered Sicilian ports of Messina and Palermo became strategic military strongholds for the Spanish Habsburgs in naval campaigns to establish primacy in the Mediterranean. Extensive restructuring of the urban and maritime landscapes starting in the 1530s focused on the creation of perimeter fortifications, which barricaded each city from its adjacent waters; construction of arsenals, customs houses, forts, and lighthouses; and creation of a colossal *molo* in Palermo. In an era of relative peace following the Habsburg victory at Lepanto in 1571, a new building phase reflecting Italian Renaissance and early Baroque planning theories, architectural aesthetics, and perspectival devices, transformed the Spanish-held ports, particularly in their interface with the contiguous aquatic realm. Civic and imperial motives supplanted militaristic concerns, as bastioned enceintes gave way to scenographic urban façades. Through the penetration of waterfront walls by gateways and triumphal arches, and the development of seaside thoroughfares as theatrical spaces for spectacles and processions, the littoral evolved into the equivalent of a Renaissance public square.

This examination of late-sixteenth and early seventeenth century renovations in the waterfront zones of Messina and Palermo reveals the reciprocity between political, economic and cultural conditions, and the altered material identity of these early modern ports, focusing on how transformations in maritime culture were expressed through architecture. With Spanish invincibility as a seaborne power threatened by increased European naval prowess, the Habsburgs symbolically expressed dominion over the aquatic territory of their Mediterranean ports by engaging the waters architectonically, thereby promoting the notion of *mare clausum*, or the appropriation of maritime space. A comparison of architectural and planning devices implemented along the harbors of Messina and Palermo analyzes how architects adapted to the varied topographical conditions to create innovative compositions demarcating the boundary between city and sea.

PS09 Thalassic Architecture: Medieval and Renaissance Italy and the Seas
Lauren Jacobi, Massachusetts Institute of Technology, Chair

Building with Water: Landscape Urbanism on the Southern Italian Frontier

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Abstract

In April of 1533, a dispatch sent to the Habsburg court from Spanish authorities mired in a muddy North African building site made an urgent request for engineers trained in "the method of building in water." That "method," which was codified in both Iberian and Italian treatise literature during the sixteenth and seventeenth centuries, elevated the sea to an architectural material in and of itself. As such, it challenged theorists and engineers to fundamentally re-conceptualize the role of the natural topography in defensive design and urban planning alike. From our contemporary perspective, this shift in architectural culture of the period raises new questions as to the origins of the modern theory and practice of so-called "landscape urbanism." Against the backdrop of this early modern preoccupation with the fluid boundary between a city and its maritime hinterland, this paper highlights one such radical typology of landscape intervention – the 'island-city' – which was widely disseminated across the Mediterranean. In key defensive outposts along the Spanish frontiers of southern Italy, engineers were tasked with fortifying cities sited on narrow peninsulas projecting into the open sea. A navigable canal was excavated through the neck of each landmass, thus fully severing the urban fabric from the mainland and transforming it into a veritable island, suspended just beyond the shore. By highlighting the currency of the island-city model in geographies such as Sicily, Puglia, and the Tuscan Maremma, this paper argues for the active participation of Italian peripheries in established networks of early modern architectural exchange.

Please note: The paper proposed here grows out of a manuscript currently under review for publication by *JSAH*, entitled "The Rise of the Island-City in the Early Modern Mediterranean." Neither this paper nor the manuscript have been previously presented or published in any capacity.

PS09 Thalassic Architecture: Medieval and Renaissance Italy and the Seas
Lauren Jacobi, Massachusetts Institute of Technology, Chair

Maritime Modern: Technologies of Space in the Fascist Stato da Màr

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Abstract

While much scholarship on Italian imperialism has focused productively on the colonization of North and East Africa, Italian territorial expansion across the Adriatic has received scant attention beyond the transience of wartime occupation. Yet from Trieste to Tirana, Mussolini's Fascist regime incrementally reclaimed the far-flung dominions of the former Venetian Stato da Màr to reunite the scattered communities of Venetian-language speakers across the Adriatic Rim with metropolitan Italy. This paper posits maritime architecture as a medium deployed to reinforce Italian territorial claims to the Eastern Adriatic on the level of culture. Through a careful analysis of the design oeuvre of Triestine architect Gustavo Pulitzer-Finali, I trace the processual framework undergirding the maritime technology of the diesel-driven ocean liner, from carbon extraction and steel manufacture to design and operation. Between the World Wars, Pulitzer-Finali worked not only as a designer of luxury ocean liner interiors for Trieste's famed Cosulich Line, but also as the urban planner of industrial company towns designed to facilitate the mining of coal, which physically powered the machinery of Italy's maritime empire. As the largest mobile sovereign territories, flagged vessels themselves formed the interstitial colonial space that stitched Italy's maritime empire together. In making the otherwise discrete sites of seafaring vessel and mining town relational by conceptualizing architecture as a network of technological and material processes, a dynamic and ephemeral spatial order of colonial governance is revealed within the spatiality of the sea itself.

PS10 Exploring "Form" across Geopolitical Divides
Alona Nitzan-Shiftan, Technion – Israel Institute of Technology, Chair

The Form of Fossil Fuel: Architecture, Air Conditioning, and the Geopolitics of Energy, c.1958

Daniel Barber
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Abstract

That architecture has long operated in tight connection with the oil economy is self-evident. Since World War II, the typology of the office building in particular has emerged in concert with readily available fossil fuel energy, eliciting and participating in global patterns of epochal consequence. Heating, Ventilation, and Air-Conditioning (HVAC) systems don't imply a specific formal disposition, yet they have been articulated according to a similar spatial distribution of power. That is, a consistent approach to controlled thermal conditions has facilitated specific economic and political flows – what Peter Sloterdijk has called "the world interior of capital" – that simultaneously transcend and amplify geopolitical distinctions.

As Sloterdijk also noted, in 1999, "air conditioning, in the literal sense, will establish itself as the main space-political theme of the coming era." This presentation will examine the vicissitudes of architectural form-making in the articulation of this space-political theme, summarizing the design intention, historical reception, and contemporary relevance of three case studies: the Seagram Building in Manhattan (Mies van der Rohe and Philip Johnson, 1958); the UNESCO Building in Paris (Marcel Breuer, Bernhard Zehrfuss, and Pier Luigi Nervi, 1958); and the Headquarters for British Petroleum in Lagos (Fry, Drew, Drake and Lasdun, 1960). All were conceived, designed, and built as the global oil infrastructure was ossifying in the mid-1950s. While distinct in plan, section, and elevation, and in their varying emphases on mechanical and shading systems to manage thermal comfort, they all strained towards a climatically consistent interior volume. The conditioned space of the global interior, in its normative and adaptive aspects, offers a new approach and potent approach to analyzing politics and form.

The aim of this presentation is descriptive and methodological: while the buildings are well known, analyzing them together, and for their political and formative effects, offers compelling frameworks for an emergent historiography of architecture and energy.

PS10 Exploring "Form" across Geopolitical Divides
Alona Nitzan-Shiftan, Technion – Israel Institute of Technology, Chair

Curtain Wall Inside-Out: Politics of Abstraction in Fascist Spain

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Abstract

The problem with the pristine facade of the United Nations Headquarters, then going up in New York City, was how evidently it beckoned—by virtue of its very form— the sociological fabric that had produced it: an architecture constructed by and for "electronic brains" lacking in "gravity." Such was the reception granted to the most celebrated curtain wall of mid-century modernism by Spanish architect Luis Moya in the context of the fascist regime of Francisco Franco (1939-1975). To be clear, the comment was meant as derogatory, and signaled the acute gap then at play between Franquismo and the democratic Western World. At the time, architects in Spain broadly observed a morphological understanding of architecture, typical of fascist regimes, whereby architectural forms and sociopolitical orders were seen to correlate. Implied in Moya's account of the UN building was how its technology and aesthetic abstraction pertained to liberal secular democracies and their subjects—and specifically *not* to a right-wing religious dictatorship. Yet a few months later, several Spanish architects began to explore widely with the curtain wall, and for no other purpose than designing the regime's civic buildings. This paper will read several of these designs to chronicle how the curtain wall was received and redeployed for purposes of refashioning Franquismo, specifically in its shift towards a form of technocracy that was led by cadres of the Catholic organization Opus Dei. By weaving a formal reading of projects for civic building with a historical interpretation of contemporaneous administrative reforms and the technocratic ideology that underpinned them, I will discuss the dual process of architectural and governmental design in terms of politics of abstraction—abstraction that was both aesthetic and political and that, in this case, served the purposes of fascism well.

PS10 Exploring "Form" across Geopolitical Divides
Alona Nitzan-Shiftan, Technion – Israel Institute of Technology, Chair

Form and Politics in the Architecture of Midcentury Milan

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Abstract

From its emergence in the early twentieth century, modernism was proclaimed by its advocates a means of securing social and political transformation as much as architectural advancement. While the provision of services such as affordable housing and the deployment of new methods, materials, and technologies were celebrated as important aspects of modernist architecture's capacity for transformation, it was the formal qualities of modernism that were seen by architects and critics alike as the primary drivers of that capacity. Nowhere was this the case more than Italy, where the rise to power of Fascism fundamentally shaped the conceptualization of architectural modernism, from the Futurism of the 1910s to the Rationalism that emerged in the mid-1920s and flourished throughout the 1930s. Given the emphasis on aesthetics in Italian architectural discourse during the 1920s and 1930s, it is notable that form became again a major focus during the 1940s and 1950s, following the collapse of the Fascist regime and the establishment of the democratic republic.

Through an analysis of several social housing projects in Milan from across the middle decades of the twentieth century, this paper will examine how the formal vocabulary of modernism was explicitly politicized under Fascism and then re-oriented for substantially different political visions after the war. The intensity of the diverse political affiliations that architects in Milan claimed for the relatively stable vocabulary of modernist architecture during these decades highlights the need for the close study and analysis of architectural form. This is a matter of scholars not simply looking carefully at buildings, but also interrogating fully modernism's operation as a powerful but blunt tool for political aims. Only such a politically-oriented formal analysis can yield the re-assessment of modernism and its history necessary to understand the potentials of architecture in our present state of social and political fragmentation.

PS10 Exploring "Form" across Geopolitical Divides
Alona Nitzan-Shiftan, Technion – Israel Institute of Technology, Chair

From Work-Unit to Mini-Unit: Politics from the Inside Out

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Abstract

After its economic reform in 1978, China started the commodification of housing and gradually abandoned the socialist welfare housing distribution system. The state's commitment to housing provision was handed over first to the work unit (*danwei*) and then to the market. From the workers' housing constructed uniformly under the socialist planned economy to the gated communities in an open real estate market, the collectiveness of modern residential towers and flats has became a generic form that is applicable to the dwelling-labor bond of the work unit system, the concepts of Soviet *microraion* (micro-district) and Perrian neighborhood unit, the basic administrative agent of the socialist state, the leasing and speculation mechanism of the state-owned land, and the economic value of the real estate investment. This paper argues that the distinction between welfare and commodity, by contrast, is represented through the subtle mutations of the residential unit design, such as bay windows and high ceilings to "steal" floor areas, mini-unit promotions, and TV shows where architects as experts taught the audience how interior design could magically transform their extreme living conditions. These formal alternatives originated from the domestic space are either consciously responding to the loopholes in the laws or indicating a new round of hyper-consumption that incorporates production as part of the commodity system, and therefore, embodying potentials of powerful architectural engagement. The politics from the inside out invalidate the generic collectiveness. Broadly disseminated via the Internet and multimedia advertisements, these emerging forms also developed their visual languages and knowledge system. Formal analysis from the inside out implies problems of aesthetics, ideologies, and inequality. The paper concludes that, as the medium between the body and the urbanity, the evolving forms of the unit demonstrate a post-Fordist mode of housing production, which also function as a vehicle for imagining alternative social orders.

PS11 Architecture and Politics in Germany, 1918–1945 Reconsidered
Paul B. Jaskot, Duke University, Chair

The Comedy and the Tragedy in Modern Architecture

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Abstract

In reassessing Barbara Miller Lane's book, my paper illuminates the "comedy of errors" at the heart of "diaspora architecture" in the 1930s and early- to mid 1940s. I am especially interested to put Miller Lane into dialogue with Sibyl Moholy-Nagy, who also addressed architecture and politics in Germany and the US, and the catastrophic legacy of Nazism.

Mohly-Nagy's articles and lectures of the late 1950s and 1960s predate and presage Miller's Lane's study. Where Miller Lane is dispassionate and objective, Moholy-Nagy is fiery and subjective, offering *cris de coeur.* Moholy-Nagy hammered away at the ambiguities and anxieties of *émigré* architects: at the Modern Architecture Symposium at Columbia University in 1964 she documented (and denounced) Mies' attempts to collaborate with the Nazi leadership. She argued that Mendelsohn collapsed in his architectural imagination, and that the Bauhaus program was dead on arrival in the US. These and other controversial views were largely dismissed at the time. My paper will explore the differences in tone and approach to the period and it's central figures by Miller Lane and Moholy-Nagy.

My main point is that despite Miller Lane's intervention into the field, and the proliferation of studies of modern architecture and politics in Germany, and the war's aftermath, Moholy-Nagy's more caustic, damning, and idiosyncratic analysis has never really been integrated and absorbed into the history of the period or assessments of the relevant architects' work. Why not?

She presented imported German modernism as fatally tainted, and fascist, while at the same time she championed the work of a young generation of architects whom she believed were breaking free from the strictures of German functionalism and linking architecture and politics in more progressive, pragmatic ways, notably Paul Rudolph, Cesear Pelli, and Paolo Soleri. Her analysis leads to still unexplored endpoints.

PS11 Architecture and Politics in Germany, 1918–1945 Reconsidered
Paul B. Jaskot, Duke University, Chair

Architecture and Politics in West-Germany 1952-69: The Political Symbolism of the Modernist Bungalow

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Abstract

The architecture of the modernist bungalow is highly significant of the political processes re-defining West-German society after 1945. Built 1952-1969, in the country's formative years during the *Wirtschaftswunder*'s economic growth, West-German bungalows symbolize more than the advent of flat-roof modernism on the housing market. This ubiquitous typology's connotations draw heavily upon those ideological debates of the Weimar republic, which Miller Lane analyzed succinctly. Omitting the immediate, nationalsocialist past, West-German bungalow architecture connects to the concept of modern architecture as democratic or progressive, as it had evolved during the Weimar republic.

Drawing on examples from the catalogue raisonné of the West-German bungalow established as part of the author's research, the paper pays specific attention to the political connotations of this typology – most notably how the concept of a new, young democracy was associated with modern, flat-roofed residential architecture. The typology unifies a broad range of houses – from small lower-middle class homes to spacious modern villas for industrialists and Sep Ruf's *Chancellor's bungalow* in West-Germany's capital Bonn with its direct political implications.

The paper argues that Weimar's political debates were not only influential with regard to the political connotations of nationalsocialist architecture, as Miller Lane argued, but that the dichotomy of the 1920s and 1930s continued to dominate the political connotations of architecture in West-Germany for decades after 1945. *Bungalow Germania*, the partial insertion of a model of Ruf's *Chancellor's bungalow* into the German pavilion at the 2014 Venice architecture biennale, shows this dichotomy's continuing relevance for the political connotations of German architecture until today. By analyzing the West-German bungalow's political symbolism, however, this paper argues that this seemingly progressive architecture in fact served to accommodate an increasingly apolitical middle-class society, withdrawing into the suburbs and their private gardens.

PS11 Architecture and Politics in Germany, 1918–1945 Reconsidered
Paul B. Jaskot, Duke University, Chair

Martin Wagner's "Balance-Sheet" Cities and the Transatlantic Welfare State

Anna Vallye
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Abstract

The pioneering premise of *Architecture and Politics in Germany* held that the architectural vanguard's project to "express" Weimar revolutionary society through novel stylistic form prefigured Nazi hermeneutics of culture, which would read "architectural styles as symbols of specific political views." In this, Miller Lane's approach was similar to contemporaneous works of "social art history" in its attempt to understand architecture's relationship to political life by extending the symbolic (as opposed to aesthetic) dimensions of cultural expression to the domain of political ideology. Recent historians of the Weimar Republic, such as Udi Greenberg (2014) and Noah Strote (2017), have situated the period's cultural debates as conflicts over the structural and institutional forms of the liberal democratic state. Could a parallel shift of focus, from the hermeneutics of ideology to the strategics of state formation, reveal new political dimensions in Weimar architecture and its legacies?

The work of architect Martin Wagner, Berlin chief planner from 1926 to 1933, exemplifies, I argue, a strategic reflection on the possible functions of architecture as instrument of democratic welfare state formation. His concept of the city as "private enterprise" or corporation, built on the structural overlap in the systems of market and political organization theorized by Max Weber and Georg Simmel, extended to urban architecture the forms of public-private interplay characteristic of the germinating welfare state. The "balance sheet" became for Wagner both key instrument and avatar of the urban fabric as reified fiscal policy. Accordingly, much like the political thinkers traced by Greenberg and Strote, Wagner eventually ran afoul of the Nazi regime not simply as a committed modernist and socialist, but also as a strategist of democratic state structures. His work in the United States, where he emigrated in 1938, continued to negotiate the public-private dialectic of the evolving welfare state in his adoptive country.

PS11 Architecture and Politics in Germany, 1918–1945 Reconsidered
Paul B. Jaskot, Duke University, Chair

Alvar Aalto and National Socialism: A Reconsideration

Nader Vossoughian
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Abstract

Barbara Miller-Lane's *Architecture and Politics in Germany* represents a landmark achievement for countless reasons. Nevertheless, one of its weaknesses is that it tends to overlook the fact that the discussions and collaborations which took place among architects during World War II tended to cut across national boundaries.

In this paper, I use one case study to document this point. In particular, I look at the relationship between Ernst Neufert and Alvar Aalto. During Finland's Winter War and its subsequent Continuation War, Finnish officials were eager to secure arms and military support to stave off Soviet aggression. They also wanted to sustain their export-based economy. The Nazis needed access to Finnish territory to launch *Operation Barbarossa*. They also required raw materials to execute their construction plans for the *Führerstädte* and to facilitate the rapid building of military basis and concentration camps.

My paper shows that Neufert and Aalto cultivated a close working relationship to assist their respective countries economically and militarily. In particular, Neufert helped Aalto with the creation of a Standardization Office in 1942 and 1943. This was so that he could bring the specifications governing the prefabrication of building components in Finland into alignment with those recognized in Nazi Germany. He gave Finnish manufacturers the tools they needed to fulfill Germany's various construction-related needs. He also helped the Nazis address their shortage of raw materials.

The significance of this paper rests on the fact that it uses economic history (i.e., Finland's economic ties to Germany) to explain political and architectural history. I invite scholars to reexamine Alvar Aalto's ties to the political and architectural culture of Nazi Germany. I draw together original archival materials from Finland, the United States, Switzerland, and Germany. I also emphasize the global and transnational relationships that defined the Nazis' hold on power.

PS12 The Audience for Architectural History in the 21st Century
Danielle Willkens, Auburn University, and Jonathan Kewley, Historic Buildings and Monuments Commission for England, Co-Chairs

Planning, Amenity and Our Audiences: UK Architectural History Now

Sean O'Reilly
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Abstract

The paper explores some of the most critical and overlooked audience groups in modern architectural history in the UK, those generated around conservation and heritage planning operations and practice. The historic planning context in which those audiences arise is outlined, alongside the linked evolution of architectural history practice, and the challenges and opportunities of improved engagement with modern planning-related audiences.

Framed by the UK planning system's early 20th century focus on 'amenity' as a public value to be preserved though controlling development, the paper outlines how planning processes generate a key role for architectural history today. This includes conservation processes that manage 'nationally significant' heritage, articulating historic and architectural values in designation (listing) and regulation (consent) and inspiring sophisticated historical tools, considerations and resource allocations.

Responding to the new, wider and better engaged audience groups in planning, the 21st century discipline is re-shaping practices, processes and outcomes. This new environment for architectural history also offers challenging opportunities for scholarly interrogation of its subject, and to add value, notably by highlighting to audiences the disciplines' s diverse contributions to cultural, environmental and economic values, with narratives also newly focussed on 'place'.

Case-studies offer concluding, paradigmatic summaries on how planning-related developments in audience engagement are reforming the discipline, from re-evaluated histories (John Summerson) to new tools and platforms for new audiences, including regulators, private clients and civic guardians. Altogether this redefines 21st century practice in terms of ethics, and the role of architectural historian in engaging with interest groups in democratic planning systems; standards, including the support and resources to maintain practice standards; skills, and the capacity of architectural historians to develop and interrogate their subject in the context of planning resources and priorities, and the discipline's sustainability, its capacity to inspire new generations of scholars.

PS12 The Audience for Architectural History in the 21st Century
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The Federal Preservation Program: Balancing Populism and Academia

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Abstract

The United States government created a new professional sphere for architectural history when they embraced historic preservation through the National Historic Preservation Act of 1966. Although preservation planning tools incorporating architectural history research were originally envisioned through the lens of the Act's populist foundation, the level of documentation required has slowly gravitated toward that of academia. Whether due to the advent and rise of preservation degree and certificate programs or to increased awareness and popularity of the federal preservation program as a whole, this evolution away from populism and toward academia has created a divide within the preservation field.

Critics of academization argue the advanced level of documentation alienates the general public, increases the cost and time needed to prepare cultural resource studies, and complicates the ability to document unfamiliar history narratives. Proponents emphasize the rigorous documentation legitimizes the studies, provides a legal basis for federal policy decisions, and ensures hidden histories are revealed. Research and personal experience has shown these contradictions result in calls to loosen, streamline, and avoid compliance with the National Historic Preservation Act, a trend that thrives in the current anti-regulatory political environment.

Architectural historians working within the federal preservation program must find a balance between what is accessible to the general population and what is truly needed for federal planning purposes. When written with these audiences in mind, architectural history can inspire communities to connect with and add to the historical narrative while preserving their history. By repackaging more comprehensive architectural history research for traditional academic venues, the results of the federal preservation program can contribute to future research and influence a broader preservation ethic.

PS12 The Audience for Architectural History in the 21st Century
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The History of Architecture: Pedagogies for Professional Education

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Abstract

Faculty at the City University of New York's senior technical college are exploring model pedagogies for incorporating architectural history into an undergraduate professional architectural program. This exploration fits into a larger endeavor on campus, the re-envisioning of general education for a college of technology, and into a larger national conversation around humanities education. In an increasingly complex and contentious milieu framed by the intersection of the man-made and natural worlds, it is critical that professionals of the built environment engage a deep understanding of issues and behaviors in human societies throughout history, of how to think critically and transferably about those histories, and of what role we want for the profession—and for technology—in the 21st century. The discipline of architectural history is well-positioned to contribute to this important conversation in the five-year undergraduate architectural programs that provide the terminal degree for many future entrants into the profession, particularly those at the urban public university.

The architectural "survey" has expanded in content to include non-Western traditions and everyday built environments. Models also include structural alternatives to the chronological framework, perhaps beginning with Columbia University's Art Humanities Core Curriculum (now at its 70th anniversary). Today there is cause for optimism that the "irrevocable split . . . between the academic world of the studio and the academic world of the historians" about which Mark Jarzombek forewarned in 1999 has not come to pass. At a time when scholarly work is as likely to frame around an issue, process, or technology, as around an artist, place or period, our discipline has expanded its potential for direct linkages to the concerns of studio pedagogy. Selected case studies from U.S. institutions highlight core strategies and successful models for the role of architectural history in undergraduate professional education.

PS12 The Audience for Architectural History in the 21st Century
Danielle Willkens, Auburn University, and Jonathan Kewley, Historic Buildings and Monuments Commission for England, Co-Chairs

UAR: The (Architecture) Museum without Walls

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Abstract

On December 1st, 2009, the Netherlands Architecture Institute (NAi) announced the launch of UAR, or Urban Augmented Reality, a smartphone application providing information on architecture through a combination of different layers of information (text, images, video, and archival material) and three-dimensional architectural models based on a user's location in the real world (through the use of GPS). The NAi was nothing if not ambitious, as it intended "to make the Netherlands the first country in the world to have its entire architecture viewable on smartphones thanks to augmented reality."

But if the aggregation of archival information (from multiple sources) through physical location already indicated a complete restructuring of the architectural archive, the app's most remarkable feature was the creation of clear composite views of digital 3D models of demolished and unrealized buildings superimposed on a user's view of the real world. Effectively, this "normalized" view populated by past and unrealized buildings translated architectural history into spatial experience, so as to bridge the distance between archival material and architectural experience, a distance often unsurmountable to an uninitiated wide audience. Therefore, UAR not only made architecture history more available by placing the (Dutch) architectural archive in every smartphone user's pocket, but also more engaging by translating that archive into easily understandable views.

In order to broaden the audience for architectural history and architectural knowledge, UAR had to challenge their normative conventions and communicative limitations. It proposed a new discursive territory and provided an example of how the proliferation of digital tools is already allowing architecture museums to transcend their physical limitations and engage with an increasingly removed audience. Perhaps by necessity, more than ambition (as the NAi prepared for an extensive renovation to its galleries), by engaging an ever-expanding audience, the Dutch institute created an architecture museum without walls.

PS12 The Audience for Architectural History in the 21st Century
Danielle Willkens, Auburn University, and Jonathan Kewley, Historic Buildings and Monuments Commission for England, Co-Chairs

Real Visitors and Virtual Reality in Architecture Exhibitions

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Abstract

Advances in immersive and sensory technologies are creating new possibilities for experiencing and communicating architecture. We present findings from an ongoing study investigating the use of virtual reality technology in communicating a born digital work of architecture to visitors in a museum exhibition. The project is an interdisciplinary collaboration between a national architecture museum, university researchers, and a renowned architecture firm.

A series of experimental pop-up exhibitions displaying one specific architecture work by using virtual reality in conjunction with other sensory experiences including movement and sound are planned for the Fall of 2017. Data for the study include observations and interviews with target groups of visitors, and documentation and interviews from a design workshop that serves as the planning for the exhibitions. The goal of the study is to identify and articulate considerations from the disciplines architecture, architecture history, digital technology, museum- and visitor studies, and exhibition curation and design.

We distinguish between reading and experiencing architecture. Traditional architecture exhibitions displaying conventional representations of a vision or a real building like orthographic drawings, perspectives on paper, photographs and scale models provide visitors with an understanding based on reading. (Sauge 2003) Recently, 1:1 pieces of architecture have been displayed in several shows. CAD opens up even more possibilities to communicate architecture as immersive or sensory experiences in an exhibition context. The notion of architecture that is "born digital" is therefore central to this study. (Carpo, ed. 2013, Allen http://www.cca.qc.ca/en/issues/4/origins-of-the-digital) Of particular interest is the use of VR and the actual building, as the work is interpreted as part of contemporary architecture history described as sensory architecture by Pallasmaa (2005) and Zumthor (2006).

Studying architecture exhibition practices that communicate architecture to a broad audience are crucial also to the writing of architectural history, as we move forward in the 21st century.

PS13 Shaping Muslim Sacred Space in the Diaspora
Alisa Eimen, Minnesota State University, Mankato, Chair

A Mosque on the Prairie: The Al-Rashid and the Making of Mosque Architecture in Canada

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Abstract

During the height of the Depression on the Canadian Prairies, the Muslim community in Edmonton Alberta commissioned Ukrainian master builder Michael Drewoth to build a mosque. Its unique, church-like design, which showcased the amalgamation of the community's needs with those of the builder's skill and knowledge, would come to represent the hybrid nature of subsequent mosques in Canada. The early history of the Al-Rashid Mosque, like those of contemporary mosques in cities such as Toronto and Calgary, presents a much deeper history of Muslim settlement and arrival, one that is far less politically or socially polarized from Canada's imagined past. This paper examines the history of the Al-Rashid Mosque and its early community as well as the challenges Canadian mosque poses to a universalized Islamic architectural history. From its outward design, social history and geographic location, the Al-Rashid provides a clear example on where and how the North meets the East. Moreover, the mosque, like many other mosques across Canada provides a glimpse into the intersections of belonging, national histories and symbolism. Beyond the varied cultural visual forms used by the Al-Rashid, Canadian mosques also provide look into the ways in which Muslim identity is spatially constructed in North America and they challenge the presumption of a secular and 'raceless' urban landscape in countries with growing immigrant Muslims populations.

PS13 Shaping Muslim Sacred Space in the Diaspora
Alisa Eimen, Minnesota State University, Mankato, Chair

The Wonder of the Indian Mosque: A Diversity of Forms and Unity of Purpose

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Abstract

This paper argues that along with the practical requirements of Islamic spatial practices, sacred architecture in frontier territories like India was also informed by the aesthetic concept of *'aja'ib* or wonders. *'Aja'ib* first characterized amazing sites in travel narratives and subsequently migrated to the design of spatial forms. While many authors have argued that wonder and awe informed the production and reception of Islamic monuments in caliphal cities like Damascus and Baghdad, few have examined how this aesthetic spread to the edges of the *dar al Islam*, where it functioned to interlace the periphery with the center. Starting in the medieval period, Muslim rulers in India sought to adapt their land to the sacred Islamic landscape by incorporating the design principle of wonder into their architectural projects. As an aesthetic concept, wonder was able to accommodate two experiences at once: the security of the familiar (seen in the arch, dome, and mihrab) as well as the unexpected or uncanny, born out of the materials and novel decorative conventions of the local topography. From the first Islamic mosques built in India to present day developments, the aesthetic of wonder continues to be an organizing principle of design and preservation practices. Considering its integral function, the concept of *'aja'ib* needs to be part of a method to better understand the significance of mosques and sacred architecture in the diaspora, and to uncover the substrate that connects disparate regions and styles to a core set of Islamic architectural principles. I will support this proposal by looking at two case studies, the Jama Masjid complex of Fatehpur Sikri (1570), the Charminar (1591), and the Mecca Masjid (1620's) in Hyderabad.

PS13 Shaping Muslim Sacred Space in the Diaspora
Alisa Eimen, Minnesota State University, Mankato, Chair

The Rotating Sky: Wooden Domes and Sacred Space in China

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Abstract

In the prayer hall of the Hongshuiquan mosque (d. 18th cent.) in Qinghai Province, China, the room directly in front of the mihrab is topped by a one-of-its-kind ceiling dome. Nicknamed "*tianluosan*," or "celestial umbrella," the dome is said to have been originally designed as turnable. It is a complex woodwork taking the form of three concentric octagons interconnected with fan-shaped, widely splayed bracket sets and thin, interlaced wooden ribs. Below, miniaturized wooden doors and windows around the ceiling conjure up an image of the heavenly realm.

Wooden domes have been indispensable to all types of sacred space in China since at least the third century CE. Termed as *zaojing*, literally "water-weed well," the dome became avidly embraced for its loaded celestial symbolisms and quickly dominated the ceilings of throne rooms and worship halls, creating a "holy of holies" in palaces, Buddhist monasteries, Confucian temples, Daoist abbeys, and, of course, mosques.

The sanctification of space, however, was here maximized by the rotating mechanism or momentum—however imaginary--of the sacred center. Rotation animates and injects life force into space. In China, the rotating ceiling was often associated with *mingtang*–the legendary cosmic house and ritual seat of power for the Son of Heaven–where automated turning devices (armillary spheres) were reportedly installed in the ceiling. When the dome was not physically turning, it must effectively represent or evoke images of the rotating sky and all its dancing stars. It had to inspire visualization and contemplation, and more importantly to invite bodily participation in the endless celestial dance, a movement reenacted tirelessly in religious rituals of the world--the circumambulation of the Kaaba, of the lingam or stupa; the turning of the prayer wheel or sutra repository in China, Tibet, and Japan; and the seasonal migration of the imperial seat in the *mingtang*.

PS13 Shaping Muslim Sacred Space in the Diaspora
Alisa Eimen, Minnesota State University, Mankato, Chair

"Get out of my country!" Gurdwaras, Mosques, and Temples as Targets of Hate Violence

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Abstract

"What makes a space sacred?" To address this question, this paper looks to the post-industrial spaces of the American Midwest and the agro-industrial spaces of the American West. It examines the Muslim community in Hamtramck in the Detroit suburbs and the Sikh community in El Centro in the Imperial Valley of California. In trying to answer what makes a space sacred, this paper looks at similarities and differences in the placemaking strategies used by these respective communities. In particular, it examines how these two small communities, geographically separated as they are from their much larger counterparts (i.e. the Arab community in Dearborn, Michigan, and the Punjabi community in Fresno and Yuba City, California), are navigating the current social and political climate.

Among other "post-" moments, the post-2016 presidential election period in America has resulted in extreme hostility towards Muslims and Sikhs. While being situated amidst densely Muslim- and Sikh-populated areas (ex: Dearborn, Fresno, and Yuba City) accords these communities some comfort in numbers, the situation is starkly different for much smaller Muslim and Sikh community locations like Hamtramck and El Centro. Tracing the lineage settlement in each city and community, this paper examines how, through sacred space, Muslims in Hamtramck and Sikhs in El Centro partake in placemaking, declare ethno-national identities, contest mainstream media narratives that reproduce Islamophobic rhetoric, and challenge homogenizing notions of ethnic identities.

In addition to addressing what makes a space sacred, a parallel question this paper addresses is how hate speech (racist graffiti painted on mosques, temples, and gurdwaras, for example) operates as a desecrating mechanism. How do hate crimes-affected communities recuperate and reestablish the sacred after their religious space has been violated? Can the sacred ever really be violated? How do the specificities of the built environment facilitate the (re)making of sacred space?

PS13 Shaping Muslim Sacred Space in the Diaspora
Alisa Eimen, Minnesota State University, Mankato, Chair

Masjid Al-Taqwa: The Shaping of Muslim Sacred Space in Florence

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Abstract

Around Italy, Muslims have been adapting different spaces, turning garages, basements, and shops into local mosques. Masjid Al-Taqwa is an old shop in the center of Florence that was turned into a prayer hall. Today it functions as an Islamic center and the main mosque in Florence. Many efforts have been made to find a new location to host the growing Muslim population of the city. Building a new monumental mosque, moving the mosque to another existing building, and other different solutions were proposed, in some cases approved, and then stopped. These efforts have caused a controversy in Florence specifically and in Italy in general where similar efforts have been made in different cities. This ongoing debate about mosques in Italy raises some important questions. What is a mosque? What makes a space sacred? What is a suitable place for Islamic worship in the Italian landscape? And how can mosques affect the integration of Muslim minorities? By drawing on the work of Henri Lefebvre on the social production of space and on theories from religious studies on the production of religious and sacred spaces, this paper offers a theoretical framework to approach these questions. It argues that while specific architectural elements can have a harmful impact on Muslim minorities by drawing negative attention, in the case of Florence, a physical space of a mosque that facilitates the production of sacred space and provides a degree of visibility and a sense of identity is essential for the integration of Muslims in the city. With the rapid growth in Muslims communities in Europe, the case of the Masjid Al-Taqwa can help shed the light on similar cases around Italy and Europe in general.

PS14 Burnt Clay, Cross-Cultural Experiences
Changxue Shu, KU Leuven / University of Leuven, and Fernando Martínez Nespral, University of Buenos Aires, Co-Chairs

Solano Benítez: New Uses for Old Brick

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Abstract

Paraguay, ancient land of Guaraní Indians, is an "island without sea"[1] in the middle of Latin America. Its population, mostly composed by the mixture of Indians and Spanish, is just over 6.7 million inhabitants – about half of them live in rural areas and almost one third in extreme poverty. When it comes to architecture, at the "end of the world"[2] there is no tradition, no *modus operandi* established by a school of architecture. So there are no written standards imposed for current production, Paraguayan architects are allowed to freely interpret architecture, while taking into consideration the budget constraints. This resulted in the emergence, in the last twenty years, of a significant amount of high quality architectural works, based on experimental operations, of which Solano Benítez's are precursors. Benítez graduated in architecture in the late 1980s and since then is head of the *Gabinete de Arquitectura*. The international recognition that Benítez has been receiving is largely due to the unique and unusual way in which he handles the ceramic brick. In his most recent works, Benítez has used brick as a permanent form for reinforced concrete – like the Roman *opus testaceum* walls – in planar trusses and space frames structures. This article intends to analyze how Benítez achieved, with a secular, cheap and accessible building material as the brick, in a Roman primitive way of doing and with a twentieth century technology, to change the architectural scene and built environment of Paraguay, putting the country on the map of world architecture.

1 "La isla sin mar", novel by Paraguayan author Juan Bautista Rivola Matto, 1987.

2 "Un fin del Mundo", article by Paraguayan architect Javier Corvalán, 2013.

PS14 Burnt Clay, Cross-Cultural Experiences
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Bonet to Dieste: Transatlantic Dialogues on the Tile Vault

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Abstract

The use of the vaulted ceiling dates to Imperial Rome times. This construction method is found throughout the Mediterranean area, but specially it is a traditional form in Catalonia (Spain). In fact, it is also called 'Catalan vault'. This technique has spread all over the world through the work of renowned Spanish architects such as Antoni Gaudí or Rafael Guastavino, who was the first one to 'export' it to America.

Antonio Bonet was born in Barcelona five years after Guastavino's death. In 1935, he began to work with José Luis Sert and José Torres Clavé (who were building the Garraf Weekend Houses) and one year after he moved to Paris, where he worked for Le Corbusier (who had just built the Petite Maison de Weekend). When Spanish Civil War broke out, Bonet emigrated to Rio de la Plata, where he began to employ Catalan vaults in his projects: first in Buenos Aires (Suipacha Building, Four Houses in Martínez) and then in the Uruguayan coast (Berlingieri House). While seeking local assistance on a structural problem posed by the tile vaulting for this house, Bonet met the young engineer Eladio Dieste, who suggested the thin brick vaults to be reinforced to work as shell structures. This was the Dieste's first application for reinforced brick.

This paper aims to show that, with the Berlingieri House, Bonet and Dieste introduced the 'reinforced ceramic' in South America. They didn't agree with each other on many issues, and Catalan vaulting is not exactly reinforced ceramic, but thanks to them a new way to build – based in Mediterranean constructive techniques – was instituted in America. Its immediate success in the continent was due to the particular circumstances of the region, as the economy of the material or its seismic resistance.

PS14 Burnt Clay, Cross-Cultural Experiences
Changxue Shu, KU Leuven / University of Leuven, and Fernando Martínez Nespral, University of
Buenos Aires, Co-Chairs

Ceramic Tiles of Carloforte (Sardinia): Cultural Contaminations

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Abstract

The tiles used in the building tradition of the colony of Genoese origin (Island of San Pietro,
Sardinia, Italy) up to the 1950s testify to the historical, geographical and historical vicissitudes
of *Carloforte's* culture. The clay tiles enameled with geometric and floral designs (similar in
several respects to Spanish Mudejar tiles) are a peculiar feature of this small urban center,
absent in the rest of Sardinia. The small island of San Pietro borrowed the styles and
construction techniques of the various places of origin of the Genoese settlers who sailed and
traded between Spain, Italy and the African coast. Before settling on the Island of San Pietro,
these settlers lived on the Tunisian island of Tabarka. The paper first reconstructs the origins of
this finishing material through a re-elaboration of unpublished historical archive records that
testify to its production and techniques, as well as to the origins of the workers who
manufactured the tiles, highlighting its relationship with the geographical contaminations
amongthe different cultures which the Carloforte people came into contact with from the end
of the 18th century through the 19th. The second part describes the current distribution of the
material on the island, in both the town and the vineyards, typical garrison systems scattered
throughout its rural areas.

PS14 Burnt Clay, Cross-Cultural Experiences
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Italian Form, Color and Technique in Modern Chilean Architecture: Gres IRMIR

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Abstract

This presentation will analyze the contribution to the Chilean architecture that, for more than 20 years, the IRMIR vitrified ceramic factory founded in Santiago in the middle of the 1950s by the Italian Gaston Marsanich and whose production granted chromatic and multiform characteristics in different buildings under the language of modernity, whether through stoneware, tiles, or simply using a mesh with minimal modules, the mosaics materialized the Bauhaus ideas in public as private works and manifest -even today- the persistence of their identity accentuating the form, the color and the modern technique together with the architecture.

PS14 Burnt Clay, Cross-Cultural Experiences
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Brick: A Majestic Building Block and Foundation of Industries

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Abstract

This paper is to open the dialog for the lowly brick as a symbol of wealth and power. Historically stone, especially marble and granite, was considered the appropriate materials for important structures. This mindset is rooted in Roman (i.e., Vitruvius) and Renaissance architectural treatises (i.e., Alberti). In contrast, brick for centuries was considered a utilitarian material, used primarily for construction components, dwellings, and other vernacular structures. When considering Architecture with a capital "A", even elegant Dutch gables were thought less impressive than a Greek Revival portico. Compared to old money or inherited wealth, money made through industrialization and trade (from factories and factory goods) was considered new wealth, tawdry, and thus not equal in status. However, with time, not only the wealth of individuals but the wealth of nations became dependent on the industrialization of the economy with the factory as the primary location of production. With closer examination, brick has a noble history, including sturdy Roman segmental arches, the Wren wing at Hampton Court Palace, Jefferson's UVA Rotunda, Bulfinch's Massachusetts State House, and the great educational experiments of England's "Redbrick" universities. From the immense brick spinning mills of the English Midlands to the mid-19th Century red brick textile mills in New England in the U. S., factories stand as monuments to the growing wealth of manufacturers and tradesmen. This elevation of brick to a noble material is further supported by the Italianate factory structures build in the post-Civil War South and the multi-hundred square foot textile mills of the 1960s, built by such textile giants as the Hanes Corporation. These factories fueled the rise of the New South as an industrial force not only in the United States but as a world power. Based on this evidence, the importance of brick should be reconsidered.

PS15 Causes for Admiration: Objective Beauty in Architecture
Maarten Delbeke, ETH Zürich, and Nele De Raedt, Ghent University, Co-Chairs

Ugly Transgressions: On the Objective Animism in Henry van de Velde's Notion of 'Beauty'

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Abstract

A well-known pioneer of modern architecture, the Belgian architect Henry van de Velde appears as particularly controversial when it comes to a critical theory of aesthetics. This fact is augmented by the lack of a comprehensive doctrine on his part and censures against his elusive language on part of his critiques. Consequently, his theoretical writings have been sidelined in favor of more forceful proclamations in modern aesthetics.

Assuming the notion of 'beauty' as a continuous red thread in his oeuvre, this essay highlights van de Velde's selective interpretation of classical notions of beauty. Tracing its origins to Viollet-le-Duc's rationalist tendencies fused with moral languages of Ruskin and Morris, the paper reads van de Velde's strive for a tense interplay between expressive forces of individuality and logical derivatives of function and abstraction as an attempt to justify a 'genuine', modern relation to antiquity. Philosophical dispositions by the likes of Nietzsche and Schopenhauer and perceptual theories of Fechner and Souriau provide further sources of inspiration to relativize the absoluteness in beauty, resulting in a synthesized and mediated notion of an 'intellectual sensibility'. Disciplined by preciseness of metrics and rhythms, perceptual parameters of architecture and its sensual animism were indispensable complements to trans-personal and ahistorical tenets of architectural receptivity.

Through a close study of his writings, I argue that solidifying these antagonistic forces was key to reach the eternal values of 'pure' forms, which would fend off the mundaneness of an objective formalism in 'types', and the arbitrary chaos lurking in historical inferences and emotional whim. By locating eternal beauty- not in classical forms - but in classicist principles evident in Greek antiquity and origins of human nature, he used rationality as an anthropological constant that could shield aesthetics from transgressions against the 'truth' and 'expressive reality' of modern life.

PS15 Causes for Admiration: Objective Beauty in Architecture
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Post-Perraultist Reflection in Italy: The Absolute Beauty of Proportion in the Eye of the Beholder

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Abstract

Contemporary scholarship traditionally counterposes two modes of thinking about proportion: the Neoplatonist "meta-mathematical" model of the Renaissance and a more modern relativist approach. This dichotomy originated in the analysis of Blondel-Perrault polemics pursued by 20th-century scholars. However, recent research by Antony Gerbino shows that Blondel's mathematical approach should be conceived of as modern in a different way than Perrault's, rather than merely retrograde and Neoplatonist. Here I propose to advance this line of analysis one step further by arguing that the polemics in question generated a broad spectrum of reflection on proportion instead of a simple dichotomy of fixed positions. While French architectural theory of the 18th century did primarily quote and reiterate the arguments of the two sides in the Blondel-Perrault debate, Italian discourse offered a significantly richer perspective on the topic. Italian critics of Perrault who regarded the beauty of proportion as absolute based their arguments on an analysis of the beholder's experience rather than on the *harmonia mundi* approach, and on a Euclidean rather than Vitruvian substrate. This paper will analyze and compare the writings of Guarino Guarini and Tommaso Temanza and consider the contrast between the schools of Jacopo Riccati and Andrea Musalo. This new approach will reveal the Cartesian perspective on architecture as an alternative to Perraultist relativism.

PS15 Causes for Admiration: Objective Beauty in Architecture
Maarten Delbeke, ETH Zürich, and Nele De Raedt, Ghent University, Co-Chairs

Perrault's Reasonable Brute and the Positive Effect of Proportion

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Abstract

Claude Perrault's assertion that the beautiful effect of architectural proportion may partly be arbitrarily based upon custom is well known, although the interpretations of its subjective connotations vary considerably. Perrault's idea of positive proportion has hardly received attention as it is generally presumed to be logically related to common, universal and objective knowledge. However, as explicated by recent studies from history of science, these terms which today all fit under the umbrella of objectivity, belonged to distinct ethical, ontological and epistemological realms well into the nineteenth century. At the time of Perrault's writing, the notions of objectivity and subjectivity were in the process of shifting from their scholastic ontological categories, where 'objective' pertained chiefly to objects of thought and 'subjective' to things by and through themselves, into their reversed modern epistemological categories. This paper would like to argue that Perrault's conception of positive proportion, as well as its arbitrary correlate, are elusively related to both modern and ancient notions of objectivity and subjectivity. As a result, Perrault's theory is contradictory from todays perspective: like its arbitrary counterpart, positive beauty also only exists as an effect in the mind, custom based taste may be given a positive foundation, and the unlearned public appears to be knowledgeable and capable of judgements. Perrault's conflation of the objective and the subjective much better equipped his theory for differentiating amongst people as well as buildings than the more mathematical approaches of his opponents François Blondel and the 'Cartesian Sect'. It was especially well suited for emphasizing the indispensable position of the savant who alone, through his particular intellectual faculty, was able to understand the general causes underlying specific practices, but whose achievements could still be well known by all people alike, albeit only in their imagination.

PS15 Causes for Admiration: Objective Beauty in Architecture
Maarten Delbeke, ETH Zürich, and Nele De Raedt, Ghent University, Co-Chairs

Age as Quality: Historical Admiration and Nationalism

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Abstract

In the work of various mid-eighteenth-century architectural writers in Europe, we find a special interest in the temporal qualities of buildings, which influences architectural admiration and critical judgment. Historiography has always had a strong interest in the early modern study of ancient monuments and ruins. It supports narratives explaining the quest for the origins of architecture, cravings for the primitive, ways to uncover universal rules of beauty and good architecture, or attempts to free architecture from classicist doctrine and start its ascend towards 20th-century Modernism. Yet, these interpretations have failed to acknowledge that age itself was increasingly valued as a crucial element to be admired in architecture, not because it was related to specific notions or ideas within architectural discourse, but because it could be the object of a historical sensation, able to promote an architecture 'bound to please everyone'. This growing interest in the historical imagination was stimulated by discussions in aesthetics and taste of the time, such as the picturesque and the sublime, and even more so in contemporary thought in psychology, in theories of visual perception and imagination, and acquired urgency within a political context. Admired architecture had the power to foster collective memory. The fact that age itself could be presented as a positive, meaningful and important value that could be attached to ruins, existing and new buildings, is acknowledged in contemporary treatises, and occupies a special place in the work of the most prolific architectural writer of the eighteenth century, Jacques-François Blondel, whose writings are still suffering from positivist historiography and often characterized as 'conservative'. Rather than reach only an elite with a taste for architecture, historical admiration could attract a wider audience, a people or a nation, and relate specific buildings to important past events and political ideas.

PS15 Causes for Admiration: Objective Beauty in Architecture
Maarten Delbeke, ETH Zürich, and Nele De Raedt, Ghent University, Co-Chairs

Between Taste and National Duty: On the Utility of Beauty in Meiji Japanese Architecture

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Abstract

After the Meiji Restoration in 1868, the parameters of what constituted Japanese architectural beauty changed dramatically. A new aesthetic vocabulary of European terms was imported, translated and adopted by a pioneering class of architects to fit the needs of a rapidly modernizing nation eager to establish itself as an international power. The meaning of words like aesthetics (*bigaku*), art (*bijutsu*), architecture (*zōka/kenchiku*) and even beauty (*bi*) were all caught at an intersection between European verisimilitude and domestic re-invention. In this paper I look closely at the translation of European ideas of architectural beauty to emphasize the construction of the idea in Japan as a dually subjective experience and objective force of ideological transformation.

Refracted through a political milieu soaked with nationalist rhetoric, beauty was construed as both a matter of personal "taste" and "duty" to the nation. To experience beauty was at once a subjective process based on physiognomic response, psychological conditioning and historical knowledge, and a practice of dissolving one's individuality in order to commune with the national body and its noble imperial lineage. In this paper I show how architects worked with the government to leverage architectural beauty as a means to promote a personal experience with new bureaucratic and religious architecture being built on the mainland and in colonial territories. I argue that the idea of objective architectural beauty was reciprocal to an imperial project of legitimating Japanese history on an international scale and expanding the possibilities of where this new beautiful architecture could be built.

PS16 Architectures of Finance: Commodities, Securities, and Urban Space
Gretta Tritch Roman, Bard College, and Aaron Shkuda, Princeton University, Co-Chairs

Design of a Free Market: Regulating Hong Kong's Stock Exchange

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Abstract

Seated aboard a Hong Kong harbour ferry in his 1980 PBS special, *Free to Choose*, Milton Friedman proclaimed, "If you want to see how the free market really works, this is the place to come!" Yet the reality of Hong Kong's market stood in marked difference from Friedman's neoclassical economic ideal. The same year the special aired, Hong Kong's Legislative Council passed the Stock Exchange Unification Ordinance. The ordinance included financial regulations to restructure the colony's four separate stock exchanges—culminating in the 1986 opening of a newly unified, and greatly expanded, Hong Kong Stock Exchange (HKEx). Then in 1993, due to post-Mao economic reform, companies from China (including State-owned enterprises) began trading shares on the HKEx for the first time internationally. This paper examines the material history of the restructuring of the HKEx within the context of its trading hall in Exchange Square, a 3.4 million-square-foot office development in Hong Kong's financial district. Primary sources from archives of the government, developer, engineers, architects and HKEx demonstrate how the architecture of Exchange Square included cutting-edge telecommunication and construction technologies to accommodate the expanded trading, which resulted directly from these financial regulations. Digital innovations included new computer terminals, shared data-processing, and the fastest telecommunication cables available. Tectonic features included a complex beam system for the giant column-free span, and measures to isolate the hall structurally from the sway of the attached office towers. Focusing on these details within the HKEx's trading hall—until now, a space overlooked in historical studies—shows how government regulations were pivotal in shaping Hong Kong's free market in the late-twentieth century.

PS16 Architectures of Finance: Commodities, Securities, and Urban Space
Gretta Tritch Roman, Bard College, and Aaron Shkuda, Princeton University, Co-Chairs

Enclosure and Internality at the Willis, Faber & Dumas Headquarters

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Abstract

In 1975, a new headquarters was established in Ipswich, England for the preeminent British insurance brokerage Willis, Faber & Dumas, which underwrote global ventures related to construction, energy, and aerospace technologies, and also traded in more convoluted processes of mutualized risk management. Quite consciously situated outside the country's teeming financial center in the City of London, the new low-profile glass-skinned headquarters building also turned inwards against its immediate surrounds in the Suffolk market town. Designed by Foster Associates, the building's deep-plan, fully air-conditioned interior presented a paradigm of productive space that combined principles of spatial flexibility in landscape office planning, techniques of environmental management, and the insertion of amenities intended to gratify the workforce.

There was a paradox between the cool world of financial services and the building's pleasurable interior; cut off from the city at large, this space was intended to enhance communication, social relations, and worker comfort in the service of company operations. At the same time, the tranquil air of this self-contained social sphere counterposed the externalities of widespread social and political instability in the United Kingdom during the period. Inflation, unemployment, labor strikes and energy shortages—which led to the declaration of a national state of emergency during the headquarters' construction—precipitated a general climate of discontent. The building employed various globalized techniques of production, assembly, and management to generate a form of enclosure that through its pristine material composition and its highly regulated interior environment precisely repelled the disarray in domestic circumstances beyond its sleek, reflective glass walls. Turning its back on the city to create a clean, bright, alternative domain, the headquarters was a local instantiation of the increasingly prevalent severance of the space of financial interest from the public realm in sites worldwide.

PS16 Architectures of Finance: Commodities, Securities, and Urban Space
Gretta Tritch Roman, Bard College, and Aaron Shkuda, Princeton University, Co-Chairs

REITs: The Financialization of Architectural Production

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Abstract

Scholars have identified a process of financialization in the global economy that is defined either by scale (sector, firm, household), or by transitions to finance-centered strategies in firms, or by an increase in rhetoric around shareholder value. Financialization, in these analyses, is best understood by putting finance at the center of a political economy lens. Real estate was drawn into the financialization of the economy in large part through a device known as a Real Estate Investment Trust (REIT), created in 1960 in part to make investing in real estate more like investing in the stock market. Beyond the simple financialization of the economy that real estate participated in, the REIT also allowed for securitization (a concept best known through mortgage-backed securities). Risk is divided over a group of properties, to a group of investors. Syndicates, trusts, and REITs represent a phase of financing for construction and buildings that scholars have yet to unpack. This paper looks to position these devices in both the context of the history of finance and of architecture and urban space to understand the relationship between architecture and finance. Did the REIT produce a new kind of client? A new kind of city?

During the years of U.S. federal urban renewal that followed World War II, life insurance companies invested in new construction projects in American downtowns. In studying this, scholars have looked at the urban and architectural results of changes in financing. The REIT, as a new financing device, opens up an accompanying set of questions. What impact did REITs have on buildings and urban space? What special interests did REIT managers bring to a building or neighborhood? What did the REIT do to the cultural economy of real estate investing in the 1970s and 1980s?

PS16 Architectures of Finance: Commodities, Securities, and Urban Space
Gretta Tritch Roman, Bard College, and Aaron Shkuda, Princeton University, Co-Chairs

Consolidating Capital: Otlet, Corbusier, and the Cité Mondiale

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Abstract

It is well known that cities played an active role in absorbing and managing surplus in the long 19th century—a period of capitalist expansion underwritten by imperialism. Less well understood is the salience of the city in elaborating theories of the death of capitalism during the interwar period. Focusing on the *Cité Mondiale* proposed by the Belgian pacifist Paul Otlet in partnership with Le Corbusier between 1927 and 1933, this paper argues that the creation of new forms of negotiable debt to privately finance the development of garden suburbs after 1919 had the ironic effect of conjuring an alternative to capitalism. In place of capitalism, which was prone to overproduction as a result of the capitalist's perpetual search for profits, Otlet imagined that production and consumption could be regulated by the agency of finance capital. He saw private borrowing, particularly from foreign creditors, as having a disciplining effect on producers and consumers, ridding them of the baser appetites and irrational drives that fuelled capitalism, thus allowing for a new mode of production to take hold. Spatially, this was to be achieved by laying out a garden suburb on the periphery of the *Cité Mondiale*, creating a source of municipal revenue to back bonds sold to national governments and private investors. Examining the configuration of the Cité Mondiale as a promissory note, this paper exposes how Otlet anchored the financialization of the globe in the fiscalization of land, and provides a new genealogy for the hegemony of global finance.

PS16 Architectures of Finance: Commodities, Securities, and Urban Space
Gretta Tritch Roman, Bard College, and Aaron Shkuda, Princeton University, Co-Chairs

Beyond the Bank: Architecture, Infrastructure, and Financial Networks

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Abstract

In the last hundred years the architecture of finance has taken on a distinctive form: the banking network. Shaped by advances in communication technology, financial space has shifted from a series of fixed, local points to a network that transcends time and space. It is physically anchored by buildings and linked by webs of wires. The network is both rooted and dynamic, simultaneously material and virtual. In this paper, I argue for analysis of the architecture of finance, not through individual structures or even districts, but as larger designed networks. My focus is on the origins of the central banking systems in the United States.

In the late-nineteenth and early-twentieth centuries the economic geography of the United States underwent fundamental transformation through westward expansion and urbanization. The flow of capital across great distances was essential to commerce, manufacturing, agriculture, and extraction. In response bankers in large cities established clearing-houses and correspondent relationships to stitch local bankers and businessmen into the larger, central systems of exchange and credit. By 1914 these private arrangements were replaced by the Federal Reserve System, which distributed linked branches across the nation to centralize and rationalize capital flows.

This centralization was possible because of the new transportation and communication infrastructure: railroads and telegraphic wire services. My presentation will analyze the material and virtual elements that linked banking centers to each other and to thousands of points in between. This includes the special cars and equipment of the Railway Mail service, the architecture and design of the telegraphic system, plans of clearing-houses, and the integration of new technologies into bank buildings. Such back-office infrastructure was a fundamental component of the networked architecture of finance then, as it is now.

PS17 Climatic Landscapes
Jacob Boswell, The Ohio State University, Chair

"In the burning East": Climate, Acclimatization and Locality in the Israeli Landscape

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Abstract

Most of the European-trained landscape gardeners practicing in Palestine in the early twentieth century adopted the commonly held perception of the existing landscape as depleted and barren. It was considered a *tabula rasa* on which the new Zionist homeland would be designed. While aspects of local culture were selectively appropriated in the making of the new Hebrew culture, native plants hardly figured in the newly planted landscapes. The predominant use of acclimatized non-native plants reflected the prevailing ethos of "something from nothing" that defined the modernist project of Zionism, a project of national renewal.

This paper will examine the emergence of an alternative discourse of locality in Israel, based on an appreciation of the local climate and the native plants communities that it supports. As landscape architect and native plants advocate Hanka Huppert-Kurz wrote: "You will often hear that our gardens are nothing but imitations of gardens abroad, and not based on a style that has emerged from our own landscape, from our climate or our soil…Climate is critical to the creation of the garden… that is what infuses the garden style with life and character." (1951, 74).

I will discuss perceptions of locality in the development of Israeli landscape design based on ideas of climate and planting, as expressed in the professional gardening literature from the 1940s and 1950s. The role of climate will be analyzed along with the concept of acclimatization, which according to historian Michael Osborne, is the paradigm of colonial science.   The ambivalent relationship to climate was a critical aspect of designing the landscape in order to generate a sense of belonging. As author Abraham Broides wrote: "We are strangers to our landscape . . . in spite of our life here in the burning East, it is still a foreign land in our eyes…"

PS17 Climatic Landscapes
Jacob Boswell, The Ohio State University, Chair

Public Health, Miasma, and the Transformation of Urban Landscapes

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Abstract

George E. Waring, Jr. published an influential manual in 1867 entitled *Draining for Profit, Draining for Health*, reflecting three obsessions of the gilded age—wealth, health, and miasma. Waring, appointed by Frederick Law Olmsted as superintendent of drainage for New York's Central Park, supported the long-held miasma theory, insisting that source of disease was connected to the environment and spread through the air as a poisonous vapor, emerging from rotting organic matter or damp soil. By the 1880s, the new contagionist theory of the germ was gaining support in Europe, yet Waring remained a lifelong miasmist in the United States. He applied his technical knowledge of farm drainage to an urban theory of public sanitation, beginning with the 1856 drainage plan for Central Park, continuing with sanitation studies for Memphis and Havana, and culminating as commissioner of the Department of Street Cleaning in New York City. Waring's mechanistic battle against miasma sought to modify the climate— and thereby improve public health—through a significant transformation of the urban landscape. Though Waring conducted his work on scientifically unsound precepts, his conclusions were unexpectedly successful. Given the miasmists' interest in urban disease transfer, particularly the spread of cholera and yellow fever, Waring's emphasis on the sanitation of the physical environment and the reduction of standing water, which in turn destroyed the habitat of mosquito larvae, led him to fail brilliantly. An important but unsung hero of urban environmental history, Waring's emphasis on the physical environment is worth reassessing in light of current public health issues arising from the impact of climate change and the rise of vector-driven diseases such as Zika and dengue. Waring's environmental emphasis on clean water, air, and soil reflects a contemporary vision of improving public health by reducing human impacts on the atmosphere, water quality, and the climate.

PS17 Climatic Landscapes
Jacob Boswell, The Ohio State University, Chair

Unnatural Sunlight: Projects of the Early Anthropocene

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Abstract

This paper confronts historical practices of redirecting natural sunlight at environment scales to create unnatural climatic conditions. While the redirection of sunlight is at least as old as recorded history, projects at the climatic scale are increasingly common in the Anthropocene, and historical accounts of early Anthropocene endeavors help to lay bare the roots of current environmental discourses. The paper includes two case studies that address two primary categories of practice: illumination for agricultural purposes and illumination for public health and safety purposes. The Znamya satellite projects were designed to lengthen daylight hours in agricultural areas of the Soviet Union by reflecting sunlight from space at an intensity equal to that of several moons. The four-phase project began in the 1980s and was tested (both successfully and unsuccessfully) in the 1990s. The discourse surrounding Znamya is separable from the rhetorics of the Cold War, but the fall of the Soviet Union led to a rebranding of its significance in a new era. The Solspeil installation above Rjukan, Norway, was designed to illuminate the center of a town hastily planned without regard to its exposure to direct sunlight. Sam Eyde, a pioneer in hydroelectric engineering, founded the town in 1909 and shortly thereafter envisioned the lighting of its center with mirrors installed on surrounding mountains. Before his idea was finally realized in 2013, its meaning and purpose underwent various reinterpretations, through discourses rooted in economic impact, phenomenology, and environmentalism, among others. Today, emerging practices of redirecting sunlight, such as underground farming and the policing of dense and dimly lit urban fabrics in developing nations, may be read as descendants of Znamya and Solspeil, and the paper frames its analyses of the precedents through the lens of the Anthropocene in order to foreground their acute relevance to new frontiers in agriculture and public welfare.

PS17 Climatic Landscapes
Jacob Boswell, The Ohio State University, Chair

Modernism's Politics of Land and the "Cult of the Colossal"

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Abstract

At the 1930 World Energy Conference in Berlin, the German architect Herman Sörgel exhibited his vision for *Atlantropa*—a transcontinental hydroelectric network (and new double continent) that tethered strategic territories in Africa and the Middle East to the industrial centers of Central Europe. Sörgel proposed sealing the Strait of Gibraltar with an enormous dam, the center of a system of subsidiary dams and power plants that stretched from the Dardanelles east to the Ural Mountains, down the Arabian Peninsula and encircled the African continent. Gibraltar was *Atlantropa*'s geographical origin point and the nucleus of its climatological machinery. Once separated from the surging force of the Atlantic, Sörgel claimed, the water levels of the Mediterranean Sea would decrease, and immense new areas of arable land would appear along the changing coastal territories, reserved for European settlement. This paper will argue that Sörgel's 20-year *Atlantropa* project exemplifies an under-explored genre of modern architectural thought, shaped, epistemologically, by its environmental techniques and politics of land. The project illustrates an emerging discourse of climatological "world building," focused on resources and framed by discussions of risk and remainderlessness (*Restlosigkeit*), that developed in the early decades of the twentieth century among architects and engineers who saw themselves as intervention-oriented planners operating on a colossal scale. This discourse was marked by a shift in modern colonial practice, distinguished by a common European ideology of development vis-à-vis infrastructural modernization—the making of vast new habitat. Sörgel's proposal bore witness to this shift in all its media-technological modalities, it provided both a blueprint and a technical apparatus for patrimonial intervention— climatological, topographical, biopolitical—and loomed large in the imaginations of postwar planners. *Atlantropa*, this paper concludes, frames a trend in modern architectural thought premised, in the words of Markus Krajewski, on the technocratic "colonization of the environmental remainder."

PS17 Climatic Landscapes
Jacob Boswell, The Ohio State University, Chair

Climatic Forestry in the Great Plains

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Abstract

The American Great Plains is classified as a semiarid climate in which annual rainfall varies significantly, resulting in cycles of drought. Widely variable weather patterns are part of life on the Plains and served as the basis for much of Plains folklore on rainmaking. The region has a history of weather and climate modification programs based on landscape modifications and at the end of the nineteenth century plant-climate narratives centered on planting trees to improve the climate by increasing rainfall. Supportive arguments linking tree planting with increased rain appeared in the writings of landscape architect Frederick Law Olmsted and Ferdinand Hayden as early as the 1850s. The U.S. Forest Service further supported theories that the Plains were dry because they were treeless and advocated for government funding for tree planting. In 1902, Charles Bessey, Dean of the Industrial College at the University of Nebraska aided by U.S. Forest Service Chief B.E. Fernow built the first federal tree nursery in the Nebraska Sandhills and began planting a forest in the surrounding grasslands. The forest was constructed not only to ameliorate the climate, but to produce timber and attract settlers to the area. The massive afforestation efforts at the Nebraska National Forest were anticipated in the writings of the landscape architect Horace Cleveland in his book *Landscape Architecture As Applied to the Wants of the West* (1873), which set forth a broad scope for the discipline of landscape architecture, including the area of forestry. A closer examination of Cleveland's forestry writing reveals his beliefs on the reciprocal and synoptic relationships between landscape features, weather, and climate. Over the course of a century the Nebraska National Forest has evolved from a landscape designed as a weather and climate modification program to a forest shaped by ecological process, blurring the boundaries between nature and culture.

PS18 Modern Architecture and the Rise of the New South
Lee E. Gray, University of North Carolina at Charlotte, and Virginia Price, Independent Scholar, Co-Chairs

Race, Larry Halprin, and the Retreat from Modernism in Atlanta

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Abstract

As the South metropolitanized after WWII, cities like Atlanta attracted millions of new residents and huge amounts of new investment from around the United States and beyond. As part of this process, the city, belatedly, embraced Modernism. Well into the 1950s, revival styles had remained the norm in architecture and urbanism; now came projects like Tooms, Amisano, and Wells's Lenox Square (1959) and John Portman's Peachtree Center (1961–), whose designs seemed to support Mayor Hartsfield's 1960 claim that Atlanta was "too busy making progress to tear itself apart in bitter hatreds."

The city, however, *was* divided. And the Civil Rights movement gained traction, I argue, Modernism—with its symbolic transparency and connotations of technical and, by extension, social progress—quickly fell out of favor, limited by the 1970s to sites in the national or international public eye like Peachtree Center and Richard Meier's High Museum (1983).

This paper uses original archival and visual evidence to explore this racialized retreat through the example of Atlanta's rapidly growing multifamily housing sector, with focus on the evolution and impact of Lawrence Halprin's Riverbend Club Apartments (1972).

Riverbend was a large-scale complex developed in part by Dallas's Trammell Crow beginning in 1966 to accommodate Atlanta's burgeoning ranks of young, white-collar transplants. To appeal to this group, Crow broke from the area's conservative norms, hiring the Bay Area's Halprin, with his national reputation for "environment architecture," for the site plan, and Atlanta Modernists Tooms, Amisano, and Wells for the buildings.

While under construction, however, racial fear compromised the design. Two race riots and the federal Fair Housing Act of 1968 prompted dramatic alterations, including dismissal of Amisano. While these changes led Halprin to disavow the complex, they ensured it enviable popular and financial success, establishing Riverbend as the region's standard for multifamily design for decades.

PS18 Modern Architecture and the Rise of the New South
Lee E. Gray, University of North Carolina at Charlotte, and Virginia Price, Independent Scholar, Co-Chairs

Race, Modernism and Architectural Identity at Virginia Union University

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Abstract

On the campus of the historically African-American Virginia Union University in Richmond, Virginia, stands the Belgian Building, the last remaining structure from the 1939 World's Fair. Designed by a group of Belgian architects under the direction of Henry van de Velde, and a landmark of Modernist architecture and engineering in the United States, it remains largely absent from the architectural literature. Likewise, Virginia Union's growth, from a single-building school for the education of former slaves into an accredited college with a campus graced by imposing Romanesque buildings, is largely unknown outside of the region. Both the Belgian Building and Virginia Union represent their own stories of race and survival. The Belgian Building – a large-scale prefabricated structure – was to be dismantled and returned to Belgium for reuse, but the Nazi invasion of central Europe made that impossible. For its part, Virginia Union has survived a host of race-related impediments, from post-Civil War resentments to Jim Crow laws to the current financial challenges faced by historically black colleges and universities across the United States.

Both the survival of the Belgian Building and its relationship to its current home, Virginia Union University, raise a series of questions. How does a frankly Modernist building fit into a campus, as well as a city, that prizes traditional architecture? How does a building that celebrates the European colonization and exploitation of an African country find a home with a historically black college created at the end of the Civil War and whose students were in the vanguard of the Civil Rights movement in the 1960s? And why has the Belgian Building, a premier example of Modernist architecture and the sole survivor of a World's Fair, been all but forgotten?

PS18 Modern Architecture and the Rise of the New South
Lee E. Gray, University of North Carolina at Charlotte, and Virginia Price, Independent Scholar, Co-Chairs

Site Stories: Modern Churches, Politics, and Social Justice

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Abstract

Many American religious groups experimented with modern architecture for their places of worship after World War II, but most Christian denominations continued to build traditional church forms as well. Unitarian congregations were more universal in their adoption of modernism because it so clearly expressed their liberal values. For them, modernism was a moral imperative: "In effect, as the church instigates, supports and encourages the best in social behavior, so must it support the most progressive in structural thought, space planning, environment control, and dynamic esthetics or be guilty of inconsistency—hypocrisy."*

This paper examines two Southern capitals that were home to Unitarian congregations with lengthy histories of social progressivism. In both cities, the growing congregations needed more space in the mid-1960's, but their attempts to purchase land or existing buildings were blocked. Richmond, VA was experiencing a transformative downtown building boom. Yet the Unitarian congregation, 70 years old, met with difficulties in finding a site for a new church because it was an integrated congregation. Atlanta, GA was the home of a vibrant Unitarian congregation for even longer; in the late 1950's, Coretta King was the leader of their youth group, and Whitney Young was a member of their board. This congregation faced similar challenges re-locating in the mid-60's. In the end, both congregations succeeded in securing a site and building a modern church—both still in use today. This paper will compare the proposed and final sites of these two churches, and interrogate the social forces that constrained their choices, presenting their modern designs in the context of their contested sites, their communities, and their congregations' place in the changing image of the city.

*Letter from a congregation member to the building committee of the University Unitarian Church in Seattle, April 14, 1954.

PS19 Archive and Discourse: What Architecture Award Programs Tell Us
Sabir Khan, Georgia Institute of Technology, Chair

(Not) Big in Japan: What the Nobel Prize Reveals about the Pritzker Prize, "Architecture's Nobel"

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Abstract

Since 1979, 44 architects from around the world have received the Pritzker Prize. Of those, seven hail from Japan. Although the more populous United States can boast eight Laureates to Japan's seven, U.S. numbers include two architects who immigrated to the country, I. M. Pei and Frank Gehry--and the U.S. has nearly three times Japan's population.

Furthermore, three of the Japanese Pritzker Laureates are notably unusual: the only Laureate who never attended college (Tadao Ando), the youngest (Ryue Nishizawa), and one of only three women to receive the Pritzker in its nearly forty-year history. These outliers suggest that, at least for a time, institutional forces contributed to Japanese architects' greater successes.

The Pritzker Prize is often called "architecture's Nobel Prize." However, in contrast to Japan's Pritzker successes, the first five decades of the Nobel Prize tell a very different story. While a Japanese scientist was seriously considered in the first year, nobody from Japan received the Nobel until nearly half a century later. Today, only 25 of 870 Nobel Laureates come from Japan. Close studies of the early nomination and selection process for the Nobel Prize underscore how Japanese scientists' competitive internal divisions and limited comfort with dominant languages like English contributed to their work being underestimated or overlooked by Nobel committees. Japanese architects, on the other hand, successfully exploited the same attributes that had negatively affected Nobel success.

The Nobel and Pritzker selection processes also illustrate how, in the early years of each prize, a single, well-placed individual significantly heightened national or factional success. But when such biases became increasingly evident, new nomination and selection approaches assuring greater objectivity emerged. These efforts to reduce partiality strengthened the credibility of the Nobel Prize, while the Pritzker Prize's value has, ironically, diminished; comparing outcomes over time illustrates why.

PS19 Archive and Discourse: What Architecture Award Programs Tell Us
Sabir Khan, Georgia Institute of Technology, Chair

"Our Common Future"? A Historical Account of Sustainability and the LafargeHolcim Award

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Abstract

With publication of the Brundtland report *Our Common Future* (1987) at the latest, sustainability soon became established and instrumentalized, advanced and economized in architecture and planning as a new paradigm or growth. Since the 1990s, we have witnessed further paradoxes of a sustainable architecture, offering a curious mix of pragmatic, techno-utopian, and environmentalist stances with the introduction of new standards, certificates, lables, and awards. This paper focuses on the prestigious, international LafargeHolcim Award for Sustainable Construction, as a case for the multi-layered interests in the environment of nation states, societies, and corporations. First introduced in 2003, the highly renumerated award is subdivided in five regional competitions followed by a global prize every three years supported by international acclaimed juries. The academically legitimated LafargeHolcim Award can be seen in a twofold way: one, as a unique archive, in Foucauldian terms, which promotes certain ideas of sustainable design, that drive both the profession and discipline, while excluding others; and two, discursively, regarding eco-governmentality, as evidence of social, economic, and ecological ambivalences and contradictions that come with the sustainability paradigm. In an environmental perspective, as one of the latest chapters in the history of use, impact on, and ideas about nature, the award does two things: first, it sheds a positive light on a globally active corporation, which recently merged with its French competitor Lafarge, thus expanding internationally; and secondly, next to topical conferences, exhibitions, and publications, national legislation and international agreements, scientific knowledge and technological advancement, but also sustainablity certificates - such as the North-American L.E.E.D., the Swiss Minergie, or the German DNGB - formulates how the population through new construction and eco-life styles relates to the planet.

PS19 Archive and Discourse: What Architecture Award Programs Tell Us
Sabir Khan, Georgia Institute of Technology, Chair

Awards, Profession, Architectural Legitimization (France, 1960-1985)

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Abstract

In France, 1968 represents a twofold break for architecture: first, following the tumultuous events of May, the teaching of architecture became independent from the Fine arts, leaving the centralized institution of the *École nationale supérieure des beaux-arts* of Paris for twenty educational and autonomous units of architecture (*unités pédagogiques d'architecture*, UPA), located throughout the national territory. Second, and perhaps more importantly, by reforming the education system, the decree of December 8th, 1968 definitively removed the Grand Prix de Rome which, since its creation in 1720, had allowed the consecration of the professional elite, and conditioned access to public procurement. In 1960, the creation of the *Prix de l'Équerre d'argent* by the magazine *L'Architecture d'aujourd'hui* had already allowed to distinguish (until 1974) another professional elite, sometimes very different from that identified by the Academy. The creation of the *Grand Prix national d'architecture* in 1975 by the Ministry of Culture, followed by the revising of the *Prix de l'Équerre d'argent* and the creation, in 1983, of the *Prix de la Première œuvre* by the press group *Le Moniteur*, defined new processes of recognition and consecration for French architects. Considering prize lists as acutely revealing of the sensibilities of the period, this paper purports to analyze how these Prizes legitimized architectural tendencies and initiatives between 1960 and 1985. As a reminder, these annual prizes are awarded on somewhat different criteria: one is « public » and rewards the global work of an architect, the others are « private » and rewards an architect and a client for a building built on the French territory. I will attempt to assess the extent to which these awards, by producing a discourse on Architecture, have contributed to structuring the profession, renewing the discipline and promoting new forms of architecture.

PS19 Archive and Discourse: What Architecture Award Programs Tell Us
Sabir Khan, Georgia Institute of Technology, Chair

The Context of Design: Architecture and the Cooper Hewitt's National Design Awards

Elizabeth Keslacy
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Abstract

While architecture awards and prizes tend to come from institutions dedicated solely to architecture, such as the Pritzker Prize, and many are granted by professional organizations such as the AIA, others are bestowed by institutions that address design more broadly. One such institution is the Cooper Hewitt, Smithsonian Design Museum, whose National Design Awards (NDA) recognize American achievements in architecture as well as fashion, landscape, communication, interior and interaction design.

Examining the institutional origins of the NDA and the evolution of the program since its inception in 2000, this paper proposes a two-pronged inquiry: First, how is architecture valued when it is evaluated through the broader interdisciplinary lens of design? For example, though the Cooper Hewitt awards a prize in architecture today, it originally celebrated achievements at the architectural scale through the category of "Environment" that equally considered architects, urban planners and landscape designers. The evolving categories of recognition evidence the museum's changing criteria of assessment, suggesting an alternate conception of architecture than the usual disciplinary approach.

Secondly, how does the award-granting institution itself exercise its agency in contemporary design through the development of its award program? The Cooper Hewitt has a long history of utilizing its collections, exhibitions and publications as tools to encourage specific change in the practice of design. While its previous incarnation as the Cooper Union Museum (founded 1896) considered designers, artisans and students to be its primary audience, the Cooper Hewitt (reestablished 1968) primarily sought to popularize design for the layperson. The NDA program emerged as a way for the museum to reengage with design practitioners, albeit those in mid- to late-career rather than their formative years. Utilizing archival sources and interviews, this paper will uncover the museum's own aims in establishing the NDA and will evaluate, through an analysis of its winners, its impact over time.

PS19 Archive and Discourse: What Architecture Award Programs Tell Us
Sabir Khan, Georgia Institute of Technology, Chair

The 1986 Aga Khan Awards: Judging Architecture in a Changing World

Anna Goodman
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Abstract

Awards and their publication provide a forum for the elevation and evaluation of new candidates for the canon. As social and economic conditions change, so too do the criteria of judgment. But these criteria do not change naturally or without prolonged battles over the meaning and ramifications of new standards. The Aga Khan Award for Architecture (AKAA) since it founding in 1977, has worked to bring alternative, specifically "Islamic," models of building, working and living into mainstream architectural discourse. The award's Third cycle, which took place in 1987, represents a key, if forgotten, moment in the Award's history. Critics at the time identified the cycle as a "turning point" and "watershed" moment. Significantly, this jury included Robert Venturi and Abdel Wahed el-Wakil, the former associated with Post-modernism and the later know for his anti-modernist and neo-traditional stance. The 1986 cycle sparked a public debate around the jury's selections and exclusions. Some critics found that the jury "abdicated their responsibility to deal with the crucial issue of innovative design in a complex 20th century world." Others felt the jury had caved to "Post-modern" fads by selecting projects without aesthetic value. Some detected "anti-modernist" sentiment or Western guilt turned nostalgia. These debates pivoted around two projects, one selected (Bhong Mosque in Pakistan), and one excluded (Louis Khan's Capitol Complex in Dhaka, Bangladesh). In this paper I document the "discursive event" of the debates surrounding these choices, which can be witnessed through the AKAA's refreshingly transparent review process. Focusing on the themes of Insiders/Outsiders, Modernity and Aspiration, and Taste and Kitsch, I argue that these projects gave form to a collection of individual positions, institutional stakes and professional self-definitions that had ramifications for our contemporary understandings of architectural practice and value.

PS20 Digitizing Architectural Heritage: What Role History?
Kelly Greenop, The University of Queensland, and Chris Landorf, The University of Queensland, Co-Chairs

Beyond Digitizing: Artificial Intelligence and Heritage Research

Tino Mager
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Abstract

The ongoing digitalization of whole archives provides vast amounts of heterogeneous text and image materials for the fields of architectural history and heritage studies. However, the meaningful merging and analysis of the extensive data requires methods and technologies in addition to the established approaches. The conceptual innovations that are needed to handle the quantity of data also bear the chance for a non-hegemonic and balanced global history of architecture.

Our paper is building on research done as part of the ArchiMediaL project (TU Delft), set up in cooperation between historians of architecture and urban form and computer scientists. The project investigates the automatized analysis and identification of architectural representations (plans, drawings, models, photographs etc.) by artificial intelligence methods and generates new tools to facilitate the development and linking of metadata and image content. Moreover, it engages architectural-historical questions that speak to new and huge sets of data, going beyond conventional historical and cultural context.

Taking the Repository of Colonial Architecture and Town Planning from TU Delft as a starting point, this paper critically explores the potential of computer-based methods to handle the inherently colonial structures embedded in most of the available data. It presents new approaches to unbarring and interlinking of currently siloed repositories. Hereby it shows how automatized recognition of architectural representations can lead to a more holistic activation of source material, mainly by overcoming linguistic barriers and entrenched structures. Besides addressing our experiences with the difficulties of breaking down established approaches to architectural heritage, the paper provides first results concerning the chances to democratize the history of architecture and to foster the interdisciplinarity between computer science, ethnology, art history, architectural and heritage studies. It aims at underlining the significance of carefully balancing qualitative and quantitative information and of negotiating new methodological approaches for future-oriented cultural heritage research.

PS20 Digitizing Architectural Heritage: What Role History?
Kelly Greenop, The University of Queensland, and Chris Landorf, The University of Queensland, Co-Chairs

Information and Anxiety: The Architect as Programmer in the Age of Data Control

Christina Shivers
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Abstract

In the latter half of the twentieth century, a strange frenzy began to take root in many societies across the globe. Members of professions ranging from economists to architects became obsessed with a coming information revolution destined to change society. This was the second dawn of the *Information Society,* a data driven notion of control that accompanied the rise of industrial Capitalism in the 19th century and necessitated the gathering of information related to cities, communications, banking, and the flow of materials within industrial production.[1] Although the dreams of a society known through information are nothing new, beginning in the 1950s, economic theorists began proposing a "new" model of society, no longer dependent upon material manufacturing but instead dependent upon the flow and control of knowledge. Caught up within the whirlwind of an information frenzy, architects and planners began to embrace the coming information revolution.[2] The Eamses and Eliot Noyes famously worked directly within the realms of information as consultants with IBM. Within the Avant Garde, data took command as designers like Kenzo Tange of the Metabolists and Peter Cook of Archigram designed conceptual projects directly engaged with the processing of information. Amidst the emergence of the computational control of information, these architectural activities were direct attempts to remain relevant in the face of automation. This paper proposes the architectural obsession and subsequent adoption of informational processing systems was the result of the anxiety surrounding emerging computational technologies. The obsession with information and communication that developed in the 1960s and continued through the Post-Modern movement is still very much alive today, and is now translated into digital practice; coding, digital fabrication, CAD and 3-d modelling software have completely moved the architectural profession into the age of information.

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[1] James R. Beniger, *The Control Revolution* (Cambridge: Harvard University Press, 1986), 219.

[2] Beniger, 293

PS20 Digitizing Architectural Heritage: What Role History?
Kelly Greenop, The University of Queensland, and Chris Landorf, The University of Queensland, Co-Chairs

Understanding a Space for Music: Laser Scanning Hans Scharoun's Berlin Philharmonie

Emily Pugh[1], Chris Edwards[2]
[1]Getty Research Institute, Los Angeles, USA. [2]J. Paul Getty Trust, Los Angeles, USA.

Abstract

To what extent can digitization of built works serve as a tool for architectural historical research? This was the question confronted by two architectural historians and a digital imaging specialist at the Getty Research Institute (GRI), as they collaborated on a project to scan the interior of Hans Scharoun's Berlin Philharmonie (1960–63) and create 3D renderings and a 3D-printed model of it for use in an exhibition and research project.

In this presentation, two members of the research team--Emily Pugh (Digital Humanities Specialist) and Chris Edwards (Imaging and Digital Media Architect)--will demonstrate the opportunities and challenges presented by the use of laser scanning techniques for architectural research. Edwards will provide an overview of the process by which the renderings and model were created, work undertaken in collaboration with the Cultural Heritage Digitization unit of Germany's Fraunhofer Institute. He will also briefly discuss plans to use similar techniques to provide access to the GRI's extensive collection of architectural models. Pugh will explore the research value of the digitization and how the results of it were used in support of a 2016 exhibition at the GRI, entitled *Berlin/LA: Spaces for Music*, as well as to conduct further research on Scharoun's building. She will describe how digital research data were used as evidence together with materials from Scharoun's archive to generate new insights about the Philharmonie. Finally, Pugh and Edwards will discuss the new possibilities this project opened up for architectural research and archival access, but also some limitations of digitization processes and current barriers to these processes' widespread use and adoption.

PS20 Digitizing Architectural Heritage: What Role History?

Kelly Greenop, The University of Queensland, and Chris Landorf, The University of Queensland, Co-Chairs

A Digital Reconstruction of Sainte-Anne-la-Royale in Paris: How Technology Can Bring Back a Lost Masterpiece

Giuseppe Mazzone
University of Notre Dame, Notre Dame, IN, USA.

Abstract

Working with architectural history may imply dealing with structures in ruins or entirely deprived of physical remains. In these cases, the visual and analytical aids offered by digital reconstructions help bring back to life masterpieces from the past. Three-dimensional digital models may be built respecting construction techniques and materials related to geographical locations and historical periods the selected buildings belong. Interaction by walk-throughs, active plans and sections may highlight structural details and design choices. Designs altered through time may be rendered by multiple models comparing the different iterations a building might have experienced during its life span. These approaches dramatically increase not only research in architectural history but also courses taught on the topic by guiding students through interactive reproductions of studied buildings.

As a practical example, this research focuses on the reconstruction of a XVIIth century building: the church of Sainte-Anne-la-Royale in Paris. Designed in 1662 by Guarino Guarini, the church was never completed due to lack of funds and, after the French Revolution, its remains were entirely destroyed. Present documentation on the building comes from three engravings published in Guarini's posthumous essay *Architettura Civile*: a plan of the first floor, a transversal section, and a main elevation. By analyzing and understanding Guarini's design process, the original engravings of the church were critically approached and their geometric meaning restored. The resulting information were used to create a full scale three-dimensional model of the church built following the construction techniques used in France during the XVIIth century—*stereotomy*, the art of stone cutting. A scaled version of the same model was used to create a 3D printed sectional model of Sainte-Anne together with several walk-throughs of the church.

PS20 Digitizing Architectural Heritage: What Role History?
Kelly Greenop, The University of Queensland, and Chris Landorf, The University of Queensland, Co-Chairs

Drones, LiDAR and 3D Scanning: A Deep Map of Dalkeith Palace

Daniel Bochman
The University of Edinburgh, Edinburgh, United Kingdom.

Abstract

How can architectural historians visualize a more holistic interpretation of architecture and its interplay with the built environment? Deep mapping, a geo-spatial digital humanities mapping methodology that utilizes layers of GIS, 3D scanning, LiDAR and other geo-referenceable data, can capture and visualize the unique history, context and development that lie within structures and enable a deeper understanding of place and its role in determining space. Deep mapping involves visualizing the layers of history, stories and biological data alongside geographical and topographical data; as such, this methodology has considerable benefits in clarifying how architectural, social and material culture history and networks, as well as contemporaneous interactions, contribute to a broader understanding of the built environment. While this digital methodology is not common in architectural history, it has much to contribute to our understanding of space and place and the 'interpenetrations' of the historical and contemporary (Pearson and Shanks). Deep mapping architecture can elucidate the hidden social and material networks that facilitated the construction and architectural design of a building, landscape or city, creating a holistic narrative that is inclusive of multiple perspectives and timescales. The methodology also encourages contemporary users to integrate their unique perspectives into the architectural and geographical heritage of the built environment narrative.

Creating the Dalkeith Palace deep map and tracing the historical, archival and architectural heritage has necessarily included its creator and architects; however, the methodology also teased out the voices of others who were excluded or forgotten from the narrative, ranging from politicians to craftsmen, who contributed to the building's construction. Utilizing the author's deep map of Dalkeith Palace as an exemplar, this paper argues that deep mapping methodologies can significantly contribute to the discipline of architectural history, particularly in examining the social and material networks inherent in a building's construction.

PS21 Graduate Student Lightning Talks
Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

The Metamorphosis of a Town: Politics and Urban Landscape

Ágota Jakab-Ladó
Babes-Bolyai University, Cluj-Napoca, Romania. Szekler Museum of Ciuc, Miercurea Ciuc, Romania.

Abstract

Miercurea Ciuc (called Csíkszereda in Hungarian) had been part of Hungary and the Austro-Hungarian Monarchy for a long period of time, but after the First World War it became part of a new country, Romania. The Second Vienna Award from 30 August 1940 reassigned the territory of Northern Transylvania (including the small town of Miercurea Ciuc) from Romania to Hungary, but after four years Romania reclaimed it from Hungary. Among other Transylvanian cities and towns, Miercurea Ciuc has become part of Romania and today it can be found in the heart of this country with a little bit more than 30.000 of inhabitants, and more than 80% of its people are Hungarians.

After the Austro-Hungarian Compromise from 1867, Miercurea Ciuc became the leading town of Csík County. This was the time when a real urbanization process began and most of the public buildings were built. After Romania entered the First World War the Romanian troops invaded the town and burnt it down. During the years following the war a new Romanian Christian Orthodox church was built just in front of the former Hungarian County Hall. The communist regime has brought new plans for the city yet again... In my research I analyze how history and politics shaped the urban landscape of an Eastern European town – and what can be seen today.

PS21 Graduate Student Lightning Talks
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Hospital or School? Hybrid Institutions in the Spaces of Assimilation

Magdalena Milosz
McGill University, Montreal, Canada.

Abstract

In this talk, I investigate the fluidity of architectural typologies in the institutions established by the Canadian government in its attempts to assimilate Indigenous peoples. Specifically, I look at crossovers between healthcare and education architecture, positing that a hybridization of these usually distinct uses occurred as a response to the larger colonial project of assimilation. As part of the Department of Indian Affairs' extensive building program, which lasted from approximately 1879 to 1987, the federal government designed and built hospitals and schools, as well as hybrid buildings for both healthcare and education. Post-occupancy adaptations also blurred the line between these two uses. Examples of such fluid types include residential schools repurposed as tuberculosis hospitals, hospitals accommodating educational components, and designs for combined day schools and nursing stations. While both healthcare and education were provided by the settler government as part of treaty agreements, the manner in which these services were co-spatialized demonstrates the overarching aim of institutionalizing Indigenous peoples in order to keep them in sustained contact with non-Indigenous culture. Thus, I consider these projects both as spaces for education and health and as vehicles for the erasure of Indigenous identities.

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

The Racialization of the American Landscape

Chelsea Wait
UW-Milwaukee, MILWAUKEE, USA.

Abstract

In my body of research, I argue that we "racialize," a concept formulated by Omi and Winant,[1] the world around us through architecture, material culture, discourse, and embodied experience. I build a theoretical framework that weaves together theories of public, power, and practice; I combine this with critical race theory, theory of racial formation, and theories of whiteness. I use methodologies from and build on scholarship in architectural history, cultural landscapes, and cultural geography. I center historical processes that have produced demographic polarization in the American landscape, which, when partnered with discursive racialization in American policy, social science scholarship, and news media, have produced the ongoing segregation in the landscape today. This segregation often hinges on urban, suburban, and rural boundaries, with our cultural ideas of race thrust on the shoulders of 'the urban.' Many assume that the disrepair, dispossession, and poverty of poor areas where people of color live are due to the problems with the people that live there. Markers of disrepair and dispossession (closures, foreclosures, boarded windows, potholes, and so on) take on inflated cultural significance and images of these material patterns are publicized so as to be connected with fear, danger, and depravity: urban pathology. We remake and reinforce our ideas of race as we read the vernacular architecture, infrastructure, and landscapes around us. As we move through the world at an architectural scale, we see a skin color in the buildings around us whether people are present or not.

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[1] Omi, Michael and Howard Winant. *Racial Formation in the United States.* New York: Routledge, 2014.

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

Concrete and Hygiene

Vyta Baselice
The George Washington University, Washington, DC, USA.

Abstract

In 1908, Washington DC-based architect Milton Dana Morrill received the first Gold Medal from the Congress on Tuberculosis for his design of the most hygienic house in the country. To be built in exposed reinforced concrete, the two-story structure featured hollow walls to prevent dampness, a roof-garden, and fireplaces for heat and natural ventilation, among other features. However, the most unusual and innovative introduction was a system of plugged tile spouts that accommodated an effortless cleaning routine: residents or landlords could hose down their rooms, forcing the filthy water to discharge through tile spouts onto the lawn. A *Cement Age* article covering the design explained that such construction meant the omission of the cost of insurance and repairs altogether, a tribute to the "general indestructible character" of the house. The health of the interior was by no means restricted to the house alone. Indeed, architectural durability communicated something greater about social and bodily health.

This paper will consider the relationship between early twentieth century deliberations about hygiene, materials, and design. It will explore not only Morrill's designs, but also broader national conversations about what construction materials were best to use to foster mental, spiritual, and physical health. Why was concrete the ideal medium to implement contemporary standards for cleanliness? Who promoted the material as a medium of hygiene? How did the linking of concrete and health affect both architectural and healthcare practices? Finally, how did such alliance reflect and complicate our thinking about race and gender? Drawing from a wide range of interdisciplinary sources, the study will propose a new approach to the study of architectural materiality and concrete in particular. Further, the paper will posit ways early 20th century innovations in concrete engineering and design allowed American practitioners engage in transnational conversations about healthy and hygienic architecture.

PS21 Graduate Student Lightning Talks
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A Monument's Message: The Politics of Preservation in Moldova

Rachel Rettaliata
The University of Texas at Austin, Austin, USA.

Abstract

Chisinau, Moldova is an amalgam, the capital of a borderland state historically influenced by medieval principalities, the Ottoman Empire, Imperial Russia, Greater Romania, and the Soviet Union. Once a thoroughfare for merchants, Chisinau was home to a diverse population at the turn of the 20th century including Greeks, Jews, Germans, and the Roma among others, a confluence of cultures that never fully assimilated. Today, the Republic of Moldova is an independent state in the post-Soviet space and its commemorative landscape reflects the cultural kaleidoscope that has existed in the historic region of Bessarabia for centuries and the decades of manipulation experienced by the population as various powers sought to construct a unifying sense of national identity.

Moldova is a fascinating case study of the relationship between commemoration and identity politics, as each ruling power has participated in both the destruction and subsequent construction of monuments in order to concretize their own definition of what it means to be a "Moldovan" on the landscape. This paper addresses how the commemorative landscape has changed over time, how the representation of Moldovan identity has evolved, who gets to decide what and who is memorialized, what identity means in a place where national territory, borders, and sovereignty are new, fluid, and elusive, and how the politics of national identity construction influenced what is and is not preserved on the historic landscape. In a society in which portions of the population lament the Soviet influence and the remainder continues to wax nostalgic for its communist past, historic preservation is simultaneously contentious and cathartic.

This paper is the culmination of archival research conducted as a Fulbright U.S. Student Researcher in Chisinau, Moldova during the 2016-2017 academic year in partnership with Moldova's national agency for historic preservation.

PS21 Graduate Student Lightning Talks
Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

Shaping Identity at Any Cost: Chaotianmen Square, Chongqing

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Abstract

Chinese cities have been obsessed with shaping national/regional/urban identity with monumental buildings, but few in-depth case studies discuss how such buildings shape urban identity in China's post-1978 reform era. This paper discusses urban identity formation by investigating the historic process of the birth of Chaotianmen Square, a four-storeyed iconic building with a large-scale public roof square, built in the city's gateway area by Chongqing municipal government following the establishment of Chongqing as a new direct-controlled municipality in 1997.

The design of Chaotianmen Square embodied various regional features of Chongqing, but primarily through symbolization, such as the foredeck-like form of the building representing Chongqing's shipping culture, and the rooftop pyramidal sculptures symbolizing Chongqing's hilly topography, giving less consideration to the actual spatial practice of individuals. To complete the roof square with high speed and high standard, the construction staff broke the rule to save time by starting construction before obtaining administrative approvals. By establishing special taskforces, raising slogans and organizing construction contests, the construction staff motivated themselves with "revolutionary" spirit and devoted themselves to nonstop construction, sacrificing their personal interest. The official media glorified such pursuit of high speed and high standard at any cost as a reflection of Chongqing's ambition. In short, during design, construction and propaganda, the project displayed various elements representing Chongqing's regional features, passion, and ambition to shape new urban identity, and privileged such display over the actual spatial practice of individuals and the respect for rational regulations and individual interests.

Although China has switched from "revolution" to "economic development" during the reform era, this paper shows that "achieving goal(s) at any cost" as a revolutionary and socialist legacy of China still exists, largely due to the anxiety arising from a sense of lagging behind, and the lack of effective power restriction to underpin reasonable decision making.

PS21 Graduate Student Lightning Talks
Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

Brutiful Brum: Brutalism and Preservation in Birmingham, England

Kelsey Dootson
University of Virginia, Charlottesvile, USA.

Abstract

London has been at the heart of the discussion on Brutalism in England and subsequent preservation efforts, but the development and preservation of this "heroic" style are not limited to London. This is an issue faced by many cities, however, this paper will focus on the development of Brutalism in post-war Birmingham, England and the preservation battles that have ensued in past years. The use of Brutalism in Birmingham's efforts to rebuild have defined the appearance of the city, creating a specific experience of the city—one that can withstand anything thrown or dropped its way. Demolishing these structures removes not only the city's rebuilding narrative, but redesigns and redefines the landscape. In early 2016, arguably the best-known Brutalist structure in the city (and one of the best known in the country) was demolished, the Birmingham Central Library. As a result of threats to modern architectural styles coming under the wrecking ball, many groups have sprung up in support of modern styles. These groups, along with other grassroot efforts organized by communities, have appealed to higher preservation organizations, such as English Heritage, to seek protection. The library was recommended for listing three times—all three times it failed. This paper seeks to argue how blanket erasing a style from a city rewrites its history, visual or otherwise, and how to approach preservation of Brutalism in a city that does not care about maintaining their past's "heroic" efforts to "keep calm and carry on" by rebuilding.

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

The Louisiana Offshore Oil Port and Financialized Landscapes of Accordance

Burton Jack Hanly
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Abstract

Commodity infrastructures, particularly those in service of natural resource extraction, have produced dramatic changes to urban and rural landscapes across the globe, sparking contestation between and amongst spatial stakeholders (humanity). Scholars from a range of disciplines engaged with spatiality have examined the sites of resource extraction, its networks of circulation, and centers of consumption, yet little attention has been paid to the architectural, urban, and environmental histories of distribution hubs. I here examine one site of such an infrastructural typology: the Louisiana Offshore Oil Port (LOOP). LOOP is the nation's first and only deepwater oil import facility and the largest privately-owned oil storage center in the U.S. In this paper I position LOOP and Port Fourchon (its primary land base) as securitized and financialized enclaves of fossil-fuel capitalism. I find that, in the aftermath of a flurry of environmental regulations post-1971's Earth Day, industrial developments projects attempted to enfold the rhetorical tools and policy instruments of social movements into their plans. The paper draws from archival/corporate resources, contemporary architectural discourse, and interdisciplinary scholarship. Interviews with LOOP personnel shed light on the management practices imbedded in infrastructural arrangements, while current and planned expansions provide the documents, plans, and approvals for formal spatial analysis. I argue that the creation of proprietary oil storage futures contracts, which capitalize LOOP's growing storage capacity on exchange markets, has both spatialized financial instruments and abstracted infrastructures into fungible bits in a vast political economy. Seeking to parse the connections between commodity sites that dot Louisiana's coastline and the increasingly acute geological disintegration of the region, this paper interrogates the affective narratives of oil and gas logistical systems in precarious yet fortified strategic landscapes.

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

Portuguese Healthcare Buildings: Medical Assistance and Heritage

Daniela Arnaut
Instituto Superior Técnico, Lisbon, Portugal.

Abstract

Healthcare buildings are a typology that has not been studied yet in Portugal. The purpose of this paper is to analyze the role of the main existing ones, designed and built in the 20th century, and to systematize how interventions are managed today.

The main research question was focused on how to keep the identity and architectural character of the buildings within the everyday pressure of medical assistance.

The methodology established included different approaches: from surveying bibliographic sources followed by a rigorous architectural analysis, to fieldwork survey, and to the collection of personal statements from an institutional group of people and doctors. Following this methodology we were able to systematize the original designs and their concepts and ideologies, and to understand the main changes occurred. Through the fieldwork survey was possible to identify what remains from the original design, and what are the main challenges of updating healthcare buildings within the pre-existent structure and architectural language. From personal statements was clearly identified that the main challenge is how to establish the balance of the pressure and primacy of medical assistance within the architectural heritage.

Planning long term interventions seems to be the solution, but it always depends on economic and political constraints, and most of the time, it doesn't consider memory and culture as meaningful values for the future.

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

Redesigning Urban Renewal in 1960s and 1970s Black Chicago

Eric Peterson
UC Berkeley, Berkeley, CA, USA.

Abstract

Architectural and urban historians have in recent years appraised a number of what could be called 'counter-plans' by black community groups in U.S. cities, arguing they represent understudied but prescient alternatives to twentieth century modernist urban planning paradigms. Part of the illegibility of these efforts to architectural history is the position of "ghetto" residents who, frequently lacking the traditional forms of professionalization of designers and planners, also critiqued such expertise. This paper surveys attempts by community groups in Chicago to launch operative critique of urban renewal redevelopment and to plan and realize alternative designs for their neighborhoods. Reckoning with the legacies of large scale clearance and rebuilding of many African-American Chicago neighborhoods, these groups eschewed standardized solutions, instead proposing an array of contextualized design and site planning strategies. Many of their nascent ideas of community-led design were codified through ensuing federal legislation, under Model Cities and Community Block Grant programs, and by national foundations. What political possibilities were opened and foreclosed by this codification and how did they evolve alongside federal urban policy and a changing political economy? How might revisiting this early period of community-based design allow us to rethink the ensuing trajectories of postmodern urbanism and of contemporary design activism?

PS21 Graduate Student Lightning Talks

Jennifer Tate, University of Texas at Austin, USA, and Kateryna Malaia, University of Wisconsin-Milwaukee, USA, Co-Chairs

Minoru Yamasaki and the Modern Synagogue: A Humane Modernism

Ron Ostezan
Yale University, New Haven, USA.

Abstract

Minoru Yamasaki's architecture, and specifically his two synagogues, represent a method of design rooted in personal expression. Neither widely studied nor critically acclaimed by contemporaries or critics, Yamasaki's work nonetheless exhibits a fortitude which many of his buildings still enjoy today. As an architect largely concerned with a self-defined humanism, North Shore Congregation and Temple Beth El serve as illuminating case studies through which to analyze his work. Not only are they a part of a larger movement in religious architecture post-war (and particularly within Judaism), Yamasaki is positioned within the pivot of architectural design itself. Sure functionality, simplicity, and technological innovation are mainstays for Yamasaki, but so are ideas of serving humanity, employing a warmth of materials and creating serene environments. Yamasaki reinterprets the modern American synagogue in a way which breaks with traditional ideologies, marking an architecture which truly seeks to at once inspire and accommodate transcendence within. Neither old or new, Yamasaki's optimism for an architecture which transforms the life of occupants manifests itself in the two sanctuaries. Here, the symbol of a tent is scaled and engineered in a way to recreate weightless characteristics out of concrete. But Yamasaki does not stop with structure, continuing his efforts through the engineering of experience. Perhaps most apparent with his transition from rough and monumental exteriors to refined and reflective interior sanctuaries, Yamasaki's placement of materials, the sourcing of light and organization within all help to define a new and total environment. Particularly evident and lucid in his two synagogues, Yamasaki's philosophy is most effectively realized in these sacred spaces – an architecture monumental in scale yet intimate in nature, symbolic but part of a whole, delightful in beauty and serene in character.

PS22 Histories of Architecture Against
Ana María León, University of Michigan, Chair

Memories from Resistance: Women, War, and the Architecture of Dissent

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Abstract

In 1941, architect Margarete Schütte-Lihotzky decided to return to Vienna from relative safety in Turkish exile, to join the communist resistance against the Nazi regime. A few weeks into her active work, she was captured and imprisoned, consequently awaiting execution in a Nazi jail with other female dissidents and political prisoners. Her recollections of this time were the subject of a 1989 publication, which provides important records about the spatialization of dissent sustained in prison and about female resistance during World War II. In addition, the book can be understood as a critical document in illuminating the important transition in Schütte-Lihotzky's work from an architecture *for* to *against*; in fact, the work as a political dissident and the female solidarity Schütte-Lihotzky experienced in prison, have long been overlooked by architectural historians. But they explicate the difference between the well-known achievements in housing *for* the poor of the interwar period as collaboration with municipal and federal governments, and Schütte-Lihotzky's post-war architecture and activism *against*, which focused on the organization of ideas, practices, and spaces of resistance. This shift doubtlessly has biographical reasons, chief among them Schütte-Lihotzky's alienation from expert and political communities in post-war Europe, a repression for her work in the communist resistance. But it is also necessary to theorize this engagement in an "expanded field" and within the intellectual network of women's and peace organizations in the post-war period in Austria, Cuba, and China where Schütte-Lihotzky worked. This labor culminated in educational, organizational, and design activities challenging dominant structures of power. Architecture *against*, in this sense, is thus in no way *negative*, but requires *positive* labor in service of defying and potentially overthrowing normative class and gender categories in dissent.

PS22 Histories of Architecture Against
Ana María León, University of Michigan, Chair

Learning from Transgression

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Abstract

Since its beginnings as a discipline, the history of architecture was assimilated to and presented as a history of space. Building up on the previous theories, this narrative was shaped through the entire 19th century and refined later on, presenting architecture as the art and science of organizing space. By doing so, space was turned into a marker – cultural/ social/ political –, which implicitly led to systems of hierarchies in assessing the architectural act.

One could consider that normativity reflected the aspiration of modernity to provide powerful instruments for appropriating space and time. If those were shaped while aiming at scientific advancements and practical matters, they proved, in the same time, to be efficient instruments of social and (geo)political control. Peter Galison brilliantly demonstrated it by exploring capitalist time. But what brought normative thinking in terms of space? How did its rationalizing discourse impacted not only the planning of the entire society (from the *Existenzminimum* inhabiting cell to the global territory), but also the conceiving of the fundaments of architecture, that is, its epistemology and history?

This paper aims to question the boundaries of such a rationalized thinking, in order to see how its various transgressions could teach a different lesson on space. I will look at three informal hypostases in order to analyze the transgression of ordered/ planed/ regulated spaces: **questioning the paradigm** – space appropriation in contexts of high normativity (i.e., mass-housing)/ **usurping the paradigm** – counter-typologies of urbanity (i.e., the "disruptive urbanism" of the Second and Third Worlds)/ **inventing a paradigm** – the furtive tactics of the space-deprived (homeless/ migrants/ refugees).

If the three of them represent topics of concern for the current architectural historiography, I am interested to look at them differently and see how do they inform an alternative reading of architectural theory and history.

PS22 Histories of Architecture Against
Ana María León, University of Michigan, Chair

Ghostly Fragments: Tracing the Architecture of Anti-apartheid Aspiration

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Abstract

Practicing and writing history is always detective work, involving locating and assembling evidence to piece together stories of the past. Unique challenges arise, however, when the history sought comes from 'below': when the stories tell of resistance against powerful institutions. How can one trace the practices of precarious participants? Where are archives of silenced voices? This paper discusses these challenges, through the writing of an architectural history 'against': the anti-apartheid architecture of Cape Town, South Africa.

A set of architectural projects were undertaken in Cape Town during apartheid's final decade, each which deployed spatial production as political resistance. These projects differently expressed aspirations for apartheid's ending, including desires to secure homes, livelihoods, and multi-racial justice. This paper will address the dual challenges that arose through such history: the challenges faced by the historical participants, and the methodological challenges faced (by the author) in writing their history.

First, the projects' participants faced challenges in realizing politically resistive works of architecture. The paper will frame these as entanglements between legal, political and architectural realms – and will address the work performed by actors ranging from marginalized grassroots citizens to relatively-privileged professionals. Second, the paper will discuss the methodological challenge of uncovering the traces of such histories. Using the metaphor of ghostly fragments, the paper will discuss the lack of archives of grassroots-led projects, the silence of marginalized voices recorded during oppressive regimes, and the challenge of doing oral histories with precarious participants, when many have passed or moved away. It will also discuss how elusive historical sources converse with completed works of architecture, when these are muted yet physically-present artefacts. Weaving together historical account with methodological discussion, the paper will present the challenges and possibilities of writing architectural history from the less-conventional perspective of 'below'.

PS22 Histories of Architecture Against
Ana María León, University of Michigan, Chair

Persistence, Meaning and the Working Class: The Theatre of the Coal Miners of Lota, Chile

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Abstract

This paper examines the origins and the construction history of the Theatre of Union №6 of the Coal Miners in Lota, the first industrial city in Chile. The building that was commissioned by the miners' Union in 1956 and that remains unfinished, was nominated as national monument in 2007 following the actions of resident and community groups. Through a political, economic and social analysis of the history of this national monument and its diverse actors, this paper explores how social empowerment and the collective culture of Lotinos have influenced the production and definition of their urban environment, challenging commonly accepted ideas of authorship in architecture and power relations established by the capitalist system in Latin America. These topics are discussed in the context of the emergence of the social movements of the beginning of the twentieth century and the influences of the Modern Movement in Chile as a symbol of social justice. Drawing on interviews, participant observation, archival research and analysis of the built environment conducted in Lota between 2014 and 2016, the paper illustrates the ways in which architecture and urban heritage can and are used in conscious and critical ways for negotiating and defining social and political values that shape the cultural identity of a working-class community. The methodological approach undertaken combines ethnography and history to engage the problems that mobilize marginalized groups both in the past and in the present to define, protect and make use of urban spaces in order to assert their individual and collective identity. I demonstrate how architectural production and its cultural legacy in the case of the Theatre of the Coal Miners of Lota has been used as a collective tool to disrupt hegemonic power relations, creating opportunities for more inclusive and democratic urban processes.

PS22 Histories of Architecture Against
Ana María León, University of Michigan, Chair

Architecture as Women's Tool of Resistance in Early Twentieth-Century Iran

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Abstract

This paper examines the project of radical modernization or "westernization" of the built environment during Reza Shah Pahlavi's reign (1925-1941) in Iran. Reza Shah initiated a rapid and irrevocable process of change that began in the public domain at the city scale and filtered into the private domain of the house. In only 17 years, gender-segregated private housing and gender-exclusive public spaces were redesigned and replaced by modern apartments and gender-inclusive public spaces. Indeed, Reza Shah's policies of Western-style urban spaces and modern houses were based on a premise of gender desegregation, most notably through banning women's use of the *chador* (traditional Iranian veil) in public spaces. These drastic policies often created tensions between cultural and patriarchal traditions, on one hand, and newly-introduced western-oriented modern views on space and gender relations in Iran on the other hand. Based on this history, the two central questions in this paper are: Faced with dramatic new changes in their built environment, how did Iranians and particularly women negotiate, appropriate, and/or resist the imposition of "modern" desegregated public and private spaces? Second, for women who did not want to be seen in public domain without their *chador*, how did the architecture of the built environment facilitate their access and/or prevent their mobility? This historical research is based on an interpretive methodological approach that draws from archival and primary sources including architectural drawings, historical photographs, and newspaper publications of the time period. The paper argues that Reza Shah's "westernization" project made the architecture of the built environment a paradoxical space for women: For those who viewed Reza Shah's project as imposing Western values, it became a site of resistance against modernity and state power; for others, it was a welcome move away from traditionalism and patriarchal ideologies.

PS23 Designing Homo sapiens: Architecture, Environment, and the Human Sciences
Ginger Nolan, University of Basel, and Alla Vronskaya, Swiss Federal Institute of Technology, Zurich, Co-Chairs

Ultra Deep Mines and the Architecture of Acclimatization

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Abstract

By the mid-twentieth century, the world's deepest mines were operating two miles below the surface. In South Africa, prospective miners were required to undergo an extensive acclimatization process in order to cope with the intense heat, humidity, and pressure that builds up in the ultra deep gold mines. To streamline and increase the efficiency of this process, companies developed a series of experimental chambers that could replicate extreme subterranean conditions above ground. The design process of the climatic room addressed racial as well as material and physiological concerns, as industry scientists sought to establish a "standardized work rate" through the classification of Black miners' bodies. In studies concerning the performance of "underweight" "heat adapted Bantu workers," researchers revealed both distain for and intense interest in the exposed body, as well as the tribal and racial classification schemes deployed by mining companies.

Moving between the human body, the climatic room, and larger centers of scientific research, this paper asks how architects and engineers reconfigured the mine as a laboratory for labor science and medicine. Examining building practices that seek to reproduce (rather than mitigate) extreme environments, I will analyze the way the mine was both modeled as an object and extended as a vast technical apparatus. I argue that as architects gave new form to the underground environment, they also facilitated and reinforced a bizarre faith in the ability to manage the productivity of mines through the conditioning of workers' bodies rather than their training, tools, or knowledge of mineral deposits.

PS23 Designing Homo sapiens: Architecture, Environment, and the Human Sciences
Ginger Nolan, University of Basel, and Alla Vronskaya, Swiss Federal Institute of Technology, Zurich, Co-Chairs

Crab Vision: Visual Experiments in Madrid's Bionics Laboratory

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Abstract

This paper focuses on spatial discourses derived from the introduction of a US-imported, new perceptual agenda in Spain and its frictions with the regime's shifting political and cultural order during the period following the Madrid Agreements. My research examines the convergence between experiments on the horseshoe crab's pixel-like vision done by the Laboratorio de Biocibernética y Biónica and the rethinking of the auditorium space by filmmaker, inventor, and architectural consultant José Val del Omar (1904-1982) during the 1960s. Both projects attempted to prove the autonomy of the visual apparatus in relation to the nervous system in humans by exploring how other species had developed the capacity of distinguishing between figure and ground without cognitive processing.

In 1953, when Eisenhower sought to forge a geostrategic alliance with Francoist Spain to prevent the spread of Communism throughout Europe, the US sealed the Madrid Agreements with an offer of economic and technical aid to help automatize Spain's crippled industrial infrastructures. With US assistance, Spain joined a global economy and a military order that partially relied on the development of information technologies and their attendant strategies for gathering and sorting large sets of data through computerization. As Spain navigated the logics of this new world system, Franco's fascist regime faced the same cultural predicament that afflicted the rest of the modernized West: How could it manage the visual information overflow that was now part of daily life? And how did this visual overload affect media-reception spaces? With an interest on the projective spaces of new media, the government commissioned several agents, amongst them—the Laboratorio de Biocibernética, and José Val del Omar—a reexamination of the human perceptual apparatus and its comparison to ones in other species, evaluating retraining techniques to absorb large amounts of images without becoming overwhelmed.

PS23 Designing Homo sapiens: Architecture, Environment, and the Human Sciences
Ginger Nolan, University of Basel, and Alla Vronskaya, Swiss Federal Institute of Technology, Zurich, Co-Chairs

Philosophical Anthropology and Postmodernist Architectural Discourse

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Abstract

From the earliest text of Dalibor Vesely to the recent books of Tim Ingold, the English language discourse after 1968 around architecture has intersected with the late 19th century and early 20th century discourses of philosophical anthropology and earlier humanist psychology. Whether it be Vesely's explicit intellectual debts to Max Scheler, Arnold Gehlen, and Helmuth Plessner; the refracted debts of many architectural readers of Merleau-Ponty to the research of Kurt Goldstein, (as well as Max Wertheimer, Wolfgang Köhler, and Kurt Koffka); the debts of Christian Norberg-Schultz to Otto Friedrich Bollnow; or more recently the influential writings of Tim Ingold and his debts to Jakob Von Uexkull, ideas about rootedness of the human being in biological analyses of its relation to the environment and comparisons with this relationship in animals, has been a key, though as-yet-unexplored, sources in the resurgence of humanist postmodernism in the 1960s.

This paper will explore the way that architectural theorists circa 1960 began to appeal to this earlier literature to draw dividing lines between the human and the non-human, and make claims about the uniqueness of being human by drawing contrasts to animals such as apes and dogs. It will explore the delayed influences through translations and intellectual migrations of this literature on western discourse after the 1960s as a result of the scattering effects of European wars. It will focus on such texts as René Dubos *Man Adapting*, Kohler's *The Mentality of Apes* and *The Place of Value in a World of Facts*, Arnold Gehlen's *Der Mensch*, Otto Bollnow's *Mench und Raum*, Konrad Lorens's *Man meets Dog*, and *studies in human and animal behaviour,* and Jacob Von Uexkull's *A Forey into the world of Animals and Humans*, and their re-appearance in architectural culture as a vehicle for the critique of modernism in the 1970s.

PS23 Designing Homo sapiens: Architecture, Environment, and the Human Sciences

Ginger Nolan, University of Basel, and Alla Vronskaya, Swiss Federal Institute of Technology, Zurich, Co-Chairs

Ernst Kapp's Science of Organ-Projection

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Abstract

Even though the German philosopher and geographer Ernst Kapp (1808-1896) spent the first half of his life as a Hegelian, his work during the second half can be characterized as an earnest attempt to take the *Geist* out of the *Geisteswissenschaften*. In his *Grundlinien einer Philosophie der Technik* (Principles of a Philosophy of Technology, 1877), he developed his earlier theories about environment and inner colonization (*innere Kolonisation*) into a metascience whose primary principle was "organ-projection" (*Organprojektion*). Kapp argued that humans transferred—both consciously and unconsciously—forms and functions of their bodies into artifacts: it was no coincidence that the hammer was shaped like a fist, the pump like a heart, railroads like veins and arteries, and that the steam engine, "the machine of machines," simulated organic vitality. This meant, according to Kapp, that the self now had to be understood not as a self-constituting soul (*Geist*) but rather as a living body (*Leib*) that was incessantly constituted and reconstituted by the design of its human-made environment. It was for this reason that Kapp proposed the study of organ-projection as the ultimate human science. If Kapp's theory was valid, then humans could know themselves only by studying the design of the artifacts that they created.

This paper proposes to explicate Kapp's work not only in light of his writings but also in relationship to his activities in exile between 1849 and 1865. For it was arguably after having to leave Germany during the 1848/49 revolutions and taking up farming in Sisterdale, Texas that Kapp understood his theory of environment and inner colonization in practical terms. I argue that Kapp's science of organ projection was formulated in German-colonized Texas as his liberal political values had to come to terms with slavery, on the one hand, and with battles over land, on the other.

PS23 Designing Homo sapiens: Architecture, Environment, and the Human Sciences

Ginger Nolan, University of Basel, and Alla Vronskaya, Swiss Federal Institute of Technology, Zurich, Co-Chairs

Lebensraum *from Geopolitics to Architecture*

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Abstract

The German geographer Friedrich Ratzel defined *Lebensraum* (literally "living space") in 1901 as the geographical area needed to support the life of a species. Subjecting geography to biological principles, Ratzel interpreted the Darwinian struggle for existence as essentially a struggle for space. He suggested that just like plants, a people [*Volk*] too needed to expand its territory or die. This conviction shaped geopolitical thinking over the following decades, and was notoriously instrumental to Nazi expansion and racist annihilation policies. But Ratzel's so-called "anthropogeography" also shaped French and American human geography and political thinking, allowing space to be conceived as a dynamic category of both human and non-human life. *Lebensraum* articulated less a notion of racial or social abnormality than an evolutionary rationality for human culture, with an organic ideal situated between the primitive other and the decadence of a mechanistic civilization. It is in this sense that the biography of *Lebensraum* was concomitant with German cultural reform movements and with the rise of the modernist project to spiritualize the machine.

This paper argues that Ratzel's concept registers a key shift in architectural knowledge, even if few architects made explicit reference to his writings. With *Lebensraum,* the human milieu was no longer defined as a static optimum that could be specified, be it individually or universally. Instead, it allowed the human milieu to be conceived as the dynamic outcome of a bio-geographical process of construction. Architects translated precepts of anthropogeography in theoretical treatises and eventually, concrete design projects—from the biological functionalism of Hannes Meyer to the geopolitical engineering projects of Herman Sörgel. In this sense, modernism was propelled by the epistemological shift from a static to a dynamic conception of the relationship between humans and their environment.

PS24 Infrastructure as Artifact
Prita Meier, University of Illinois, Chair

Camels among the Tracks: Disparate Mobilities in Ottoman Anatolia

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Abstract

In 19th-century western Anatolia, the established goods transportation embodied by the camel encountered the iron of the railroad in what contemporary observers predicted would be an intense competition of conveyance modes. The Izmir-Aydın and Izmir-Kasaba railways, constructed and operated with British capital and expertise, connected the port city of Izmir with the fertile inland river valleys of the Menderes and Gediz rivers, the territory of local camel networks. From a foreign gaze, camels appeared slow, cumbersome, and unmanageable means for carrying agricultural products from field to port, disregarding their inherent spatial logic of movement.

The physical characteristics of each method of transport enabled and restricted actions in the landscape in different ways, ultimately resulting in a symbiotic relationship between the camel and the train. While the railroads drastically reduced transport times, camels could reach large parts of the landscape inaccessible by train tracks. This relationship complicated the interface between the indigenous networks of camel drivers and external actors driven by colonial ambitions and profit margins. Only through foregrounding the built environment of the railroad and the animal nature of the camels can we fully understand how this historical relationship actually came to fruition. Furthermore, this provides an approach to understand the experience of the camels and camel drivers, information otherwise obscure to us due to the imbalance of written history.

This presentation brings together many available strands of evidence, including a study of the landscape, the buildings, the rails, historic illustrations, and historical records, in order to find ways to approach these questions of infrastructural change through a study of the materiality of the two modes of transportation.

PS24 Infrastructure as Artifact
Prita Meier, University of Illinois, Chair

Whose "Building Block"? The Early International History of the I-Beam

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Abstract

It is often said that steel revolutionized architecture and civil engineering in the nineteenth century, rendering both its structural possibilities and material idiom as the quintessentially modern "building block." Steel, whose manufacture for use in architecture spread rapidly from England to France, Germany and beyond, emerged most useful to a dynamic ranges of use in the form of the I-Beam. The paradigm shift to architectural and infrastructural design afforded by the I-Beam and its kin is well-known.

These paradigm shifts often inevitably dovetail with a primarily heroic understanding of modern architecture and infrastructure. What is often glossed over, however, is the geography of these paradigm shifts, one involving everything from the destruction of habitats through the mining of iron ore and coal to the employ of slag in the production of asphalt roads to the extension and consolidation of the European colonial and semi-colonial spheres. This paper will take the I-Beam as an artifact that offers us the opportunity to modify the dominant narrative of steel in modern construction by considering its life from the mine to the factory to the colony. Specifically, this paper will consider the vast dissemination of I-Beams by Thyssen AG in the Ruhr Valley for international infrastructure projects in its first twenty years of operation (1891-1921) and the means by which those beams transformed the environments from which they came and to which they were delivered. Case studies will include the railway network of Venezuela, industrial architecture in China, and early asphalt highways in Spain in addition to a broader consideration of the ways in which I-beams were marketed and distributed to both developed and emerging markets.

PS24 Infrastructure as Artifact
Prita Meier, University of Illinois, Chair

Laboring Rivers: Engineering and Work in the Cotton Empire

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Abstract

After the Civil War, military engineers rebuilt the dilapidated estuaries and harbors of the American South based on an emerging hydraulic theory: the belief that structures combined with "natural" forces could maintain the landscape without continuous human labor. Federal Reconstruction policy sought to rebuilt the links between the organic riches of the cotton belt with ravenous Atlantic textile markets. Harbor "improvement" in the 1870s and 1880s came to mean the complex choreography of railway systems, agricultural yields, shipbuilding trends, and the temperamental and forceful river estuaries that formed the central nexus of cotton infrastructure in the 19th century. The engineering structures built at this time, meant to concentrate landscape-scale natural forces into self-maintaining systems aligned with global trade networks, speak to changing notions of "work"—both human and non-human—in the modernization of the United States. The reconstruction of southern rivers were one site in the profound restructuring of labor relations in the shadow of Jim Crow, where the infrastructure supporting the flow of cotton intersected with the struggle over the fate of the plantation landscape and economy. The acts of building these structures, and the resistance among black laborers to the "mud work" they necessarily entailed, describe a key event in the entwined histories of labor and energy in the modernization of infrastructure.

This paper focuses on the lower Savannah River in Georgia as an example of the continual construction of an infrastructure site in the emerging "New South," while including relevant, brief comparisons to other contemporaneous engineering efforts on the Gulf Coast and cotton empire ports in Europe and Asia. The argument is based on primary source research done in the U.S. Army's archive.

PS24 Infrastructure as Artifact
Prita Meier, University of Illinois, Chair

Taming the Euphrates

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Abstract

This paper explores how Keban, the first in a system of 22 mega-dam projects built on Turkey's Tigris and Euphrates Rivers, transformed the region's cultural landscapes. These hydroelectric dams were heralded as visionary infrastructural projects and unprecedented engineering feats that would modernize the country with extensive irrigation to augment agricultural yield and electricity production to mitigate energy rationing. When completed in 1981, Keban, would supply a quarter of Turkey's electricity, regularize the Euphrates' flow, temper the climate, and introduce fisheries—a new industry.

But, Keban was a project with a dual purpose, serving both infrastructural needs and reinforcing national integration. In the nineteenth century, long before such technologies were available, Ottoman reformists had dreamt of obstructing mobility by flooding the Euphrates' ravines and caves, thereby sedentarizing nomadic pastoralists and containing the semiautonomous Alevi-Kurdish population, which resisted central authority. In addition to forcing the involuntary resettlement of 25,000 people, Keban reconfigured the region's physical geography, making the near far and the far near. It concretized the administrative separation of Elazığ and Dersim provinces on the Euphrates' banks, making transit dependent on ferries and destroying the livelihoods of many pastoral tribes. Electricity produced in Keban made it to major western cities in seconds, but the region's inhabitants, whose loyalty to the state was suspect, remained in the dark well into the 1990s. Moreover, Keban's reservoir submerged Upper Euphrates' multi-ethnic history and sacred sites revered by Alevi-Kurds. The construction of Keban Dam, together with other state penetration projects, including contemporary road construction and military installations, buttressed Elazığ's position as a bastion of the central state, while marginalizing Dersim as the "uncivilized" other. I argue that the dismantling of this landscape of resistance and subsistence is as central to the history of infrastructure in Turkey as the fruits of modernity it ushered.

PS24 Infrastructure as Artifact
Prita Meier, University of Illinois, Chair

Palm Springs: Infrastructures of Leisure and Dispossession in the Postwar Industrial State

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Abstract

In the interval between American economist JK Galbraith's two seminal books, *The Affluent Society* (1958—on productivity and consumerism) and *The New Industrial State* (1967—on its technocratic management), the holiday resort of Palm Springs, California, successfully dispossessed the majority of its adult population from a slum in the heart of the town. "Section 14," as the slum was called, housed the town's workers (mostly African Americans and Chicanos), providing rents for its landlords—members of the local Agua Caliente native American tribe, who could not legally sell or speculate with their land as it was not part of US sovereign territory. Palm Springs, a leisure town built directly on this Indian reservation, provides a case study for examining the intersection between political and territorial infrastructures as mediated by urban, architectural, and legal technologies of dispossession. While the canonical steel houses of "California modernism" rose around Section 14 from the 1930s to the 1960s, the same celebrated local modernist architects—Wexler, Frey, Cody, et al—made urban plans attempting to enclose and normalize the sovereign exception at the center of the town. Palm Springs grew exponentially in this period, with its ostentatious golf courses—built in the dry desert—attracting the largest fortunes of the American corporate-industrial establishment. Closely examining the relation between this local infrastructure of leisure—comprising modernist steel homes, gated communities, golfing landscapes and facilities—and the corporate models of growth at the national level, illuminates the structural connection between the racialization, neglect and dispossession of the local workers and the ideologies and technologies of economic growth in the early American postwar period. At stake in this case study is the construction of a system—biopolitical, technical, and managerial—that unites discourses of work-leisure with a neo-colonial infrastructure of enclosure operating though modernist architecture, property, and subjectivity.

PS25 Constructing Memory in Ancient and Pre-Modern Architecture
Anne Hrychuk Kontokosta, New York University, Chair

Monumentality and Religion in Ancient Rome

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Abstract

The construction of collective memory was arguably the central concern of Roman religion. Drawing upon symbolic anthropology and biocultural theories of religion, this contention suggests the long-durational patterns of religious practices and embodiment as social modeling through interrelated built settings, priesthoods, and rituals. Such cultural productions regenerated traditional social identities, thereby preserving hierarchies necessary to Rome's endurance throughout time. In obfuscating precise purposes and meanings, the affective spectacle of sacred monuments, officiants, and repeated rites facilitated broad recognition of ineffable religious experience, thereby opening viewers' and participants' subjectivity to themselves in relation to Rome's past.

Already from the eighth century BCE, archaeological evidence suggests the special role of architecture not merely in serving religion or reflecting its importance, but also establishing its very possibility. Against the background of the monumental reshaping of what would become the Forum Romanum, this paper challenges teleological and anachronistic interpretations, demonstrating how pre-Roman construction established an interstitial architectural environment, which elevated both the elites who built it and the liminal quality that signaled it as a center of cohesion and capillary power. Modifications to this setting gradually shaped the unique responsibilities of its users while newly constructing a shared sense of their continuity from remote beginnings. By the sixth century, these users developed into the priesthoods and associated cultic activities of the Pontiffs and Vestal Virgins. Just pursuance of Vestal obligations, as well as the lapses that led to the corporeal punishment and public executions of the venerated priestesses, together augmented pontifical power, ordered the calendar, shaped the domestic sphere, controlled gender ambiguity, modeled familial roles, and codified legal inheritance in order to perpetuate Roman experience. Architecture and ritual thereby repeatedly reinforced memory as a foundation for patriarchal, priestly, and chiefly authority aimed at maintaining Romans' ceaseless procreation and seasonal cycles of war and agriculture.

PS25 Constructing Memory in Ancient and Pre-Modern Architecture
Anne Hrychuk Kontokosta, New York University, Chair

Architecture in Miniature: Souvenirs and Memory in Ancient Rome

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Abstract

Architecture in the Roman Empire was essential for generating and shaping collective memories of cities, events, and people. Triumphal arches, for example, could manipulate collective memory of emperors' military accomplishments and virtues. But how does stationary architecture—and the complex messages it conveys—translate into a collective memory shared across space? I address this question by examining Roman travel souvenirs: glass flasks engraved with monuments of the cities of Puteoli and Baiae in ancient Campania, glass bottles engraved with Alexandria's famous lighthouse, and enameled metal pans depicting Hadrian's Wall in Britain. Although often overlooked, these diminutive objects, which traveled widely, offer invaluable insight into architecture's impact on shared memory in the Roman world. I investigate how buildings could project desired images of cities and regions, establishing a collective memory of those sites—for example, of Puteoli as a city uniquely favored by Rome's emperors. I demonstrate how souvenir representations of architecture enabled this projected image to become collective memory not only locally but also around the empire. Finally, I argue that souvenirs of structures illuminate Roman notions of architecture and urban space that are lost when scholars focus solely on texts such as Ptolemy's *Geography*: namely, a landmark-oriented, panegyric spatial conception that encouraged outstanding examples of architecture, such as Alexandria's Pharos, to predominate in people's narratives and memories of places. My approach to buildings and their souvenirs draws on close visual and archaeological analysis and on neuro-cognitive studies of how visual imagery shapes memory. I also consider the cognitive science of how conversation and social interactions—precisely what the Roman souvenirs were designed to prompt—generate shared memories. Ultimately, to understand fully how architecture created memory and knowledge in an era before mechanical reproduction and digital technologies, we must look closely at buildings *and* their portable representations in tandem.

PS25 Constructing Memory in Ancient and Pre-Modern Architecture
Anne Hrychuk Kontokosta, New York University, Chair

Literary Nostalgia in the Fifth-Century Forum of Trajan

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Abstract

Important research on late antique Rome has already considered the Forum of Trajan as a display site for a fifth-century inscribed statue reinstating official honors to Nicmoachus Flavianus the Elder, a hero of the senatorial elite. Questions are also raised by the libraries flanking the Column of Trajan during the fifth century, since their entrances featured an array of statues depicting orators, poets, and a philosopher so as to highlight the fame of late antique literary figures. The largest of the imperial fora celebrated these statues of intellectuals, depicting Claudian, Merobaudes, Marius Victorinus, and Sidonius Apollinaris. Given that senators sponsored these statues and that, previously, fourth-century portraits of senators predominated in Trajan's Forum, what did it mean to reconsider the legacy of imperial Rome after Alaric's sack of 410? The proposed paper argues that aristocrats revived the narrative arc of Trajan's victories as displayed on the column—with additional references to the heroes of Roman history as presented in the statues of the Forum of Augustus—by reasserting senatorial culture in the fifth century. This literary nostalgia of senators provided a counterpoint to Christian poetry that appeared in the monumental verse inscriptions accompanying fourth-century mosaics in churches and also as presented in bishop Damasus' inscriptions at the martyrs' tombs. While this paper does not see anti-Christian polemic in the fifth-century Forum of Trajan, the celebration of literary accomplishments in neutral terms within this imperial forum established a non-confrontational alternative to the poetry sponsored by bishops. Highlighting Rome's literature as under senatorial patronage allowed the elite to transcend religious conflicts, the paper argues, since the aristocrats celebrated literature appealing to all audiences.

PS25 Constructing Memory in Ancient and Pre-Modern Architecture

Anne Hrychuk Kontokosta, New York University, Chair

Building Memory in Medieval Mediterranean Architecture

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Abstract

The medieval architecture of the post-crusades Mediterranean played a crucial role in the construction of identity for and between social, religious, and political groups. The collective memory of the architectures of various regions of northwestern and southeastern Europe and the Levant helped shape the interactions of peoples of differing religions, cultures, and languages as they formed new societies in areas of Greece, Syro-Palestine, and Cyprus. This paper examines how patrons used a *cultural* memory of their homelands' architecture to assert their identity in new territories, while craftsmen employed a *practical* architectural memory to translate design and construction knowledge from workman-to-workman and to negotiate their patrons' desired forms and their own building methods, which often came from differing traditions. Using case-study materials from thirteenth-century Greece, the twelfth-century Levant, and late medieval Cyprus, the paper examines the multivalent meanings of plans, construction techniques, and ornamental elements, and maps the memory landscape of first the Franko-Byzantine Peloponnese to show the movement of architectural ideas and forms from patron-to-patron and via/within ateliers. Broader connections of the this region to sites in northwestern Europe and the eastern Mediterranean coast, including Cyprus and the Syro-Palestinian Crusader States, are explored in order to understand how the collective architectural memory of crusading western Europeans in various regions of the Levant came into contact with that of the Christian and Muslim populations of the eastern Mediterranean. Lastly, urban space is explored to show the layering of collective memory in the built environment. Through such exchanges, new architectural forms were created – and collective memories merged – helping to foster newly localized groups within the resulting buildings and landscape.

PS25 Constructing Memory in Ancient and Pre-Modern Architecture
Anne Hrychuk Kontokosta, New York University, Chair

Constructing Memory in Byzantine Architecture: Spolia *as a Mnemonic Device between the Past and Present*

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Abstract

This paper investigates the role of *spolia* in constructing memory in Byzantine architecture and how such memories affected interpretation of architecture by the Byzantine beholder. The practice of *spolia*, i.e., the reuse of building materials removed from earlier structures, expanded in close association with the spread of Christianity and became a distinctive feature of architecture in Late Antiquity and the Middle Ages. The motivations underlying *spolia* and spoliation have long been debated, with the practice acquiring both positive and negative connotations. Architectural recycling and maintaining a physical record of the city, statement of civic pride, admiration for and revival of classical antiquity, manifestation of political or religious propaganda, aesthetics (*spolia* appreciated for decorative qualities) and, naturally, factors of practical expediency (e.g., local building materials available for reuse) are frequently invoked as explanations for the practice of spoliation and architectural reuse. Besides, *spolia* can be interpreted as an almost indelible form of physical memory; practical mementos forming a historical thread linking phases and eras along a historical time line.

Using monumental and textual evidence, this paper will thus attempt to re-interpret the role of *spolia* as a continuing source of stylistic inspiration to appropriate building techniques, materials, and traditions inherited from antiquity into – and endowing them with – new forms and meanings. It will seek to identify the perception of an architecture of memory and transcendence, imbued with new meanings and qualities by the Byzantine viewer and understand how architecture constructed of *spolia* could have created or reinforced collective memory in conjunction with an investigation of how this was exploited by patrons and builders in Late Antiquity and Byzantium to evoke specific memories, or manipulate memory, in different contexts and settings.

PS26 Affordable Housing Design: Histories of Cross-Cultural Practices
Nelson Mota, Delft University of Technology, and Dick van Gameren, Delft University of Technology, Co-Chairs

East Germany under Palm Trees: Export of Housing from the GDR

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Abstract

This paper reveals the confrontation of East German technocratic housing monoculture with demands of globalization. Propelled by devastations after WW II authorities eagerly took up Soviet guidelines of industrialized mass housing. Subsequently state run planning offices developed concrete-slab types for maximal time and cost efficiency. The leaders alleged that this would, matching an egalitarian lifestyle, also be conducive to new socialist esthetics.

Simultaneously, architects became active abroad, making substantial contributions to the country's struggle for international recognition. At that point a focus was put at the support for left wing Third World countries following an agenda of "Socialist Solidarity". This approach linked a longing for a strategic standing in the Cold War with a benevolent modernization doctrine that became particularly meaningful when it came to housing designs. In the long run commercial interests became predominant, what raises questions about a shift in planning practices.

In recent years researchers explored East German housing projects in Vietnam, North Korea, Tanzania and Mozambique separately. In contrast this paper, including less known projects in countries as North Yemen and Nigeria, analyzes in a comparative perspective and against the background of inner East-German and international debates, how GDR-planners tried to adapt to different local situations and how addressees responded.

European partners like Poland acquired prefabrication-patents, being able to build and to arrange the houses autonomously. But when involved in non-European countries the Germans had to lower their sights on precast construction and to experiment with local technologies. The major contribution of this paper is to show how architects not only tried to manage issues of climate and construction, but also how they approached housing typologies, floor plans and shapes specific to social and religious settings in return, transforming their own basic socialist attitude.

PS26 Affordable Housing Design: Histories of Cross-Cultural Practices
Nelson Mota, Delft University of Technology, and Dick van Gameren, Delft University of Technology, Co-Chairs

Found in Dialogue: Projects for Affordable Housing in Chandigarh

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Abstract

This paper aims to interrogate dialogues around the design for governmental, low-cost housing built in the new city of Chandigarh—a canonical project, as the call highlights. The fourteen types designed to shelter state employees, from the governor's single-family house (sector 1) to the laborers' row houses (sectors 22, 23), have been examined by several scholars, including Joshi (1999) and Casciato/Avermaete (2014), to mention a few. Yet, their evidence as a space of fraught encounters between the political brief, the local culture of the newly emerging nation, and the architects' universalizing ideals has not been investigated. My goal is to show that the cross-pollination between the architects' wish to be modern and the state agents' quest for engagement with local sources forms the core of a productive dialogue, whose interlocutors, words, and architectural effects are as yet unrevealed.

Witness to this exchange was the *Album Punjab*, the journal Le Corbusier kept during his initial three weeks in India, in late February-March 1951. The Album details days of relentless conversation among the designers, namely Le Corbusier, Jeanneret, and Fry, and the two advisers to the government of Punjab, the engineer Varma and the state commissioner Thapar. Following a preliminary discussion of the essential features of Le Corbusier's grid plan, the dialogue moves to the normative and spatial aspects of minimum housing types. Subsequently, specific housing schemes for affordable housing are confronted, comparing Varma's model against Thapar's and Fry's. Le Corbusier would never be directly involved in housing design at Chandigarh; the Album's dialogue instead reveals how preoccupied he is by establishing overall rules to guide his partners. The Indian officers counter Corbusier's rule-making by suggesting local models of domesticity, which the architects in turn absorb and reject in the process of standardization and modularity that will then command their design.

PS26 Affordable Housing Design: Histories of Cross-Cultural Practices
Nelson Mota, Delft University of Technology, and Dick van Gameren, Delft University of Technology, Co-Chairs

Minimum Standards: Housing 'Nie-Blankes' in South Africa, 1947-1952

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Abstract

Between 1947 and 1952, the National Building Research Institute of South Africa conducted extensive research about affordable housing for 'nie-blankes', or 'non-whites'. Moving towards a 'developmental' attitude post World War II, the government assumed responsibility for re-housing Africans outside cities such as Johannesburg, Cape Town and Port Elizabeth. Stimulated by European ideas about minimum standards in public housing—specifically the first CIAM conference in Frankfurt in 1929 on the *Existenzminimum*—architects such as Paul Connell, Betty Spence and Douglas Calderwood and sociologists like Hans van Beinum conducted research about 'human need' in housing to establish minimum standards of accommodation; what is the minimum amount of space, the minimum amount of day lighting a person *needs*? Serving to cut down expenditure as much as possible, as well as to preserve a minimum level of 'decent human living', the minimum standards set by the National Building Institute occupied a precarious balance between a *modus vivendi* and a *modus non moriendi*.

Resulting in several minimum standard housing types with names such as 'NE 51/6'— non-European, 1951, type 6—constructed as 'experimental units' in townships as Kwa-Thema, this paper explores how the pre-war European concept of minimum standards in public housing functioned as a system to negotiate between 'human needs', economic constraints and political beliefs in South Africa's apartheid regime. Positioning architecture as a scientific discipline, using tools from the social sciences such as social surveys, the National Building Research Institute claimed competence, and most of all, set up a structure to limit uncertainty and risk by constantly evaluating the housing projects. At the same time, as I will argue in this paper, the 'objective' nature of these minimum standards of accommodation recast racial—and spatial—inequality in scientific terms, highlighting, for example, the 'ineffeciency' of the beehive shaped hut.

PS26 Affordable Housing Design: Histories of Cross-Cultural Practices
Nelson Mota, Delft University of Technology, and Dick van Gameren, Delft University of Technology, Co-Chairs

The Austrian Experiment: An All-Modular, All-Component Single-Family Unit

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Abstract

The Marshall Plan's role in the socio-economic reconstruction of Europe is undisputed and sufficiently documented. In West Germany, as of 1953, 15 housing estates had been erected with funding from the *European Recovery Program*. The estates were conceived as stimuli for new housing in Germany and were considered paragons of efficient and affordable construction; My research identifies the fact that the knowledge gained in Germany was transferred to occupied Austria. In 1953, the housing specialist William K. Wittausch relocated from Essen to Vienna to work for the *US Special Mission for Economic Cooperation* . His task was to make Austria competitive with other countries in the prefab industry. A model housing estate (1952–54) on Vienna's Veitingergasse constituted an attempt to expand the market for prefabricated homes and to make them products for mass consumption. The Americans also used this housing form to foster home ownership – as an attempt to immunize the Austrian population against communist ideology. By fostering home ownership, the Americans sought to bring about socio-political change in Vienna's communal housing politics. In contrast to these efforts, the Social Democratic city government pursued "restorative" reconstruction, which drew on adapted housing models of Red Vienna and on those of the authoritarian regimes of the corporative state (*Ständestaat*) and of National Socialism. From the very beginning of his architectural career, Roland Rainer – one of the architects in charge of the Veitingergasse housing estate – associated himself with the respective ruling powers: beginning in 1936, he worked for the National Socialists in Berlin, then, from 1945, for the Red Army, and subsequently for the Americans and Austria's Social Democrats.

I argue that the westernization of Europe is based a cross-pollination of the friction between local tradtions, the values introduced by the Allied forces, and the political and career ambitions of the varied protagonists.

PS26 Affordable Housing Design: Histories of Cross-Cultural Practices
Nelson Mota, Delft University of Technology, and Dick van Gameren, Delft University of
Technology, Co-Chairs

*The Khrushchyovkis in Delhi: Hermeneutics of the Soviet Style Prefab Government Housing in
Delhi*

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Abstract

In 1950 Jawaharlal Nehru inaugurated the Hindustan Housing Factory in Delhi that would leave
its mark on most of the government housing in Delhi over the next few decades built as part of
India's socialist alignment in the 1960s. Khrushchyovkis was the nickname for the Soviet prefab
apartments built during Khrushchev's rule. This paper will explore the place and meaning of the
political and social forces that laid the grounds for the Khrushchyovkis of Delhi, prefabricated
housing blocks modeled after their Soviet namesakes that were sometimes built directly from
molds shipped from the USSR. During Khrushchev's reign, the Khrushchyovkis represented a
desirable accommodation for people who were moving there from the Stalinist kommunalka
(commune) apartments to private dwelling units. Similarly in Delhi these Government Quarters,
which represented a break from the previous joint family dwelling to a nuclear family structure,
were very desirable accommodation with a waiting line measured in years. Prefab Housing in
Delhi is often ignored by architectural historians as an isolated event, but in making it
contemporary with its progenitors in the USSR through their social and political roles, we can
develop an understanding of himself that shows how little the model changed as it was
transposed across cultures. This interpretation demonstrates a Ricœur-ian purpose in
conquering a remoteness, a distance between the the Soviet cultural epoch to which the
Khrushchyovkis belongs and their manifestations in the Indian multi-cultural context.

PS27 Architectural Preservation in Asia
Phi Nguyen, Harvard University, Chair

Replication as an Urban 'Sinthome': Xian and the Conservation of the Daming Palace Complex

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Abstract

This paper proposes a radical theorization of the concept of authenticity in China through the interpretation of the conservation project of the Tang Dynasty Relics Park and the Daming Palace in Xian. I will challenge the totalizing Western notion of authenticity based on the capacity to determine the origin, authorship, and material integrity of an isolated work. Rather, I will propose a redefinition of this concept according to the relative perception of a network of related artifacts in the city.

These artifacts proliferated after the opposition of UNESCO and private actors to the literal reconstruction of the palace's complex by Xian's authorities. As a result, I argue that a number of objects that copy, resemble, contradicts, and overcome the original object appeared throughout the city serving different physical and psychological functions. This network of architectural referents can be assimilated to what Baudrillard defines as the hyperreal, or the stage at which the many representations of an object blur the distinction between real and artificial thus this distinction even become irrelevant for our experience.

I will propose a relational concept of authenticity based on relative difference between the different versions of the palace. Through this example, I will argue that it is only by comparison that authenticity emerges, rather than being an intrinsic characteristic of things as it is understood in Western charters. Further I will argue that this urban symptom plays a fundamental role in maintaining the city's symbolic status as the most historic of the country in the face of systematic government driven urban and rural transformations. This paper aims to challenge the imposition of western notions of authenticity and fakeness to the Asian context as too reductive and flattening categories that do not convey the complexity of architectural conservation through replication in China.

PS27 Architectural Preservation in Asia
Phi Nguyen, Harvard University, Chair

Impact on Built Environment from Intangible Cultural Heritage during Chithirai Festival at Madurai, India

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Abstract

A community's traditions, customs and belief systems are reinforced through festivals - each of them has a specific historical, communal and religious significance. With time these festivals evolve with the community, with some practices being lost and some absorbed. Arrival of a season; victory of good over evil; birth of God; tales of the origin of a particular culture, ethnic roots; are some of the recurring themes of festival celebrations. Studying and listing the intangible associations of festivals open doors to understanding the transformation of a community through time.

This paper is aimed to examine, how the aspects of intangible cultural heritage are intrinsic to protecting the tangible environment associated with the annual Chithirai Festival held during April/May at Madurai, India. This festival is a historical memory of the Celestial Wedding of Meenakshi-Sunderasvara and the 'Vaigai' river dip of Lord Kallazhagar, every year. The festival has evolved and sustained over a period of four centuries under various rulers, while the city withstood the impacts of modernisation. Each ceremonial event of the festival has a specified time and space, with distinct characteristics, target age groups with clear leadership from the respective social organizations. Role of each community is defined, deeply connected with the early caste systems. New businesses, temporary markets and transformation of spaces are recurring annual affairs. There are spaces ('mandagapadi' - resting hall) that transform from a commercial space into a resting hall for the Gods during their marked journey within the town. This documentation exercise would be a vital information for posterity of significance of the festival, deserving of recognition for societies and their identity. It will try to understand the transformation process of the townscapes, land use, the river and festival through photographic documentation, oral histories, archival research.

PS27 Architectural Preservation in Asia
Phi Nguyen, Harvard University, Chair

Architectural Preservation: A New Means of Civic Empowerment

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Abstract

In the last three decades, China's rapid top-down urban expansion caused massive peri-urban villages' demolition, residents' forced relocation, political disputes, and even civic disenfranchisement. As a projective response, this paper demonstrates the counteracting cases in several southern Chinese peri-urban villages. It examines how the village residents appropriated "architectural preservation" as a means of self-empowerment to resist demolition and defense their village residential rights.

Based on ethnographic fieldworks, interviews, participant observations, architectural documentations, and media analyses, my research reveals the multiple ways in which the village residents strategized "architectural preservation". Firstly, I demonstrate how a diverse group– including villagers, artists, small business people, freelancers, and *white collar* workers creatively renovated the traditional houses into residences, inns, workshops, cafés, tea-houses, galleries, and shops etc. to improve their living environment and cultivate new village economic engines. Secondly, I illustrate how they promptly circulated the low-cost architectural preservation methods among each other, through which they enlarged the preservation area and spatially signified their residential rights. Thirdly, I reveal how they recast their villages as "artistic and historic villages" in self-media and everyday life, which aimed at redirecting public opinions and obtaining public supports for anti-demolition. In examining these practices, my analyses focus on how the bottom-up architectural preservation approaches (including preservation criteria, renovation design, budget management, program rearrangement, style coordination, and architectural representation) shaped and were shaped by the village residents' self-empowerment processes.

I argue, in the context of China's rapid urbanizing areas, the village residents' bottom-up preservation practice has become a new means of civic empowerment. Throughout the empowerment processes, they shifted the accents of contemporary architectural preservation in three ways: from physical forms focused to living programs oriented; from professional guidance to users' collective coordination; from public remembrance to civic empowerment.

PS27 Architectural Preservation in Asia
Phi Nguyen, Harvard University, Chair

Making Preservation Relevant: Culture as a Tool for Urban Revival

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Abstract

Preservation in India has been largely monument-centric. A small number of structures protected by the government are maintained but their complex socio-economic context is mostly ignored. More recently though, some ambitious projects have challenged the status quo. They have acknowledged unabashedly, that preservation, especially in an urban environment riddled with problems of poverty and lack of basic amenities, needs to do more.

The proposed paper will focus on a critical analysis of two such important projects. The first example takes the author on a retrospective journey to report on the successes and failures of an urban heritage mission in the fort-city of Jaisalmer. As as a young preservation architect a decade ago, the author worked on documenting and restoring two large fort monuments and analyzing the fort walls. The physical problems with the fort's architecture were mainly due to the lack of a functioning sewerage system. Many of the roughly 2000 houses had no lavatories and the streets lacked basic storm drainage. Therefore, as the project progressed, it took on a more holistic infrastructure role, building new sanitation facilities and revamping the drainage system. With support from the World Monuments Fund amongst others, it paved the path for a new way to approach urban heritage conservation.

This approach was taken to a much-expanded level in the second project in the author's hometown of Delhi- the Nizamuddin Urban Renewal Initiative. Encompassing the environs of the World Heritage Site of Humanyun's Tomb in the heart of New Delhi, this project has become a model of a community participation approach to conservation. From initiatives in education, to sanitation, health and livelihood, the project has progressed way beyond a bricks-and-mortar restoration. Despite the obvious successes, both projects deal with ongoing issues-those of financial and social stewardship being some of the most pressing.

PS27 Architectural Preservation in Asia
Phi Nguyen, Harvard University, Chair

The Kyoto Imperial Palace as Cultural Relic

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Abstract

After the relocation of the Japanese imperial family and nobility to a new capital, the Kyoto Imperial Palace entered the modern period with a disavowal of its practical function as the emperor's primary residence and ceremonial stage. Located in the symbolic and physical center of a city originally founded as an imperial capital, the palace loomed as a profound lacuna.

My paper focuses on the divergent methods of heritage preservation through examining the management of the Kyoto Imperial Palace since 1868. In the past 150 years, protection of the ancestral residence to centuries of emperors has been the primary motivation for managing the site. Yet, the changing role that the emperor has played (and continues to play) in relation to the former imperial city, the nation, the Asian region, and world at large has agitated initiatives to reimagine meanings and purposes for the palace and its immediate surrounding. In the late nineteenth century, the palace signified the foundation of a newly-conceived national culture and imperial lineage; the urgency of making its grandeur visible prompted its opening to public view. In the early twentieth century, the ossification of the imperial institution's privileged status led to strict safekeeping of the major structures of the palace, but paradoxically the willful destruction of so-called lesser buildings and features of the compound. The postwar period brought about the documentation movement of premodern architecture for the rehabilitation of Japan as a cultural (not militaristic) nation, and the idealization of the palace as a set of aestheticized objects. Today, an ongoing initiative of Prime Minister Abe to push tourism as a prime economic driver has recast the palace as an icon of Japan's traditional past to an international audience, even as suggestions of the imperial family returning to reside in Kyoto remain afloat.

PS28 The Legacy of James Ackerman
Cammie Brothers, Northeastern University, Chair

Towards an Objectivity: Photography, Architecture and the History That Ensued

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Abstract

"Modern history of architecture had its origins un Western Europe at about the time when photographs of buildings became available to scholars."

                                -James Ackerman

In an essay from 2002 entitled "On the Origins of Architectural Photography," James Ackerman notes that while photography did not invent modern architectural history, it greatly shaped the structural features of the comparative method – a cornerstone of the discipline. Similarly, while developments in photography did not necessarily predict the professionalization of architectural photography, the métier as we know it would not exist. With the increasing ease of printing and dissemination techniques, photographs served not only as powerful documents, they also inevitably came to stand in for the buildings themselves. The growing demand for photographs of architecture began to coincide with the increasing objectification of the objects they illustrated. This paper will elaborate on two particular sites in which early architectural photography exerted both its evidentiary and polemical potential: the Royal Photographic Society (RPS), and the Architectural Photographic Association (APA). Founded in 1853 and 1857 respectively, these organizations represented the work of many prominent photographers, including Roger Fenton and Francis Bedford – two recurring subjects of Ackerman's writings on the subject, and founding members of the RPS.

In addition to staging curated exhibitions and hosting public lectures, they boasted hundreds of subscribers. While too early to be considered a mass medium, photographs produced and disseminated within the context of the APA and RPS did rehearse later theorizations of the medium. To invoke Walter Benjamin, the auratic beginnings of photography were such that by the ushering of new techniques, the photographed object transformed from artifact to document, to consumer product. As printed images of architecture were reified in the public realm, so too were the buildings they commodified – a trajectory played out within the industrial conditions of technological reproducibility.

PS28 The Legacy of James Ackerman
Cammie Brothers, Northeastern University, Chair

James Ackerman and the Foundations of Architectural History

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Abstract

This paper examines James Ackerman's monographs on Michelangelo and Palladio which appeared respectively in 1961 and 1966. It argues that they were instrumental in setting the foundations of architectural history as a distinct, even though, sister discipline to Art History. The monograph on Michelangelo exemplifies the unity of art and architecture: the formal considerations rely on stylistic categories and vocabulary which derive primarily from painting and sculpture. Concurrently, through the study of primary sources, Ackerman attempts to establish the characteristics that he considers to be unique to the medium of architecture: structure and function. Ackerman's enterprise consists in setting aside – in creating – Michelangelo the architect as opposed to Michelangelo the painter and sculptor. This attempt is brought to light through a comparison with Ackerman's monograph on Palladio. Formal considerations appear to be conspicuously 'absent,' while the focus of Ackerman's approach consists in devising a history of types and relating Palladio's practice to his theory. In the two monographs, Ackerman merges style and iconography – the predominant art historical approaches of the first half of the twentieth century – and succeeds in devising a novel 'architectural space,' where theory and function define architectural identity.

PS28 The Legacy of James Ackerman
Cammie Brothers, Northeastern University, Chair

Making Sense of Renaissance Architecture

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Abstract

In his 2016 essay "My Passage to India," Jim Ackerman emphasized the transformative impact of visiting a fifteenth-century Jain temple in Rajasthan, where this complex structure offered a completely new perspective on his lifetime project of understanding the buildings and spaces of the Italian Renaissance. To analyze the impact of this building, Ackerman drew a comparison with auditory experience, suggesting that the superimposed messages of the temple's narrative reliefs recalled the multiple voices of a sound installation by the contemporary artist Janet Cardiff. Both the subject and the approach of this essay attest to Ackerman's wide-ranging intellectual generosity: always intrigued by new subjects and new modes of analysis, he was more interested in bridging rather than dividing areas of study. If the extraordinary richness of Indian architecture prompted Ackerman to reassess how we study the building traditions of early modern Italy, I argue that his invocation of sound to interpret the experience of this building—effectively a multisensory analysis—attests to his ongoing attention to the different modes of sensory perception, and the ways that these can contribute to our understanding of buildings and spaces. Today sensory studies are widely recognized as offering many new insights to the study of architectural and urban history, and the subtle and penetrating observations made by Jim Ackerman underscore the value of such investigations. This essay explores how a close attention to sensory experience informed his critical interpretation of Renaissance designs. It argues that his scholarship was not only rooted in a longstanding intellectual tradition, but also revealed a masterful command of sensory experience, as powerful as it was intensely personal.

PS28 The Legacy of James Ackerman
Cammie Brothers, Northeastern University, Chair

James Ackerman and the Warburg School in America: The Early Renaissance Architect

Magda Saura
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Abstract

This paper will consider Ackerman's legacy in his essay "History of Design and the Design of History" (1980) in relation to Leopold Ettlinger's, "The Emergence of the Italian Architect during the Fifteenth Century," (1977). Ackerman approach to architectural historiography will be analyzed through the historical recurrence debate.

PS28 The Legacy of James Ackerman
Cammie Brothers, Northeastern University, Chair

Ackerman's Eye: Design History from the Viewpoint of Practice

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Abstract

Surveying James Ackerman's many scholarly publications, one finds a consistent pattern of using concrete examples from studio, fabrication and construction practices to study design. This pragmatic bias extended from studies of Renaissance optics and medieval cathedral workshops all the way to critiques of contemporary architecture. Ackerman had a keen eye for the practical aspects of artistic production; his work stood apart from the dominant theoretical strains of his contemporaries in Europe.

This paper will explore several of Ackerman's themes as an architectural historian: Renaissance drawing and studio practice, Leonardo da Vinci's notebooks, classical treatises on the orders, and the sculptural basis of Michelangelo's architecture. I will demonstrate from a close reading of key examples that Ackerman grounded his analysis in a clear understanding of embodied, artisanal literacy as distinct from the prevailing theoretical attitudes of many of his peers. Using ideas from cognitive neuroscience and the work of Pamela Smith and others, I will explore the trajectory of Ackerman's work from his earliest studies to recent essays.

Though he did not specifically cite neuroscientific research in his work, I believe that Ackerman ultimately justified the applicability of psychological methods to the study of art and architecture. His interests in the history of science, technology, and representation connect directly with his World War II service, influences from Panofsky and Gestalt psychology, and the socio-cultural perspectives of Focillon. Moreover, Ackerman's broad reading and active involvement in the intellectual environments of Berkeley and Harvard afforded an opportunity to observe and assimilate some of the key ideas in brain science during his long career.

In conclusion, I will point to some future trajectories for research that build on the achievements of this great scholar, some of which will appear in my new book on architectural representation, neuroscience, and design thinking.

PS29 Medieval Structures, Digital Tools, and Architectural Knowledge
Jelena Bogdanović, Iowa State University, Chair

Holy Land Architecture, Virtual Reconstruction, and Embodied Experience

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Abstract

The pilgrimage buildings of the Christian Holy Land provide an example of the controversial nature of virtual reconstructions of architecture long before the advent of digital media. This paper will explore the role of the Franciscan Custody of the Holy Land in cultivating perceptions of the pilgrimage buildings as worthy of preservation, especially by employing techniques of representation in printed books that often engaged the ideas of both restoration of the real buildings in the Holy Land and re-creation in Europe. Far from being a neutral space of disembodied experience, the virtualization of the architecture of the Holy Land created by the Franciscans explored the possibility of embodied experience, especially in order to challenge Protestant denials of the sanctity of the buildings. Long before the modern preservation movement, the Franciscans explored the potential for virtual reconstruction to demonstrate the value of buildings as symbols of a shared history and faith, while also challenging those who actively sought to dismantle the same buildings both in real and virtual space.

PS29 Medieval Structures, Digital Tools, and Architectural Knowledge
Jelena Bogdanović, Iowa State University, Chair

The Studenica Church: Reconsideration of the Raska School

Aleksandra Mokranjac
independent researcher, Belgrade, Serbia.

Abstract

By unifying the continental and coastal regions of Serbia in 12th century, the Serbian Grand Prince Stefan Nemanja (r. 1166-1196) marked his reign by acquiring the state independence from Byzantine Empire, while he simultaneously introduced numerous monastic endowments thereby enabling a naissance of the autochthonous Serbian spiritual and monumental expression – the Raska stylistic group. Among them is the Studenica Church of the Dormition of the Virgin Evergetis (Benefactress).

This paper investigates Studenica and the early development of the Raska school within a broader context of the Serbian architectural medieval heritage. Based upon the existing scholarly studies, the research focuses on the typological transformations and evaluations of the Serbian ecclesiastic concept of embodiment throughout its architectural realizations, which counterpointed both the contemporaneous eastern and western paradigms. The emphasis is on the importance of the overall spatial external architectural articulation and compositional achievement over inner appearance of the church. This paper argues that the broader purpose of Serbian monumental sacral edifices was to act on ordinary people from certain distance, as symbols of their identity, postulated on the Orthodox Christianity.

The importance of this study is in the reconsideration of the current scholarly knowledge on Serbian medieval architecture and how it can be compared to the knowledge coming from consideration of this architecture from the perspective of digital humanities.

PS29 Medieval Structures, Digital Tools, and Architectural Knowledge
Jelena Bogdanović, Iowa State University, Chair

Parametric Study of Proportions of Serbian Medieval Structures

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Abstract

Following the streamline of parametric research related to 3D modeling of world cultural heritage, this paper presents an elaboration of 2D/3D proportional analyses of Serbian medieval churches aided by parametric tools. Here, proportions of Serbian sacred structures are introduced in the new context of 3D parametric modeling. Each geometric element of a sacral building (e.g. vaults, dome, pendentives, arches, etc.) can be interpreted by its proportions and determined by parameters, and such incorporated in the adequate 3D model, according to plan and section patterns of a church. Eventually, a variation of parameters, depending on a pattern, results in a transformation of object's 3D model. The focus of our research is on proportional analysis of several representative Serbian medieval churches, built between the 12th and 14th centuries, in the context of 2D/3D parametric modeling. Since the primary goal of the sacred space is related to its inner concept, the research will elaborate geometry of the church interior. We test the three main structural concepts in medieval Serbian architecture - Ras, Moravian and Byzantine by varying their shapes and complexity. 3D modeling elements and masses grouped as families were created for importing into various structural concepts. Hence an innovative approach lightens "old" 2D proportional canons of exquisite Serbian medieval monuments, by utilizing modern digital tools, in a 3D graphics environment.

Key words: parametric modeling, Serbian medieval churches, proportions, plan/section patterns.

PS29 Medieval Structures, Digital Tools, and Architectural Knowledge
Jelena Bogdanović, Iowa State University, Chair

Spatial Cognition in Virtual Reality: A Medieval Study

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Abstract

Virtual reality (VR) is the ultimate representation, with the aim of simulating reality in such a way that our perceptions of the virtual environment replace the perception of our real environment. As such, VR has many applications within architecture. Current research in spatial cognition, however, demonstrates that VR does not necessarily translate to natural human spatial perception. In the 48th Annual Meeting of the Psychonomic Society, B.E. Riecke and T.P. McNamara demonstrated orientation-specific interference between participant's actual orientation in an empty rectangular room and their to-be-imagined orientation in a previously learned room. Despite using the same procedures, seeing the VR did not produce the same interference as a comparable real-world stimulus, suggesting qualitative differences in human spatial perception in real vs. computer-simulated worlds. A 2015 study published in *Nature Neuroscience* proved space-mapping brain neurons did not activate in scans when exposed to a virtual reality as they did in a real world setting. Both of these studies suggest qualitative differences in human spatial perception in real vs. computer-simulated worlds.

The geometrical rendition of architectural space and volume remains one of the most important features in historical architectural compositions. What are the implications of a tool that distorts that perception? This paper will identify the emerging cognitive research with regards to virtual reality and the range of technology and their effects. Using a digital model of a medieval building, this paper demonstrates the cognitive results of different digital representations and proposes a multi-media approach to achieve full cognitive comprehension of virtual space.

PS29 Medieval Structures, Digital Tools, and Architectural Knowledge
Jelena Bogdanović, Iowa State University, Chair

Digitally Documenting Medieval Rome: New Tools for Studying the Built Environment Virtually

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Abstract

This paper explores the use of new technologies to study the visible remnants of medieval façade porticoes in the historic center of Rome, revealing a distinct layer of the city's building tradition, highlighting the phenomena of a shift in architectural and urban patterns and as a result the fabric of the city of Rome. Through the development of a digital research tool with the Historic Urban Environments Lab at the University of Notre Dame (HUE/ND), the findings of this paper can now be explored with the aid of a website and digital application for public use and study of a unique layer of medieval Rome. This digital research tool allows for the visualization and analysis of the built environment virtually, through the integration of traditional scholarly sources such as images, including drawings, maps, plans, as well as other library and archival materials coupled with the latest optical technologies, utilizing modern day instruments to assist in answering questions left by these medieval porticoes. The traditional research materials were coupled with onsite documentation of the of these medieval buildings that were identified, geo-located, and documented on-site. The information gathered in this paper is the beginning of a greater attempt to find ways of breathing new life into print scholarship, allowing it to be housed not only in the confines of the pages of one book but also simultaneously reside alongside other sources of information and explored in new and vibrant ways.

PS30 Atmosphere and Architecture
Nadine Helm, University of Zurich, and Claudio Leoni, ETH Zurich, Co-Chairs

Breathing Architecture and Pneumatic Human Life Around the Turn of the Century

Tim Altenhof
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Abstract

This paper will address the *atmosphere* not just in the most literal sense—as a "sphere of air" (from the Greek *atmos*, or vapor, and *sphaira*, or globe)—but also, as something that transcends the merely physical and transforms public culture. In the 19th and early 20th centuries, the atmosphere was popularly imagined as something that could bring either salvation or harm. On the side of salvation, the mid-19th century witnessed the triumph of atmospheric exposure and an enthusiasm for the act of breathing. Swiss natural healer Arnold Rikli promoted the *atmospheric bath* as early as the 1850s; he held that humankind should not retreat from the atmosphere by wearing clothing, or even by taking shelter.

Contemporaneously, German anatomy professor Joseph von Gerlach provided the first scientific evidence that the skin (rather than just the lungs) is partially responsible for the body's oxygen intake from the atmosphere. These two strands merged in the new popularity of sun- and air-bathing treatments, not just for ailments like tuberculosis but also for general health.

In contrast, the first coordinated gas attacks during WWI brought about an increased awareness of the atmosphere as something negative: the hitherto natural and life-sustaining act of breathing could now kill a person. German philosopher Peter Sloterdijk identifies the onset of these gas attacks as the primary catalyst for environmental thinking and also for modernity as a whole.

By the 20th century, these principles finally entered into architectural practice. The Queen Alexandra Sanatorium at Davos, characterised by its "mild atmosphere," will illustrate how popular beliefs about pneumatic human beings shaped modern architecture and its discourse. A second case study will be Erich Mendelsohn's "breathing" hat factory at Luckenwalde, which, beneficial for the modern worker, sucked in fresh air from outside in order to defog its interior.

Thick and Unbounded: Corbusier's L'Espace Indicible in Chandigarh

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Abstract

In 1946, Le Corbusier set forth the principles of a "space beyond words." Titled *L'Espace Indicible,* Corbusier proposed a new design manifesto centered on the emotional affordances of space, i.e., on its atmospheres. What does atmosphere mean when designing the architectural space? And how to convey these atmospheres in design when its ontological presence resists the dominant ocular-centric regimes of representation? This phase in Corbusier's Oeuvre coincides with a renewed interest in the body. Moreover, it foregrounds the body's vulnerabilities when confronted with physiologically stressful built environments. Ambiguously demarcated, space emerges as dispossessed of disciplinary boundaries; as the result of an architectural practice operating beyond its traditional disciplinary limits while borrowing techniques from landscape, urban planning and meteorology. Described as a moment of synthesis by Le Corbusier, the architectural space embodies a profound reflection on human wellbeing, economic constraints, and cultural legacy. The search for the *L'Espace Indicible* steered Le Corbusier onto a novel design repertoire and a new set of collaborations during the urban project of Chandigarh in India. Horticultural and bio-meteorological knowledge take further agency in Le Corbusier's urban project. Architecture, operating at various scales of climates (from large to x-small), thickens its edges, expands its spatial possibilities, and generates novel methodologies. The manifestation of Le Corbusier's *L'Espace Indicible* in Chandigarh's urban project captures the capabilities of re-centralizing wellbeing and the role of atmosphere as design medium in the relation between cities and climate change. This presentation will showcase the potentials of atmosphere as design medium in the present commitment to wellbeing and sustainable practices through Chandigarh's bio-climatic design techniques resulting from (1) renewed interest in the body, and (2) less-known collaborations between Le Corbusier with the physiologist Pierre Winter, the engineer André Missenard, and the horticulturist Dr. Randhawa.

PS30 Atmosphere and Architecture
Nadine Helm, University of Zurich, and Claudio Leoni, ETH Zurich, Co-Chairs

Strawberry Hill: Acclimatizing Oneself to an Atmosphere of Gloomth

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Abstract

When describing the atmosphere in his famous Strawberry Hill House, Horace Walpole coined the word "gloomth." Scholars of Walpole's modern Gothic aesthetics have explored the emotive significance of gloomth to create a mood in his architecture. However, the question of atmosphere as an aerial phenomenon remains underdeveloped in the environment of Strawberry Hill. How did Walpole participate in eighteenth-century debates on the cultural, political, medical, and technological significance of air? And how did those debates inform the atmosphere of gloomth in his house?

In this paper, I trace a complex relationship between climate, political liberty, humoral medicine, and Walpole's sense of humor, developing an understanding of Shakespeare's "Gothic" genius that was in the air, as it were, of eighteenth-century Britain. As evident in his comments on Shakespearean performances (and in a preface to his Gothic novel), Walpole's followed an eighteenth-century logic that celebrated Shakespeare for the Gothic "irregularity" of mixing comedy with tragedy in the name of emotive passion rather than measured taste. Thus, the dramatic recreation of Gothic aesthetics at Strawberry Hill was an effort to evoke passion. Furthermore, Walpole's self-fashioning as a man susceptible to fluctuating moods is evident in his metaphoric extension of the barometer (the quintessential instrument of atmospheric pressures) to his body as a "passionometer." Architecturally, then, I focus on the north entrance of Strawberry Hill, where Walpole applied significant passionometric pressure to the Gothic irregularities of comedy and tragedy. Walpole, his circle of friends, and coteries of welcomed guests experienced a dramatic transition from the "greenth" gaiety of the surrounding landscape to the somber gloomth of the entrance, only to rediscover the greenth of the gardens as Walpole preferred them, picturesquely framed by a window. It is this transition between greenth and gloomth the acclimatized people to the atmosphere of Strawberry Hill.

PS30 Atmosphere and Architecture
Nadine Helm, University of Zurich, and Claudio Leoni, ETH Zurich, Co-Chairs

The Spray: Inside and Out

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Abstract

In hot humid climates around the world, evaporation has been used to cool buildings and their interiors. In hot dry climates, water—particularly water as a spray—both humidifies and cools. A third use—delight—adds a psychological contribution to those more physiological. The rill, pool, and jet have all played roles in these operations, but it is water as spray that has been the most consequential. By atomizing the liquid into fine particles, spray increases the rate of evaporation and the extent of its effect, while lessening the force of impact. This paper examines the use of sprays in a selection historical interiors and contemporary landscapes.

Green houses at botanical gardens and for agricultural production have used sprays to dampen the atmosphere and irrigate vegetation. Softer than a stream, a mist diffuses the effects of the water and reduced the potential damage to delicate plants and the risk of undue puddling. Kew's Filmy Fern House relies heavily on sprays to bring internal humidity and temperature into accord with the exterior climate. Sprays reached their architectural apotheosis in Diller Scofidio's Blur Building at Swiss Expo 2002. Here a metal framework supported a network of 35,000 nozzles that extruded a building "mass" both intermittent and unstable.

In architecture and landscape sprays aerate pools and ponds, cool building surfaces, and reduce the risk of fire. They have also been a major source of delight. In Renaissance Italy the *giochi d'acqua* amused guests with unexpected bursts. With the advent of computer technology the jet and spray now choreograph patterns and volumes with mutating dimensions. First used at Fountain Place in Dallas, these spray/jet fountains have become a staple of public landscape architecture in locations that range from Sugar Beach Park in Toronto to the Paris' Parc André Citroën and the *Miroir d'eau* in Bordeaux.

PS31 Working with Mr. Gilbert: Cass Gilbert and His Collaborators
Marjorie Pearson, Summit Envirosolutions, and Mary Beth Betts, Public Design Commission, Co-Chairs

Working Design: Innovation and Collaboration in Cass Gilbert's Industrial Buildings

Melanie Macchio
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Abstract

Cass Gilbert has received accolades as the father of the modern skyline for his skyscrapers and recognition for his high style institutional designs. However, his commercial and industrial work, much of which still exists in working order, is nearly a footnote in his portfolio. He created fully integrated site plans with these projects, highlighting the utilitarian features, as opposed to the comparatively decorative styles of his headquarters and governmental buildings. Gilbert's industrial work shows that in a quickly changing world, he was able to create a product so modern that it not only met the client's need during its own time, but would continue to be of use for generations.

Utilizing collaborations and partnerships, Gilbert, an architect steeped in tradition was able to create wholly modern and innovative designs. The intention of this research is to discern the important role collaborators played in the efficient completion of such large-scale, complex projects. His continued collaboration with professionals outside his firm and his close relationship with clients and even vested parties, reveal Gilbert's planning and project management skills were on par with his design skills. Materials in the New-York Historical Society's Cass Gilbert Collection and contemporaneous coverage in architectural and engineering journals reveal the importance of collaboration on key projects, including Brooklyn's Austin, Nichols & Co. Warehouse and U.S. Supply Base.

Giving Gilbert the appropriate due for these projects will help illuminate and memorialize the significant contributions of the planners, engineers, and builders he worked with so we can better understand the techniques and innovations that have made these buildings successful for a century or more. To understand the significance of these buildings is to provide a framework for their thoughtful preservation and adaptive reuse so that future generations of professionals can continue to learn from the successes of these collaborators.

PS31 Working with Mr. Gilbert: Cass Gilbert and His Collaborators
Marjorie Pearson, Summit Envirosolutions, and Mary Beth Betts, Public Design Commission, Co-Chairs

Like Father, Like Son? Cass Gilbert Junior's Postmodern Legacy

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Abstract

Of the 132 US entries to the 1958 international competition for Toronto's New City Hall and Square, one submission stands out. Entered by the firm of Cass Gilbert Inc., it presents a well-developed Beaux Arts scheme reminiscent of the finest products of the firm's output of a half century earlier. The design did not make it into the final cut. Nonetheless, its presence is remarkable.

Two decades after his father's death, Cass Gilbert Jr. soldiered on. His 1958 submission presents an ideal of civic government diametrically opposed to the entries submitted by other US architects and stands as a challenge to the currents of modern public building and the monumental architecture that dominated architectural discourse.

Gilbert Jr. spent his entire career in his father's office. After his father's death, he completed remaining unfinished projects and executed others in the same spirit, either alone or in collaboration.

This paper interrogates the nature of the architect-parent / architect-child relationship, in this case made even more complex when the architect-parent is famous and indomitable. It discusses the shift in attitude toward the monumental public building that characterized debates of the time. As holder of the family legacy, what drove the son to keep the monumental and classical imperative alive? How did Gilbert Jr.'s work continue his father's legacy? Just as his father's work has been viewed as aggressively modern for its time, this paper asks whether Gilbert Jr.'s 1958 submission could represent the beginning of the ascent of postmodernity and a new historical consciousness. Was Gilbert Jr.'s competition entry the last gasp of an outmoded architecture or was it the precursor of a renewal of the spirit that infused American debates around history, architecture and public building of the latter part of the 20C?

PS31 Working with Mr. Gilbert: Cass Gilbert and His Collaborators
Marjorie Pearson, Summit Envirosolutions, and Mary Beth Betts, Public Design Commission, Co-Chairs

Networks Near and Far: Glenn Brown, Charles Moore, and Cass Gilbert

Barbara Christen
Independent scholar, Baltimore, USA.

Abstract

Cass Gilbert's early experiences as a student at MIT and as an apprentice in the firm of McKim, Mead & White offered him guidance in how the powerful mechanisms of social and professional networks provided entry into a world he wanted to inhabit. After completing the nationally prestigious projects of the Minnesota State Capitol (1895–1905) and the United States Custom House (1899–1905), he actively sought to expand his networks through membership and participation in the Century Club (New York), Cosmos Club and Commission of Fine Arts (Washington), and University Club (St. Paul), as well as groups with an international reach, such as the AIA, where he rose through its ranks of leadership to become president (1908–1909).

Were it not for his exposure through these networks to the ideas of architectural and planning colleagues Glenn Brown and Charles Moore, Gilbert likely would have become a different kind of architect—one much less interested in utilizing a vision of comprehensive planning in practice. This talk will examine how Brown and Moore effectively drew Gilbert into city planning discussions in the first quarter of the twentieth century in both Washington and Detroit. The collegial relationship between Brown and Gilbert at the AIA, Brown's influence on Gilbert in the pivotal session at the organization's convention in 1900 on the planning of Washington, and the publication of related papers one year later are all of special interest. The talk will also address Moore's professional relationship with Gilbert from the time they, and others, founded the Commission of Fine Arts; Moore's role in Gilbert's plans for the Cultural Center in Detroit; and the development of that city's Belle Isle Bridge. Considered together, this trio demonstrates the power of the exchange of ideas and their lasting impact on the history of twentieth-century civic interests.

PS31 Working with Mr. Gilbert: Cass Gilbert and His Collaborators
Marjorie Pearson, Summit Envirosolutions, and Mary Beth Betts, Public Design Commission, Co-Chairs

Visualizing the Woolworth Building with Scalar at Vanderbilt

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Abstract

Recently purchased for the Vanderbilt University Fine Arts Gallery, the Reiman Collection contains more than 150 previously-unknown architectural drawings of the Woolworth Building by Cass Gilbert's office, including elevations, floorplans, mechanical drawings and details. This collection sheds light on Cass Gilbert's collaborative methods and complements those in other public collections, notably the New-York Historical Society and the Library of Congress.

Scalar, an open-source platform for born-digital scholarship, allows collaborating authors to write and customize their work using aspects of digital writing like nested, recursive, and non-linear formats while supporting reader commentary. In 2017, Vanderbilt staff from the Library (Mary Anne Caton), Art Gallery (Joseph Mella), and Visual Resources Center(Millie Fulmer) worked with undergraduate Ellen Dement and Art History faculty Kevin Murphy to build a Scalar book documenting Vanderbilt's collection. In fall 2017, students in Art History 3725W: The Skyscraper: Modern Urban Icon will write about the building and its reception in art and popular culture in Scalar. In the Scalar project faculty, researchers and students have developed a multi-media study of the Woolworth Building with materials all in one place to compare representations and resources across repositories with commentary and analysis.

The Vanderbilt drawings document Gilbert's collaboration with engineers, architectural renderers, and office staff. Several drawings detail the back-and-forth of change orders with specifics from Gilbert noted. The process of changing the commercial features of the building, like the swimming pool, the bank, and the rathskeller, can also be followed. This paper will discuss work of engineers, artists, and others documented in the drawings themselves. Discussion of student work and next steps in the project will also be covered.

PS32 Colonial Past in the Neo-Colonial Present
Daniel E. Coslett, University of Washington, Chair

Architecture, Conversion and Civic Identity in France and Algeria, 1832–Present

Ralph Ghoche
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Abstract

On July 6, 1962, a day after achieving independence from France, a group of eight hundred men and women rushed into Algiers' Saint-Philippe Cathedral and reclaimed it as the central mosque of the city. The Ketchaoua mosque, as the church was known before its forced christianization in 1832, officially reopened on the anniversary of the outbreak of the Algerian Revolution a few months later. The Ketchaoua mosque has recently reentered public consciousness in the wake of debates regarding the need for Islamic spaces of worship in France. Advocates for the conversion of disused Christian churches have pointed to the Ketchaoua mosque and other such appropriations of religious sites during the modern colonial era as justification for their demands. These advocates have met unsurprising resistance from public officials, including Nicolas Sarkozy, the former president of the French republic. This debate has helped reignite discussions over the role that immigrants and former colonial subjects are to play in France's public sphere and civic identity.

My proposed contribution to "Colonial Past in the Neocolonial Present" will examine Algiers' Ketchaoua mosque in relation to contemporary discussions regarding cultural integration and identity. I demonstrate that the Ketchaoua mosque's architectural conversion into a cathedral during the 1850s and 60s marked a new stage in church design in Algeria, one which moved from neoclassicism to the adoption of a "Neo-Moorish" style. I propose that the shift reflected an assimilationist streak in Second Empire France, one which aimed to assimilate and absorb Algiers' populations into the larger totality that was French identity, while also quite clearly being a mandate for cultural violence, and for the appropriation and subjugation of a people. The contradictory and duplicitous nature of these aims will allow for a broader reflection on today's debates.

PS32 Colonial Past in the Neo-Colonial Present
Daniel E. Coslett, University of Washington, Chair

The Riad's Resurgence: Questioning the Historical Legacy and Currency of the Maghrebi Courtyard House

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Abstract

Like clockwork, recurring nearly every January to March, travel sections of western newspapers and magazines feature articles showcasing exotic adventures to be had in the warmer climes of North Africa, specifically Morocco and to a lesser extent Tunisia. Riads, or multi-level courtyard houses native to all medinas of the Maghreb, are photographed in these orientalist spreads in a manner not dissimilar to the drama of a stage set—darkened rooms framed by lavish drapery and potted date palms, candlelight reflected in the courtyard's pristine pool, bold hues of zellij tiles enveloping the viewer, and so forth. In recent years, rehabilitation and preservation institutions in Morocco have sought to renovate delapidated riads throughout the country's cities, specifically with the kingdom's touristic ventures in mind. Undoubtedly, these projects to refurbish riads, though executed in the name of development, further entangle these countries in various forms of neocolonial economic dependency. Inasmuch as this housing typology has come to embody these exoticizing fantasies for western indulgence (and eastern, indulgence, considering the flock from the Arab Gulf to Morocco), for the respective French colonial administrations of Algeria, Tunis, and Morocco and their colonial settlers in the late nineteenth and early twentieth centuries, the riad did not represent a model to emulate and replicate, let alone live in. Although the worlds fairs of the same period would propogate myths of cultures in need of being civilized, in architectural practice overall, the imported functionalist, modernist building principles prevailed across the French colonial Maghreb. Using archival material, this paper reconstructs the colonial perceptions, adaptations, and appropriations of the riad and in doing so, questions its historical legacy and necolonial currency.

PS32 Colonial Past in the Neo-Colonial Present
Daniel E. Coslett, University of Washington, Chair

British Colonial Singapore Today: Post-colony or Neo-colony?

Nathan Bullock
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Abstract

British colonization of Singapore produced many significant effects on the urban landscape. It developed into a major trading hub as part of the Straits Settlements and was given its first master plan by Sir Stamford Raffles in 1822. A study of key British buildings from this era which remain in Singapore today allows for an interpretation of the current government's relationship with colonialism. I ask whether independent, contemporary Singapore has developed into a postcolonial context critical of its colonial legacy or become a neo-colony for the ruling class and global élite. Self-rule was granted in 1959 and full independence was achieved in 1965. Since that time a single political party has been in power and a single family has headed the government for nearly as long. I argue that the preservation and selective reuse of British colonial buildings reveals a neocolonial present which challenges the notion of a post-colonial break in 1965. Examples to be covered include the Botanic Garden, Raffles Hotel, and Government House. These venues continue to serve identical functions in post-colonial Singapore as in colonial Singapore. I argue that this is not the result of an overarching concern for historic preservation, a heritage movement, or the values of architectural pedagogy in Singapore. Rather, it is the result of neocolonial processes which continue the cultural imperialism of Anglo design at the expense of vernacular architectures. The Raffles Town Plan continues to influence the historic built environment of Singapore by providing the basis for which areas are designated historic neighborhoods and which locally designed buildings to not get preserved or acknowledged. This presentation of the past serves the purpose of portraying an image of Singapore's present day power derived from its former position in the British Empire and current position as leading the neocolonial processes in globalizing Southeast Asia.

PS32 Colonial Past in the Neo-Colonial Present
Daniel E. Coslett, University of Washington, Chair

Colonial Carcerality and the Neocolonial Indian Prison

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Abstract

Nestled within the elite Alipore district of Kolkata, capital of the Indian state of West Bengal, is the Alipore Central Jail. Still in use today, Alipore functions simultaneously as a memorial to anti-colonial resistance and as a testament to the lasting legacy of colonial infrastructure in the neocolonial setting. Constructed in 1910 using a radial plan, Alipore was commissioned to replace the dilapidated buildings of the old Alipore Jail, built a hundred years earlier. With its "modern" plan, this new Alipore promised to provide a more secure prison facility for Calcutta, which had become especially politically-charged, during the growing turbulence of the nationalist movement. In the decades that followed, many of the most prominent figures of the movement would reside within the jail as political prisoners. Today the cells that once contained these leaders have been repurposed as memorials; busts sit atop pedestals inside the cells with commemorative plaques marking the leaders' dates of incarceration. When the British left India in 1947, the leaders of India's newly-independent government, many of whom were political prisoners, viewed the reform of the colonial prison system as a top priority. Jail committees were formed and the Indian government sought the help of the UN to improve prison designs and management in the immediate aftermath of independence, however the vast majority of Indian states including, West Bengal, continue to this day to utilize colonial buildings and the colonial model of management. Using the Alipore jail as primary example, this paper seeks to explore the complex relationship between the colonial past and the infrastructural landscape of the neocolonial city. The contemporary Indian prison system is a particularly poignant and complex case study, as its buildings symbolically memorialize the fight against oppression, but in day-to-day operation continue to reinforce the disciplinary system of colonial oppressors.

PS32 Colonial Past in the Neo-Colonial Present
Daniel E. Coslett, University of Washington, Chair

Postcolonial Berlin: Erasing Traces of Colonial Pride

Valentina Rozas-Krause
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Abstract

While Holocaust memorials are a ubiquitous sight in Berlin, no memorial exists to remember the Herero and Nama genocide. The German Army's brutal conquest of South West Africa (1904), which led to the murder of thousands of natives of present-day Namibia, has been largely overlooked under the veil of "colonial amnesia." Yet, recent demands for an official German apology have allowed imperial memories to resurface.

The contrast between the remembrance of Germany's Imperialism and Totalitarianism is perhaps most palpable in the surroundings of the *Topography of Terror* in the center of Berlin. Only a couple of blocks away from the documentation center of the former Gestapo headquarters, an almost undetectable plaque commemorates the site where the Conference of Berlin was held in 1884, marking the entrance of Germany in the conquest of Africa. While Hannah Arendt argued that the camps and massacres of Germany's Imperial expansion in Africa were precedents to Germany's Totalitarianism, the processes of atonement and remembrance of the Nama and Herero genocide has been largely overshadowed by those of the Holocaust.

Analyzing a working-class neighborhood, named *Afrikanisches Viertel* [African Neighborhood] in honor of Germany's real and desired colonial conquests in Africa, this paper examines the effects of the resurfacing of colonial memories in the built environment of Berlin. Unhappy to see the names of German colonial pioneers in the *Afrikanisches Viertel*, citizens have created *Berlin Postcolonial* and organizations alike to lobby for street-name changes, as well as to contextualize the neighborhood's colonial roots through guided tours and markers. Following the interventions of these activists and tracing the remains of colonial pride, this paper explores the effect of the pending German official apology on the built, lived and perceived environment of the *Afrikanisches Viertel* and its relationship to the atonement for the Holocaust.

PS33 Fleeing the City? The Tragedy of the Commons in the 21st Century
Lara Schrijver, University of Antwerp, and M. Christine Boyer, Princeton University, Co-Chairs

From White Flight to Black Lives: The Politics of the Garden City

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Abstract

In the American context, any answer to the question of whether or not it might be wise to return to early twentieth-century ideas of urban-rural connectivity must include a discussion of race. Based on the way many of these seemingly race-neutral garden-city schemes (from Wright's Broadacre City to the RPAA's regional networks to Le Corbusier's Radiant City) were eventually re-interpreted to support both *de facto* and *de jure* forms of segregation, any renewed discussion of these ideas must not assume matters of race can be considered later. Accurately remembering the historical forces that contributed to the devolution of these utopian strategies into our white-suburban and black-innercity divide of today is critical to their potential reimagining.

This paper discusses this complicated history by comparing two sets of films from the last century. The first set focuses on narratives related to white rural-urban migration, as that population moved from the country to the industrial city and then back out again across the mid-twentieth century; while the second set focuses on narratives related black rural-urban migration, as that population moved from the rural South to the urban North and West during the period known as the Great Migration (with some portion of that population eventually starting to imagine moving back to the South by the century's end).

Comparing films such as *The City* (1939) and *Killer of Sheep* (1978), for example, reveals not only that both black and white Americans have used their cinematic imagination to navigate the complexity of this urban-rural continuum from distinct perspectives across the last century, but that understanding those differing perspectives will be useful to all of us if we are to begin imagining what a new "commons" might look like in today's context.

PS33 Fleeing the City? The Tragedy of the Commons in the 21st Century
Lara Schrijver, University of Antwerp, and M. Christine Boyer, Princeton University, Co-Chairs

Reterritorialization: An Emerging Urban Paradigm

Martino Tattara
KU Leuven, Faculty of Architecture, Leuven, Belgium.

Abstract

Architectural and urban discourse in the last decades have been dominated by the figure of the metropolis. This has been influenced without doubt by Rem Koolhaas's writings, which have played a pivotal role within the architectural debate of the last few decades and have constituted foundation readings for many of today practicing architects and urbanists. While Koolhaas's design work was at times scrutinized, his understanding of contemporary processes of urbanization, as revealed by his theoretical writings, has never been fundamentally questioned. This paper intends therefore to produce a fundamental critique of Koolhaas' legacy of the global metropolis, urbanization and their inevitability, by drawing on the work of the Italian Territorialist school. The school is comprised by a group of scholars from different fields who are gathered around the figure of urban planner Alberto Magnaghi. The work of Magnaghi – made of both texts and projects – challenges last decade's dominant urban rhetoric by advocating a new paradigm based on the idea of the bio-region – a system within which the city becomes part of a larger territory able to redefine the cycles of e.g. water, food and energy production. Reviving the relevance of Alberti's concepts of *necessitas, commoditas* and *concinnitas* and the municipal tradition of Italian regional cities, Magnaghi has put forward a new alternative thought which this paper will argue to be the most coherent alternative to current urbanization.

PS33 Fleeing the City? The Tragedy of the Commons in the 21st Century
Lara Schrijver, University of Antwerp, and M. Christine Boyer, Princeton University, Co-Chairs

Tokyo De-capitalized: Architects Shape Regional Communities as a Critique of Japanese Consumer Culture

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Abstract

The rapidly growing Japanese city, and in particular the capital Tokyo, has been a major preoccupation for Japanese architects throughout the post-Second World War era, resulting in radical architectural experiments that feverishly embraced, internalized, or antagonized the urban 'chaos.' However, a global financial crisis (2008) on top of a lingering recession (1990s, 2000s), the collapse of the lifetime employment system, two catastrophic earthquakes (1995, 2011) and a shrinking population have radically altered societal conditions and consequently provided architects with new tasks. In line with a much larger ongoing trend that wants to replace the materialistic consumption pattern with a new form of *ethical* consumption, architecture in Japan has shifted from a predominantly artistic discipline in which Tokyo functioned as the main production stage, into an conscious effort to improve the 'other' Japan, consisting of rapidly depopulating towns, villages, and rural areas.

Starting from theoretical discussions in Japanese architecture journals, newspapers, recent exhibition catalogues, and an archive of personal interviews, this paper investigates the new role architects in Japan have appointed themselves at the start of the twenty-first century. It examines recent design interventions that show a strong commitment to support the local community—small shops that attempt to revitalize deprived areas, new forms of co-living that accommodate alternative families based on shared interests, and renovations of vacant buildings as a means of sustainable reuse— as a form of bottom-up 'recovery' of the Japanese society. Building on this analysis, this paper reveals the possibilities of a reversed rural-urban constellation, in which the hinterland feeds the big metropolis with alternative, more conscious lifestyles that require an active participation to succeed. Accordingly, this project poses questions about the capability of independent architects to recover fundamental places for 'communities' rather than making exquisite spaces for 'individuals.'

PS33 Fleeing the City? The Tragedy of the Commons in the 21st Century
Lara Schrijver, University of Antwerp, and M. Christine Boyer, Princeton University, Co-Chairs

Food Deserts, Big Boxes, and the Revitalization of the Rural

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Abstract

In the spring of 2011, the United States Department of Agriculture officially defined the term "food desert" as a community where at least 500 people and/or at least 33 percent of the census tract's population resides more than one mile away from a grocery store or super market and does not have a private vehicle to make the journey. For rural food deserts, a distance of at least 10 miles to the nearest grocery store is more typical. While defining access to the most basic of necessities seems a logical first step in the quest to address inequality, this particular definition does not take into account deep infrastructure divides between rural and urban areas, nor does it acknowledge the frustratingly slow (and often gentrifying-reliant) process of redeveloping an aging built environment. However, even gentrification is out of reach for many small, far-flung towns. It is unlikely that private investors will sink money into essentially un-salvageable buildings such as abandoned big box stores, particularly when the population served by such a redevelopment plan is comparatively small. Unlike the stately, gracefully declining department stores in urban centers, big box stores are largely constructed of cheap materials intended to crumble after a decade or so. Additionally, this type of greyfield development is often legally hindered by the corporate interests of the companies that erected the big boxes in the first place – many big box retailers chose to let their lots rot rather than renting or selling to a potential competitor. Furthermore, redevelopment of specific structures alone will not increase access to food and other goods in rural areas. This paper will address the economic and aesthetic complexities of revitalizing retail architectures in non-urban environments, and will analyze the historical circumstances and infrastructure failings that created rural food deserts.

PS34 Architecture and Disability
Sun-Young Park, George Mason University, Chair

Architectural Heritage, Disabled Access, and the Memory Landscape

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Abstract

In June 2015, a Suffolk County Superior Court judge sided with the Beacon Hill Architectural Commission in rejecting Boston's project to install 259 accessible curb ramps in the historic district, temporarily settling a longstanding dispute. Across the continent, San Francisco's Beaux Arts City Hall was until 2010 the focus of an extended public clash over a wheelchair ramp retrofit. These stories reveal how the politicization of access, centered on the loss of architectural integrity, erupts in local standoffs all over the country.

Because buildings are the quintessential sites of memory, making and remaking them to include formerly excluded groups generates new social narratives. Dolores Hayden highlighted efforts of marginalized groups to be represented in the American memory landscape. *The disabled* are not considered to have a common heritage in the same way as women or blacks. Making historic and other buildings accessible is not thought of as recovering the memory of a social group. Yet disability scholars argue that oppression on the basis of atypical embodiment *has* produced shared experiences, expressions, and life realities, none more unifying than spatial exclusion due to physical obstacles. Thus, accessible architecture proliferated through the ADA is itself a memorialization of disability history. Providing access to historic buildings is impelled by different factors, has different modes of implementation, and presents distinct symbolic and material challenges from those of other group claims. Nevertheless, it acts as public history, more salient and pervasive than memorials marking historic events in the disability rights movement.

There is little critical analysis of how this debate refracts central questions about heritage—or access. This paper examines the designs and discourse of these conflicts using the theoretical frame described above to offer new readings of how making historic fabric accessible challenges architectural authenticity, opens new forms of remembrance, and shapes the disabled subject.

PS34 Architecture and Disability
Sun-Young Park, George Mason University, Chair

Air or Access: Spaces for Children with Physical Disabilities

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Abstract

In the early 20th century, classes for children with physical disabilities in New York City operated within a complex network of spaces in schools, hospitals, charitable organizations, and private homes. The nature of these spaces changed through periods of expansion or consolidation as differing agencies gained greater control over specific student populations and in response to shifting expectations surrounding education and accommodation for children with physical disabilities. My paper explores connections between open-air and orthopedic classes, which developed concurrently with similar rest and nutrition provisions. By 1941, New York City school authorities viewed open-air classes with disfavor while continuing to support orthopedic classes. National shifts in attitudes were entwined with these views given the prominence of the New York Public Schools in the field of special education and the involvement of national consultants such as George D. Strayer and Nickolaus L. Engelhardt on city committees. While students with mobility concerns continued to receive architectural accommodations which could segregate them from their peers, students in open-air classes diagnosed as malnourished or at-risk for tuberculosis rejoined their peers in a "typical classroom." My paper will consider how school facilities changed to allow for the reintegration of some student populations while others remained segregated within classes set aside for children diagnosed with specific physical disabilities.

PS34 Architecture and Disability

Sun-Young Park, George Mason University, Chair

Remodeling to Stay Home: An Architectural History of Aging in Place

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Abstract

The Age in Place movement that arose in the late twentieth century argued the advantages of older adults remaining in their existing homes and communities rather than relocate to long-term care facilities. Advocates' research and writing addressed myriad ways the dwelling could be altered to overcome the challenges of growing older. Treatments ran from major structural interventions such as widening hallways or adding new entrances and ramps to the redesign of bathrooms and kitchens to more modest alterations including the arrangement of furnishings and repurposing rooms. Beginning with contemporary aging in place rhetoric, this paper moves backwards in time tracing historic approaches to aging in place, as well as the practices and rationales that defined the movement.

The paper identifies points of intersection and departure between the prescriptive "how to" literature of popular magazines, laudatory case studies in design publications, and increasingly influential social scientific and gerontological research. It examines the history of spatial reconfigurations, new materials, and approaches to increase the livability and safety of older adult inhabitants in places that they considered home. In the process it acknowledges the standing of aging occupants, their relatives, builders and contractors (amateur and professional) that is equal to that of the designer. An Age in Place attitude extended the notion of "living better where you are' that underpinned arguments for remodeling rather than relocating in the postwar era. As such, it represents an important, and unexamined, element of home improvement history in the post-World War II United States.

PS34 Architecture and Disability
Sun-Young Park, George Mason University, Chair

Modernity and Relief: Burnham Hoyt's Boettcher School

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Abstract

The Boettcher School for Crippled Children (1940) in Denver was Burnham Hoyt's most prominent institutional project and a demonstration of his belief that architecture was "a dramatization of a system of construction." The theatrics of Hoyt's work, however, went beyond tectonics into a tightly staged play for the dignity of the building's occupants and that of modern architecture itself. Prior to the emergence of "mainstreaming" which emphasized the need to integrate disabled students into general school populations, the specialized school was tasked with helping students to "learn to live successfully in a normal world," demanding an architectural approach that was both supportive and austere; transparent in its aims, but also capable of preempting or obscuring situations that might cause students embarrassment.

This study positions the Boettcher School within the lineage of Hoyt's work as he evolved from an apprentice of Bertram Goodhue to a practitioner intent on grounding modern design in the soil of the American West with projects such as Red Rocks Amphitheatre. More importantly, it considers how modern architecture in the U.S. was conceived as a form of relief from shocks ranging from war to economic depression and how this therapeutic impulse rendered institutional projects such as the Boettcher into idealized experiments for bodies and minds deemed less than ideal. As with many of his colleagues, Hoyt served as a camoufleur in WWI and returned home with physical wounds and a newfound expertise in environmental thinking that prioritized protection through concealment and suggestive misdirection, along with a design method involving standardized elements and continual improvisation under distressing conditions. This study argues that modern architecture in the U.S. and architecture for the disabled were refracted through interwar-era ideas about personal trauma and resilience that were at once progressive and conservative in the equation of dignity with saving face.

PS35 Reconsidering Renaissance Architecture and Urbanism
Carla Keyvanian, Auburn University, Chair

Viewing Renaissance Architecture in/from Turkey

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Abstract

In the past several decades, architectural historiography has witnessed a shift in geographical boundaries of the Renaissance through the inclusion of "Islamic East", in general, and the Ottoman lands, in particular. This paper traces the history of this inclusion back to James Fergusson's *History of the Modern Styles of Architecture*, published in 1862, and discusses how after a long interval, it became an issue of renewed interest in the late twentieth century in parallel to the attempts at globalizing architectural history.

The paper focuses on the case of Turkey in the early twenty-first century and examines how the Renaissance emerged as an attractive topic both in academic studies and in products of popular culture, including scholarly publications, conferences, exhibitions as well as bestseller novels, cartoons, and advertisements. It presents an analytical and critical overview of this academic and popular trend as part of the economic, political and cultural developments that Turkey underwent in relation to the country's official recognition as a candidate to join the European Union in 1999, and the European Union's selection of Istanbul as the European capital of culture in 2010. Accordingly, the paper explores how Renaissance architecture was viewed from multiple perspectives that converged on the issue of contacts with Ottoman architecture.

Finally, considering that in the current geopolitical circumstances, the Renaissance risks shrinking back to conventional and conservative boundaries, the paper argues that now more than ever we need to persist with the project of writing its architectural history on an inclusive and common ground that invalidates nationalist and populist discourses and practices.

PS35 Reconsidering Renaissance Architecture and Urbanism
Carla Keyvanian, Auburn University, Chair

Rethinking Tuscan Landscape History

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Abstract

The paper concisely delineates a new cultural history of Tuscany. The idealized images of the landscape and of past society in Tuscany are compared to historical reality, examining their total groundlessness. The fundamental hypothesis is that the idealization of Tuscany is rooted in the ideology of the nineteenth century landed gentry. The representations of the rural world that emerge from the analysis of this ideology are characterized by a purified aesthetics aimed to preserve the status quo. The peasants and 'mezzadri' were observed from the same detached distance as the ethnographic 'curiosities' of the colonies. Since these people did not have any way to voice their own opinion it is difficult to try to reconstruct their perception of the landscape. Nevertheless, I hypothesize that it is possible to conduct ex post anthropological research by using several sources from later eras but that are still connected with the rural world that was disappearing. In the last part of this condensed history of the Tuscan landscape I propose to overturn the way we look at the territory of historical centers, countryside and periphery. In particular, I consider the suburban areas as the landscape of social emancipation of the post-war period. On the other hand, I describe the historical centers and the purified countryside as a hyperreal Tuscany in which the simulacrum, that is the idealized image, progressively substitutes reality. Finally, I mention the most recent transformations in which the periphery has in a certain sense become the centre.

PS35 Reconsidering Renaissance Architecture and Urbanism
Carla Keyvanian, Auburn University, Chair

Stereotomy: A Mediterranean History

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Abstract

Stereotomy is the art of cutting stones into particular shapes for the construction of vaulted structures. The art is best known for the variety of acrobatic masterpieces produced in early modern France and Spain, such as the dome of the chapel in the Château d'Anet (1549–52) and the annular vault in the courtyard of the Palace of Charles V in Granada (1562–69). It is also known for a substantial body of theory that started with the treatises of architects such as Philibert de L'Orme (*Premier tome de l'architecture*, 1567) and Alonso de Vandelvira (*Libro de trazas de cortes de piedras*, ca. 1585) and engaged practitioners and mathematicians alike in a heated debate throughout the eighteenth century. By focusing on the geometry of solids, this body of theory crucially contributed to the definition of Gaspard Monge's theory of descriptive geometry (*Géométrie descriptive*, 1798), the branch of mathematics concerned with the two-dimensional representation of three-dimensional objects.

Traditional architectural narratives describe stereotomy as originated in early Christian Syria, imported into Europe by the Crusaders, and developed through early modernity as a quintessentially French art. Yet built evidence shows that stereotomy is neither early modern nor European. The art has been practiced over a wide chronological span, from Hellenistic Greece to contemporary Apulia, and across a broad geographical region, centered on the Mediterranean Basin but reaching far beyond—from Cairo to Gloucester and from Yerevan to Braga.

In this paper I challenge traditional narratives of stereotomy with the help of database-driven maps that consolidate evidence of stereotomic practice from the third century BCE through the sixteenth century. I argue that the history of stereotomy is far more complex than what historians have assumed and that, for the most part, it has yet to be written.

PS35 Reconsidering Renaissance Architecture and Urbanism
Carla Keyvanian, Auburn University, Chair

The Classical as Colonial Legitimation: Inigo Jones, Stonehenge, and the Transfer of Civility

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Abstract

Through close-reading and contextualization of Inigo Jones's *The Most Notable Antiquity of Great Britain, vulgarly called Stone-Heng*, this paper seeks to link the so-called "Age of Discovery" to the development of Renaissance architecture outside Italy. While Renaissance historians have often pointed to the influence exerted on architecture by European exploration and colonization, few have pursued this influence beyond the level of suggestion. This has left architectural history disconnected from other modes of inquiry as potentially fruitful lines of scholarship go unexplored.

In *The Most Notable Antiquity* we see how the significance of classical architecture was altered in early seventeenth-century England by the context of colonial expansion. As England began to attain colonial subjects abroad, it also began to reconceive of its own "Englishness" as a product of Britain's first-century colonization by the Romans. In an effort to establish the supposed benevolence of colonial rule, architects and antiquarians set about recovering the material remnants of a past (Roman colonization) and a process ("Romanization") by which Roman civility had overcome British barbarity. Jones's reconstruction of Stonehenge as a classical temple is a prime example of such efforts—reframing the Neolithic monument as a mediator in a transfer of civility between colonizers and colonized.

Jones's reconstruction therefore looked in two directions: to Italy, where the graphic reconstruction of antiquity served to associate England in general—and Jones in particular—with the Italian Renaissance; and to the colonies, where assertions of civility defined an emergent national identity and justified the often unseemly realities of colonization. This paper argues for the need to relate these seemingly disparate contexts, the classical and the colonial, if we are to understand the legacy of the Renaissance in its multiple, and often conflictual, valences.

PS36 Visualizing Ruined Asias
Carrie L. Cushman, Columbia University, and Nicholas Risteen, Princeton University, Co-Chairs

A City of Emperors: Ruins and Reconstructions of the Qing in Jehol

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Abstract

Although much is rightly made of the rise of gardens, of their building and blossoming, and of the progressive possibilities of time inherent in the landscape, in their decay, gardens and their ruins are perhaps even more poetic, the inevitable promise of their ephemerality finally realized. Decline is no less fruitful a state for narrative than growth, of course, and the last stages of gardens not only reflect, but may eventually come to define the fallen fortunes of their owners.

This paper explores the 'post-histories' and narratives of ruin at the Mountain Estate to Escape the Heat (Bishu shanzhuang), the Qing imperial park-palace in Chengde. Constructed over nearly the entire eighteenth century, for emperors and a global array of guests the massive grounds conveyed the full glory of Pax Manjurica. Yet following the Jiaqing emperor's death there in 1820, the site fell largely into disuse — or, more accurately, the terms of its use, both literal and mnemonic, changed. Coming after the garden's heyday, this period has largely been ignored, and yet the landscape has persisted through decay, ruin, and, most recently, reconstruction.

From the late Qing court to the contemporary People's state, from Japanese colonial officials to European adventurers and American tourists, nearly two centuries of visitors and occupants have encountered the site, often interweaving their own narratives and imaginations with those found in situ. Focusing on a series of photographs and films, exhibitions, and first-hand accounts from the early twentieth century, this paper explores how photography, publishing, and celebrity mediated the ongoing formation and deployment of competing colonialist and imperial narratives through the remains of a site that was never truly abandoned.

PS36 Visualizing Ruined Asias
Carrie L. Cushman, Columbia University, and Nicholas Risteen, Princeton University, Co-Chairs

Living with Ruins: The Affective Life of Chinese Shophouses in Korea

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Abstract

Not only do abandoned buildings and structures standing in neglect conjure up events in the past, but the state of neglect and abandonment without any substantial preservation effort can be, in and of itself, a vantage point for rethinking things, places, and persons silenced from official history. Through the materiality of the past—patina, dirt, debris, rust, lichen—that is etched on things, the history of the present can be "read backwards" (Crysler 2012). In this sense, ruins remain neither the waste of history nor its residue, but a mnemonic device that reminds an observer of things and events buried underneath dust and debris. Drawing upon Ann Stoler's (2008) thinking about ruins as "a virulent verb," this paper sheds light on ruined landscapes of a Chinese neighborhood in South Korea and interrogates the Cold War as a process which has a corrosive effect on diasporic people such as Chinese residents. Ruins and ruination can be produced by direct violence and subsequent destruction, but what I am more interested in is an effect caused by "slow violence" (Nixon 2011)—a violence that is gradual, invisible, and accretive, a violence that brings an attritional impact on the affected group of people, a violence that produces no spectacular images. After long years of exclusion from the national polity as well as forced isolation from their homeland, what is it that people are "left with" in their ruined landscapes, and what kind of new space can they imagine? By tracing the process by which the long-forgotten architectural heritage of Chinese migrants—shophouses— have come into the register of national heritage, this paper argues that living as Chinese in South Korea has long meant chronic exposure to a constant state of ruination.

PS36 Visualizing Ruined Asias
Carrie L. Cushman, Columbia University, and Nicholas Risteen, Princeton University, Co-Chairs

Mood and Meaning in Ruins: Revisiting Deserted Settlements of Turkish Cypriots in South Cyprus

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Abstract

Due to contextual shifts or disasters, many settlements across the world have been abandoned and ruined over time; the humanity has been living alongside ruins. While an encounter with the ruins of a temporally and spatially distant material entity may evoke a sense of aesthetic pleasure or scientific curiosity, facing the ruins of one's own world may arouse a sense of anxiety. The meaning of ruins unfolds differently in each specific relational context, and it is significantly grounded in the mood whether it is pleasure, curiosity or anxiety. In this hermeneutic research, I explore Turkish Cypriot narratives on the ruination of home in the ceasefire context of Cyprus and look at their owned encounter with the ruins of their long uninhabited settlements after they had to flee their homes during the ethnic conflict—between 1958 and 1974—followed by the division of the country. As the militarized borders between two ethnic regions remained impenetrable between 1974 and 2003, the possibility of visiting one's former home took at least 39 years for Cypriots. When they were able to visit, a considerable number of Turkish Cypriots found their former settlements and houses in ruins or razed to the ground. In the ruins of these settlements, the form and material are not only transformed through human and non-human interventions that have caused decay and collapse, but also though the mood of the former inhabitants who care about these settlements in such a way that the settlements protected a significant and vulnerable world. The narratives of flight and return shed light on the ways in which memento-being forms the origin that the meaning of ruins unfolds for the former inhabitants while intersecting with the equipment-being, work-being, object-being and commodity-being of ruins. The outcome provides implications for owned ruins.

PS36 Visualizing Ruined Asias

Carrie L. Cushman, Columbia University, and Nicholas Risteen, Princeton University, Co-Chairs

Indo-Portuguese Detours in Mumbai: Ruins of Religious Sites and the East Indian Community

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Abstract

This paper proposes to access the importance of ruined structures of Portuguese influence in and around Mumbai - mostly dating from the 17th and 18th centuries - in relation to the narratives forming the collective identity of the city's East-Indian minority community. The East-Indians, as the descendants of the local communities converted to Christianity by the Portuguese, have an arguably conflicted identity, often challenged and downplayed by the mainstream Hindu narratives and discourses presently dominating the politics of Mumbai. Forming the backbone of one of the metropolis' many historical layers, this built-up heritage has suffered severely not only from exponential urban growth but also from wilful neglect, as it is associated to a colonial past whose legacy raises mixed feelings in India.

Focusing on the ruins of religious sites, but also addressing defensive and residential structures, I will show how these heritage structures, which are often hidden from view and from the city's touristic circuits, have a crucial role for the East-Indians' collective identity, and how the community has fought to save many sites from destruction. I will also demonstrate how, in many other areas of Mumbai, both the tangible and intangible traces of its Indo-Portuguese layer, which lasted between 1534 and 1739, have almost died out.

Curiously, other sites with ruins of churches or forts have been linked to Hindu traditions by the communities living closest to them, thereby adding another layer to their history, and often protecting them from oblivion. But while a sense of common ground regarding sacred space is sometimes shared across residents of different religions, politically motivated development and building activity favouring and empowering the Hindu majority are leading to the "saffronization" of Mumbai's history, landscapes and culture.

As one of Mumbai's religious minorities, the East-Indian community and their heritage face an uncertain future.

PS36 Visualizing Ruined Asias
Carrie L. Cushman, Columbia University, and Nicholas Risteen, Princeton University, Co-Chairs

Biographical Landscape: Photographs of Ruined Rikuzentakata, Japan by Naoya Hatakeyama

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Abstract

Over the last thirty-five years, Tokyo-based photographer Naoya Hatakeyama has undertaken a photographic examination of the life cycle of cities and the built environment. Each of his series focuses on a different facet of the growth and transformation of the urban landscape—the excavation of limestone, architectural facades in transition; and the evolution of urban topography as seen from a bird's-eye view. My paper will focus on Hatakeyama's most recent photographs—shot over seven years since March 19, 2011, in his coastal hometown of Rikuzentakata, Iwate, a town known for fishing, almost completely destroyed by the March 11, 2011 Tohoku earthquake and tsunami—which embody the death and rebirth of the city. The photographs, more than 8,000 frames shot as of August 2017, manifest his deeply personal connection to the ongoing intersection of geology, architecture, and the city. Characterizing the photographs "biographical landscape," he contributed one of them, a 360-degree panoramic photograph of the city, to the Golden Lions award-winning exhibition organized by Toyo Ito titled *Architecture, Possible here? Home-for-all* in the 13th Venice Biennale of Architecture in 2012. With this background, my paper will examine the issues of effects and affect in relation to the use and presentation of the photographs in different forms and contexts, including the photographer's photobook, international architecture and art biennales, and museum exhibitions in Japan vs. the United States. The discussion will consider the fundamental question of who has a license to photograph a city destroyed by a natural disaster. The Rikuzentakata photographs will be included in the exhibition *Excavating the Future City: Photographs by Naoya Hatakeyama* at the Minneapolis Institute of Art from Mach 4 to July 22, 2018.

PS37 Queer History at the Intersection
Dirk van den Heuvel, Delft University of Technology, and Hadas A. Steiner, University at Buffalo, SUNY, Co-Chairs

Ch-Ch-Ch-Ch-Changes: Queerness and the Sheats-Goldstein House

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Abstract

Much queer scholarship in architectural history has focused on the house as a space for expressing (mostly gay male) identities. By doing so, it has been held back by attempting to find essentializing characteristics of such space, in stark contrast with queer theory's critique of categorizations. Inspired in part by recent scholarship in geography, this paper argues that challenges to heteronormativity in architecture can better be understood by examining the layered experiences of transformative uses of space that accommodate in varying ways different domestic models, including cisgender heterosexual ones. The paper discusses as its main case study the Sheats-Goldstein residence in Los Angeles, designed by John Lautner in the early 1960s. It focuses on the tensions between its original purpose as a heterosexual nuclear family house, its reimagining as a single man house and its hidden potentials rendered in a 2004 project by queer feminist artists Dorit Margreiter and the Toxic Titties. It also discusses how gendered notions of privacy and publicness, often discussed in queer space scholarship, are challenged by its forthcoming institutionalization through its gifting to the Los Angeles County Museum of Art, announced in 2016.

Margreiter's film of a Toxic Titties' performance challenge the normative assumptions linked to the modern home seen as a space of experimentation towards "better" living or "purer" forms. A disconnection exists however between the film and the performance, underlining how the Toxic Titties' queer reimagining of the house presents a challenge not only to normative domesticity, but also to sexualized and gendered representations of domestic architecture. The artists' reading of current owner James Goldstein's performance of gender and (hetero)sexuality through his mediatized house suggests ways to understand architectural domesticity as a nexus of class, race, and age in relation to gender, while also challenging queer architectural history's focus on (white male) homosexuality.

PS37 Queer History at the Intersection

Dirk van den Heuvel, Delft University of Technology, and Hadas A. Steiner, University at Buffalo, SUNY, Co-Chairs

Double Invisibility: Revisiting Queer Spaces in Central Europe

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Abstract

In 1940, the openly gay movie producer Miloš Havel commissioned a project for a luxury villa that was later described in a contemporary novel as the residence the owner shows to his young male lover, who reacts as follows: *"in the dressing room, a white room with a red rug and a sofa, he opened all the wardrobes.* […] *He instantly fell into a visual trance and dazzling sense of wonder caused by the realization that such a comfort existed."* This shows a strategy of wealthy gay men to furnish their homes as strikingly visibly queer, open to their queer social and sexual circles. At the same time that the house was under construction, the lesbian surrealist painter Toyen acquired her one-room apartment which one could characterize by using avant-garde theorist Karel Teige's term *"the minimum dwelling."* Both apartments were significant in pre-war social and cultural life but actually, they different represented two aspects of queer domestic spaces. The 20th century queer spaces in Central Europe were shaped by the different situation in which independent men and women found themselves and their queer aspects were forgotten due to following totalitarian regimes. At the same time, modern architects brought redrew the lines between the traditionally public and private sphere in heterosexual situations. The queer spaces in Central Europe, however, were not actually in-between, but could became both: they subverted Aaron Betsky's idea of spaces of domination and tricks of domesticity into spaces of domesticity and tricks of domination. The paper will focus on how under different historical conditions the queer spaces in Central Europe overstepped binarity of gender (masculine – feminine), binarity of identities (gay – lesbian) and borders between what is public and private, as well as visible and invisible.

PS37 Queer History at the Intersection

Dirk van den Heuvel, Delft University of Technology, and Hadas A. Steiner, University at Buffalo, SUNY, Co-Chairs

Gendering Furness or Fashioning the Grotesque in Philadelphia

Jason Crow
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Abstract

Long after the death of the architect Frank Furness, the voice of the damn-all-else, self-reliant, hyper-masculine poet-hero who claimed he wished to gather all of his clients together to tell them "to go to hell" still resonates. While this vision of Furness still holds currency, it is often understood as divorced from the culture of 19th-century Philadelphia. Why was Furness overtly aggressive in dress and manner? Why were his buildings acceptable to his contemporary Philadelphians? Can his dress and architecture be understood in relation to complexities of 19th-century gender identification? The intent of this short paper is not to fully unpack Furness's ornamental practices in fashion or building but to act as a sort of prolegomena to how his work can be interpreted. The paper introduces the complicated relationship between gender construction and aesthetics in the 19th century through on two well-known moral guides for young men that would have been readily available to Furness. First, the aesthetics and ethics are examined in two essays by Ralph Waldo Emerson, "Heroism" and "Manners." In these essays the queering of men's gender identity toward feminine qualities of intellect and abstraction is fundamental to ethical behavior. Second, unethical masculinity, as a form of the grotesque, is explored in George Lippard's American Gothic novel, *Quaker City or the Monks of Monk Hall*. To conclude, I examine one of Furness's built works, an ornamental gate for the 1876 Centennial Exhibition, and propose that Furness's architecture follows his own gender construction in merging Emerson's abstract philosophical position with Lippard's conventional popular taste. I aim to demonstrate that Furness' ornamental practice sets in opposition two modes of ornamentation of both building and self—one abstract and one sensational—in order to establish a queer aesthetic practice within society, as a reflection of an ethically fashioned man.

PS37 Queer History at the Intersection
Dirk van den Heuvel, Delft University of Technology, and Hadas A. Steiner, University at Buffalo, SUNY, Co-Chairs

Hans Broos' House in Sao Paulo: Notions of Otherness in Brazilian Architecture

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Abstract

In 1928 Virginia Woolf wrote her lecture "A room's of one's own" which would turned into a seminal source for the feminist scholarship flourished since the 1970s. But Woolf's text may also suggest a key for one of the primary concerns of contemporary architecture theory - the idea of "other" or "otherness", that has being instrumental either in issues concerning feminism, gender identity, race, ethnicity, as well as the space of the foreigner, represented by the exiled and the immigrant.

In this sense, to face the challenge of this session in its search to amplify the theoretical instrumental regarding the gender debate in architecture history I would like to introduce as a case study the house designed and built, in Sao Paulo, Brazil, between 1971 and 1978, by the German immigrant architect Hans Broos (1921-2011). The analysis of the architect's own house after more than 20 years in Brazil, intend to unveil the layers of silence, that surrounds that particular domestic space as the expression of Broos's individuality and cultural references, a gay man and immigrant who arrived in Brazil in 1952, during the period of strong chauvinistic nationalism.

Assuming the concept of "otherness" as a common analytical instrumental in the gender scholarship as well as in the discussion on architecture and exiles I would paraphrase Woolf's and propose three analytical approaches to my analysis: the understanding of the language of forms and contents of the architect's house as a result of his trajectory and the awareness of its own otherness as a gay man and a foreigner; the recognition of the architect's house as a dialogue between cultures using Martin Buber's notion of the in-between space; the place occupied by the architect in the Brazilian modern architectural historiography between the 1950s until the 1980s.

PS38 Contemporary Religious Architecture in Latin America
Lucia Santa-Ana, Universidad Nacional Autónoma de México, Chair

Brick, Labor, Form: Christ Church, Chapultepec

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Abstract

As the religious historian Philip Jenkins has written, even after 500 years the Protestant Reformation and the transformations it wrought in the human psyche continue to play themselves out. In architecture it led to a series of successive re-imaginings of the very nature of sacred space. In the 20th century in particular, Protestantism engaged a number of modern architects in creating new concepts of worship space, from the formal regionalist innovations of Europeans such as Alvar Aalto, to the democratic forum of the American Frank Lloyd Wright's Unity Temple. Yet as a recent symposium on Protestant Architecture in Modernity in Santiago de Chile suggests, the architectural ramifications of the religious building's growth and mutation brought about by these changes have not always been recognized, especially in Latin America where they are often overshadowed by the more prominent presence of Catholic architecture. The differentiated spirit of the reformed church is nevertheless observable, and meshes in an especially potent social and technological way, in the subject proposed for this case study: the highly inventive Christ Church in the borough of Lomas de Chapultepec, Mexico City, constructed for an Anglican/Episcopal congregation by the Mexican master Carlos Mijares Bracho between 1988 and 1992. As an architect, thinker and teacher, Mijares' talent was to create new architecture using pre-Hispanic construction materials, deploying in this case red clay brick as a symbol of life. He worked with a Kahn-like devotion to detail in order to draw out its compositional and structural possibilities, while also drawing on Eladio Dieste's celebration in his own Uruguayan churches of the labor and craft of the brick worker. As a material prefabricated with earth, water, and fire, yet put to new symbolic uses, the brick here becomes spiritually expressive through its attention to light, shadows, structure, and the self-evident passion of the architect.

PS38 Contemporary Religious Architecture in Latin America
Lucia Santa-Ana, Universidad Nacional Autónoma de México, Chair

Assembling the Sands of the Sea of Prayer: Alberto Cruz's Los Pajaritos Chapel

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Abstract

This paper discusses a project and a text. The project is the memorial chapel for Fundo "Los Pajaritos" near Santiago, Chile, designed between 1952 and 1953 by Alberto Cruz Covarrubias. The text is the project's theoretical justification, written a year later by the same author. Although never built the chapel has been very influential in Chile at both professional and academic levels. As a project, it represents a landmark of that country's modern architecture movement having served as reference and inspiration for many subsequent buildings. The accompanying text has served as a methodological model in professional practice and in schools, with almost all Chilean architecture students of the past five decades having read it at some point of their education. In the Latin America context, the chapel is part of an important turning point from the mainly formalistic borrowings of early modern architecture to a more serious reconsideration of the cultural and topographical dimension of design. Perhaps more importantly the project anticipates many of the liturgical and formal changes proposed at the Second Vatican Council. In this sense, it shares many traits with projects such as Luis Barragan's Capuchinas chapel in Mexico City and Henry Klumb's San Martin de Porres church in San Juan. In a broader context, the project runs parallel to the most important postwar developments, especially to the late work of Le Corbusier, to which it is in fact closely and surprisingly linked. Beyond their historiographical relevance, however, both the project and the text are important from a stricter disciplinary perspective as they embody a discerning attitude that, through a keen observation of "reality" and the use of metaphor, places corporeal posture, practical situations, and topographical awareness at the heart of design attention.

PS38 Contemporary Religious Architecture in Latin America
Lucia Santa-Ana, Universidad Nacional Autónoma de México, Chair

The Sanctuary of Our Lady of Piety, Minas Gerais, Brazil

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Abstract

The Hermitage of Our Lady of Piety (1767-1787) rises on the peak of Serra da Piedade, 1700m above sea level. Modest, its single treasure is the Pietà featured in the retable and attributed to Aleijadinho, the great Brazilian Baroque sculptor. The place soon earns a reputation for miracles, becoming a destination for pilgrims. Appointed vicar (1947), the Dominican friar Rosário Joffily (1913-2000) requests its designation as national heritage along with the surroundings: rocks, woods and caves menaced by deforestation and mineral extraction. IPHAN- the competent authority- grants it (1956).

A sympathizer of the liturgical movement, Joffily then conceives a well-equipped pilgrimage center, including a restaurant and a church for 3000 people. He engages Alcides Rocha Miranda (1910-2002). Architect in charge for the Altar of the Eucharistic Congress of Rio de Janeiro (1955), associated with IPHAN, Lucio Costa and Catholic progressives, Alcides profits from topographical accidents and changes in level to prevent views showing the Hermitage alongside the new buildings; he develops the restaurant design when John XXIII decrees that Our Lady of Piety is the patron saint of the state (1958); the church, after the Hermitage is promoted to Sanctuary (1960).

Construction is slow (restaurant opening, 1971; church, 1980). Featuring cyclopean stone, raw reinforced concrete and tempered glass, the church is a pentagonal pyramid with flaps, corresponding respectively to the nave and two halls separated only by steps. Church-shelter-auditorium-discotheque in the words of Joffily, evoking an ephemeral tent as much as faceted hard rock, its austere geometry and brutalist materiality accord imaginatively with Vatican Council II precepts, contrast significantly with the famous Pampulha Chapel by Oscar Niemeyer (1946) and dialogue subtly with the site and its preexistences, prompting reflection on the relationships between the individual believer, the religious community and nature, sacred architecture and liturgy, popular manifestation and erudite language.

PS38 Contemporary Religious Architecture in Latin America
Lucia Santa-Ana, Universidad Nacional Autónoma de México, Chair

Sacred Not Sacred: Niemeyer and Latino Religious Architectures

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Abstract

After his defining churches at Belo Horizonte (São Francisco de Assis chapel, 1940) and Brasilia (Nossa Senhora Aparecida Cathedral, 1959), Oscar Niemeyer conceived of 16 projects for several Christian denominations, in addition to altars for special masses. Many of them would be placed in the new capital of Brazil, inaugurated almost at the same time as the Second Vatican Council. Despite their catholic filiation, many of these proposals obeyed an ecumenical character propelled by the Council, due not only to the modern spirit of their time but to their creator´s atheism and communist militancy. So, why did Niemeyer seem to be the suitable professional for projecting such kind of buildings? And why were his churches so influential – plastic and spatially speaking– on the Latin American religious architecture during the second half of the 20th century? These are the main questions this paper aims to answer.
Based on Niemeyer and Jean Petit's texts (1995); on original sketches, plans and other documents from the architect's archives and on recent publications (including *Igrejas de Oscar Niemeyer*, 2011; *Quatro Ensaios sobre Oscar Niemeyer*, 2017), this paper will navigate through Niemeyer's religious thoughts, their translation into architectural strategies and their influence in later works of his colleagues in Mexico, Colombia and Venezuela. As with his master –Le Corbusier, who also got a significant amount of religious commissions–, the Brazilian architect confessed his passion for eroticism as his true belief and his agnostic conception of God. As a hypothesis, for both architects, this particular kind of faith would paradoxically be a key for creating ineffable spaces and propitiating unique mystic experiences, imitated but not recreated in several Latin American countries

PS39 Architectures of the Slave Economy: Past and Present
Patrick D. Haughey, Savannah College of Art and Design, Chair

"Negro Artisans" at Work: The Tuskegee Institute Campus as Object Lesson

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Abstract

The Tuskegee Institute, founded in 1881, became synonymous with its industrial self-help curriculum for former slaves, intended to coevally condition mind and hand as one. Its rhetorical pièce de résistance: students both designed and built their own campus, an emancipatory narrative interrogated by W.E.B. DuBois. DuBois criticized principal Booker T. Washington's racial accomodationism, suggesting the subject produced by his methods, the "Negro Artisan," had entered a new slavery based on coerced labor for northern industrialists.[1]

In under-examined promotional photographs, students are depicted at work on the construction site and in the classroom, producing a doubling between the physical comportment of black bodies and that of the revivalist buildings. [2] Washington, following Johann Pestalozzi, cast the edifying imagery as an "object lesson" for its audience, an exercise in subject-formation not only for the Negro Artisan but her eager consumer, the industrial philanthropist.

This paper examines how the material practices of Tuskegee salved and accelerated descent into the Jim Crow South. It argues that architectural information acculturated Washington's theory of race relations with other emergent forms of knowledge–pedagogies predicated on empirical experience and the aestheticization of national consciousness–that tethered black excellence to conditional white benevolence.

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[1] W.E.B. DuBois, *The Negro Artisan: Report of a Social Study Made Under the Direction of Atlanta University; Together with the Proceedings of the Seventh Conference for the Study of the Negro Problems, Held at Atlanta University, on May 27th, 1902* (Atlanta, GA: Atlanta University Press, 1902).

[2] The photographs were disseminated through northern news media and Washington's own writings, notably: Booker T. Washington, *An Autobiography: The Story of My Life and Work* (Toronto: J.L. Nichols & Company, 1900); Washington, Booker T., Working with the Hands (New York: Doubleday, Page & Company, 1904); and Booker T. Washington, *Up From Slavery: An Autobiography* (New York: Doubleday, Page & Co., 1907).

PS39 Architectures of the Slave Economy: Past and Present
Patrick D. Haughey, Savannah College of Art and Design, Chair

The American Porch as Form, Use and Icon

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Abstract

With Red Skeleton on screen, my brother and I marveled at how my mother and father could only pass through the living room, glass of burgundy in one hand and fruit bowl in the other…how could anyone enjoy passing through the living room with wine and fruit with only the front porch as a destination? (Baffes-Febry, Helen. NPR. "A New Orleans Stoop: Solace after the Storm". 2006)

The porch has become a tool of the New Urbanism movement to create community in contemporary housing. In 2012 *USA Today* reported that "two-thirds of new houses on the market in 2011 included porches". Architectural historians have traced the form of the porch to the polite architecture of the temple *pronaos* and portico in the western cultures of Greece and Rome. But more important to understanding the porch is the history of its use. The porch as a traditional element of domestic architecture can be traced back through the cultural landscape and vernacular architecture of the South to the slave housing and the culture the slaves brought with them from Africa. Contemporary corollaries can be found in the shotgun houses of New Orleans and the traditional farmhouses of Appalachia.

How did the porch function in its original use in the South, and how did its use influence its adoption by other building cultures? How did the porch as an element of a minority group's architecture become an iconic tool for contemporary domestic architecture? And how does our understanding of its historical use, as a liminal space providing both prospect and refuge, influence its use today? This paper will explore how the revival of the front porch been adopted as an icon of community by the New Urbanists, and the current successes and failures of the traditional front porch as form, use and icon.

PS39 Architectures of the Slave Economy: Past and Present
Patrick D. Haughey, Savannah College of Art and Design, Chair

Identifying Slave Craftsmen and Their Building Projects: A Case Study from Charleston, SC

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Abstract

More often than not acknowledgment of achievement within architectural history is primarily given to architects. In more recent years master builders, contractors, and engineers have also been recognized for their contributions to the profession.[1] Rarely, however, has there been lengthy analysis devoted to the recognition of slave or unfree labor within the building trades profession, such as in early Caribbean or American history. John M. Vlach has explored African slave involvement in plantation development in *Back of the Big House: The Architecture of Plantation Slavery*;[2] however, unfree labor was also involved in the construction of urban centers, such as Charleston, South Carolina. This investigation focuses on the use of slave labor in the building of cities, such as Charleston, South Carolina.   Besides providing several case studies on identifying the names of slaves engaged in the construction of specific buildings in Charleston the paper will also provide a description of the research methodology so that architectural historians in other localities can go about discovering the identities of enslaved people who constructed America's built environment prior to emancipation. This information will enable architectural historians to discover the trades and craftsmanship specialties of slaves and how it related to the specific slave trade economy of people who had advanced skills and knowledge related to construction. Additionally, preservationist will find these research techniques useful in the evaluation (or reevaluation) of historic properties for purposes of enhanced interpretation of historic buildings, and why some historic places may matter in a previous non-considered manner related to African American heritage.

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[1] See Keith Eggener, ed. *American Architectural History: A Contemporary Reader*. New York 2004.

[2] See John M. Vlach, *Back of the Big House: The Architecture of Plantation Slavery* Chapel Hill 1993.

PS39 Architectures of the Slave Economy: Past and Present
Patrick D. Haughey, Savannah College of Art and Design, Chair

Fingerprints in the Clay: Chattahoochee Brick and the History of Convict Slavery in Atlanta

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Abstract

"Fingerprints in the Clay" focuses primarily on the site of Atlanta's Chattahoochee Brick Company. Chattahoochee Brick supplied the bulk of the fireproof building material for Atlanta as it recovered from the Civil War. The enterprise was also the location where the labor force it exploited — convict laborers — was cruelly masterminded so as to maintain 'enviable' formidable production quotas here and at a host of other building industries tied to the South's Reconstruction.

The man to profit most from Chattahoochee Brick was James English. A Civil War hero, English attracted a coterie of admiring partners in 1878 to help him to buy Chattahoochee Brick, the first and foremost of his many enterprises; he soon turned a profit thanks mostly to the cost-free labor leased to him by the Georgia Prison system. As post-War mayor of the City and then as Commissioner of Police, English assumed control of major public works, streets and sewers among them, all built with Chattahoochee brick and tile. Chattahoochee profits soon spawned an investment bank whose investors included members of Georgia's power elite. English-American Trust eventually comprised a portfolio of companies — cotton mills, coal and iron mines, lumber enterprises, turpentine farms — as well as a railroad construction company, all manned by forced labor. Today, while Chattahoochee Brick, with its convict cemeteries, lies abandoned, English descendants sit on Boards of some of the US's largest financial institutions.

These topics will be illustrated by employing a host of Archival resources that flesh out a 'double portrait' for Atlanta. The picture that I render attaches an all-too-familiar tale of post-War industrialized productivity, or 'rebirth', to a lesser-known account of virtually limitless, 'criminalized' labor controlled in private, company-run prisons and monetized by the State.

PS39 Architectures of the Slave Economy: Past and Present
Patrick D. Haughey, Savannah College of Art and Design, Chair

Unearthing Anguish: Tracing and Curating Charleston's Slave Trade Sites

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Abstract

As colonial Charleston rose, its urban splendor became a visible testimony to the labor and skills of Africans, and to the money that could be made by exploiting them. Even at the height of the slave trade, however, there was ambivalence about its public display. Pretensions towards civilized urbanity were embarrassed when, as one eyewitness explained, human merchandise awaiting sale in a warehouse perished *en masse* and "dead bodies…to save expense, were thrown into the river." Over many years, a series of laws shifted the location of the slave trade around Charleston, from prominent public spaces to discreet private alleyways, attempting to control and hide the "traffic in human flesh." As Roberts and Kytle explained, white Charlestonians were incapable of "looking the thing in the face." After the abolition of slavery, memories of the trade, already fractured by its nervous perambulations, were driven out of the public sphere completely.

In 2017, as Charleston strives to make the most of its status as one of the nation's leading tourism and cultural heritage destinations, tracing the architectural history of the city's slave trade with accuracy has become imperative. Arguing that overcoming its past requires confronting it, Charleston has nearly finished raising funds for a major museum to commemorate slavery. As local historians struggle to retrace the urban footsteps of African and African-American ancestors, however, a building boom near the museum site is disturbing the unmarked graves of enslaved people, and driving their living descendants out of the city. This paper will strive to stitch together, for the first time, the multiple sites of the slave trade in the fabric and environs of Charleston, and offer an analysis of the ways its memory has been alternatively erased and evoked, for healing or hate, for grace or gain, in the modern city.

PS40 Unheard Voices: New Interpretations of Minnesota's Landscapes
Victoria Young, University of St. Thomas, Chair

Revitalizing Minneapolis' Riverfront through Cultural Heritage

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Abstract

A broadened approach to redeveloping and interpreting our built heritage is becoming more important in engaging the community. Historical studies and analysis should be conducted in a way that not only meets high academic standards but also is meaningful to community planners and people who are culturally-connected to a place. Using the case studies of Upper Harbor Terminal (UHT) and Water Works, I will examine the redevelopment of underutilized properties along Minneapolis' riverfront and how their social and cultural importance to the surrounding communities and the greater Twin Cities area will be incorporated into design and urban planning.

UHT was constructed from 1968-1991 and served as an intermodal barge shipping terminal for bulk materials until the closure of the Upper Saint Anthony Falls Lock in 2014. The site will be redeveloped into a combination of riverfront park amenities and private development while creating more racial equity by providing the citizens of North Minneapolis better access to parks and open space. UHT retains many industrial buildings and structures, including four Monolithic Domes, the only known structures of their type in Minneapolis. Collectively, these domes represent an iconic visual feature of the Minneapolis riverfront and its history of terminal shipping and industrial storage. They are distinctive elements of the neighborhood's former industrial identity, and the project hopes to support their long-term preservation through adaptive reuse.

Water Works is a more high-profile project because of its location adjacent to downtown Minneapolis and Mill Ruins Park, which has over 2.5 million visitors annually. This project aims to convey the significance of the on-site mill ruins through the site landscaping and design. In addition, the planning process and design will enable storytelling by culturally-connected communities (primarily American Indian and African American) whose stories have often been invisible in the historical record.

PS40 Unheard Voices: New Interpretations of Minnesota's Landscapes
Victoria Young, University of St. Thomas, Chair

The Sacred Redefined: Minnesota's Socially-Conscious Architecture

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Abstract

The Sacred and the Profane have been distinctly carved since Mircea Eliade first described them in his seminal work often cited in the study of sacred space. But as we face an increasingly secular identity in our western post-structural world, the bordered edges of the Sacred are evolving both in study and in practice. Using the architectural renderings and recent photographs of Catholic Charities' newly-opened Higher Ground St. Paul, a cutting-edge design for sheltering the homeless in downtown St. Paul, I will demonstrate how this new complex provides a re-considered view of the sacred. To do this, I will focus on a definition of sacred space developed by Michael J. Sheridan, a social work scholar and practitioner, who has posited that the Sacred emerges when conjoining spirituality, a social justice framework and socially-conscious architecture. Incorporating this definition, I will demonstrate how the architect's use of socially-conscious design coupled with Catholic Charities' unique program model serve to create sacred space. I will first articulate Catholic Charities' model of a three-tiered system of housing that allows individuals to ascend through floors that offer increasing responsibility, independence, and privacy when paired with professional supportive services. I will then focus on architectural design elements which enhance the model to embrace the Sacred including, among others, the use of light for both wellness, guidance, and symbolism; a circulation system that fosters efficiency while allowing for a balance of safety and security; the configuration of living space to accommodate privacy and unique health challenges yet can still allow for gathering and connecting; and a recognition that the site location situated between the sacred and the profane in the downtown core needed to respectfully consider and reflect its urban neighbors while showing itself as a beacon to the least of its citizens.

PS40 Unheard Voices: New Interpretations of Minnesota's Landscapes
Victoria Young, University of St. Thomas, Chair

Ore Pits and Wilderness: Tourism in Northeastern Minnesota

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Abstract

The northeastern area of Minnesota known as the Arrowhead Region is the site of seemingly incommensurable landscapes: pristine lakes amid conifer-hardwood and boreal forests, and open-pit ore and taconite mines. Since the initial European immigrant settlement of Minnesota in the mid-19th century to the present, these two landscapes have provided the basis of the region's economic activity through logging and mining, and, now, primarily through tourism. Iron ore mining in the region began shortly after European settlement; while the Vermilion Range mines remained underground until their closure in the 1960s, the Mesabi Range was mined by open pit methods from initial exploration. By the early twentieth century, the majority of the world's iron ore was extracted from Minnesota, shipping eastward on immense freighters out of Duluth harbor. Images and statistics of the iron mining industry began to feature prominently in tourism literature and viewbooks of Duluth and the Arrowhead Region in the first decade of the twentieth century, continuing throughout much of the twentieth century.

The huge chasms created by open-pit mining in the Mesabi Range created a tourist attraction of the technological sublime, with viewing platforms and huts constructed at the mines themselves, and images of ever-advancing freighting equipment occupying central stage in regional promotional materials. The narratives accompanying these images of northeastern Minnesota's mining landscape gradually morphed over the years, as the "See America First" campaign gave way to post-war narratives of nationalism and industrial achievement. The proposed paper approaches the evolving touristic landscape of Minnesota's Arrowhead Region through tourism board archival documents and published promotional materials, including pamphlets and viewbooks, arguing that the underlying themes of nationalism and technological mastery change in form and tone but never fully leave the regional tourism literature of the twentieth century.

PS40 Unheard Voices: New Interpretations of Minnesota's Landscapes
Victoria Young, University of St. Thomas, Chair

The Architecture and Landscape of the Fergus Falls State Hospital

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Abstract

The Fergus Falls State Hospital opened in 1890 to serve the mentally ill in Minnesota and continued in operation for over 100 years. Recent research was completed in order to place the entire hospital complex on the National Register of Historic Places. Previously, only the main hospital building had been listed on the National Register. The expanded historic district included additional buildings that were constructed over the decades as the needs of the hospital changed and the philosophy of institutional care evolved. The historic landscape was also included in the expanded district.

Designed by architect Warren Dunnell, the main hospital building had been recognized as an example of the Kirkbride Plan, which refers to the design principles developed by Dr. Thomas Story Kirbride, who set the standard for the construction of mental hospitals throughout the United States. Recent research concluded that the Fergus Falls State Hospital represents a distinct variation on the typical Kirkbride Plan and is also an increasingly rare example of the Kirkbride Plan in the United States. Additional buildings within the hospital complex were also recognized for their architectural significance.

The research also asserted that the hospital's landscape can be attributed to noted landscape architect Horace W. S. Cleveland. Previously, it had been suggested that Cleveland served as the landscape architect, however, there had been very limited documentation that could confirm the extent of his involvement or whether his design survived. The recent research concluded that Cleveland designed the overall site plan for the Fergus Falls State Hospital, including the location of the buildings and their orientation, the circulation system, and the layout of the grounds. Cleveland's landscape design continues to retain historic integrity to the present day.

PS40 Unheard Voices: New Interpretations of Minnesota's Landscapes
Victoria Young, University of St. Thomas, Chair

Beneath the Façade: Hidden Histories of Saint Paul's Architecture

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Abstract

After half a century, the National Register of Historic Places (NRHP) boasts an abundance of significant properties. However, underrepresented in the NRHP are reflections of the experiences of those historically denied access to wealth and education—and even basic rights of citizenship and freedom—which in Minnesota includes Dakota, Ojibwe, and African Americans. A widening crack in the façade of historic preservation is revealed by the dearth of properties listed for their significance to non-Euroamerican history, including the history of those who built, worked, resided, or were imprisoned—whose fates were determined— at the very locations deemed significant for their architecture, engineering, and/or association with Euroamerican history.

This paper will examine culturally diverse historical layers of NRHP-listed buildings in Saint Paul and explore methodologies for unearthing, revealing, and honoring these layers, including Na Li's Culturally Sensitive Narrative Approach and adaptations of elicitive approaches developed for participatory planning. This research follows the recent development of a Saint Paul African American Historical and Cultural Context, conceived of and led by African American community leaders, and developed collaboratively through a community engagement process, as well as recent intercultural discussions around local sites of contested histories.

The recent African American Context is one embodiment of the charge to architectural historians to embark on the historiography of properties by delving deeper into their historical layers, looking beyond each property's built reality and published history—its façade, so to speak—in evaluating its significance. By doing so, a fuller history of a property's heritage can be revealed, bringing to light its "hidden histories." This can in turn more equitably guide planning and preservation efforts, thereby benefitting both the communities whose heritages have been neglected and actively suppressed, and contributing to a richer understanding of our historical environment and diverse local and national heritage.

PS41 The Architecture of the Political Realm beyond the Assembly Room
Thomas-Bernard Kenniff, University of Quebec in Montreal, and François Dufaux, Laval University, Co-Chairs

A Common Occupation: Towards an Aesthetics of Public Encounter

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Abstract

Over the past several decades, an alliance of government officials, real estate developers, and militarized law enforcement has colluded in the fragmentation and privatization of once-public spaces, effectively closing the built environment to citizens engaging in political protest, and transforming dissent into a hazardous, potentially criminal act. Recognizing the symbolic power, beyond instrumental value, of urban parks, streets, and highways – the common fabric of our public infrastructure – *Occupy Wall Street*, *Black Lives Matter*, and other like-minded movements across the United States have developed a range of novel, spatially intensive strategies of political and cultural resistance in response to this trend. In the process, they have helped return aesthetic values to discussions of what it means for spaces and places to be considered "public."

This paper frames the New Civil Rights Movement's fraught relationship to modern public space in decidedly aesthetic terms, drawing on both John Dewey's aesthetically charged account of democratic association in The Public and Its Problems, and the sociopolitical criticism of Hannah Arendt, whose *Human Condition* posits a view of humanity as inextricably *plural* in nature. These works place Dewey and Arendt in dialogue with a range of modern leftist critics, whose reductionist view of culture's relationship to capital tends to find popular and public art capable of little beyond kitsch narrative. For Dewey, however – whose philosophy privileges the aesthetic as a mode of human communication – and Arendt – for whom *action* in public is the germ of human freedom – art and architecture become more than mere reflections of conditions beyond the reach of social control. They are means of engaging and altering those conditions, modes of active human agency. Understood in this way, the physical territory of the built environment assumes renewed prominence as essential to the reclamation, and reconstruction, of a truly public realm.

PS41 The Architecture of the Political Realm beyond the Assembly Room
Thomas-Bernard Kenniff, University of Quebec in Montreal, and François Dufaux, Laval University, Co-Chairs

Den Haag: A Study of Non-state Institutions of Power

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Abstract

In 1998 the International Criminal Court (ICC) was initiated and in keeping with the tradition of international adjudication, the court was hosted in Den Haag in the Netherlands. After a decade, an international architectural competition was announced for the court's permanent premises during which the siting of the court was strategised by the city in what they termed the *international zone*.

Since 1989, Den Haag has been host to a growing number of international organisations, for example, Eurojust, The International Criminal Tribunal for (the former) Yugoslavia, Europol, and the Organisation for the Prevention of Chemical Weapons along with the ICC to mention a few, and, all of them are diplomatically distributed within the international zone.

Attached to these intergovernmental organisations (IGOs) is a diverse range of nongovernmental organisations (NGOs) and private research institutions that work closely with the IGOs and may be considered their public audience. In its urban policies, Den Haag, has been deliberately advocating for an increase in the numbers of NGOs and research institutions in the city and today it houses, at a minimum, 160 that focus on international adjudication and human rights. Transnationally, Den Haag, with Brussels and Luxembourg, three cities in the BeNeLux union, together, host a growing number of supranational, international and nongovernmental organisations. Together, they are the global seat of non-state institutions of power.

Through a historical and urban analysis of the international zone of Den Haag, I would like to question how urban processes allow or restrict the construction of new forms of international assembly. I would also like to discuss the very notion of assembly and the forum in the specific case of non-state institutions of power and how they transform traditional ideas of the civic.

PS41 The Architecture of the Political Realm beyond the Assembly Room
Thomas-Bernard Kenniff, University of Quebec in Montreal, and François Dufaux, Laval
University, Co-Chairs

The Potato Needs You: Contemporary Urban Activism in São Paulo

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Abstract

In 2014, a group of citizens began a design-build initiative to transform an arid concrete plaza, the Largo da Batata (Potato Square), in São Paulo, Brazil. They call themselves A Batata Precisa de Você (The Potato Needs You) to highlight their proactive and cooperative nature. Acting outside of official organizations, they furnished the plaza with creative leisure and lounging structures, greenery, and events—including open fora for political discussions and demonstrations. But their most political gesture is their very existence.

The empty expanse of the Potato Square had opened the year before, fashioned by a public project that demolished the area's tight urban fabric through eminent domain, hoping to foster private real-estate development. This "urban revamping" project worsened social disparities through displacement and gentrification, using public funds for private profits. The Potato Needs You responded with an alternative vision based on inclusion, diversity, and participation. They not only brought political discussions to the square, but also realized their political views by physically transforming the space.

The Potato Needs You is part of a broader trend of grassroots urban activism in São Paulo, which I am mapping in a larger research project. Activists rely on the intersection between place-based practice and new technologies such as social media and cell phone messaging, through which they organize and divulge their activities. Based on Henri Lefebvre's theory of the social production of space, I argue that this activism—which spans the range from tactical urbanism to guerilla public space—corresponds to a new political realm that transforms the city by creating new architectural forms and social spaces. At a time when most Brazilians are skeptical of official political structures thanks to a series of corruption scandals, these projects attempt to build a more just city and a more democratic polity with their own hands.

PS41 The Architecture of the Political Realm beyond the Assembly Room
Thomas-Bernard Kenniff, University of Quebec in Montreal, and François Dufaux, Laval University, Co-Chairs

Civic Center or People's Center? Consolidation and Decentralization in Progressive Era American Cities

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Abstract

In the early 20th century, Progressive reformers developed the civic center as an architectural program to consolidate municipal authority and stage political participation in American cities. As a key element of the City Beautiful Movement, civic centers promised monumental places in which to symbolize and exercise political democracy. This paper examines alternatives to the centralization inherent in this strategy, considering proposals and projects for decentralizing political presence in New York, Cleveland, and St. Louis during these years. Proposals ranged from establishing satellite offices and municipal buildings in city neighborhoods to opening up existing public buildings like schools and bath houses for more inclusive programming, or adding public functions to existing parks and playgrounds.

Based on new archival research, urban spatial analysis, and existing scholarship, this paper identifies several motivations for decentralizing municipal presence. In New York, Progressives promoted centralization to support professionalization through civil service reform, while traditional machine politicians favored dispersing political centers to serve ward-based constituencies. Both sides also promoted a relatively new concept in American urbanism at the time – economic redevelopment of commercial and residential property. Officials in Cleveland and St. Louis also promoted both democratic access and neighborhood development in official city plans during these years. Others, including reformers John Dewey and Frederic C. Howe, built instead upon the Settlement House model, proposing to expand existing school programs and recreation centers to promote access, participation, and even self-determination in Howe's People's Institute. The paper concludes by assessing the ideological and practical impacts of these projects on municipal democracy in these cities, offering comparisons with populist "Little City Halls" of the 1960's and with placeless participation in cyber city halls today.

PS42 A Matter of Life and Death: Spaces for Healing in the Premodern Era
Mohammad Gharipour, Morgan State University, and Stuart W. Leslie, The Johns Hopkins University, Co-Chairs

Quaker Asylum Design as a Therapeutic Environment at the Early Modern York Friends' Retreat

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Abstract

Enlightenment hospitals became temples to medicine, reflecting faith in science rather than in God. Placed at the intersection between charity and empiricism, and framing the encounter between patients and benefactors, hospital and asylum architecture became an aesthetic battleground. London's Bethlem Hospital (1675) was satirized as a palace for lunatics, and debates regarding luxury and decorum influenced attitudes towards asylum appearance. York Lunatic Asylum (1777) — criticised for ostentatiously wasting public money — provoked the founding of the York Friends' Retreat (1792) across town, that bucked the trend. Jointly designed by architects and their community, its architecture — influenced by farm- and meeting-house design – became a model internationally. Rejecting Cartesian dualism, Quaker doctrine of 'Inward Light' charged individuals with listening for God's voice, recognising God in every person, embracing religious ecstasy; mental disorder was understood as an alternative, transient, and curable psychological mode when patients were temporarily incapable of hearing God. Withdrawal, to reconnect with God, was their response.

Much scholarly ink has been spilled — though not from architectural historians — in understanding the Retreat. Now constructed as an early therapeutic environment, and central to the history of psychiatry, I argue — following Gesler's (2003) anatomizing of healing places — theorists — including Foucault (1967) — have overlooked Quaker cultural praxis and aesthetics that shaped its architecture and setting as curative agents. Most creative arts were banished from Quakers' lives, and anti-intellectualism meant aesthetic theory was not articulated. Disavowing architectural magnificence, an aesthetic of 'plainness and perspicuity' emerged where the pictorial was abstracted and displaced on to unadorned materials, workmanship, light and space. In the gardens, botanical variety — manifesting God's grace – permitted peregrination, enacting a Puritan pilgrimage aiding disclosure of the inner self. The associative imaginative effect of the view of and from the hospital innovatively situated religiously-inspired aesthetics as a curative agent central to the hospital's therapy.

PS42 A Matter of Life and Death: Spaces for Healing in the Premodern Era
Mohammad Gharipour, Morgan State University, and Stuart W. Leslie, The Johns Hopkins University, Co-Chairs

Healing the City: Medicine and Urban Renewal in Sixtus IV's Rome

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Abstract

In the fresco cycle painted in the new ward of Rome's Hospital of Santo Spirito, rebuilt 1473-76, one group of scenes commemorates the hospital's rebuilding by Pope Sixtus IV. Its sequence is interrupted, however, by a scene of the construction of Ponte Sisto, the first new Roman bridge since antiquity, also sponsored by Sixtus. This paper examines the relationship between these undertakings and, more broadly, the role of Santo Spirito in the pope's program of urban renewal in Rome. Sixtus's patronage emphasized practical and infrastructural improvements to the decrepit city: not only the hospital and Ponte Sisto, but also the clearing of streets, renovation of churches, and restoration of the ancient Acqua Vergine. Sixtus IV conceived of the city as a sickened body in need of healing, and his familiarity with medical discourse shaped his approach to restoring Rome. In reading the Greek physician Galen, he would have encountered metaphors of urban form and infrastructure used to explicate aspects of human anatomy and physiology. Sixtus redeployed such analogies as a powerful conceptual framework for his *renovatio urbis*, which aimed to cleanse and nourish the city, unify its disparate parts, and encourage growth. Newly cleared streets, for example, improved circulation for pilgrims, while the restored aqueduct's branching structure carried fresh water, like veins channeling blood, to underserved parts of the city. In this framework, Santo Spirito, located a short distance from St. Peter's Basilica, became the beating heart, a locus of Christian charity that cared for the sick, orphans, and pilgrims. The hospital and its work thus made tangible the pope's restorative vision for Rome. For Sixtus IV, celebrated in an inscription as the *salutifero*, or "bringer of health," the physical well-being of the city would secure its spiritual salvation and reaffirm its status as head of the universal church.

PS42 A Matter of Life and Death: Spaces for Healing in the Premodern Era
Mohammad Gharipour, Morgan State University, and Stuart W. Leslie, The Johns Hopkins University, Co-Chairs

Uterus House: Incubating Obstetrics in Early Modern Bologna

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Abstract

Sounding well ahead of his time in 1755, the future president of the Institute of the Sciences in Bologna, Francesco Maria Zanotti, admired the transformation of surgeon Giovanni Antonio Galli's private chambers into "an enclosed space [dedicated] to the female uterus." About twenty years earlier, Galli had opened an obstetrical "school" in his house, a small, sixteenth-century palazzo known as the Casa Nascentori. Zanotti was clearly struck by the novel social and professional reality the transfigured domicile represented. What set Galli's residence apart from other family homes was its participation in an institutional revolution: it served as the headquarters for a private academy. It was an incubator for new medical training installed an edifice betwixt and between the public and private spheres. While Bologna's largest hospital (founded 1289) and its celebrated Anatomy Theater (1637-1649) were just a few blocks away, it was Galli's residence that pointed toward the future of healthcare facilities such, specifically university hospitals. My research explores the institutional and cultural attitudes which, at the dawn of the professionalization of midwifery, enabled an ostensibly ordinary dwelling to have a significant impact on the design of healing spaces.

Galli's school was probably not an infirmary that received patients; instead, his house-academy was a place where midwives, including "male midwives," gathered for the latest in experimental and demonstration-based lessons. Dignified on the exterior, his domicile housed around 130 life-like obstetrical models, most of which survive. Moreover, in 1743 the surgeon ordered extensive architectural changes in his house—recorded in unpublished notarial acts—which relate to the academy's use of the premises. Galli's renovated palazzo could not help but facilitate the marketing of obstetrical advances to the public, essentially leading Zanotti to identify it quite precociously as a women's clinic: "the most illustrious school of [his] house dedicated to begetting."

PS42 A Matter of Life and Death: Spaces for Healing in the Premodern Era
Mohammad Gharipour, Morgan State University, and Stuart W. Leslie, The Johns Hopkins University, Co-Chairs

Principles of Purity and America's First Maternity Hospitals

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Abstract

Due to concerns for the wellbeing of mother and child, giving birth at home was preferred over hospitals, which were utilized only by women who could not afford or arrange home-births. In eighteenth-century America, hospitals were architecturally undistinguished from other large residential institutions like prisons and colleges that provided large wards where contagion could easily spread—although how it did so remained misunderstood.

Motivated by charitable impulses, increased professional specialization and the desire for social improvement, redress of this situation began with the institution of maternity hospitals. A salient case study of the new type, the privately-funded Preston Retreat (Philadelphia, 1830s) was designed in response to contemporary understanding of the importance of pure air for health as published in European engineering treatises and confirmed by a specially-commissioned study by the College of Physicians, which additionally underscored the importance designing for the American context by departing from precedents that reflected foreign political, religious, and social customs.

Preston Retreat conflated scientific theory, domestic scale, and ostensible national character. Its pragmatic structure and layout maximized the circulation of air and was adorned by a marble portico: a Republican monument commensurate with other American civic structures. In addition to this formal expression of integrity, the building served American morality in its function. Critics admired its capacity to serve the frail female body at its most delicate, but significant, moment: delivering new patriots. To ensure their honor, only ethical (if impoverished) married women were treated at Preston; less-valued, "low" women and their offspring were condemned to the riskier almshouse—a significant indicator of 1830s American civic and religious sentiment about the "deserving poor." Contemporaries hailed the building as a monument to the priorities of industrious, charitable, and enlightened men who would build an upstanding Republic by caring for the female bodies that would populate it.

PS42 A Matter of Life and Death: Spaces for Healing in the Premodern Era
Mohammad Gharipour, Morgan State University, and Stuart W. Leslie, The Johns Hopkins University, Co-Chairs

Spatio-medical Formation of the Ottoman Imperial Hospital

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Abstract

The premodern Ottoman hospital is often depicted as a serene place with its well-maintained spaces surrounding a courtyard that was embellished with flowing water and flowers, all made possible by rich endowments. The many employees of the hospital led by the able physicians took good care of the diseased. However, how much do we really know about these legendary hospitals?

The paper will discuss the "spatio-medical" formation of Ottoman imperial hospitals (*darüşşifa*) located in royal complexes (*külliye*). I will inquire how Ottoman hospitals functioned on a daily basis. One of the major questions I will address is who used the hospitals and whether or not premodern Ottoman hospitals had any specialized spaces for various user groups: for different disease categories (particularly pertaining to mental illness), or based on gender, or for different age groups. In doing so, I will first introduce Galenic humoral medicine, as it underlay the medical system that was practiced in Ottoman hospitals and presumably shaped their spatial organization. If one side of the story is the medical theories of the time, the other is the primary sources available to us today. Apart from medical treatises, foundation or endowment deeds of imperial hospitals (*vakfiye)* are one of the most frequently used sources in the quest for Ottoman or Islamic hospital history. Although they are invaluable in terms of offering clues about the structure of imperial hospitals, the information contained in them is typically about the administrative functioning of the hospital, such as staffing or funding.

By cross-referencing medical theories and available primary sources to the spaces of the hospital, I will explore the ways in which medical theory and practice were reflected in hospital buildings, with a special focus on Süleymaniye, Toptaşı and Haseki Imperial Hospitals.

PS43 Caribbean Architectures from Emancipation to World Heritage
Itohan Osayimwese, Brown University, Chair

Concrete Under the Guyanese Sun

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Abstract

Guyana's lush rainforests are an immense resource for building materials within and outside the nation. Of the hundreds of varieties of hardwood, greenheart, was the most desirable due to its natural durability and high immunity to decay and termites. Because of this, throughout the nineteenth and twentieth centuries, greenheart was the dominant building material in Guyana. However, in the past twenty years, concrete has been rapidly replacing greenheart in new construction. My paper addresses the lacuna in research on the social impact of concrete in the West Indies by focusing on the changing pattern of residential design in Guyana since 1970.

Based on my recent fieldwork in the rice county, Essequibo, I trace the impact of concrete construction on coastal Guyana's vernacular architecture. Recent house plans show a clear pattern of continuity with the greenheart homes that preceded the popularization of concrete, while at the same time demonstrating clear shifts in design and scale. Building on Rory Westmass' article "Building Under Our Sun" outlining the evolution of Guyanese residential architecture between the eighteenth century and 1970, my goal is to understand the reasons for change characterizing the post-1970s vernacular architecture. In so doing I wish to contribute to the recent scholarship on concrete as a modern material by Adrian Forty and Dell Upton. While concrete is currently the most commonly used building material throughout the world, a universal argument for the turn to concrete is inadequate for understanding Guyanese vernacular architecture. The reasons for the choice of concrete move beyond issues of cost, maintenance, permanence, and comfort, and are deeply tied to Guyana's postcolonial identity.

PS43 Caribbean Architectures from Emancipation to World Heritage
Itohan Osayimwese, Brown University, Chair

Neutra in Puerto Rico: Antropofagía *and Modern Architecture in the Caribbean*

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Abstract

Manifiesto Antropófago, Oswald de Andrade's iconic 1928 poem, constitutes a central concept and lens with which to understand and analyze post-colonial cultural production and the role of modern architecture in the definition of Latin American identities. Through his work for the Government of Puerto Rico and the Committee on Design of Public Works, architect Richard Neutra set in motion a process of creative exchange, synthesis, transformation, and invention that became one of the cornerstones of the the government's six-year plan for the reconstruction of island, and established modern architecture as the language and image with which to project the development of modern Puerto Rico. The Committee, with Neutra as principal consultant, was created in May 1943 to lead a broad scale public works building program focusing on the island's three most urgent social needs: housing, education, and health. Abstracting from the lessons of vernacular architecture, the reading of socio-cultural characteristics and geo-climatic forces, together with the economic limitations of the context, Neutra and the members of the Committee tackled the issues of air and mosquito borne diseases, the climatic challenges of the humid tropics, and the exigencies of low-cost building production. To this end, Neutra developed an architecture based on an expandable modular aggregate structure, the incorporation and programming of exterior spaces, and the development of the roof section as a primary design feature. His Puerto Rican work, widely published in Latin America, Europe and the United States, greatly influenced the subsequent development of emerging school and health building types in Latin America, while shaping and refining Neutra's own architectural language in the following decades. Neutra's reciprocal anthropophagy, reframed as a process of two-way cultural cannibalism, served as an operative synthesis where his creative incorporation and transformation of otherness shaped not only Puerto Rico's architectural identity but also his own.

PS43 Caribbean Architectures from Emancipation to World Heritage
Itohan Osayimwese, Brown University, Chair

Maroon and Creole Architectural Expressions in Jamaica

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Abstract

This paper will analyze two sites in Jamaica, the Maroon settlement Moore Town, and the George's Plain District. The Maroons have transitioned from escapees of the plantation complex, to being an autonomous territory, and are currently part of the World Heritage Site of the Blue and John Crow Mountains. While receiving this imprimatur of universal value, it is clear that the architectural heritage of this community has lost all outward semblance of cultural uniqueness, and has been depopulated. This paper will document this loss, through selected examples of vernacular dwellings, while at the same time probing the possibility of underlying, unique spatial qualities in Moore Town, which are not immediately visible in expected typological details.

The George's Plain District is dominated by the plantation economy, and historically, large tracts were under the absentee ownership of the Watt family, based in England. The emphasis is on a single building, the St. Barnabas Anglican Church, which encapsulates a complex set of threads in the twin processes of globalization and creolization. The church, built in 1912, and still in use, occupied a nexus involving absentee estate ownership, a British architect, an overt intention of responding to the tropical context, the utilization of modern materials, while embracing the architectural language of Mediterranean classicism. The George's Plain community retained a relationship of close patronage with the Watt family owners, whose fortune was based on slavery, and the church was a gift from Adelaide Watt.

Adapting architect Bruno Stagno's concept of "Tropicality" as the theoretical framework for the research, this paper will argue for the non-linear, complex layering of tropical Jamaican space, juxtaposing local and global appropriations, in the case of St. Barnabas; and in the case of Moore Town, eroding and re-fabricating cultural memories, within contemporary codes of global recognition.

PS43 Caribbean Architectures from Emancipation to World Heritage
Itohan Osayimwese, Brown University, Chair

'I Got White in Me, Too': Genealogies of Architecture in the British Caribbean

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Abstract

As the session description notes, "[t]he circulation of development experts from the erstwhile metropole in the 1940s and the tropical vernaculars they developed is yet to be fully understood." My paper looks at what archives "at home and abroad" can illuminate about this era. Further, I highlight how local architect-builders saw and were seen by the colonial teams dispatched to work in the Caribbean.

C. E. Wilkinson, a black man, was an architect-builder involved in major building and infrastructure projects in British Guiana from the 1930s-1970s. My paper puts Wilkinson's built work and its surviving archive of book-keeping notebooks, personal letters, photographs, and blueprints into conversation with archival material from my research at the National Archives (UK), University of Liverpool Archives, and the Walter Rodney (National Archives) in Guyana. I track the correspondence of British architects stationed in Jamaica, Trinidad, Barbados, and British Guiana, and their reports back to England about the "West Indian craftsm[e]n" they encountered. From the discourse on tropical architecture to the rise of international style, I consider what topics were being covered in the most prominent (and internationally accessible) architectural journals in the decade prior to Wilkinson, my grandfather, building his first concrete house in 1954.

I supplement the documentation of Wilkinson's work with my interviews with family members he employed, allowing their recollections to enliven the records. For example, my paper's title comes from a response Grandfather Wilkinson purportedly gave to a white Englishman stationed in British Guiana, who seemed to question grandfather's construction expertise. Grandfather wasn't "white," but he was abundantly qualified.

Interweaving my sources, I explore Grandfather Wilkinson's decision to use concrete vs. wood in building his family's home. I call attention to the international influences and local genius circulating within the Caribbean, and what official and unofficial archives can reveal.

PS43 Caribbean Architectures from Emancipation to World Heritage
Itohan Osayimwese, Brown University, Chair

Indigeneity and Cubanidad: Urban Renovation and Taino Identity in Baracoa, Cuba

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Abstract

In the fall of 2016 Hurricane Matthew ravaged the city of Baracoa in Eastern Cuba, leaving much of the coastal city in ruins. Recent renovations of historic buildings and new landscaping in the center city survived the storm, expressing resilience through an emphasis on cultural heritage. Founded in 1501 as Cuba's first colonial frontier, Baracoa is a peculiar city within the context of the contemporary Caribbean. First and foremost is the predominance of Taíno culture within Baracoa and neighboring Maísi. New architectural and landscape design projects following the Special Period incorporated the Taíno identity of the city, celebrating a heritage formerly conceived of as ravaged and erased by colonialism. Tourism became a significant mechanism for promoting such an identity, as did the recognition of local traditions and colonial heritage. This paper focuses on recent renovations to Baracoa's central square the Parque Central, where the placement of Taíno motifs within decorative benches and gateways reorients an understanding of the colonial and contemporary city. Looking at the history of architecture from the urban center to the periphery, this paper hopes to explore an aspect of Caribbean architecture often overlooked within modern and contemporary contexts – that of indigeneity. How does the expression of an indigenous vernacular – from the celebration of the *bohío* or Taino hut to the incorporation of Arawakan decorative motifs – counter and incorporate national identity? This paper questions the role of architectural and urban design in exploring and expressing Taino identity, especially in relation to the history of colonialism, slavery, nationalism, socialism, and tourism within Baracoa.

PS44 Temporal Junctures
Lisa D. Schrenk, University of Arizona, Chair

Equal but Not the Same: Exhibited Pavilions

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Abstract

Reconstructions are polemic and often judged as falsely old and falsely new. They are anchored in the past, but are not from the past. Made today, they seem to be from yesterday. Its legitimacy is challenged by many people who are concerned about the possibility of falsification of history through the extemporary materialization of a design, and the accusation of "intent to deceive" has hung over such operations since the time of Ruskin.

Architecture, however, should not be a matter of morals. The criteria for the validity of replication must rely primarily on the quality of design and excellence of execution. Reconstructing vanished architectures implies considering their design as heritage worth keeping, something that is especially poignant in the case of architectures intended to be temporary. Besides, it is possible to argue that good copies lead us to originals, and in so doing the former certify the latter's value.

Aiming to discuss these questions, this paper focuses on two former temporary exposition pavilions: one by Gerrit Rietveld (1955) and another by Aldo van Eyck (1966). They share the particular features of having been built in the same Dutch park – Sonsbeek – and of having both been reconstructed, at different times, to be exhibited permanently in the Kröller Müller Museum Sculpture Garden in Otterlo, the Netherlands.

In these cases, authenticity seems have to do with the recovery or maintenance of both plasticity and spatiality rather than the adoption of former techniques. Reconstructing a temporary building aiming a permanent condition often requires new technologies, even when maintaining its original forms. It seems to indicate that, in this kind of operations, architecture matters more than construction, and that the fear from false history is giving place to the acceptance of coexistence between both historical and newness values in the same building.

PS44 Temporal Junctures
Lisa D. Schrenk, University of Arizona, Chair

Biennale di Venezia: Transforming the Permanent with the Ephemeral

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Abstract

Venice is a city of ephemeral events—globalized, commodified art, architecture, and film biennials that conceptually originated with the Carnevale in 1068.[1] Today the Biennale di Venezia temporarily transforms the city's permanent physical structure and changing cultural landscape. Unlike Worlds Fairs or Olympics that move between cities and leave behind leftover architecture, the Venice Biennale was established in a permanent location—first the Palazzo dell'Esposizione and then in the national pavilions of the Giardini della Biennale. Yet the recent need for more Biennale space has generated new temporary architecture within, around, and nearby historic Venetian structures.[2] The paper analyzes the intentions and ways that this temporal and dispersed new architecture appropriates and transforms the city's underutilized historic architecture. By examining specific temporary architecture from the Biennale Architettura 2016 and Biennale Arte 2017, this paper argues for the ability of ephemeral architecture to powerfully transform our perception of the permanent—both in the moment of its existence and after removal of the physical artifact.

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[1] Carnevale now attracts 3,000,000 visitors each year. Visentini, M. "Festivals of State: The Scenography of Power in Late Renaissance and Baroque Venice," *Festival Architecture,* eds. S. Bonnemaison and C. Macy. Routledge, 2008: 74–112.

[2] For instance, Dekleva Gregorič Architects designed the Slovenian Pavilion as a temporary building of bookcases. Artist Tsibi Geva surrounded Israel's Pavilion with 1,000 used car tires for her "Archeology of the Present" installation. Shigeru Ban assembled and upcycled 90,000 empty eye shadow containers into "Reverberation- Pavilion of Light and Sound," inside Palazzo Pisani's courtyard.

PS44 Temporal Junctures
Lisa D. Schrenk, University of Arizona, Chair

Victor Lundy, Walter Bird and the Promise of Pneumatic Architecture

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Abstract

In 1968, Reyner Banham referred to the U.S. Atomic Energy Commission's mobile theater as "the first great monument of environmental wind-baggery." Designed in 1959 by American architect Victor Lundy (b. 1923) and engineer Walter Bird (1912-2006), the portable, pneumatic pavilion traveled around South America (and other parts of the world) for over a decade, showcasing not only the peacetime possibilities of atomic energy, but likewise the potential of air-filled and demountable structures. Comprised of two vinyl-coated fabric skins, with a 1.2m thick air-filled insulating envelope, the AEC Pavilion adopted the technological prowess of the military-industrial complex and applied this knowledge towards the advancement of pneumatic architecture. The literal and conceptual lightness of Lundy and Bird's collaboration indexes a temporal juncture in the transformation of architectural modernism—one that not only privileged the flexible, mobile, and near-instantaneous qualities of inflatables, but likewise the appropriation of aeronautical engineering technologies. In lieu of prevailing scholarship on the history of pneumatics, which typically privileges the artistic and architectural counterculture of 1960s and 70s, this essay focuses on the AEC pavilion as an underexplored case study in the pioneering of architectural inflatables. Utilizing Bird and Lundy's archives, it begins in the 1950s with Bird's groundbreaking radomes for the US Military, and soon thereafter his promotion of air structures for a range commercial applications. Significantly, Lundy—who is credited with the first "architecturally-designed" air buildings—displayed the material, structural, spatial and social advantages of this emergent building type. His pneumatic collaborations with Bird, which also included the "Space Flower" restaurant pavilions at the New York World's Fair (1964-65), signaled an emergent trend in the rise and acceptance of temporary structures. For instance, when the flower pavilions were completed, Philip Johnson called Lundy to ask: "What have you done? We are all wild about them!"

PS44 Temporal Junctures
Lisa D. Schrenk, University of Arizona, Chair

Provisional Claims That Last: Temporariness as a Mode of Urban Informality

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Abstract

This paper explores the relationship between temporariness and permanence in the case of informal street commerce in the planned modernist city of Islamabad. Planned in 1960 by a Greek architect-planner Constantinos A. Doxiadis, commercial activities in Islamabad have been formally designated in civic and commercial centers located in the middle of planned residential communities called 'sectors.' Informal street commerce, however, often thrives right next to formally planned commercial spaces in Islamabad. By focusing on the informal street commerce located in one of Islamabad's most popular sectors called Karachi Company, this paper will explore the role that the materialities and modalities of informal spaces play in their long-term sustenance. Analysis of street commerce reveals how the architecture of informality follows an aesthetic of temporality and invokes a design criteria based on rituals of daily assembly and disassembly, and shared customs about claims on immediate public space. 'Long-term temporariness' emerges as an important concept in understanding these spatial practices associated with hawker stands assembled daily on public spaces. Temporariness here does not imply a short-lived condition but refers to the aesthetic of provisional existence. An apparent oxy-moron, long-term temporariness refers to special allowances made to enable certain activities at odds with the official master plan and regulations to exist for long periods of time as long as they are categorized as provisional. This notion of temporariness is grounded in the everyday customs and practices of business people in both informal and formal markets, and forms the basis of concessions for informality written into official planning regulations of Islamabad. Given the critical contemporary juncture in urban and architectural studies where urban informality has been established as a new planning paradigm through which much of the global south is being urbanized, this paper will offer important insights into architectural strategies used to organize informal spaces.

PS44 Temporal Junctures
Lisa D. Schrenk, University of Arizona, Chair

Temporary Twice: War Housing Goes to College on the GI Bill

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Abstract

The massive mobilization for World War II in the United States included the construction of hundreds of thousands of temporary housing units for soldiers and war workers. Government officials assumed that these units would be moved as war and production needs changed. The 36,000 trailers purchased and deployed by the federal government aptly captured this ideal of transience and expedience. Similarly, prefabricated houses reflected an ideal of the temporary, helping to finesse local building and planning codes, social and cultural norms, and community sensibilities that were being transgressed or ignored by wartime emergency housing.

Despite the presumption of transience, prefabricated building methods refined for wartime construction, helped shape postwar residential design. Here, the experience of Levitt and Sons, commissioned by the Navy to build shipyard worker housing in Norfolk, Virginia, proved particularly germane. Levitt and Sons established their Levittowns for tens of thousands of residents after the war. Beyond the simple transfer of building methods to the postwar era, thousands of units of war worker housing found a new use after the war. Most immediately, they were picked up and moved to college and university campuses for use by some of the 2.3 veterans whose college and university education was paid for by the G.I. Bill, viewed by historians as the last of the New Deal's major legislative initiatives. In helping to fulfill the social contract with its veterans, these intense, idealistic, self-governed, high-density communities—at places like Camp Randall at the University of Wisconsin, on Copeley Hill at the University of Virginia, and along the Midway at the University of Chicago—were conceived of as temporary. Nevertheless, they often lasted a decade or more while helping to establish non-traditional aged students, minority students, and housing for married student with children as part of the permanent landscape of U.S. higher education.

PS45 Religion in Secular American Architecture
Azra Dawood, Massachusetts Institute of Technology, Chair

Republican Theology and the Beginnings of the Profession

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Abstract

Western architectural history has largely framed "the Enlightenment" as a process of secularization, and this narrative feeds into a view of modern architectural practice in the United States as a likewise areligious endeavor. I will complicate this perception by highlighting the extensive influence of what Benjamin Lynerd has recently called *Republican Theology*— thought that intertwines Calvinist theology, Scottish Enlightenment philosophy, and Republican political theory—on the architectural profession as it formed in the United States in the early nineteenth century. While secularized narratives tend to emphasize the founding role of Thomas Jefferson and Benjamin Henry Latrobe's largely agnostic views of architecture, I will focus on early professional architects, particularly Thomas Ustick Walter (1804-1887), who were decidedly Protestant. Republican Theology, as developed by American intellectuals like the Founding Fathers John Witherspoon and Benjamin Rush, framed these architects' conception of their profession's task. Using Walter's *Lectures on Architecture*, first delivered at the Franklin Institute in 1841, as an anchor, this paper will bring out two beliefs widespread in Early American architectural discourse that reveal the influence of Republican Theology: *historical progress* and *associationist aesthetics*.

The concept of *historical progress* was used to imagine architecture's national purpose. Drawing on the Scottish Enlightenment practice of "conjectural history," architects like Walter understood the history of architecture as an expression of human nature. Humanity was positioned as a partial reflection of the divine, a creation that itself can create and collectively progress from rudeness to refinement. Likewise, the extensively used aesthetic philosophy of *associationism* was rooted in a view of this human nature as providentially endowed with common senses of taste, reason, and morality. By showing how these Republican Theological concepts were professionally operative, I will suggest that there is an endurance of a Protestant epistemic framework in what is imagined to be a secular profession.

PS45 Religion in Secular American Architecture
Azra Dawood, Massachusetts Institute of Technology, Chair

Park51 and the Precarity of Muslim-American Religious Spaces

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Abstract

In 2010, Sharif El-Gamal, founder of Soho Properties and a prominent figure of Lower Manhattan's Muslim American community, launched the Park51 Islamic Community and Cultural Center project. The stated vision was to create a space to foster Park51 as an Islamic community and cultural center to promote dialogue and understanding of Islamic faith. The initial designs for the 13-story Islamic Center made a bold architectural statement, wrapped in an exoskeleton of abstract webbed pattern. This vision was not to be, however. Located less than two blocks from the site of the 9/11 attacks, the project faced political backlash. Critics ranged from conservative media and politicians to some families of 9/11 victims, citing the project as a monument to terrorist aggression. After a year of severe public scrutiny, El-Gamal withdrew the project, and, instead, proposed to transform Park51 into 45 Park Place, composed of a 43-story luxury condominium skyscraper with significantly reduced program for the Islamic Center, now only a three-story Islamic Museum.

This paper explores the suppression of Islamic spaces in the transformation of Park51 to 45 Park Place by examining the social and cultural implications of the projects' design iterations and programmatic changes. In this process, the flexibility of Islamic religious practices and spaces allowed the continual reduction of the religious aspects of the project–such as the prayer hall–in the program. More broadly, the history of the Park51/45 Park Place project illustrates how capitalist economy, coupled with political and cultural tensions between Muslim and non-Muslim American communities, eclipsed non-Western cultural production on the site. The paper also uses the Park51/45 Park Place project to examine the potential impact of market-driven logics and political tensions on the future of Muslim-American religious space in the U.S.

PS45 Religion in Secular American Architecture
Azra Dawood, Massachusetts Institute of Technology, Chair

House as Axis Mundi of Mormon Space and Cosmology

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Abstract

Beatriz Colomina once suggested that in 20th century the house was the primary site for investigating architectural ideas. In 19th century America, I would argue, it was the primary site for exploring social ideas. Victorians were the first to insist on a direct relationship between the cradle and agora. They were not only creative developers of secular public institutions, urbanization, and industrialization, but also prolific innovators of religious movements. Victorian prophets in America responded to the upheavals of secular developments by rethinking the house, where they could naturalize their experiments as tradition and convention. The polygamous house of the Mormons stands out in this context.

My contribution to the panel on "Religion in Secular American Architecture," will look at two case studies in Utah: the Beehive House (1854) and Lion House (1856). The first was the official residence of the Governor of Utah Territories/ Mormon Prophet, Brigham Young. It was meant for his senior wife, Mary Ann Angell and her six children. The second, connected to Beehive, was built for 12 of his other 54 wives, and some of his 114 children. Mormons are unique in the American context in establishing a theocracy in 1848, enabling them to spatialize religion at architectural, urban and regional scale like no other group. These two projects offer the most layered and rich examples of the house as a testing ground for the radical redefinition of American family and the holy union of home and work, church and state.

Polygamy was a short-lived experiment that received divine sanction in 1843 and withdrawal in 1890 but its imprint can be seen in the layout of the city, Utah schools, department stores, women societies, and men's clubs. My paper will connect these two houses to the larger spatial context of Mormon theology.

PS45 Religion in Secular American Architecture
Azra Dawood, Massachusetts Institute of Technology, Chair

Ecological Theology

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Abstract

Early in his career, just as he was beginning to formulate the environmental manifesto that he famously presented in *Design with Nature*, the landscape architect Ian McHarg appropriated the following quote from the Puritan mystic Jonathan Edwards to describe his vision of landscape design: "Space is necessary, eternal, infinite and omnipresent, but I have as good speak plain, I have already said as much as space is God." These words sanctify open space and they recover the world in all of its primal and revelatory power. For McHarg, as for Edwards, this sentence signaled a renunciation of tradition in favor of the personal insight obtained through direct observation of the land, and the nature of its air, water, plants and animals. As later reconstituted by the dramatic images of the sun and earth on the front and back cover of the first edition of *Design with Nature*, McHarg believed this celestial vision of space and time had to float in front of one's eyes until the need for it became so visceral denial was not only blasphemous. It was impossible.

This presentation explores the genesis of McHarg's faith-based vision of the world using transcripts from his television program *The House We Live In*. Of particular interest, are his repeated attempts to unify his thinking under the umbrella of ecology, which he conceived as both a physical science concerned with elucidating material and energy flows and a secular metaphysic in which it was possible to conceive the earth and its processes as divine. In addition to his discussions with theologians representing Judaism, Catholicism, Protestantism, Hinduism and Zen Buddhism, special attention is paid to his interviews with Julian Huxley, Arnold Toynbee, Kenneth Rexroth and Lewis Mumford and their proposals for secular alternatives to the environmental precepts of Judeo-Christian theology.

PS45 Religion in Secular American Architecture
Azra Dawood, Massachusetts Institute of Technology, Chair

From Oral Roberts's City of Faith to Harvey Cox's Secular City

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Abstract

Today, the CityPlex Towers, a trio of skyscrapers, offer more than 2 million square feet of commercial office space in Tulsa, Oklahoma. Yet the name CityPlex belies the skyscrapers' origin as the City of Faith Medical and Research Center—the apotheosis of televangelist Oral Roberts's Pentecostal belief in faith healing. Roberts built the City of Faith in 1981 as a realization of the City of God described in the Book of Revelation, complete with a 60-foot *Healing Hands* sculpture (figure 1). The complex was mired in financial difficulty from the beginning, becoming the object of satire as Roberts claimed to see a 900-foot Jesus holding up the City of Faith to garner donations for his medical ministries (figure 2). Roberts closed the City of Faith in 1989 and transformed it into the CityPlex Towers, removing the *Healing Hands* sculpture and overt religious symbolism.

This paper explores the secularization of the City of Faith to the CityPlex Towers. Because of its dual religious and secular identities, the complex offers a window into the persistence of evangelical belief into the late twentieth century and the failures of American televangelism in overly ambitious projects that led to the scandals of the 1980s. In interesting ways, the City of Faith also engaged theologian Harvey Cox's *The Secular City* (1965), which argued against "confining [the divine] to some specially delineated spiritual or ecclesial sector" and instead finding God in all places, including urban life.[1] That Roberts chose the skyscraper, an urban form, for his City of Faith placed religion and modernity in conversation, but the image of the CityPlex Towers today obscures that conversation. This paper offers a transformational example of religion in what is now a secular American architecture.

PS46 The Stagecraft of Architecture

Anooradha Iyer Siddiqi, New York University, and Claire Zimmerman, University of Michigan, Co-Chairs

SAAL and the State's Vanishing Act in Revolutionary Housing

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Abstract

Since WWII, modern social housing has been arguably construed as divided between state interventions and grassroots projects. As housing agents, state and community persist in historical narratives as mutually exclusive. This paper turns to 1970's post-revolutionary Portugal and the SAAL process, a nationwide program designed to provide housing to urban shanty communities. Although implemented by the provisional leftist government, SAAL operated through a decentralized network of interdisciplinary teams, the "SAAL technicians," active mediators between state authority and local communities. Yet, architectural history typically portrays SAAL as grassroots, bottom-up operations, with a "built-by-the-people-for-the-people" anti-design agenda; conversely, as professional origins of famous architects like Álvaro Siza. In both, SAAL's institutional framework consistently disappears.

This institutional vanishing act was, however, strategic. After decades of Salazar's regime, the population was wary of governmental interventions and new forms of social engagement were formulated to mask central agencies. Borrowing from 1960's experimental discourses in housing—including concepts such as participation and self-construction—SAAL technicians focused on community organization, alternative building methods, and community consultation as means to amplify the communities' voice and highlight a self-determined process of democratic citizenship. Under the aegis of participation, SAAL's institutional framework strategically vanished behind the technicians' interface, while still providing financial, juridical, and technical support.

The paper seeks to reconstruct the intricate institutional scaffold that supported this apparent disappearance of state agencies. Archival documentation, including governmental dispatches, organigrams, expenditure reports, and expropriation laws disclose the many actions and actors through which the "invisible" state maintained the program while promoting the voice of communities. This paper traces SAAL's framework, contending that key concepts of social engagement in housing were crafted by an anti-state ideology, the narratives of which often overlook agencies and processes central to their implementation.

PS46 The Stagecraft of Architecture
Anooradha Iyer Siddiqi, New York University, and Claire Zimmerman, University of Michigan, Co-Chairs

Beyond Anonymous History: New Narratives of Technology and Media

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Abstract

In describing the forces that shaped modern architecture, the narratives of mechanization, standardization, and industrial mass production in the early twentieth century are well-known within architectural history. As a result, architectural histories related to technology and industry often fall back on these agentless narratives as shorthand in explaining how they served as an inspiration for theories of modern design. This paper seeks to begin to restore agents and agency to what Sigfried Giedion called "anonymous history" by revisiting several actors situated outside the design disciplines that are mentioned in *Mechanization Takes Command*. Specifically, I will examine the motion study research of industrial management pioneers Frank and Lillian Gilbreth and similar investigations by early home economists in the United States in the 1910s, focusing on their methods of collecting and analyzing visual data through photography and film. Situating this discussion within shifts in contemporary media and information, I will show how research that depended on the use of media and applied scientific methods led to new practices and standards for spatial planning. This will elucidate the operations by which modern processes and designs developed, leading to new narratives of modernism, and providing an opportunity to reflect on historical methods that close the gap between industrial, media, and architectural history.

PS46 The Stagecraft of Architecture
Anooradha Iyer Siddiqi, New York University, and Claire Zimmerman, University of Michigan,
Co-Chairs

Routinizing Through Rewrites: The Architect's Handbook*, 1963–88*

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Abstract

Over the course of building projects, architects make use of various document genres:
construction drawings and specifications most obviously, but also contracts, memoranda,
bulletins, change orders, and transmittals. Through their protocols, each of these document
types serves a particular communicative function. Though each architecture firm develops
routines of its own, these document types have become standardized through instructional
materials made available by professional associations. American architects, for example, have
long looked to *The Architect's Handbook of Professional Practice* for a guide to the day-to-day
functioning of their firms. The *Handbook*'s authors make business trends comprehensible by
reconciling them with the profession's self-image and ideology. The *Handbook* contains
standardized forms and contracts that serve as the rudimentary business tools for the
architect's trade, alongside narratives that provide the intellectual scaffolding to understand
that trade. These tools serve to routinize architectural practice—freeing up architects' time to
be spent on the intellectual work of design.

Mid-twentieth century trends required reframing the business side of architectural practice to
account for new restraints on the architect's authority. In 1963, the *Handbook* was reissued in a
loose-leaf binder in anticipation of rapid change. It retained the same format until 1988, while
introducing new genres of contracts and new protocols for correspondence to provide guidance
on internal firm issues like hiring and payroll as well as outward challenges like client relations
and litigation. Tracing revisions and updates to the *Handbook* during these 25 years, I analyze it
as a bellwether for the business of building design that, by increasingly routinizing practice,
enabled many American architects to retreat from technical concerns into the familiar refuge of
aesthetics. I offer, in other words, a new view into the routinized professional context that
fostered the aesthetic diversity of Postmodernism, proposing that the one can't be understood
without the other.

PS46 The Stagecraft of Architecture
Anooradha Iyer Siddiqi, New York University, and Claire Zimmerman, University of Michigan,
Co-Chairs

Design without Genius: Computers, Engineers and SOM's Hajj Terminal

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Abstract

Whether as logical thinking-machines or wellsprings of beauty analogous to nature, architects have staged computation as raw material, far from the creative spark of great design. Despite attempts to put the computer in its place as "merely a tool," however, the quotidian reality of computer use in architecture has complicated dialectical models such as Hitchcock's "genius versus bureaucracy." This paper argues that, in the period after World War II, the hierarchies of global building practice diversified beyond the binary of star architects and corporate firms, to include semi-stars, engineering consultants, programmers, draftspeople, and many other roles -- and among these were myriad instruments, from slide rules to drafting to modeling software. Within this complex ecosystem, characteristically bureaucratic things often had their own charisma. American organizational methods, office buildings, and computers drew in clients from around the world. Focusing on the design of the Hajj Terminal (1981) in Saudi Arabia by SOM and the engineering firm Geiger Berger, this paper presents a counter-example to the recent argument of Mario Carpo that computers were first used for architectural design around 1990. The appearance of signature-free design and the attention to stagecraft made the Hajj Terminal desirable to its clients in the Saudi Ministry of Defense and Aviation. A practice centered on behind-the-scenes project management and the dictates of engineering and building science countered purportedly "Western" ideals of authorship and iconic monumentality. In this example, "creativity" emerged from many places within the architectural and engineering teams, from non-human as well as human actors. Through this case, this paper outlines a genealogy of digital culture in architecture that runs not through genius but through stagecraft, which suggests a world of alternate values and forms.

PS46 The Stagecraft of Architecture
Anooradha Iyer Siddiqi, New York University, and Claire Zimmerman, University of Michigan, Co-Chairs

White Arms and the Economic Body: Settler Militarism in the Philippines

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Abstract

One jarring form of the colonial collision with the contemporary is in the form of military bases, a phenomena increasingly referred to as "settler militarism." Two of the largest overseas bases in U.S. history—Clark Air Base and Subic Naval Base—both found themselves in Luzon, the Philippines for most of the twentieth century. The imperial residue that the bases effect can be seen in a number of ways: the payoffs the Philippines received from the U.S. over the decades; the vast territories acquired in their expansion process; air, water and noise pollution impacts. One frequently overlooked aspect of wars and the latent interstices between them, however, is the intimate labor that caters to overseas servicemen, namely prostitution. This paper looks at how the base structures sitting center-stage required a vast infrastructure of off-stage "rest and recreation" in Olongapo and Angeles City. The two towns that catered to these bases were transformed into mapped out pleasure zones for overseas servicemen.

The paper reveals how these behind the scenes workings catered to the theater of war production as a form of war in themselves, the form of the base and their collateral urban designs created a complex relationship between military and civil lives. As its source material, the paper is a dual investigation, on one hand an ethnographic excursion into the online military forums where ex-servicemen exchange ephemera and experiences, and on the other the published materials of activist work undertaken by the advocacy group WEDPRO.*

* Women's Education, Development, Productivity and Research Organization (WEDPRO) are a Filipino labor and human rights group.

PS47 Cold War Architecture
Ruth Verde Zein, Universidade Presbiteriana Mackenzie, and Hugo L. Mondragón, Pontificia
Universidad Católica de Chile, Co-Chairs

Fallout Shelters in Zagreb After the End of World War II

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Abstract

Encouraged by professional papers regarding air raid shelters throughout and after the Spanish
Civil War, building authorities in Zagreb obliged private landlords to organize the basement
floor or its parts as a properly protected air raid shelter, when building new apartment house.
During the World War II the Germans and their quisling followers excavated tunnel shelters
chiefly below the Upper Town for protection against Allied bombing.

Fallout shelters in Zagreb constructed on behalf of the Yugoslav People's Army during the Cold
War are threefold, started with refurbished and enlarged former air raid tunnel shelters
underneath the socialist administration buildings, most of them being currently used by
Croatian government. A couple of years ago the southern one below the Upper Town became
famous as a tourist attraction. Further are structures incorporated to the foundations of
government, hospital or office buildings during their construction as the cover for their
occupants. The Independence of Croatia was proclaimed in 1991 in the shelter beneath the
"INA" headquarters building. Third group contains detached structures in close vicinity of
collective housing blocks, kindergartens or schools, built as underground massive reinforced
concrete containers covered with soil and planted with grass, appearing almost invisible to an
uninformed observer.

These structures sheltered wide parts of Zagreb population from air raids of the Yugoslav Air
Force in 1991. Later they fell into oblivion, although some of them served as warehouses for
do-it-yourself Croatian entrepreneurs or as storages for belongings of people who were evicted
from their fore-closured homes. In making the evacuation plan caused by great natural or man-
made disasters, city government currently considers the idea to make existing fallout shelters
overall refuges in the event of serious accident in nearby nuclear power plant in Slovenia, at the
average distance of 25 miles from Zagreb.

PS47 Cold War Architecture
Ruth Verde Zein, Universidade Presbiteriana Mackenzie, and Hugo L. Mondragón, Pontificia Universidad Católica de Chile, Co-Chairs

The Soviet Pavilion at Expo 67 in Montreal: The Power and the Limits of a Symbol

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Abstract

The Soviet Pavilion at Expo 67 in Montreal attracted over 13 million visitors, which by far exceeded the attendance of any other nation's pavilion. The message of its commissioners successfully reached the target audience. Montreal leading newspapers and numerous entries in visitors' books applauded the achievements of the Communist regime that, in the course of the 50 years of its existence, had transformed the backward and poor Tsarist Russia into a vanguard of technology.

The Pavilion's story, however, extends beyond the six glorious months of the World's Fair. After the Exposition's closure, it was dismantled and transported to Moscow where it still stands now. However, if the original structure was designed and executed in an unprecedented time frame of twenty two months, its reconstruction on home turf dragged on for over twenty years.

This story reflects larger developments. From the optimism of Khrushchev's "thaw" in the late 1950s, the Russian popular sentiment transformed into the disillusionment of the Brezhnev's era. The architecture of the Soviet Pavilion in Brussels in 1958, and of the planning of Expo 67 in Moscow—which was never realized—bore signs of the buoyancy of the earlier period. The Pavilion in Montreal reflected the waning optimism of the late 1960s and the 1970s, and its commissioners' strategy to win the Western viewers' approbation by showcasing the USSR's exhibits rather than its architecture. In more general terms, the Pavilion represents an example of M. Posokhin's—Khrushchev's and Brezhnev's favorite architect—version of Modernism, with its increasing reliance on the uncritical use of transparency and on the phallocentric representation of heroism. The paper sets up the analysis of the Montreal Pavilion in the larger context of the Soviet Cold-War-Era expositionary strategies, and of the evolution of Soviet architecture in the late 1950s through the early 1970s.

PS47 Cold War Architecture
Ruth Verde Zein, Universidade Presbiteriana Mackenzie, and Hugo L. Mondragón, Pontificia Universidad Católica de Chile, Co-Chairs

Between Today and Tomorrow: Bridging the Diomedes

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Abstract

There are two islands in the Bering Strait, Big Diomede and Little Diomede: the former, Russian territory; the latter, United States territory. In addition to the water dividing them, the islands are separated by the International Date Line. This cartographic division marks one day from another, one hemisphere from another, and one nation from another. At the close of the Cold War, amidst diplomatic efforts to bridge geopolitical divisions between the United States and the Soviet Union, an international cohort of architects and designers sought a literal bridging of this separation.

Co-curated by Glenn Weiss of P.S.1 and the Institute for Contemporary Art and Yuri Gnedovsky of the Union for Architects, *Competition Diomede* (1989) called for submissions to unite the two islands through infrastructures of reconciliation. Professional and amateur architects, engineers, and landscape designers entered the "competition" (no winner was awarded). Intentionally broad guidelines yielded proposals for permanent and temporary bridges, laser and light displays, territory exchanges, and new buildings dedicated to civic and cultural performance. Toured nationally and internationally, the exhibition presented the nearly 1300 entries from 28 countries in binders arranged around the perimeter of globe-shaped table.

This paper considers *Competition Diomede* alongside new professional design organizations (e.g. International Architects, Designers and Planners for the Prevention of Nuclear War) and cultural exchanges of contemporary art and architecture between the United States and the Soviet Union forged in the wake of glasnost. However, rather than collapsing differences between political foes, many of *Competition Diomede*'s proposals indirectly draw attention the gulf between the two nations remaining to be bridged. As tensions between the two nations reduced in the hope of a more stable tomorrow, the competition's more fantastic proposals and its unrealized curatorial summary recommendations cue a more unsettled Cold War resolution.

PS47 Cold War Architecture
Ruth Verde Zein, Universidade Presbiteriana Mackenzie, and Hugo L. Mondragón, Pontificia Universidad Católica de Chile, Co-Chairs

Striving for Recognition: GDR Embassies from the 1950s and 1960s

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Abstract

How a state that was – at that time – only recognized by less than 20 other countries could be represented on the international level? What architectural language should be chosen to achieve political goals in view of the Cold War?
The German Democratic Republic was confronted with such questions from its very beginning. Due to the West German ,Hallstein doctrine' and complex diplomatic divisions of the postwar period, the situation of the GDR on the international arena was very tenuous, most Western and Non-Aligned countries declined to recognize it as an independent state until 1972. Still, the East German authorities planned and realized several embassies and diplomatic missions across the globe during 1950s and 1960s.

The main research question of this paper is: what was the architectural language of the GDR embassies and diplomatic missions and how has it reflected the tensions of the Cold War? Seeking answers, several case studies are to be analyzed – both less known projects and realizations of the GDR-embassies from the1950s (North Korea, Poland) as well as the highlights from the 1960s (Helsinki, Budapest), focussing on different levels of architectural discourse. The paper investigates not only the political context of the competition between the two German states and its entanglement with the ideological and economic competition of the Cold War, but also professional ambitions, that were of importance for the architects, while they were developing their embassies projects (e.g. Heinz Graffunder).

PS47 Cold War Architecture
Ruth Verde Zein, Universidade Presbiteriana Mackenzie, and Hugo L. Mondragón, Pontificia Universidad Católica de Chile, Co-Chairs

Fascist Rome in the Cold War: Architecture of the Pax Americana

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Abstract

If New York "stole" modernist painting from Paris to deploy against communism, Cold War America's architectural image came from Rome. While CIA-sponsored campaigns equated abstract expressionism with freedom and democracy, modern architecture was never officially promoted. U.S. politicians and diplomats instead resisted attempts to symbolize America through "modernistic" projects, declaring them undignified or ominously Marxist into the 1950s. During this same period, America's primary cultural embassy in Europe, the American Academy in Rome, embraced modern architecture. Originally a bastion of Beaux-Arts tradition, the postwar Academy changed direction. It awarded Rome Prize fellowships to graduates of modernist design programs and gave them freedom to redefine Italy's contemporary relevance. It also welcomed prominent modern architects: George Howe, Louis Kahn, Pietro Belluschi, Nathaniel Owings, Edward Durrell Stone, Max Abramovitz, and Edward Larrabee Barnes accepted brief residencies from 1947-1965, and Howe, Belluschi, Barnes, and Wallace K. Harrison helped govern the Academy as trustees.

This institutional link between American architects and Rome brackets a visible shift in Cold War design. During the 1950s and 1960s, the same professionals who rebranded the "modern" Academy also produced U.S. embassies and cultural centers that tempered modernity with Roman tradition. Their projects in Naples, New York and New Delhi integrated avant-garde aesthetics and classical dignity to present America as both "liberal democracy" and "modern imperium." These hybrid, "New Formalist" solutions connect to the *caput mundi*'s architecture in another way. Academy architects' modern temples for Cold War America closely resemble those built for Mussolini just two decades earlier. Although Italy's Fascist-era architecture was generally repudiated as a postwar design model, architects building the *pax Americana* had absorbed its lessons. Fascist Rome demonstrated the challenge of reconciling modernist aesthetics and conservative power in ways that served Cold War America's needs all too well.

PS48 Open Session
Greg Donofrio, University of Minnesota, USA, Chair

Cold War Cafeterias on University Campuses

Clare Robinson
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Abstract

No one before WWII could have anticipated how the war experience would alter U.S. food culture and how this, in turn, would transform food service on college campuses during the Cold War. Leading up to World War II, college union buildings were the social and gastronomical center of campus. Most had small-scale diners, cafes, and cafeterias similar to commercial food establishments off campus. During the war, many universities transformed available spaces in unions to feed students in ROTC. Although college enrollment soared and cheap, quick food served by restaurants, car hops, and diners prevailed after WWII, the number of college students and the popularity and proliferation of commercial food venues does not adequately explain the importance of quantity food preparation, mass consumption of affordable meals, or the creation of large-scale postwar cafeterias in student unions.

This paper examines cafeterias on college campuses and argues that strategies rehearsed during the war directed how university administrators approached food after WWII. Wartime food programs caused universities to enter the food business; invest in large-scale food production and dining facilities; and take full responsibility for providing wholesome, filling and affordable meals en masse for the very first time. The achievement coalesced with the professionalization of quantity cooking, which championed economy, efficiency, and nutrition; and occurred as university administrators grappled with the arrival of G.I.s, men who posed a special threat to the social order of prewar campus life. Thus, the new food spaces in or associated with student unions mediated civilian and military expectations about food, as well as institutional social agendas during the Cold War. Although initial changes to campuses were temporary, efforts reconfigured the production and consumption of food at universities and had lasting effects on the design of environments in which collegiate communities ate.

PS48 Open Session
Greg Donofrio, University of Minnesota, USA, Chair

Church Street South Housing: City-Building or "Cinderblock City"

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Abstract

In the 1960s American architects experimented with alternative models of public housing to replace the modernist model of towers in a park. One such project, Moore Lyndon Turnbull Whitaker's Church Street South housing in New Haven (1966-69), part of Mayor Richard Lee's massive urban renewal schemes, combined low-rise apartment blocks with a single tower of elderly housing. On a site previously the subject of a 1910 plan by Cass Gilbert and Frederick Law Olmsted Jr. and a scheme for luxury housing by Mies van der Rohe, the project provided 300 units of low-income housing built in concrete block to FHA minimum standards. The planning process involved thirty-two site plans, of which the final plan used only two building types while striving to knit the project into the fabric of the city itself. MLTW sought explicitly to bring the scale and vitality of the traditional street to a low-cost public project, an exercise in what they called "city-building." To create "place" in a development employing minimal means, Church Street South's architects used supergraphics, axial views, named courtyards and physical addresses to allow residents to identify their units and to generate a sense of community. Yet the effectiveness of the site planning and decorative programs was undermined by federal dictates and municipal budget cuts. The project was never beloved by residents, who called it "Cinderblock City," nor was it maintained adequately, leading to its current state of advanced decay. This paper will examine Church Street South as a case study of emergent postmodernism, a failed experiment that attempted to overcome the limitations of modernist public housing and the abuses of urban renewal through responsive site planning and referential design.

PS48 Open Session
Greg Donofrio, University of Minnesota, USA, Chair

Faith and State: The 'Galway School Site Controversy', Town Planning, and Ireland's Medieval Heritage, 1944–49

Richard Butler
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Abstract

The first town plan for Galway, drawn up in 1944, faltered under sustained opposition from the Irish Roman Catholic church. The plan would have involved large-scale demolition in the medieval city centre and the building of a ring road and a surface car park on a site owned by the church and earmarked for a primary school under its patronage. This paper will use the resulting controversy, played out between 1944 and 1949, and known at the time as 'the Galway school site controversy', as the basis for a broader analysis of 'faith and state' in post-war planning, property rights, and the question of what to do with the rich medieval heritage of Irish cities in the 1940s. The dispute involved the county council, a professional Dublin-based town planner, central government and the Catholic church, each vying for control of the city's future. The proposed 'thinning out' of the city centre, and the development of satellite communities clashed with the church's desire to maintain its old urban constituency and threatened a dilution of its influence. The interventions of the local bishop, Michael Browne, led to a broader debate in Ireland, and especially Northern Ireland, on the 'excessive' influence of the church in town-planning issues. This paper will analyse the tactics used by Browne to defeat the proposed ring road and protect the medieval city centre, including a plan to distribute anonymous pamphlets in the city on the eve of the final debate on the matter. The controversy will be used to reframe debates about the role of religion in post-war European planning schemes, and how planners responded to growing calls to protect medieval heritage.

PS48 Open Session
Greg Donofrio, University of Minnesota, USA, Chair

Skin, or, the Enveloping Tactics of Architectural Ornament

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Abstract

Departing from the loaded metaphor of 'skin' – often used casually as a neutral synonym for the building envelope – this paper probes the deep colonial underpinnings of ornament-as-skin, particularly with respect to blackness. Beginning with Imperial Britain's extensive display of its domestic wares and colonial wealth in the gigantic 'Crystal Palace', this paper examines Semper's revelatory encounter with the Caribbean hut, arguing that it was an architecture inseparable from forced labor on colonial plantations that formed the basis of his theory of architectural origins anchored around the textile envelope as both the privileged support for ornament and carrier of architecture's symbolic value. Offering the most direct elaboration of Semper's *Bekleidungstheorie*, Loos' "Principle of Cladding" finds its internal contradiction in the house he designed in 1928 for African American dancer, Josephine Baker. Instead of blank white façades reflecting the inconspicuous code Loos accorded to civilized, modern urbanites and objects of daily use, his (unbuilt) house for the 'exotic' Baker is wrapped in alternating stripes of black and white marble that underscore the Otherness of her blackness, and reveal an ornamental impulse in Loos that he himself associated with the feminine, the primitive, and the criminal. The relationship of the building's ornamental skin to the body's black skin is also raised by the recent National Museum of African American History and Culture in Washington, DC. Erected on the former site of a slave market on the National Mall and surrounded by white neoclassical monuments, the museum was to be wrapped in a bronze, ornamental skin. For budgetary reasons, however, it was built with aluminum coated to look bronze: a compromise considered an adequate, if less noble material substitution. Yet this ultimately denies the museum devoted to honoring African Americans, its skin's natural and subversive transformation from shimmering bronze to resplendent black.

PS48 Open Session
Greg Donofrio, University of Minnesota, USA, Chair

The Color Palette of North American Modernism: The Vassar College Art Library

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Abstract

Following the Museum of Modern Art's 1932 "Modern Architecture: International Exhibition," North American modernism under its sway gravitated toward a color palette of white, black, gray and other neutral shades. This was particularly true for Edward Durell Stone's domestic architecture, which largely demonstrated the "restraint" of color that curators Henry-Russell Hitchcock and Philip Johnson advocated in their book The International Style. However, the young American modernist John McAndrew, who had visited Rotterdam, Dessau, and Paris to examine firsthand the buildings of J.J.P. Oud, Walter Gropius, and Le Corbusier and had studied European avant-garde color theory, rejected the curators' call for "restraint." Instead, evidence suggests that McAndrew drew on purist polychromy in designing the interior of the Vassar College Art Library in Poughkeepsie, New York (1935-37).

Restored in 2009 by the architectural firm of Platt Byard Dovell White Architects, in conjunction with a paint conservator who took core samples, the Art Library's range of vivid colors offers an alternative to the limited palette of the International Style. McAndrew's application of blue, terra-cotta, yellowish brown, light yellow, and pinkish orange for the library interior recalls purist colors with their "constructive" properties – that is, the use of pinkish orange to anchor a wall or blue to create space. In doing so, the library's polychromy not only serves as a vehicle for abstraction but also affirms the importance of color in North American modernism, which had been occluded by International Style persuasion.

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