Abstracts of Papers

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PS01 Penetrable Walls: Architecture at the Edges of the Roman Empire
Thomas J. Morton, Bryn Mawr College, Session Chair

The Efficacy of Roman Counter-Insurgent Defenseworks

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This lecture compares the positioning of fortifications built by Hadrian and the Antonines, specifically Hadrian's Wall and the Antonine Wall in northern Britannia and the limes transalutanus in Dacia. All three were the product of changes in imperial frontier policies, applied with a degree of variation due to regional distinctions in the landscape and in the nature of their respective conflicts.

Both Britannia and Dacia feature a conspicuous change in operational stratagems, from Hadrian's Wall to the Antonine Wall and from the forts located in western versus eastern Dacia along the limes transalutanus. The shift is datable in both provinces as occurring within a quarter century of one another. It is evidenced in the placement of forts, from those designed to thwart large forces amassed for set-piece battles to later arrangements adept at addressing something more akin to guerilla war.

Emerging techniques in landscape archaeology cast a new light on the changing nature of Roman frontiers, those tested by enemies applying alternative tactics in asymmetric warfare. Cumulative viewshed analysis, collected physically and augmented with GIS software, relates the ability to see and to be seen from a given locale. Deviations in the intervisibility along the Antonine Wall and the eastern limes transalutanus suggests an integrated strategy of display and concealment, with visible castra compelling enemy forces toward smaller hidden encampments at strategic choke points. This lecture will also posit how this method was employed in both theaters of war.

Ultimately, the Severans abandoned the Antonine Wall and Aurelian abandoned the whole of Dacia in the 3rd century CE, communicating the costly and frustrating nature of counter-insurgencies. Albeit effective in perpetuating Roman occupation, imperial leadership opted to pull out of these embattled regions rather than continuing to waste resources in an endless fight.

Such an endeavour was never again repeated.

PS01 Penetrable Walls: Architecture at the Edges of the Roman Empire
Thomas J. Morton, Bryn Mawr College, Session Chair

A Re-imagined Rotunda: Healing in Pergamene Asklepieion

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'A bold and most difficult design concept mastered by the architect' is the opening statement of Oskar Ziegenaus' description of the apsidal Rotunda building of Pergamene Asklepieion. His meticulous site report covering the entire life span of this immense healing complex concentrates on a two-story circular edifice, which was built during the grand refurbishment of the complex in the 2nd century CE. There is particular attention given by Ziegenaus and his team to the architectonic features of this so-called Untere Rundbau, or Lower Rotunda building lying southwest of the complex, detailing its axis of symmetry, its seventy-meter long barrel vaulted cryptoporticus, its pillared halls, its apsidal fountains as well as its relationship to the rest of the sanctuary.

This thorough and remarkable analysis of form and construction however, leaves out the immense complexity of sensorial affectation that the building provides to the incomer and its general relationship to healing. The aim of this paper is not to provide a conventional art historical analysis of form and style of a particular form of architecture, nor does it set out to reflect on symbolic meanings that its design might convey. It is rather, to re-introduce the body of the pilgrim, through a 3D working model, into the architectural analysis and reinterpret this complex rotunda with all its design elements through the lens of its sensorial experiences within this medical milieu.

PS01 Penetrable Walls: Architecture at the Edges of the Roman Empire
Thomas J. Morton, Bryn Mawr College, Session Chair

Ritual Places and Community-Formation on the Frontiers of Roman Britain

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The region centered around Hadrian's Wall, on the edge of the Roman Empire, was a complex zone of cultural interaction, with auxiliary soldiers, local peoples, and communities on both sides of the border all coming together in the creation of a frontier society. In particular, the forts that garrisoned the Wall and their accompanying civilian settlements, or 'vici', were important foci for cultural interaction between the various groups living in the area.

One of the more significant ways in which the inhabitants of this frontier region constructed individual and group identities was through religious activity. Military units, for example, reinforced group cohesion and loyalty to the state through sacrifices to Jupiter Optimus Maximus and the Emperor, while smaller sub-groups within the army, many of them from other parts of the Roman Empire, used dedications to their ancestral gods to express their ongoing ethnic affiliations with their homelands. This use of religious activity to define identity raises important questions about the intended audiences of such displays.
This paper examines the evidence for temples and shrines at two neighbouring forts, Housesteads and Vindolanda, and their associated vici. The two sites demonstrate very different strategies for the ways in which temples and ritual activity were incorporated into the built environments of fort and vicus. For example, military rituals at Vindolanda took place almost exclusively within the fort, in contrast to Housesteads, where the same rituals were performed extramurally, and thus were much more visible to groups outside the army community; this has important implications for the relationship between the fort and vicus populations at each site. By looking at the settings for ritual activity in forts and vici, we can begin to map the ways in which the location and architecture of sacred places served to structure different social and religious networks.

PS02 Piranesi at 300
Heather Hyde Minor, University of Notre Dame, and John Pinto, Princeton University,
Session Co-Chairs

Lauding the Republic: Piranesi, Sallust, the Romans and the French

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In a recent publication I have investigated the larger context of the three classical
quotations in Piranesi's Parere plates — by Terence, Ovid, and Sallust — and their
significance for a mid-eighteenth-century reader. I have shown how Piranesi was not
only defending himself against criticism in architectural matters, but also firmly raising
his profile in a much larger, ideological controversy.

In my paper I will further develop how Piranesi, by leaning on Sallust, was not only
attacking Mariette's artistic conservatism, but was surreptitiously drawing the attention
to his outdated political conservatism as well. He was showing a generation of French
amateurs and Enlightenment thinkers how closely their philosophical and eventually
political ideas aligned with his own arguments. The Roman Republic could provide
models and elements for a new architecture, but also for a new, republican, society.

Roman legislation, for instance, was both a recurrent feature in Piranesi's oeuvre and a
key element in the discussions in the Gazette. The editors, in their comments following
Mariette's letter, had nuanced their unfavourable position towards the Romans precisely
on that point. A month later, the Gazette contained a laudatory review of Emanuele
Duni's Origine, e progressi del cittadino e del governo civile di Roma. Duni, as before
him the Parisian lawyer Antoine Terrasson, defended the jurisdiction of republican
Rome with the very arguments Piranesi used for its architecture. Their impact seems to
have reached even beyond content: the style of Terrasson's point by point rebuttal of
Bonamy's anti-Roman stance reads as a precursor to Piranesi's countering of Mariette's
critique of his Magnificenza.

Featuring a Parisian lawyer, a Roman law professor, and a Neapolitan minister, all
sharing space on the pages of the Gazette, my paper will highlight the importance of
these debates for both the creation and the reception of Piranesi's work.

PS02 Piranesi at 300
Heather Hyde Minor, University of Notre Dame, and John Pinto, Princeton University,
Session Co-Chairs

Scipione Maffei, Piranesi, and the Construction of Etruscan Magnificence

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Recent studies have greatly illustrated the process through which Piranesi constructed printed volumes to support his views on the history of architecture. It was by playing with the mutability of fragments, both ancient and modern texts as well as material remains, that Piranesi attempted to prove that the Roman art of building had its origin in the Etruscan civilization. This pre-roman culture that flourished in central Italy, whose language and customs, not to mention arts, was still the subject of debate for Piranesi's generation.

Building on Renaissance investigations, the re-evaluation of the Etruscan contribution in architecture had gathered force in early eighteenth-century Italy, thanks to Scipione Maffei (1675-1755), an eminent antiquarian from the Venetian Republic.

New evidence confirms that Maffei's theories on the Etruscans, as well as his methods of analyzing past civilizations and their architecture, were not only largely debated in the Venetian circles where Piranesi was trained, but also directly known by Piranesi himself.

This paper aims to bring light to a chapter of early-eighteenth century antiquarianism that nurtured Piranesi's mind and sparked his antiquarian approach as much as his imagination. Thanks to new archival research, this paper will illustrate the process through which Maffei, years before Piranesi, attempted to demonstrate the "magnificence" of Etruscan architecture as a way to defend and legitimize the entire Italian building tradition. It will also demonstrate how the materiality of words led Maffei to investigate the materiality of walls. In doing so, it will also show how the mutability of words and physical ancient fragments was used to make architectural history, while also revealing how the reading of the past was shaped by contemporary needs.

PS02 Piranesi at 300
Heather Hyde Minor, University of Notre Dame, and John Pinto, Princeton University, Session Co-Chairs

"Nature, the great renewer": Piranesi Visualizes Architectural Imitation

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In the Parere su l'architettura, the Socratic dialogue published in 1765 along with two related texts and a title page inscribed "Osservazioni Di Gio Battista Piranesi sopra la Lettre de M. Mariette", Piranesi rejects the primeval hut as a model for building even while framing nature as the wellspring of architectural invention and its variablity as justification for bountiful ornament. Following Rudolf Wittkower's foundational reading of the Osservazioni trilogy illustrations, the prints and related drawings have recently attracted renewed attention, chiefly as elements of Piranesi's use of ancient and modern sources and his enthusiasm for decorative excess. But the role of the Osservazioni images in elaborating Piranesi's attitudes toward the imitation of nature in architecture remains unclear.

This paper advances the reinvigorated interest in Piranesi's treatise illustrations by analyzing how the author devised the Osservazioni trilogy images to negotiate the work's apparently contradictory stances on nature as a model for architectural ornament. Comparing the 1765 prints with the six plates added after 1767, as well as published and unpublished drawings for both stages of the project, I demonstrate that Piranesi increasingly distinguished between building that imitates a natural Urarchitektur and architecture that emulates nature's boundless diversity. Set against Piranesi drawings recently discovered in Karlsruhe and the prints of his Diverse maniere… (1769), which liken the taxonomy of ornament to the classification of naturalia, the Osservazioni designs show the author's evolving grasp of architecture as the systematic re-invention of natural forms. I conclude by considering the ways in which the dissonant interplay between text and image in the Osservazioni trilogy undergirds Piranesi's case for the free adpatation of natural models in architectural design.

PS02 Piranesi at 300
Heather Hyde Minor, University of Notre Dame, and John Pinto, Princeton University, Session Co-Chairs

Rediscovering Piranesi in the Twentieth Century

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"Giovanni Battista Piranesi, the etcher of the views which hung in Sir Walter Scott's dining parlour, was born at Venice on October 4, 1720." Thus begins Arthur Samuel's monograph on Piranesi published in 1910. It is a telling introduction because what Samuel first tells his readers about Piranesi, even before the place and time of his birth, is the fact that his views had decorated the walls of the famous author. The quote reminds us that Piranesi was underrated, even almost ignored, during the second half of the nineteenth century. In fact, his name was not even mentioned in some publications on printmaking at the time. The Venetian's expression was considered dark, un-naturalistic, even feverish, compared to the soft tonality and gentle gradation admired in the etchings of for example Raphael Morghen.

The rediscovery of Piranesi around 1900 can be traced to a series of publications by authors such as William Sturgis, W. J. Woodward, Arthur Samuel, and Arthur M. Hind. However, the rediscovery was not confined to the field of printmaking, this paper argues, as it was informed by discourses on contemporary art and technology. "The fault of his work as an engraver is in the extreme contrasts of light and dark," writes Sturgis in 1900. Similarly, Woodward, two years later, observed that parts in his prints were "as intense as an electric flash" whereas others were "absolutely stygian," both authors contributing to an overall assessment of Piranesi's etchings as "overexposed," influenced by criteria introduced by photographic techniques. These and other examples demonstrate how photography framed the perception of Piranesi's art at the beginning of the twentieth century in a revival that not only challenged bourgeois taste but also cast Piranesi in the role of a proto-modernist with repercussions in several fields.

PS02 Piranesi at 300
Heather Hyde Minor, University of Notre Dame, and John Pinto, Princeton University,
Session Co-Chairs

Piranesi's Roman Bridges: Engineering to Art

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Piranesi's etchings of Rome's ancient and medieval bridges are among his most famous images as they combine dramatic perspective with accurate and thorough detail, sublime monumentality with diminutive human references, and historical reading with engineering speculation. With one exception, the bridges were all functioning, essential elements of Rome's well-maintained urban infrastructure, not abandoned, decaying ruins as found in so many of Piranesi's prints. His fascination with the bridges is evident in the many studies he made of their dramatic pier-and-arch construction, his analysis of their materials, and in his speculation about the character of their buried foundations.

This paper examines five of Piranesi's Roman bridges, ranging from the Ponte Milvio to the Ponte Rotto, which appeared in Antichità Romane and Vedute di Roma, published between 1748 and the 1760s. It begins with a brief tour seen through Piranesi's eyes, noting his unique vision of the bridges, their setting in Rome's topography, and the nature of his detailed observations which he extensively recorded in the title blocks at the bottom of each sheet.

This is followed by three areas of critical analysis: 1) a comparison of these images with those he did early in his career for two collaborative projects, the first with Giuseppe Vasi for Vedute di Roma sul Tevere, a volume of views taken along the Tiber, the second, with Carlo Nolli for the Pianta del Corso del Tevere e sue adiacenze, which included nine vignettes of the bridges, 2) the use of dramatic perspective, referred to as scena per angolo, which he learned from Ferdinando Bibiena, and 3) the manner in which his bridges highlight his fascination with Roman engineering, and the extent to which his method yielded both imaginary and realistic reconstructions.

PS03 Chinese Architecture and Gardens in a Global Context
Tracy Miller, Vanderbilt University, Session Chair

Hybrid Spaces Reconsidered: Knowledge, Identity and Publicity in Eighteenth Century Jesuit Gardens in Beijing

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In the early modern world, the Jesuit garden arguably became a transcultural phenomenon materializing the transfer of both elite knowledge and ideas. This paper elaborates the transcultural dimension of the Jesuit symbolic garden by focusing on the so-called "Beitang garden" in eighteenth-century Beijing, built in Baroque style by French Jesuits. As witnessed by a number of Chinese and Korean travelers, however, the Beitang garden was not the only tangible garden constructed by Jesuit missionaries. As their other counterparts in Europe, garden spaces were essential to Jesuit residences in Beijing. Throughout the seventeenth and eighteenth centuries, these gardens in which advanced European knowledge of cultivation, mechanism, and hydraulic engineering was applied, were gradually turned into a dynamic space of increasing Jesuit botanic and cosmopolitan learnings. Considering their unique social and political functions within sacred spaces, this paper will first synthesize the relevant facts to re-contextualize the construction of these garden spaces by examining various forms of their visual representation. Relying on written records made by the Korean travellers, this paper will furthermore elaborate how concrete spatial arrangements and pattern designs through which certain attitudes and ideas are conveyed became accessible for the Beijing Jesuits. Based on these discussions, this paper captures the transcultural moment of Jesuit garden spaces by demonstrating the ways in which a French Jesuit garden was transferred into an eighteenth-century Jesuit space in Beijing.

PS03 Chinese Architecture and Gardens in a Global Context
Tracy Miller, Vanderbilt University, Session Chair

From Monastic Cells to Corridors: Historical Significance of Sixth–Seventh-Century Changes in the Chinese Buddhist Monastery

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Most scholarship on third-to-seventh-century Chinese architecture concerns Buddhist monasteries undergoing a progressive trend of sinicization. Thus, in the center of its four-sided courtyard, Buddha halls, a Chinese-looking architectural type, consequently replaced the non-Chinese pagoda. Few studies give sufficient emphasis to the changing conditions of the surrounding structure that defined the courtyard. Historians have demonstrated, through several excavated Tang dynasty (618-907) monastic sites and a number of contemporary examples from Korea and Japan, that large Tang monasteries were usually enclosed by covered corridors. On the other hand, archaeological sources show that in most of the excavated pre-Tang Buddhist sites, the courtyards are enclosed by monks' residential cells. There is obviously an interesting transformation, which has not been addressed in previous studies. To understand this phenomenon, this paper revisits early Buddhist architecture in South and Central Asia, and identifies two distinctive sources that monasteries in Northern Dynasties and Southern Dynasties were respectively modeled on: the north was under strong influence of the Gandhāran monastery, while the south was more likely to be rooted in the Central Indian monastery. Furthermore, this paper argues the universal use of the corridor type in the fifth-to-seventh-century temple construction of Korea and Japan resulted from indirect Central Indian influence via their cultural exchange with the Southern Dynasties. Lastly, considering the political and religious agenda of seventh-century China, the change of enclosing structure from monks' quarters to corridors in the northern/Tang monasteries can be understood as a multifaceted consequence of both the cultural reconciliation of the re-unified north and south and establishment of more orthodox Indian monasticism in China initiated by several important early-Tang Buddhist elites. This paper enriches our current understanding of Buddhist architecture by re-mapping its transmission course in East Asia.

PS03 Chinese Architecture and Gardens in a Global Context
Tracy Miller, Vanderbilt University, Session Chair

Hindu Features in the Vernacular Architecture of Southeast China

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Vernacular architecture in Southeast China, the country's modern cultural and economic center, evolved dramatically after the 16th Century. This paper aims to explore the stylistic origins of two typical "new" architectural elements: the arc-shaped pediment and diagonal bracket. Emerging from this evolution, these "new" elements of Chinese vernacular architecture were derived from India and Southeast Asia, as reflected in the similarities between their shapes and names (pronunciation), but with different symbolic meanings.

For example, arc-shaped pediments were called "Huo'er Wall" or "Guanyin Dou" in different Provinces of China, but the dialectical pronunciations of both are all similar to "kuoin", which could have been derived from the Indonesian word "kuil \ koil", and the Tamil word "kōyil \ kōvil", meaning Indian temple, where such pediments are commonly used.

Since the 16th century, Chinese artisans travelled constantly between China and Southeast Asia according to "construction seasons". Specifically, the optimal construction season differed among countries, and those of Southern China (autumn), Indochina Peninsula (December to April), and Malay Archipelago (May to September) made up a continuous year. Such "international" artisans, especially cabinetmakers and masons, made architectural interaction possible.

Moreover, when the Ming Dynasty collapsed in the 17th century, numerous Chinese immigrated into Southern Vietnam, former areas of Hindu countries such as Khmer and Champa. Through this immigration, a new architectural style combining Indian and Chinese features developed, one labeled "Chinoiserie" by European newcomers.

Back in China at that time, a new moneyed class was attempting to find their identity in buildings. However, the traditional patterns of Chinese Architecture, which strictly corresponded to the owner's social hierarchy, turned out to be a constraint for them. Maneuvering between bureaucratic suppression and commercial accomplishment, Chinese nouveau riche eventually adopted a variety of "Chinoiserie" elements (including Hindu features) that represented their unique identity.

PS03 Chinese Architecture and Gardens in a Global Context
Tracy Miller, Vanderbilt University, Session Chair

Historical Study on Modern Textile Mills in Yangtze Delta

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The Chinese modern industries were established mainly in the port cities through two channels: the foreign industrial investments and the "Westernization Movement" after the Opium War. The new manufactory demanded a new type of buildings, the modern industrial buildings, which have crucial influence on the modernization of Chinese architecture.

Textile industry is the most important engine for industrialization; however, this industry does have a long tradition in China, especially in Yangtze Delta region. What will happen, in architectural perspective, when the new mechanical mass production was introduced into the region with its own rich timber construction tradition?

Focusing on historical origins of the Chinese modern industrial buildings and its technology transfer routes, this paper will take early textile mills (1860s-1930s) in Yangtze Delta region as samples to reveal the building industry modernization process in China.
Through digging archives of important figures such as Sheng Xuanhuai, Li Hung Chang, White A.Danforth, an American textile mill engineer from Lowell, U.S. and other sources like newspapers and custom reports during that period, this paper will rematerialize the design and construction process of the first mechanical textile mill in China - China-Shanghai Cotton Cloth Mill (Shanghai Jiqi Zhibu Ju) (1881-1893).

The "imported" industrial buildings structures which were replaced by "localized" design and construction when the domestic textiles industry was re-booming in 1910-30s. Mapping the early textile mills in Yangtze Delta Region, this research will further visualize the "localization" process along the water ways with a deeper involvement of traditional craftsmanship.
In the end, this paper will also argue that in modernization process of Chinese architecture, the early textile mills are more curial to spread the architectural technology than the other buildings built in the similar period.

PS03 Chinese Architecture and Gardens in a Global Context
Tracy Miller, Vanderbilt University, Session Chair

Modern Chinese Assoc. Buildings: Exit Nation, Enter Ethnicity

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More so than most countries, Malaysia defines itself by plurality, with its lively population of Malays, Indians, and Chinese. Its name, a combination of 'Malay' and 'Asia' came into being with independence, 1957. Many Chinese Malaysians consider themselves Chinese before being Malaysian, although it is even more complicated than that. Modernism developed in the Malay Peninsula, starting in the 1930s, and its growth picked up pace after WWII. Once it became clear that the English colonial administration was ending, and that the numerically dominant Malays would take over, Chinese associations demonstrated their strength by building new structures throughout South East Asia. On Pangkor Island, three buildings rose: the Hokkien Association, 1956, the Hang Kang Association, 1959, and the Hainen Association, 1960. These buildings uneasily fit into categories, for they are at once, Chinese, modern, and vernacular. They telegraphed Chineseness to viewers with obvious symbols, such as up-swept roofs, paired lions, and beautifully crafted calligraphy (Licheng, Steinhardt). Yet their owners did not present them as monuments, that being reserved for temples and palaces. Acknowledging Western influence, they were consistent with aspects of 1950s modernism, chiefly its technological optimism, shown with gleaming white concrete and prefabricated modular elements. Yet these buildings, grandiose and prosaic, also fit the definition of vernacular. Most were built by contractors, and while impressive, served a variety of straightforward community-building functions. There were named Chinese architects (T.Y. Lee, Yoon Thim Lee, Kington Loo) active in the period, also creating ethnically-tied buildings in the interregnum between colonialism and majority rule, and thereby staking a claim as regional modernists. This study builds on the work of scholars who tirelessly insist on multiple modernities (Lu, Chang). It argues for a decoupling of modernism with the nation state, and in its place offers a provocative connection of modernism to Chinese ethnicity.

PS04 Mass Housing 'Elsewhere'
Miles Glendinning, University of Edinburgh, UK, and Florian Urban, Glasgow School of Art, UK, Session Co-Chairs

Kuye Kan: The Socio-Political Dimensions of Mass Housing in Tehran

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Under the American influence between the min 1950s and 1960s, the Iranian government in collaboration with local architects developed one of the most extensive and novel worker-housing programs in the Middle East. As a part of Iranian 'Second Development Plan' (1955-62), this program was designed to re-organise traditional family structures for the working class. On the one hand, the plan aimed at changing the every-day life of people and domestic space, re-educating women, and upgrading their roles in the society. On the other hand, the program intended to repulse the spreading Soviet influences in that region. To achieve these objectives, the Iranian Plan Organisation and Bank-e Sakhtemani (Construction Bank) developed a manual of cooperative housing typologies, forming an important instance of transnational planning during the 1960s. This manual outlined regulations for the construction of mass housing, based on the five main climate zones in Iran and on the number of bedrooms in each unit. It also described the spatial codes and regulations that a private firm or an individual would have to follow to get construction permission. Although the manual was so prescriptive that it left limited design scope to practices described by the government, Iranian architects realised a series of worker-housing projects in Tehran, such as Kuye Kan (1958-64), Kuye Nohome Aban (1964-66), and Kuye Chaharome Aban (1967-69), among which Kuye Kan played a distinctive role. Building upon a brief analysis of Western influences such as the President Truman's 'Point Four Program' and the Kennedy doctrine for developing countries, this paper reveals how this prototypical model addressed the local culture and society. Accordingly, this project poses questions about how imported models in a non-western country such as Iran related to matters of continuity with local traditions of space, meaning character and identity of place in mass housing practices.

PS04 Mass Housing 'Elsewhere'
Miles Glendinning, University of Edinburgh, UK, and Florian Urban, Glasgow School of Art, UK, Session Co-Chairs

Mass Housing in Mid 20th Century Buenos Aires

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Starting in 1946, in Buenos Aires, capital of the Argentinian Republic, the ideas of the Modern Movement as regards housing were fostered from the State as part of a social equalization policy launched by President Juan Perón, who was democratically elected that same year and governed for two consecutive periods. The Peronist housing programme was part of a broad social reform plan, which understood access to housing as a "social right" of workers and their families.

These ideas went hand in hand with a modernization process and further development of the state administration, which expanded its intervention into areas formerly beyond its influence. Convergence of modernism and state was common in many post-war countries after the Second World War, but in Argentina, it was counterbalanced by areas of the state bureaucracy which outright rejected the ideas of economic and cultural modernization.

This work analyses the intellectual programme and the shape of mass housing designed between 1946 and 1949 by the City of Buenos Aires local authorities, where modern architects, who had collaborated with Le Corbusier in his 1938 Buenos Aires Plan, worked. The projects of these architectural elite were in tune with the Modern Movement's community and social mobility ideals, and therefore diametrically opposed to the state housing projects presented by the conservative elites who were also part of the City of Buenos Aires local authorities during the same period of time. By way of a case study, this work highlights the tensions presented between state and urban models in Buenos Aires in the years of construction of Welfare States.

PS04 Mass Housing 'Elsewhere'
Miles Glendinning, University of Edinburgh, UK, and Florian Urban, Glasgow School of Art, UK, Session Co-Chairs

Public Mass Housing in Israel: The "Second Wave" (1960s-1970s)

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During the 1960s and 1970s, lessons learned from the "first wave" of Israeli public mass housing (1948-1958), designated mostly for immigrants, were implemented through the adoption of Brutalist and Structuralist architecture. These styles bared modularity, geometrical aesthetics and novel materiality that fit the national ideology of uniformity and its attempts to cater to local cultures and environments. Large-scale construction projects that adhered to these theories were built throughout Israel.

This paper presents a conceptual framework that illustrates the relationships between three major forces that influenced the design of this "second wave" of public mass housing. First, the state's civic ideology of creating a unified Jewish modern society: It was believed that modern architecture in the form of Brutalism could promote unification and exhibit progress. Counter to the former, the second influence on mass housing design comprised cross-cultural transmissions and adaptations. Structuralism's referral to place and the primitive, as the basis for primary structure, modularity and infinite extensibility, was translated into new concepts of mass housing. This approach catered to new immigrants' collective memory rooted in their habitat in the diaspora, yet also expressed an indigenous heritage and culture that attracted local buyers. The third force was the acknowledgement of local environmental conditions, which were ignored in the architecture of the "first wave".

Our study applies this conceptual model to "Neighborhood (Shikun) B" in Be'er-Sheva (1969-1976), designed by Arieh and Eldar Sharon. This neighborhood utilized Brutalism in its urban fabric, structural elements and use of concrete; it implemented Structuralism in its details, which addressed cultural and environmental aspects (e.g., courtyards, shading devices, and density). Therefore, we argue that the conceptual and formal frameworks of Brutalism and Structuralism express the three major forces in the architecture of the "second wave" and that these styles transformed design approaches to mass housing in Israel.

PS04 Mass Housing 'Elsewhere'
Miles Glendinning, University of Edinburgh, UK, and Florian Urban, Glasgow School of Art, UK, Session Co-Chairs

African Housing in Soviet Gift Economies

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This paper discusses housing projects gifted by the Soviet Union to countries in West and East Africa
during the Cold War. Within Khrushchev's opening to the "Third World", and based on the modernisation of Soviet Central Asian Republics, the USSR contributed to the „socialist development" of Ghana, Guinea, Mali, and Sudan. Besides industrial and social infrastructure, these contributions included residential buildings and housing neighbourhoods (mikrorayons) in Accra, Tema, Conakry, Bamako, and Khartoum. Several of these buildings were "gifts", that is to say they were designed and constructed with Soviet money, labour and building materials, and these "gifts" were followed by "counter-gifts" within overarching economic and political agreements.

Based on archival research and interviews in West Africa and Russia, this paper argues, first, that socialist gift economy was not only a mode of distribution of architecture, but also its mode of production. While gifted projects exemplified Soviet holistic approach to residential architecture in hot climates, their design and construction were distinct from those resulting from technical assistance agreements or commercial contracts. These differences pertained to the budget, functional programs, climatic solutions, building technologies, materials, and post-occupancy assessment. While Soviet and African actors involved were typical for post-war, government-led housing projects (state administration, design institutes, construction companies), their relationships were fundamentally redefined by the underlying gift economies.

Second, this paper shows that rather than being restricted to the Khrushchev period, socialist gift economies persisted in Soviet architectural engagements in developing countries until the end of the USSR. In particular, the inequalities specific for gift economies were reproduced in barter agreements between Comecon states and associated countries in Africa, Asia and Latin America. By pointing at these continuities, this paper argues that socialist gift-giving defined a mode of architectural mobility which has shaped the conditions of inhabitation around the world until today.

PS04 Mass Housing 'Elsewhere'
Miles Glendinning, University of Edinburgh, UK, and Florian Urban, Glasgow School of Art, UK, Session Co-Chairs

A History of Transition in Singapore's Public Housing, 1945-65

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This paper examines the history of public housing in Singapore between 1945 and 1965, during the transition from colonialism to independence. By cutting across the standard periodization that bifurcates the public housing history into the colonial and post-independence phases, this paper questions two entrenched assumptions in the existing accounts of public housing in Singapore.

First, it is often claimed that public housing in post-independence Singapore represents a radical break from colonial public housing. While the colonial government purportedly neglected housing the masses, the post-independence government built large quantity of public housing to improve the lives of the masses. This is then reduced into a narrative of the failure of the Singapore Improvement Trust (SIT), the colonial housing agency, vis-à-vis the success of its post-independence successor, the Housing Development Board (HDB).

Second, Singapore's post-independence public housing, particularly its supposedly unparalleled success in housing a nation, was exceptional, based on a uniquely Singapore model and thus without precedent anywhere else in the world.

The first assumption obfuscates the continuities between colonial and post-independence public housing in terms of design and planning strategies, and housing typologies. In fact, the SIT built a substantial amount of public housing in the postwar period, and when the HDB was set up in 1960, after Singapore obtained self-government the year before, it took over two new towns that the SIT was in the midst of planning and building. The second assumption overstates the uniqueness of the Singapore case. It ignores the transnational influences Singapore's public housing policies, planning and design from Britain, North America and Australia.

By looking at archival materials and oral history records from both the colonial and post-independence periods, this paper seeks to provide a nuanced history of how post-independence Singapore adapted and appropriated colonial and transnational ideas for its public housing.

PS05 Architectural Ghosts
Karen Koehler, Hampshire College, and Ayla Lepine, University of Essex, UK, Session Co-Chairs

Peter Zumthor's Topography of Terror: A Genealogy of an Unexecuted Project

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This paper constructs a genealogy of Peter Zumthor's Stabwerk [Framework], an unexecuted project for the Topography of Terror, located in the center of Berlin. As the former seat of the National Socialist Police and State Security during the Third Reich, the Gestapo-Terrain, now Topography of Terror, housed the bureaucratic structure of the perpetrators and victims of the Nazi crimes. Inquiring into the material remains and cultural circumstances of the 1993 architectural competition that the Swiss architect won, this research unfolds a past and a future for Zumthor's proposal for Berlin.

First, the paper argues that Peter Zumthor's design did not start from scratch in 1993, but that it can indeed be read as part of a genealogy that includes the first memorial-competition of 1983/84 and the existing site. Reviewing three entries of the winning of the 1983/1984 competition, reveals three alternative approaches to solving the relationship between memory and site that had already been devised before Peter Zumthor entered the discussion. Second, a close reading of Peter Zumthor's drawings, writings, and interviews about Stabwerk allows to unfold the architect's position regarding the forebears of his design, as well as to introduce his original ideas.

Finally, the failure of Zumthor's project was a generative moment, in the sense that it determined the 2004/2005 competition, the outcome of which lies on the site today. After Stabwerk was dropped in 2004, the German press called for a new beginning for the Topography of Terror. But, no clean slates were possible for the site of the perpetrators. The experience with Zumthor deeply influenced both the guidelines and the design entries for the third and last competition for the Gestapo-Terrain. Although unexecuted, the first competition and Zumthor's design had a ghostly effect on the site: haunting and shaping the future of the Topography of Terror.

PS05 Architectural Ghosts
Karen Koehler, Hampshire College, and Ayla Lepine, University of Essex, UK, Session
Co-Chairs

Architecture's Disquiet: A Theory of Heterology

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To illustrate his architectural theory of "Heterology," Japanese architect Minoru
Takeyama (of New Wave non-group ArchiteXt) compiled a photo compendium,
comprising five double-sided pages of black-and-white photographs in square matrices
(ArchiteXt Extra, 1972). Each matrix has a theme: pull/knob, door, row house, map, and
the earth. Each page features antique Japanese designs—chrysanthemum-shaped
metal fixtures, woodblock prints of Edo (the former Tokyo), etc.—on the front and
foreign conventions on the reverse side.

Takeyama modeled his "Heterology" upon urban ethnologist Kon Wajiro's
"Modernology" that aims to seize a "moving present," which, while being lived, is at the
same time always escaping. After witnessing Edo being ruined overnight by the Great
Kanto earthquake (1923), Wajiro anxiously walked the city year in and year out, making
inexhaustible sketches of everything passing before his eyes. According to Wajiro, his
graphic studies (i.e. "Modernology") introduces a preemptive, visual history to forestall
the vanishing of the "moving present" and capture a modern Japan in the making.

Contrarily gazing back in time, Takeyama's "Heterology" restores a disappearing
(architectural) past. His faint photos of heterogeneous manifestations appear to be
"Japan-ness" incarnate—in the detached, homeless door pulls and the spectral, buried
row houses. Laid to rest in their (matrix) squares, these Japanese architectural ghosts
are nonetheless, ironically, haunted by their foreign counterparts on their back (pages).
As history unfolded, Japan's "doubling" phenomenon due to
modernization/westernization would indeed cause the country much psychological
perplexity.

My paper examines the latent potency of the apparitions that indwell in Takeyama's
photo matrices. Upended by the "doubling" phenomenon, the disembodied architectural
ghosts at once produce and coalesce, using author of On Longing Susan Stewart's
terms, a "miniature" (the interior/inside/native/traditional) suffused with nostalgia and
melancholy, and a "gigantic" (the exterior/outside/foreign/exotic) stirred by fantasy and
desires, giving architecture no respite.

PS05 Architectural Ghosts
Karen Koehler, Hampshire College, and Ayla Lepine, University of Essex, UK, Session Co-Chairs

Ghost in the Glass: Iñigo Manglano-Ovalle

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In 2009 Iñigo Manglano-Ovalle completed the last of five art works haunted by Mies van der Rohe. Entitled Gravity is a Force to Be Reckoned With, the final work in this series is variously spectral, but at its core is van der Rohe's never-realized 50x50 House (1951): a house that exists only as phantom.

Together with a team of engineers and curators, Manglano-Ovalle built a half-scale model of the 50x50 house and installed it, inverted, in the cavernous space of Mass MoCA's main gallery. Transparent and seemingly freed from gravity, the house seemed to levitate just above the gallery's floor. Moreover, its contents hovered near the ceiling, unencumbered by the laws of physics. Thus, this architectural specter, once known only as an immaterial idea, was no less ghostly when realized. Indeed, its transparency and uncanny sense of weightlessness (exacerbated by Manglano-Ovalle's inversion) is aligned with traditional images of floating, diaphanous, spirits.

But, if van der Rohe's house is a ghost, this iteration is also a haunted house, inhabited by spirits trapped within glass. To explain: Gravity was also the setting for a play whose characters appeared only on the screen of an iphone, visible through the building's glass walls. Loosely based on Yevegny Zamyatin's We (a 1921 dystopian novel about the future in which all walls are made of transparent glass), the script, written by Manglano-Ovalle, is indebted to a second unrealized project: a filmic adaptation of We by Sergei Eisenstein, provocatively entitled The Glass House. Taken together, they suggest a future past that haunts us all – one in which Modernist fantasies of connection, transparency and order arguably left us dispersed, alienated, and variously imprisoned, as we move evermore weightlessly through time and space via the kinds of immaterializing technologies that occupy the very heart of this haunting installation.

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The Phantoms of Kirkbride Hospitals for the Insane

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How many ghosts can haunt a building at once? When the building at question is one of the Kirkbride Hospitals for the Insane, which average hundreds of thousands of square meters and share the tragic legacy of a very real, very troubled past, the answer is not simple. There are many ghosts, of various sorts. Throughout the second half of the nineteenth century, seventy-five "Kirkbride Plan" Hospitals for the Insane across the United States, Canada and Australia were built to the vision of Dr. Thomas Story Kirkbride. Embodying Enlightenment Quaker beliefs in the therapeutic powers of architecture, beauty, and respectful care, the Kirkbride Plan generated awe-inspiring, echelon-wing structures that were judiciously sited on high ground to offer plentiful light, natural ventilation and strategic views of generously landscaped grounds that often included a self-sustaining farm for occupational therapy.

Unfortunately, Kirkbride Hospitals haunt the public imagination due to an abysmal cocktail of overcrowding, neglect and questionable medical procedures. Despite the noble intent and generosity of their designs, the asylums often devolved into horrifying dystopias. As Colin Dickey observes in Ghostland (Viking: 2016), "stories of deaths inside the walls, bodies forgotten, 'treatment' that resembled sadistic torture, gradually gave way to stories of ghosts, poisoned land, and haunted buildings." These stories reveal other ghosts, too, in the darker corners of human nature and family histories where members were committed, not infrequently, by questionable cause. Given their checkered pasts, these asylums are easy targets for demolition. Yet there is a passionate and growing network of paranormalists and urban explorers committed to preserving Kirkbride Hospitals. Can we decouple the physical asylums from their phantoms, to promote adaptive reuse rather than repressive and wasteful erasure? Is it possible to resuscitate these remarkable structures, which offer tangible lessons of architectural know-how, sustainability and embodied energy?

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Karen Koehler, Hampshire College, and Ayla Lepine, University of Essex, UK, Session Co-Chairs

The Mission

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Fort Defiance, Arizona is replete with reminders of a deeply equivocal past. Located on the Navajo reservation, its very name alludes both to the resistance of the Navajo to the US Army's attempt to subdue them beginning in 1851, and then to the government's own defiance of their resistance, leading to the genocidal Long Walk of 1864. This bitter history remains evident in the numerous cemeteries that dot the landscape, from small family plots to military cemeteries decorated with American flags. Adjacent to the old fort is Good Shepherd Mission, founded in 1894 with both medical and religious purposes. Its current church, however, dates only to 1954—a regionalist building constructed as "a cathedral for the Navajo" with money from Arthur Vining Davis of Alcoa Aluminum, and designed by the famed southwestern architect John Gaw Meem (1894-1983). It embraces the Spanish-Pueblo building tradition, while also incorporating modernist interpretations of traditional Navajo symbolism and craftsmanship. Touchingly, the church is surrounded by yet another cemetery, including graves not only of deceased parishioners, but also young children who died in the mission orphanage. Given the innate Navajo fear of evil spirits that can be left behind by the dead, the church has an ambiguous spiritual relationship with the community. Although it skillfully interweaves the themes of native creation myths, reverence for the landscape, and Christian worship, the church is nevertheless viewed with suspicion as a place where spirits—ghosts—lurk, especially those who evoke the painful local history. This paper looks at the complex layering of divergent spiritualities, patterns of subjugation, and cultural transference that this uniquely situated architectural monument carries. Although it is remarkably adept at proposing an intersection of traditions, it may in the end be defeated by the spectral density of the very cultures it tries to celebrate.

PS06 Open Session 1
Stephen Parnell, Newcastle University, UK, Session Chair

Spanish Architects Reading Alvar Aalto

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Finnish design has had international influence particularly in the 20th century. As a leading figure of this influence, interpretations of Aalto have been published mainly in English, the language that made Aalto an international figure. The leading scholars of the 1950s and 1970s initially emphasized the functionalist aspect to contextualize his architecture (Johnson, Hitchcock, 1932; Giedion, 1941; Pearson, 1978). Later, in the 1980s and 1990s, others also explored his classical, traditional, and humanist roots (Quantrill, 1983). Thus, others produced studies on other Finnish architects including Bryggman, Revell or Pietilä (Quantrill, 1995; Connah, 1989) that often related with Aalto's in order to understand their mutual influences and broader shared cultural context.

Aalto continues to be the dominant point of reference for the study of Finnish architecture. However, the reading of Aalto's architecture in other languages requires additional attention. In Spain, since Aalto's visit in 1951, his work was published in Spanish architectural magazines. The issue 13 of the magazine Arquitectura published a monograph on his work in 1960. Despite the fact that he did not build anything in Spain, Aalto's architecture had great influence on local architects such as Fernandez Alba in the 1960s. From this to the second monograph, published in 1995 in Arquitectura Viva issue 66, more than forty articles and a number of books were published by Spanish architects and historians, among whom Antón Capitel should be highlighted. They presented a Spanish reading of Aalto different from the established record.

In 2017, Finland will celebrate the centenary of its independence. As a way to contribute to this celebration, this paper will discuss the reading of Aalto's architecture and writings by Spanish architects and historians. The aim is to understand the significance of these interpretations for a deeper appreciation of Aalto's influence beyond Finland.

PS06 Open Session 1
Stephen Parnell, Newcastle University, UK, Session Chair

Lexicography Localized: Du Yangeng and His Bilingual Dictionary

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The beginning of the 20th century witnessed dramatic social changes in China, among which the modernization of Chinese language was the most fundamental one. Around that moment, plenty of new words were imported into Chinese through translation, which effectively reformed the language and moreover the thinking tools of Chinese people in almost all aspects of life. The foundation of Chinese modern disciplines, including architecture, happened in this process, of which the formation of terminologies was an essential part. It is in this context that Du Yangeng's Bilingual Dictionary of Architecture (1936) emerged into concern.

Growing up in a local building-contactor's family, Du (1896-1961) was self-taught and later became quite a successful contractor and architect. Thereafter, he devoted himself as the founding member and executive sectary of the Architectural Society of China. Moreover, he was the editor-in-chief of the Builder, one of the two most important architectural periodicals published in China before 1940s, which made him one of the first homo media in architecture. As important as he was, Du's image remains somewhat marginal in the narration of architectural historians. This might be attributed to his ambiguous in-between identity as architect/contractor/editor. Yet, this "ambiguity" made him a perfect case in the discussion of architectural modernity in the specific circumstance of 20th-century China.

In light of this, this paper proposes to re-examine one of Du's major contributions--the Bilingual Dictionary of Architecture. This book, I would argue, should be viewed as a section for Du's life-long devotion into the modernization of Chinese construction industry. By closely examining the lexicons, the paper intends to point out that the lexicography practice of Du's work, by matching the English terms with the local jargons of local craftsmen, made itself definitely a self-consciously modern practice in the sense of Dipesh Chakrabaty's third world modernity.

PS06 Open Session 1
Stephen Parnell, Newcastle University, UK, Session Chair

The Anxiety of Theories: "Postmodernism" in 1980s China

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In 1980s China, the theory of modernization was predominant in the humanities and social sciences including literature, esthetics, philosophy, historiography, as well as architecture. (Tao Dongfeng, 1999) For Chinese people, "modern" represented progress that they had to catch up, which was widely accepted to such an extent that it almost became a psychological complex that had haunted over Chinese people's mind for the whole decade.

Translating theories from the West thus were taken as one of the efficient ways to realize modernization in all fields, including architecture. Starting from the seminal Foreign Theoretical Books Series, initiated by Prof. Wang Tan (1916-2001) from Tsinghua University, the 1980s witnessed a flooding of translated theoretical discourses: Postmodernism, Phenomenology, Semiotics, Esthetics, Deconstructionism, and etc. Even though the topics of the first series of translation by Wang were limited and thus exemplified an obvious personal selection, the series had a long effect in architectural studies in 1980s-1990s China. By analyzing how these books were chosen and translated, the paper intends to cast a light on the general epistemological condition in the 1980s.

Furthermore, the paper will continue to concentrate on a specific case--the discussion on Postmodernism in Chinese architectural journals. Unlike some other themes, Postmodernism received considerable attention, partly because it was related with the conflict between "tradition" and "modern," and especially the choice of style, which was still the bone of contention at that time. Therefore, the numerous discussions on Postmodernism reveal a specific venue of Chinese understanding on Postmodernism. Taking it as an example, the paper intends to provide an observation on the strength and limitation of the theoretical importation in the 1980s at large, as well as its legacies for the future decades.

PS06 Open Session 1
Stephen Parnell, Newcastle University, UK, Session Chair

Architecture's History and the Art Market: Beyond the Max Protetch Gallery

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This essay examines a period in the late twentieth century when architectural drawings provoked a profound re-evaluation of architecture. It does so through interviews and archival research of the individuals, galleries, institutions, and events-and the networks that originated therefrom-that drove this reappraisal by shifting the perception of architectural representations.

During the 1970s and 1980s, drawings attained autonomy from the architectural process and were ultimately perceived as aesthetic artifacts in and of themselves. Often neglected in the history of this shift in perception is the role that a growing market for architectural drawings and representations had.
While the Max Protetch Gallery is the most well known gallery to deal in architectural representations in the 1970s and 1980s, this essay will focus be those aspects of the market outside of this gallery. Among these are the Galeria Antonia Jannone in Milan, the Aedes Gallerie in Berlin, and the Galerie van Rooy in Amsterdam.

This market was largely driven by acquisitions by institutions that are today major repositories of late-twentieth century architectural history such as the Getty, the Deutsches Architekturmuseum, and the Canadian Centre for Architecture. Based on the understanding that these objects had value in themselves, these institutions saw that architectural representations could be collected to constitute a history of architecture. In this regard, they made a concerted effort to acquire architectural drawings and models. When these archives were in the process of formation, international groups were founded to address the conceptual concerns of them. Among these were the International Council of Architecture Museums and the Architectural Drawings Advisory Group.

Through an analysis of the development of these activities and networks, this essay will reveal the structures that were indispensable to the understanding of architectural representations as primary documents of architecture's history.

PS06 Open Session 1
Stephen Parnell, Newcastle University, UK, Session Chair

Architecture and the Trenches: World War I and Modernism

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According to scholars like Nikolaus Pevsner, just over a century ago, Glasgow was a center of the Modernist movement. Then came the Great War. For four years, a struggle of attrition gripped Europe. By 1919, Germany had lost the conflict, but in the ensuing decade it was France, Britain, and Glasgow that lost the struggle to define Modernism. Scholars have discussed how World War I shaped a generation of artists and authors, but few have focused on the conflict's effects on architects. For a designer, everything from the configuration of an engine to a table place setting can be viewed as architecture. How did the physical environment of the trenches shape the work of individuals such as Walter Gropius, Richard Neutra, Paul Cret, Eric Mendelson, and Mies van der Rohe?

In France, the Allies constructed trenches, which met the minimum requirements of shelter. By contrast, the Germans took a different approach and built lasting fortifications out of reinforced concrete. Military historians look at the direct impact of this construction on combat, but not its social effects on the individuals who designed and used it. Scholars such as J. M. Winter and Modris Eksteins accept the fact that many Allied architects tried to build as if nothing had happened, while the Germans embraced a new aesthetic. Interestingly, until now, no one has made the direct link between the structural technology used by the Germans on the Western Front and the leading Modernists of the inter-war period. This paper will explore the military careers and writings of individuals like Gropius and Mendelson to determine if there is a link between the kit of parts used in trench construction and the similar building blocks employed in what became "Modern Architecture."
Edmund D. Potter

PS07 The Architecture of Ancient Spectacle
Peter J. Holliday, California State University, Long Beach, Session Chair

The First Amphitheater of Latium at Sutri and its Context

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Stone amphitheaters appear in Campania by the early 1st century B.C., while Rome did not have a permanent building for gladiatorial spectacles until Statilius Taurus built his masonry amphitheater in the Campus Martius in 29 B.C. Before then, however, a rock-cut amphitheater was already standing only 30 miles North of Rome, at Sutri.

This paper examines how this building reflects the practical purposes of spectacles, on the one hand, and the social and political context of Rome, on the other, during the transition from the republic to the empire.
The absence of carceres and underground rooms, generally used to introduce beasts into the arena, indicates that hunting shows were not yet performed in the amphitheater. It was Caesar who first brought together beast fights and gladiatorial combats within the same show in 46 B.C., thus creating a formula later canonized under Augustus.

The simple circulation, with an annular corridor serving both the arena and the podium, shows a lack of separation between spectators and gladiators. This reflects an early stage of development of the amphitheater type, prior to Augustus's Lex Julia Theatralis, which regulated the seating arrangements in the theater so as to reflect the Roman hierarchical social order. Once extended to the amphitheater, this brought a more complex and segregated circulation, typical of the greatest amphitheaters of the imperial age.

Moreover, this promiscuous circulation might imply a certain affinity between the gladiators and their public, perhaps war veterans of the colony Augustus established at Sutri after 41 B.C. Roman soldiers were in fact well acquainted with gladiatorial techniques, which had been long employed by the army.
Last but not least, a passage in the Codex Iustinianus links Statilius Taurus to Sutri, thus legitimating the idea that the rock-cut amphitheater may have served as a model to its Roman successor.

PS07 The Architecture of Ancient Spectacle
Peter J. Holliday, California State University, Long Beach, Session Chair

The Ancient Oval and Bowl Enclosed: Modeling the Roofed Arena

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The roofed arena, whose siting and typology are determined by building sponsors' intentions and program context, hosts activities on a floor and attendees in bowl-configured seating. Spectators cross thresholds and negotiate passages to viewing locations facing a central area. In the twenty-first century the arena is a networked entertainment system. Spending opportunities distributed along distended concourses drain attention from the arena floor and encourage attendee movement. Images of live action appear on screens near concessions at the periphery, where purchases are made. Yet the armature remains, if modified. For the North American arena, the organizing essentials – entry, pathway, seat and central area – are ancient. Identifying the Greek and Roman heritage in specific allows a richer understanding of the evolution of this building type and is essential to recognizing its key moments.
The Colosseum and later amphitheatrical revivals conveyed the arena to the nineteenth century. Oval and bowl were placed under roofs developed for mill, factory, exposition and transportation. Truss work spanned large distances and framing carried the roof's burden to the ground.

I provide here necessary background and argue for the centrality of two buildings in the discussion. The Royal Albert Hall, London (1867-71), transformed ancient elements to suit requirements of commercial spectatorship and is the conceptual model for presenting modern indoor spectacle. Stanford White's Madison Square Garden (1889-91), a hippodrome, is the formal model for the roofed facility with oval floor and bowl. White's quadrilateral design aligned with gridded urbanism, and its impact was amplified by the communications media that disseminated both its image and the reports of its spectacle. The Garden generated successors on continental scale.

PS07 The Architecture of Ancient Spectacle
Peter J. Holliday, California State University, Long Beach, Session Chair

An Architectural Star: The Roman Colosseum Across Media

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The Colosseum of Rome, built as the Flavian Amphitheatre between 70 and 80 CE, continues to stand as the monumental image of a city that was once the centre of a major world power. A large amphitheatre made of stone, however, must still abide to the simplest of gravitational laws. When antiquity was feverishly fetishized in the era of the European Renaissance, parts of the building had already been disassembled or had succumbed to nature's attempts to return the material to the earth. Despite the crumbling state of the Colosseum, it was revered, studied, and had its image recreated in art practices such as drawing and painting. Although I take into account that the building continues to be a contemporary object in the Italian city of Rome, I do not wish simply to articulate a linear history of the Colosseum and its gradual decay. Instead I explore ruin as a moving concept and find ways to link it with Stephen Cairns' and Jane M. Jacobs' argument that buildings and their ruination have a quality of life. Then, I push the idea of architecture in motion to include the network of its image, with examples such as Maarten van Heemskerck's painting Self Portrait before the Colosseum (1553) and Paolo Sorrentino's film La grande belleza (2013). Artistic engagements with the amphitheatre have developed an image of an architectural icon that not only inspire imaginative renderings, but situate the Colosseum as a celebrated star within its own media world. Working with ancient archaeologist Carl Knappet's theory of spatial networks, Erin Manning's philosophy of architectural worlding, and Giuliana Bruno's concept of architectural fabrication across media, the Colosseum as a crumbling architecture of ancient entertainment begins to be understood as a node within a much larger network of spectacle.

PS07 The Architecture of Ancient Spectacle
Peter J. Holliday, California State University, Long Beach, Session Chair

The Backdrop of Victory: Semantics of the Roman Columnar Screen

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Roman theaters differ from their Greek predecessors in significant ways—including plan, circulation, decoration, location, performances enacted, and reason for construction. Many of these differences have been attributed to the theater's evolving role as a victory monument in the city of Rome through the 2nd and 1st c BCE. The canonical stage building, or scaenae frons, developed in this period. Relatively unexplored, however, are (1) the relationship between the materials and design of early stage buildings and (2) any association with military victory maintained as the columnar screen became a standard element of diverse building types.

Materials used in the structure and decoration of Republican stage buildings arrived in Rome as spoils of war. Spoliated columns and statues by the hundreds (along with arms and other ornaments) were recombined into a new multi-story aedicular form which served as a meaningful backdrop for plays and orations that celebrated victorious generals. This new columnar screen was then widely replicated with purpose-made materials across the empire and became a key element of "marble style" architecture in urban centers that grew wealthy during the pax Romana. At just one provincial town, Aphrodisias in western Asia Minor, from the 1st c BCE through 4th c CE columnar screens were built for the theater, council house, temple temenos, two temple propyla, a fountain, a private home, and evoked in a civil basilica.

A Hellenic town like Aphrodisias existed far from the world of military conflict, but freely adopted the architectural symbolism of Roman victory, of stacked aediculae packed with statuary. In this paper, I argue that vast numbers of spoliated columns and statues led directly to the invention of the columnar screen, and that this association with victory helps explain why cities and emperors were willing to invest so heavily in columnar architecture and sculpture displays.

PS07 The Architecture of Ancient Spectacle
Peter J. Holliday, California State University, Long Beach, Session Chair

The Antitheatrical Prejudice: The Roman Ban on Permanent Theater

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It is striking that Republican Rome did not have a permanent theater until the construction of the Theater of Pompey in 61 BCE. Despite this lack, the number and frequency of shows increased in the period between the introduction of the Greek theater to Rome in 240 BCE and the construction of Pompey's Theater-Portico Complex. During this period plays had been performed on makeshift theaters.

Temporary structures, built from wood, were dismantled after performances. The conception of a durable monument was not officially banned but prevented by the Senate decision of 154 BCE. The edict halted the construction of a stone theater on the brink of completion. Reading the primary literature, ancient historians interpret the ban as a consequence of an antagonism between Roman elites and the masses. This paper shall look at the ban against the permanent theater from an interdisciplinary and international perspective by taking into account the political developments in the Hellenistic world. The Roman ban will be discussed by a spatial analysis of the Hellenistic theaters in Asia Minor, Greece and Sicily with regards to performance types (such as dithyramb, drama, assembly meetings and political demonstrations) and viewing conditions. By situating the issue in an interdisciplinary and Hellenistic context, this paper shall present the ban against permanent theater as a symptom of an ongoing power struggle between the two kinds of Roman elites, the Roman Senate and the powerful political actors like Pompey the Great.

PS08 Questions of Scale: Micro-Architecture in the Global Middle Ages
Jeffrey A. K. Miller, University of Cambridge, UK, Session Chair

Zushi: Scaling Buddhist Abodes in Japan, 7th-9th Centuries

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What roles did small-scale architectural shrines (zushi) play in the formation of early Buddhism in Japan? Charting the production, circulation, and reception of zushi from the 7th to the 9th centuries, this paper approaches zushi as a concept rather than a format, with specific focus on the Tamamushi Shrine (Tamamushi zushi), the oldest surviving example in the Hōryūji Temple, Nara. Despite its fame as a national treasure, the shrine's formal and conceptual ingenuity are often suppressed by two interpretive frameworks. One positions the Tamamushi Shrine as a building model that disseminated architectural knowledge from China to Japan. Such view is preoccupied with matching elements of the shrine with continental "prototypes" in China, and it obscures the agency of the shrine's makers and patrons as underscored by the purposeful manipulation of scale and building practices. On the other hand, the interpretative framework of iconographic analysis tends to limit the understanding of the shrine to specific motifs as accorded to a singular medium, and fails to confront the self-reflexive and intermedial qualities of the work.

This paper argues that the religious efficacy of zushi lay exactly in its interrogation of scaling, architectural conventions, and medium specificity. The propagation of zushi registered a critical moment at the dawn of Japanese Buddhism, in which different modes of measurement and spatial calibration were redrawn and negotiated in response to Japan's self-positioning in Buddhist cosmological schemas. Such an impulse was not only charged with political and religious aspirations, but it also makes clear that perceptions of space and time in Japan during the period were variegated rather than homogenous. Taken together, by tracing the confluence and dialectics across the corporeal, the architectonic, and the cosmological, the case of zushi calls attention to the paramount yet scantly examined role of scale in Buddhist visual culture.

PS08 Questions of Scale: Micro-Architecture in the Global Middle Ages
Jeffrey A. K. Miller, University of Cambridge, UK, Session Chair

Reconsidering "Micro-Architecture" in the Late Middle Ages

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"Micro-architecture" implies a three-dimensional structure, small in scale but designed with all the trappings of monumental architecture. Indeed, most studies dealing with micro-architecture focus on such categories as sacrament houses, baptismal fonts, reliquaries and other freestanding, self-contained objects that are, essentially, small buildings. However, examples abound showing the use of architectural motifs for two-dimensional objects (stained glass, tapestries, and fireplaces), or that designs of micro-architecture (sacrament houses and monstrance) were themselves executed on large parchments comparable to those for actual architecture.

This paper first argues that the use of architectural motifs in the late Middle Ages, by sculptors, goldsmiths, weavers and even glazers across a large swath of Europe, was an aesthetic choice aided by an intimate knowledge of design principles they shared with architects (see booklets written by Roriczer and schmuttermeyer). When used as part of a "monumental" backdrop, architectonic motifs were clearly preferred as a compositional device to enclose, enhance, or provide a framework for figures and narratives on flat surfaces. As such, micro-architecture as a motif might have afforded artists an optic tool to depict space prior to one-point perspective. That artists delighted in incorporating these motifs is most evident in the almost encyclopedic renditions of intricate traceries, arches and pinnacles on many late Medieval objects-becoming indeed an "International Style" of its own.

The paper then examines a handful of drawings in public and private collections of architectural details (screens and gables), sacrament houses and baptismal fonts to discuss, thereby challenge, the conventional use of the word "scale" which need not describe only the process of miniaturizing but also the opposite, when intimate designs were monumentalized on paper. The fluidity in defining micro- and macro-architecture reaffirms the use of architectural elements as an aesthetic choice, not a mere replication of one for the other.

PS08 Questions of Scale: Micro-Architecture in the Global Middle Ages
Jeffrey A. K. Miller, University of Cambridge, UK, Session Chair

Sutra Repositories (Jingzang) in Medieval China: The Buddhist Cosmos in Miniature

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The revolving sutra repository at the Longxing Monastery of Hebei, China, is a masterpiece of traditional woodwork and a curious case of miniature architecture. Dated to the eleventh century, its design, as revealed in the Song-dynasty building standard Yingzao fashi, involved the strict downscaling of real wooden components, in which process the original geometry and structural logic have been largely maintained.

The unique octagonal and rotary form of the repository is symbolic of the Sumeru Mountain, the axis mundi in Buddhist cosmology, and has been interpreted as a hybrid of two architectural prototypes--the Indian/Central Indian stupa and the Chinese pavilion. However, even though resemblance to full-scale architecture is crucial, the miniature is relatively free to disregard structural integrity and durability. This detachment of form from the assumed function necessarily entails a dissolution of meanings and modes of signification; the miniature form, therefore, greatly problematizes any idea of direct imitation. One could deconstruct the repository into a rich array of architectural motifs and cultural signs carrying various religious significances and technological implications not limited to Buddhist ideologies. It is a self-referential entity which refuses any definitive, unequivocal reading.

According to legend, the revolving sutra repository was invented in the sixth century so that the illiterate could, by constantly rotating the repository, accumulate the same merit as those reading and studying Buddhist scriptures. Since invention, the repository has been involved in the all-important ritual of ordination and taken as an expedient means to enlightenment and salvation. Surviving examples before the eighteenth century are each a spectacular assemblage of profuse Buddhist icons and motifs encapsulated in a miniature pagoda. Such extravagance attracted many followers to come to turn the wheel seeking personal and familial blessings. Today, the sutra repository has been created anew by contemporary Chinese artists.

PS08 Questions of Scale: Micro-Architecture in the Global Middle Ages
Jeffrey A. K. Miller, University of Cambridge, UK, Session Chair

Miniature Buildings and Their Many Guises in Medieval South Asia

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Miniature shrines and stupas abound at historical places of interest in South Asia. Ranging in size from 10 - 15 centimeters high to as tall as a meter or more, they are constructed in stone and clustered in the hundreds or even thousands around monumental sacred spaces. Yet, despite a hundred and fifty years of systematic scholarship on the Indian temple little has been said about the miniature's meaning, operation, and form. Scholars typically understand miniature buildings as "votive shrines" or as "shrine models" with scant justification for this point of view. In this paper, I am interested in exploring how miniature temples related to the sacred sites and landscapes to which they were drawn, and in how they worked independently, in their own right. In other words, miniature shrines are not just "small models of large buildings," as James Fergusson put it, but served a variety of social concerns: they allowed for diversity in ritual dedication; they accommodated patrons with limited social or economic capital; they were vehicles for the mobility of architectural and sculptural forms; they provided medieval makers opportunities to display their formal range; and they played a role in pilgrimage and commemorations. Using Kadamara Kalava, a little explored 7th century temple cluster in Deccan India as a pivot, and considering Hindu and Buddhist sites in the early medieval Deccan and beyond, I will endeavor to disaggregate three key functions of the miniature shrine: donative, commemorative, and funerary. I will ask in what ways the miniature worked similarly in the Hindu and Buddhist contexts, and in what ways it was different. Finally, how can we productively engage with some of the polarities micro-architecture raises, between, say, original and copy, signifier and signified, and monumentality and miniaturization?

PS08 Questions of Scale: Micro-Architecture in the Global Middle Ages
Jeffrey A. K. Miller, University of Cambridge, UK, Session Chair

The Phenomenon of Micro-Architecture in the Mamluk Era

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There are three types of decoration identified as being ubiquitous within Islamic architecture: geometric, arabesque and epigraphic. To this should be added micro-architecture as miniaturized architectural forms as a decorative device appear as early as the Dome of the Rock (692 CE). Within the Mamluk era (1250-1516) in Egypt and Syria, this phenomenon was especially overt. During their 266-year rule, many mihrabs and minibars created were profusely decorated with elements of micro-architecture, including miniature blind arcades composed of columns and capitals, muqarnas cornices and crenellations, and miniaturized minaret bulbs. In no other period of Muslim architecture was this seen to the same extent.
This paper will explore the creation of these micro-architectural elements as it is highly significant that these forms appear throughout the Mamluk era despite a regime change and the many alterations in ruling families. The continuity of this decorative theme indicates a conscious decision on the part of Mamluk patrons and artisans to incorporate these micro-architectural elements despite materials used and/or mosque location.

It will be seen that due to the cultural and political relationships between the Mamluk State and its European and Asian neighbors, their use of micro-architecture within mihrabs and on minbars had both religious and political reasons. Firstly, the inclusion of micro-architecture in/on these entities was a means of self-referencing the actual mosque they were contained within, emphasizing the religious nature of the space; this included actual forms of individual mosques being miniaturized for use in/on their respective mihrabs/minbars. Secondly, the Mamluks epitomized the link between power, prestige and architecture, and the use of micro-architecture can be seen as: 1) both an actual appropriation of a European decorative motif and a symbolic claim to power; 2) a challenge to the Mongol threat via an emphasis on Islam.

PS09 Architecture and Immigration in the Twentieth Century
Robert Proctor, University of Bath, UK, Session Chair

Tell-Tale-Details: Migrant Houses in Immigrant Cities

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The house is the quintessential socio-spatial structure that mediates the processes of migration, settlement, and self. Studies have shown that migrants' and migrant communities' participation in the adaptation, addition and extension, or building of their house(s) provides the symbolic materiality of belonging, and the house becomes the platform for agency and productivity in relation to the broader context of the immigrant city. But migration complicates the naturalised and assumed reference to one house captured as static and statutory edifice because mobility, exchange, foreignness, and memory intervene in the dominant house-architecture narrative.

This is especially accentuated in post-war migration to the new worlds of America, Canada and Australia, where the locally established 'house-type' of the new place became the central object of desire and aspiration. Studies of southern-European migrants' houses built in the period 1955-1965 in Melbourne, Australia illustrate that the house-type is pulled and pushed, and acculturated through differentiated references to tradition, beauty and desire, and diverse modes of everyday life. These references include the iconography of the 'other house' left behind, the ancestral home or the blurred memory of the familiar traditional or town houses of their places of origin. But it is not correct to assume that the migrant house is a transportation of this vernacular. This is especially revealed by the architectural difference between vernacular architecture and new 'emigrant' houses built in the place of origin via returning migrants. Tell-tale-details encapsulates the similarity between the house-type and the migrant house, and yet also its uncanny difference. This paper will discuss difference in the form of a series of tell-tale-details, and will argue that the architecture-detail gives visibility to the bigger story, the myth and the national narrative, by pointing to cultural particularity and global cultural tourism.

PS09 Architecture and Immigration in the Twentieth Century
Robert Proctor, University of Bath, UK, Session Chair

Temporary Tenures and Emplacement in Australia's Migrant Hostels

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This paper investigates degrees of emplacement in relation to the forms of nation state hospitality in Australia's Commonwealth Migrant Hostels, which warehoused migrants arriving in Australia as part of government policies to increase immigration after the Second World War. Established, often by adapting ex-military sites, and in declining use up until the mid-1970s, migrant hostels were conceived as transitory accommodation and provision for assimilatory practices in preparation for migrant home ownership. The physical fabric of migrant hostels offers a platform to explore dwelling types used for temporary tenures that may reveal the complexities of host-nation hospitality to the displaced and assumptions about home as a fixed phenomenon in relation to emplacement in Australia. The paper compares the addition of purpose-built apartments at two significant urban hostels, the Villawood Migrant Hostel in Western Sydney and the Maribyrnong Migrant Hostel in Melbourne. Designed by prominent local architectural firms in the 1960s, these housing blocks were part of a nationwide program to improve migrant resettlement facilities in order to aid the continued migrant intake and to appease internal protests by hostel occupants. On both sites these blocks were later adapted for use as Immigration Detention Centres. By analysing the designs and their public reception, this paper aims to investigate how the emergence of nation state multicultural identity as tied to claims of host-nation hospitality is influenced by home ideals in Australia. This research provides a historical platform to consider how contemporary celebratory representations of multicultural capital overshadow the divisive politics of state hospitality to the economically disenfranchised and raises questions about the accessibility to citizenship – represented, this paper argues, through idealisations of stable home environments.

PS09 Architecture and Immigration in the Twentieth Century
Robert Proctor, University of Bath, UK, Session Chair

Post-Immigration Cityscapes in Poland's West after World War II

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As a result of World War II, the re-established Polish state was shifted to the West. It had to cede its Eastern territories to the Soviet Union, whereas in the West and in the North it took over the formerly East German provinces. The shift of borders resulted in the displacement of millions of people. After the flight and the expulsion of the German population, Polish people settled in the new Western and Northern parts of the country. A large proportion of them were also expellees who had lost their homeland in the Polish East.

The formerly German cities were largely destroyed, and their architectural character was perceived as alien by the new inhabitants. In this situation, the new Polish building authorities strove to visually polonize the cityscapes in order to make them look more familiar to the new population and at the same time to express the Polish claim to power over the incorporated Western and Northern territories. Consequently, in the course of the post-war reconstruction campaigns in such big cities as Wroclaw (former Breslau), Gdansk (Danzig) or Szczecin (Stettin) and several smaller towns preference was given to historical architectural forms that were seen as Polish in character whereas numerous buildings associated with the former German rule were fundamentally redesigned or demolished.

The proposed paper analyzes this visual appropriation of cityscapes for a new immigrant population as an outstanding example of communication of national identity by inventing traditions. It thereby draws attention to widespread practices of architectural politics in Europe and worldwide that can be traced from the 19th century to the present day.

PS09 Architecture and Immigration in the Twentieth Century
Robert Proctor, University of Bath, UK, Session Chair

Recasting Domestic Worlds in Itinerant Immigrant Laborcamps in California, 1900-1950

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During the first half of the twentieth century, a number of unskilled villagers from the state of Punjab in British India emigrated to North America. As British citizen, Indians travelled freely across the Empire and the resultant diaspora produced what I have called "landscapes of mobility" (Sen and Johung, 2013) — a geography made of a transitory stream of moving bodies crossing lands and oceans in search of jobs. Landscapes of mobility are unique because while the social and material aspects of these worlds are ephemeral, certain core lived experiences and familiar spatial orders are persistently reproduced in order to ensure stability and continuity in the precarious lifeworlds of itinerant people. Between 1900 and 1950 unskilled laborers lived in temporary labor camps as they moved from Vancouver to the lumber mills of the Pacific Northwest; then to transcontinental railroad camps and the agricultural fields of the California Valley.

Although all physical traces of the temporary living units have disappeared I was able to reconstruct a description of the home-camps from scant evidence such as oral histories, newspaper reports from that period, rare photographs and folk songs. This paper argues that despite being temporary and transient, immigrants produced a stable domestic world by reproducing gardens that they remembered from their past. In this way, nature became a trope to imagine home and homeland and incessantly reimagine lost worlds in creative ways. The working-class laborer recreated the courtyards from their ancestral homes in the backyards of new North American homes by planting exotic vegetables and performing communal living. Their non-traditional use of outdoor yard caught the attention of irate nativists who saw this as evidence of the newcomers' inability to assimilate. Gardens becomes a symbolic trope that allowed working class immigrants to reproduce a lost world even within the most dire circumstances.

PS09 Architecture and Immigration in the Twentieth Century
Robert Proctor, University of Bath, UK, Session Chair

Of Empires and Identities: Spaces of Japanese-American Buddhism

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The development of spaces for Buddhist worship by Japanese immigrants and their descendants in the United States speaks to the interplay among shifting notions of cultural and generational identity, nationalism and empire in a constantly changing social context. This paper focuses on the building of the 1920 Fresno Buddhist Church and the 1965 Placer Buddhist Church in Penryn, California, as well as their maintenance amidst the climate of extreme hostility toward Asian immigrants in California; the shifting activities hosted and promoted by churches; the inculcation and representation of cultural identity through church architecture, and the diverse ways in which cultural identity was communicated (or elided) through architectural form and spatial organization. A comparison of the architectural form, structural logic and spatial layout of these two buildings suggests generational differences in interpretations of Japanese cultural identity in built form. This paper analyzes the shifting agendas of Buddhist missionaries from Japan, Japanese-American community leaders, architects and builders and, most importantly, the actual users of these spaces. The form and use of Japanese-American Buddhist churches will be situated within the larger framework of both imperialist ideologies in late 19th and early 20th-century Japan and the United States, and global discourses of architectural modernism in the early and mid-20th century.

PS10 Landscape and Garden Exchanges between Scotland and America
Vanessa Bezemer Sellers, New York Botanical Garden, and Judith K. Major, Kansas State University, Session Co-Chairs

A Scottish Landscape of Poetics: The Work of Ian Hamilton Finlay

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In 1975 a modest monograph published by the West Coast Poetry Review provided the American audience with an introduction to landscapes by the Scottish poet Ian Hamilton Finlay (1925–2006). Finlay had long been an important member of the international concrete poetry community and his work had appeared in every major survey of the genre. For nearly a decade Finlay and his wife Sue had been working on their garden, Stony Path, at Dunsyre near Edinburgh, a landscape infused with ideas drawn from political philosophy, mythology, and poetics. Until his death, Finlay continued to produce a nearly continuous flow of poetic objects whose significance was expanded and elaborated by their garden setting; his group of collaborators included skilled calligraphers, woodworkers, and stone cutters.

While also exhibited in galleries and museums, Finlay's artwork acquire greater resonance when displayed—or better stated, integrated—within a garden. Paired with nature they acquire increased richness and nuance by interrelating ideas, words, words-given-form as inscription and/or object, and landscape setting. Although originating in language, their power derives from the interrelationship of intelligence, word, and craft. For example, Nuclear Sail—an abstraction of a submarine's conning tower—profits from the interplay between the work's smooth form, the adjacent pond, and the linguistic double entendre represented by the word "sail".

As Finlay's garden and figures achieved a broader audience through publication, they began to influence American landscape thinking, supporting efforts by those seeking to transcend the control of the then-dominant analytical methods. Land Art provided a formal model; the poetry of Little Sparta illustrated an approach to landscape possessing a dimension beyond the factual. Admittedly, the impact was greater upon those more theoretically and academically inclined, but this does not diminish the contribution of this significant poet/gardener and the place of language within the garden.

PS10 Landscape and Garden Exchanges between Scotland and America
Vanessa Bezemer Sellers, New York Botanical Garden, and Judith K. Major, Kansas State University, Session Co-Chairs

Man and Environment / McHarg and Kahn: Two Sides of the Same Coin

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On two occasions – the Martin Research Institute in Baltimore (1956-8) and the Richards Research Laboratories in Philadelphia (1957-60) – the American architect Louis I. Kahn collaborated on the surrounding landscape design with Ian L. McHarg. Coevally teaching together at the University of Pennsylvania in Philadelphia, the Scottish landscape architect invited Kahn in 1960 to lecture in his cross-disciplinary and highly popular course "Man and Environment" and they would also later meet in a number of conferences on landscape architecture. In practical terms, two dramatically different perceptions of nature collided – Kahn's promotion of an abstract patterning and geometric understanding of natural growth next to McHarg's emphasis upon Eastern models and the beauty of unbridled nature. In more general terms, the latter's development of a department of landscape architecture helped sensitize Kahn's ecological awareness, which became apparent in the architecture of light, air, water and earth characterizing his mature work. Culminating in a poetical unveiling of the world through the architectonization and humanization of nature, Kahn's general re-assertion of the genius loci paid tribute to McHarg's acknowledgment that the privilege of participating in the Divine creation also implied a responsibility towards its care. Lewis Mumford, the self-proclaimed "patron-saint" of the environmental movement, and the Dutch architect Aldo van Eyck served as important links between the two men. Mumford was also a colleague of theirs in Philadelphia, and van Eyck, upon Kahn's suggestion came to teach in Philadelphia and worked among McHarg's research staff. The common denominator that stood out between them was the re-appreciation of the 'primitive', in which a psycho-physical affinity to the cosmic order, the natural cycles, and the perennial elements was still present. Consequently, also the question of supremacy over nature did not occur due to their shared longing for a trans-subjective and climatically well-adapted architectural expression.

PS10 Landscape and Garden Exchanges between Scotland and America
Vanessa Bezemer Sellers, New York Botanical Garden, and Judith K. Major, Kansas State University, Session Co-Chairs

Niagara Falls and the Falls of Lodore: Design in the Landscape

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Developments in hydropower provided a catalyst for instituting parks along Niagara Falls' banks during the 1880s. Straddling the border between America and Canada (for which Britain still spoke in foreign policy matters), the future of the waterfalls and their banks concerned the landscape architect Frederick Law Olmsted, who designed parks at the Falls. This paper, based on primary research in Scotland and North America, contends that developments at the two waterfall-landscapes form part of an overlooked but inter-connected transatlantic campaign by artists, politicians and nature-lovers for the design of scenic cultural landscapes as scientific developments brought profound changes to locations beloved by nature's and culture's tourists. It argues that campaigns to reserve Niagara Falls' scenic splendors intrinsically framed debates about landscape design in Scotland at the Foyers Cascade, which engaged Patrick Geddes.

When William Thomson, the Scottish scientist who assisted the 'American success at Niagara' in the 'transmission of electricity to Buffalo' (as the Glasgow Herald reported), was asked to develop hydropower at Foyers local councilors favorably exploited that connection, attracted by the prospect of jobs and electricity. The episode marked a key stage in developing debates about industry, design and public landscape reservations in Britain, which were informed by those in North America. Although the outcome at Foyers was less successful for 'reservationists' for reasons that Geddes deduced, the debate revealed important aesthetic and environmental concerns arising from profound changes. Part of a broader research project, the paper discusses these American-Scottish exchanges and reveals their prescient relationship to attempts by President Roosevelt (who supported the Niagara reservation campaign) to promote a world conservation conference as America and Britain negotiated a boundary waters treaty for the Niagara River. James Bryce, Britain's ambassador to Washington, encouraged this effort; Bryce had campaigned to protect the Falls of Foyers whilst M.P. for Aberdeen.

PS10 Landscape and Garden Exchanges between Scotland and America
Vanessa Bezemer Sellers, New York Botanical Garden, and Judith K. Major, Kansas State University, Session Co-Chairs

Bridging the Gap: Theory and Practice, Architecture and Landscape

Luca Csepely-Knorr, Manchester School of Architecture, Manchester, UK, and Amber Roberts Manchester School of Architecture, Manchester, UK

This paper presents the work of Michael Brown (1923-1996), an Edinburgh-born architect and landscape architect whose work combined leading Scottish and American spatial theories in the mid-century. Brown's projects, covering all scales of landscape architecture, are of special interest due to his commitment to integrating the theories and practices of both disciplines and countries resulting in a body of work that was both inventive and realistic. Although his work has been largely overlooked in the traditional canon of twentieth century Landscape Architecture, Brown's ability to deploy innovative ideas on real-life projects deserves further critical attention. Brown's idiosyncratic approach synthesized the emerging theories of the time through his work with critically acclaimed designers and scholars such as Sir Basil Spence, Dan Kiley and Ian McHarg. The impact of these figures on British landscape design has not yet been explored despite their prestige and reputation (particularly in relation to the work of McHarg's many British students). We will discuss the influence of Spence, Kiley and McHarg on Brown's projects along with the wider schools of thought encompassed in his training at Edinburgh School of Art and the University of Pennsylvania, tracing the intricate exchange of American and Scottish ideas during the second half of the 20th century. In addition to the importance of Brown's professional network and training, his publications and designs offer exemplary solutions responding to complex issues from housing and motorway design to the design of public squares, each combining his joint skills in architecture, urban design and landscape. Brown's breadth of projects are testament to his rich and varied experience merging together disparate ideas and skills. This paper will present as yet unpublished key designs and will analyse the influence of his dual-nationality network while highlighting innovative ideas that are still of use today.

PS10 Landscape and Garden Exchanges between Scotland and America
Vanessa Bezemer Sellers, New York Botanical Garden, and Judith K. Major, Kansas State University, Session Co-Chairs

Maggie's Cancer Centre Gardens: Herbs, Habitat and a Search for Deep Meaning

Lily Jencks
Architectural Association, London, UK

Gardens have provided therapeutic use for many centuries. Early physic gardens had an area for growing medical herbs called hortus medicus. Since the 1950s ecological sciences have foreground the importance of environmental health, with Ian McHarg's seminal book Design with Nature insisting a healthy community is designed in harmony with its ecological setting, including non-human habitat. More recently gardens have been instrumentalised for hospital environments, as the view out to a garden has been proven to help patient recovery. Maggie's Cancer Caring Centres, originally founded by Charles Jencks, provide support for anyone affected by cancer. Designed by world-renowned architects and landscape architects, Maggie's Centres provide a carefully considered environment for the provision of complimentary Cancer treatments on National Health Services hospital sites. This paper will look at the gardens and architecture of four Maggie's Centres as a new typology for therapeutic design. There is mounting evidence that a landscape is a primary driver in the health and wellbeing of communities. Beyond considering therapeutic gardens as a place for growing herbs, or the creation of habitat, this paper considers that gardens can also be therapeutic in meaning and symbolism. As opposed to other landscapes such as wild reserves, or agricultural fields, a garden's primary purpose is to delight humans. The possibilities of therapeutic gardens are to contain meaning that connect us to or place in the Universe.

PS11 Preserving and Repurposing Social Housing: Pitfalls and Promises
Andrew S. Dolkart, Columbia University, and Lawrence J. Vale, Massachusetts Institute of Technology, Session Co-Chairs

The Movement to Conserve Mass Housing in Europe and North America

Caroline Engel
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Though a conservation movement dedicated to the identification and protection of modern movement heritage has grown exponentially within the last few decades, the particular technical and theoretical issues raised by the conservation of modern social housing estates have challenged the foundational ideals of preservation. Using the themes of designation, valorisation and management, this paper will discuss the application and efficacy of a variety of conservation policies applied to social housing estates in Britain and America. Historic England has been comparatively proactive in using thematic studies to identify its modern movement social housing, and the positive social effects of its subsequent designation can now be documented through the re-valorisation of a number of formerly forgotten and denigrated estates. Post-war social housing estates now regularly feature in pop music videos and the Balfron Estate in London is the latest Brutalist tower to be refurbished into luxury flats. To streamline the management of listed estates, the 2013 Enterprise and Regulatory Reform Act established Heritage Partnership Agreements and other measures that negate the need for estate owners to apply for Listed Building Consent. The renovation of the Cedar Square West low-income housing estate in Minneapolis demonstrates a different method, using tax benefits to financially support the upgrading of mechanical and structural systems while retaining the same low-income community it originally housed. Developments like these in British and American conservation policies mark an important shift in the overall conservation agenda. The conservation of post-war social housing has necessitated a programme of deregulation, increased flexibility and greater engagement with building owners and housing estate residents. This research has revealed that, more so than any other building typology, modern movement social housing requires a more creative and adaptable conservation policy than traditional preservation practice has so far prescribed.

PS11 Preserving and Repurposing Social Housing: Pitfalls and Promises
Andrew S. Dolkart, Columbia University, and Lawrence J. Vale, Massachusetts Institute of Technology, Session Co-Chairs

Greenbelt at 80: Preserving Affordability and the Missing Middle

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We analyze the de facto preservation of the lesser-known but most affordable housing in Greenbelt, MD: the 306 efficiency and one-bedroom garden apartments (1937) and the 1000 small wood-frame "defense homes" (1941). These units were public housing administered by the Resettlement and Farm Security Administrations. The Federal government sold Greenbelt's housing in 1952: the better-studied brick and block rowhouses went to a citizens' housing cooperative, Greenbelt Homes Incorporated (GHI), as did the defense houses and two apartment buildings. Several private companies purchased the other apartment buildings. Both defense homes and apartments are extant, inhabited, and relatively intact.

After analyzing how this living legacy of public housing has been sustained so far, we discuss the conflicting contemporary demands of these units' preservation: 1) how to maintain affordability, 2) how to sustain and improve their livability for contemporary households, and 3) how to preserve their internationally significant historic fabric and unusual ethos in a volatile environment. Both sets of units face the challenges of exiguity and aging, a double hurdle that historically significant social housing faces universally, no matter how resilient its surroundings. We do not seek to restore the reputation of Greenbelt's public housing, exactly; we are publicizing the living legacy of former public housing units that continue to serve as "Missing Middle" typologies for lower middle-class residents. We develop these examples-historically significant public housing managed by a citizens' cooperative and by for-profit apartment companies-to assess how managers and residents have contributed to the preservation of these units and to suggest long- and short-term social and physical strategies to ensure their future. This presentation relies on archival research, fieldwork analyzing units, historical and real estate research, blogs and interviews with GHI and apartment company managers and long-term and short-term residents.

PS11 Preserving and Repurposing Social Housing: Pitfalls and Promises
Andrew S. Dolkart, Columbia University, and Lawrence J. Vale, Massachusetts Institute of Technology, Session Co-Chairs

Preserving Turin's Vallette Estate: A Public History Experience

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During the post-war economic boom, Turin became Italy's capital of the automotive industry and a magnet for intense migration from Southern Italy. In order to house a growing population, the Government inaugurated a "futuristic" and self-sufficient neighbourhood in 1961: Vallette. The architects' involved, such as Isola and Gabetti, who soon became nationally and internationally famous, intended to design an estate that would encourage solidarity among a new and affluent community. Despite the positive premise, most of the public services (community centre, theatre, etc.) weren't built and, due to a stigmatisation, the estate was soon labelled as Turin's "ghetto". In 2008 the Historical Documentation Centre, District Five - City of Turin (CDS), in cooperation with several local groups, started a research project into Vallette's history, which led to a number of publications, public debates and an exhibition. The Public History approach enables us to discredit the stigma and to highlight that, despite its mistakes, the neighbourhood represents a remarkable example of Italian public architecture. The cultural activities spread a new awareness amongst the community, which increased involvement in activities aimed to preserve and regenerate Vallette. In 2015 the architects' collective Laboratorio ZIP, working closely with both citizens and CDS, started a new project to transform a former school complex into an open, publicly-owned space, in order to host cultural activities and strengthen community life. Our ambition is a wider regeneration of the whole estate, promoting activities to interpret and preserve the local heritage, in terms of tangible/intangible elements, for example buildings, stories, or inhabitants' memories. The key question of our presentation is: Could 'Public Historical' preservation stimulate new participation within the community and, in conjunction with external partners, reclaim a new future by re-shaping its past, despite the negative myths?

PS11 Preserving and Repurposing Social Housing: Pitfalls and Promises
Andrew S. Dolkart, Columbia University, and Lawrence J. Vale, Massachusetts Institute of Technology, Session Co-Chairs

The Project Domesticated: Postmodern Retrofits for Public Housing

Michael Allen, Washington University, St. Louis, MO, USA, and Susanne Cowan, Montana State University, Bozeman, MT, USA

In St. Louis, few realize that the city's two oldest public housing projects actually are preserved and still functioning for their original purpose. As HOPE VI fell the city's skyline of high-rise public housing, the St. Louis Housing Authority elected a different course for the low-rise, Wagner-Steagall era Clinton Peabody Terrace and Carr Square Village projects, completed in 1941-2. However, the retention of these early projects may actually reinforce the architectural mythology of public housing. The decision to demolish all of the blocks while retaining low-rises, reflected the influence of the contested physical determinist theories of Oscar Newman. Furthermore, the decision to modify the retained units adhered to postmodernist ideas that the international style needed to be made palatable and contextual through the introduction neo-traditional building elements.

At both Clinton Peabody Terrace and Carr Square Village, the St. Louis Housing Authority cloaked the building's early modernist architecture with hipped roofs and Craftsman-style hoods applied to blend with adjacent HOPE VI projects. At Carr Square Village, not only was half of the project demolished, but even within retained blocks some buildings were razed and replaced with contemporary townhouses. In a neighborhood twice cleared and stripped of its historic fabric, these designs produce a veneer of false tradition. These investments prioritized expenditures on physical changes to rehabilitate its public perception, rather than addressing livability, or more fundamental social and economic issues. Here while the buildings could be said to be preserved, they have been stripped of the architectural features that characterized the original projects. The resulting landscapes present both the promise and ambiguity of preservation programs for public housing in an era where federal policies remain foundationally anchored to rejection of twentieth century public housing planning and design principles—and perhaps to the image of public housing itself.

PS11 Preserving and Repurposing Social Housing: Pitfalls and Promises
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The Architect as Transformer: Lacaton and Vassal's Plus Report

Sandra Parvu
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In 2003, the French Ministry of the City launched a program of urban renovation (ANRU) to finance and implement the demolition of public housing. The following year, the Ministry of Culture commissioned three architects, Frederic Druot, Anne Lacaton and Jean-Philippe Vassal to consider a suitable response to "urban renovation". Their report entitled "PLUS, Studies in the Transformation of Public Housing" is based on the hypothesis that all housing is worth keeping. An alternative to demolition, their projects transform existing housing structures by improving light, space, room size, and living conditions for all buildings, while keeping the residents on-site. Since 2005, the principles developed in this study have been tested in numerous competition entries, as well as in projects actually built across France.
In parallel to this, and for fear of seeing remarkable projects destroyed, the Ministry of Culture has financed different studies that identify emblematic projects worthy of preservation: in 2011, a study with one hundred and eight examples of selected public housing operations was published (Les grands ensembles, une architecture du XXe siècle, ed. Dominique Carre); in 2014, a new study came out about ten other projects (Dix ensembles urbains de logements collectifs construits en France entre 1940 et 1980).

Based on an architectural and anthropological approach to their work, my paper proposes on the one hand to retrace the story of how the "Direction de l'Architecture et du Patrimoine" in the Ministry of Culture initially has financed this research, and through it map out the debate on public housing preservation inside the Ministry. On the other, it considers Druot, Lacaton and Vassal's position as a potential contribution to the theory of preservation by revisiting the notion of "architectural merit", and the role of the author-architect.

PS12 Heritage and History in Sub-Saharan Africa
Tiago Castela, University of Coimbra, Portugal, Session Chair

Heritage, Urban Development and Telling Stories in Matadi, DR Congo

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If the writing of history is the "telling of stories", then the task of the architectural historian is, as Dell Upton once argued, choosing which of many possible stories to tell. In this paper, I want to demonstrate that such a view on the writing history holds particular relevance for reflecting on the positionality of the architectural historian in matters regarding colonial heritage in postcolonial Sub-Saharan Africa. Going beyond the by now common debates on "shared/whose heritage", a notion that in postcolonial contexts has been contested, I want to argue that the act of "telling stories" challenges the architectural historian to rethink conventional categories of heritage, as some of the most pertinent stories in these environments may be linked to mundane (urban) spaces and artefacts rather than to landmark buildings and sites. Architectural historians thus should develop a specific sensitivity to capture these physical artefacts and the linked stories that otherwise might not necessarily be heard in the heritage arena.

In this paper, I will illustrate these challenges by drawing on research on the port city of Matadi, DR Congo, conducted in close collaboration with Congolese historian Jacob Sabakinu Kivilu. Aiming at producing a deep mapping of Matadi's "urban process", this research is informed both by archival research and fieldwork during which stories were collected among the city's current inhabitants. Focusing on one particular trajectory in the city that links the former European center with the core of the former "native town", I will discuss how in ongoing discussions on heritage, as well as on urban development in Matadi, much it to be gained if we not only investigate noteworthy buildings in various colonial styles, but also include into the narrative those elements of the mundane built environment and infrastructure that were crucial in shaping a (once) segregated urban environment.

PS12 Heritage and History in Sub-Saharan Africa
Tiago Castela, University of Coimbra, Portugal, Session Chair

Simulizi Mijini/Urban Narratives: Redefining Heritage in Dar es Salaam, Tanzania

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This paper will present the results of ongoing research undertaken as part of the Simulizi Mijini/Urban Narratives programme in Berlin, Germany and Dar es Salaam, Tanzania between 2015 and 2017 (http://urbannarratives.org/en/). Initiated by the Habitat Unit, TU Berlin, the project is investigating urban heritage in both cities while responding to Jennifer Robinson's call for extended international comparativism in urban studies. Drawing on a rights-based approach to heritage, also known as heritage from below, that underlines the crucial role of local people in the definition of heritage, and in line with the emphasis of current urban theory on the lived experience of city dwellers (Watson, Roy, Simone, Pieterse), Simulizi Mijini critically questions current heritage practices. While considering the investigations in both urban environments, this paper will focus on Dar es Salaam.

Dar is one of the ten fastest growing cities in the world and economic and cultural centre of Tanzania as well as the extended Swahili speaking coastline of Eastern Africa. As swift redevelopment and expansion overwrite previous, colonial-dominated urban heritage narratives, shared territories and local identities are being displaced and rapidly lost. A lack of regulation is endangering the integrity of the built environment. This paper will discuss how, through the collection of oral histories as well as archival research, Dar's urban heritage can be reframed in a more inclusive manner. It will explore the meaning and relevance of colonial architecture as well as local dwelling forms, such as the Swahili house, and areas of the city that have largely been defined by Indian immigrants. Based on the research findings, the paper will propose an alternative method for understanding, documenting, archiving and communicating heritage in Dar es Salaam that may be relevant in other African urban contexts.

PS12 Heritage and History in Sub-Saharan Africa
Tiago Castela, University of Coimbra, Portugal, Session Chair

West Africa Architectural Heritage from Pre-Independence to the Present: Developing New Canonical Narratives

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This paper surveys Africa's heritage industry, focusing on Ghana and Nigeria, specifically the historic development of architectural heritage conservation and preservation in the region. it concludes by examining two contemporary approaches to colonial architectural heritage conservation in Nigeria, within the context of an emerging cultural tourism industry.

West Africa has had a comprehensive cultural historiography from pre-colonial times to the present. Earlier narratives of trade and culture date to the 15th century travel writing, to slave memoirs and early missionary journals. Prior to the attainment of self-rule, the retiring British administration in Nigeria, set up a national archives and museums programme in consultation with anthropologists and historians involved in research into Africa's cultural heritage. The histories recorded both in archives and material culture, including buildings, focused on the history of the pre-colonial era in Africa.

Since self-rule, buildings in colonial Architectural style, unsurprisingly due to their political context, with the exception of schools, churches and other social institutions, have had little historical recognition or attention paid to their preservation. The voluntary 'Legacy' Movement in Nigeria offers a different approach which seeks to address this lacuna. Also some regional administrations in Nigeria are developing tourist sectors, that have absorbed the remnants of the extant colonial edifices in their locale to feature in their emergent 21st century tourist infrastructure landscape.

How successful have these contemporary activities been in incorporating colonial architectural heritage into an architectural heritage framework, that serves a wider audience than solely the requirements a Western-focused tourism industry? Does colonial architectural history feed into national historical narratives, and teaching in African Universities? How does this present omission frame the telling of West African architectural history? These are the key issues this paper seeks to explore. Archival, contemporary material, and local interviews will be accessed in the writing of this paper.

PS12 Heritage and History in Sub-Saharan Africa
Tiago Castela, University of Coimbra, Portugal, Session Chair

KwaThema as Translated Modernism

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KwaThema is the iconic South African black township, designed and built in the early 1950's, with its house plans and layout then copied many times. The author works with the documentation of KwaThema housed at the university library, as well as in the township in partnership with community institutions and individuals. This paper outlines a project to also record the language and forms created by local practices. It reacts to the situation that, while there is a well circulated book on the township, Native Housing in South Africa, (Calderwood, 196-) there is no equivalent record of the practices used by people who lived, altered and informally managed KwaThema.

Other than the decision to use Nguni surnames as street names in the township, the transcribed knowledge of KwaThema was in English, following the practice of the architects and bureaucrats responsible for its creation and management. The house plans used terms like living room, terrace, vegetable patch and children's play area, despite the almost immediate ambivalence of the allocated spaces. The modernist houses and the spaces between them have been overlaid with indigenous practices such as courtyard formation, facade decoration, ritual space and animal herding amongst others. These processes include acts of renaming, or indigenising space through
language, that also constitute forms of decolonisation through reimagining space.

The mode of recording and representation proposed critically reacts to the typical binaries of sub-Saharan architectural history through which building taxonomies and terms have been coined and recorded for so-called vernacular buildings, but seldom for modern spaces in which people found and formed their own (translating) spatial forms. The paper will focus primarily on the methodology of this project as a new hybrid and collective form of heritage documentation, and present the first
images produced in the process.

PS13 The Poetics of Roman Architecture
Diane Favro, University of California, Los Angeles, Session Chair

Quae visa vera, quae non veriora: Poetics of Monumentality

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Monumentality as an expression of the bigness or the smallness of things is inescapably embedded in the material world. The word is associated to and in many ways derived from monument or monumenta that commonly describes showiness, grandiosity and memorability. While these physical qualities will always retain their cogency, recent interest in the concept of monumentality in architecture is bringing forth a wider variety of meanings that expand our horizons.

In classical architecture monumentality is often paired with the orders, their inherent or given qualities of austerity, autocritas and dignity. Orders are dignified because they are used for temples, and they are used for temples because they are dignified. More universal are the considerations of design and setting-where and how a building is placed and how effective its particular potential to assume and project the durable qualities of nature. A sense of such durability is also imbedded in and expressed through materials: particularly stone whose hardness, strength and heaviness both represent and embody the easily perceived qualities of a monument. A monument must also reflect and project power and visibility-physical, social, political. Girdling a building in historical narratives derived from the past ensures its investment in the power of the past.

To these expanding concepts of architectural monumentality, I would like to add thoughts on the notions of design and construction, especially the intrinsic qualities hidden in the object and those that rely on the viewers' knowledge of its essentials and processes. In other words, I want to explore a kind of monumentality infused in silence, one that is more dependent on what you do not see for its truth, than what you do, but do not fully understand: quae visa vera, quae non veriora, what Bill MacDonald might have called a poetical notion of monumentality.

PS13 The Poetics of Roman Architecture
Diane Favro, University of California, Los Angeles, Session Chair

The Roman Triumph: Perceived History in Architecture and Ritual

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Roman monuments and rituals transformed dramatically over the centuries, and yet ancient Romans seem to have viewed contemporary iterations as historical and traditional. What enabled this seemingly contradictory perception of Roman architecture and ritual? Through a case study of the triumph, Rome's most important victory ritual, this paper explores how the interactions between Roman ritual and architecture created subjective perceptions of antiquity and continuity. I argue that rituals performed over centuries at Roman monuments gave the buildings an aura of antiquity more than the architecture's (often modern) visual appearances, while architectural backdrops endowed evolving Roman rituals with the sensation of being performed "as they always were." The triumph underwent striking shifts as Roman society evolved from republic to empire, becoming an increasingly spectacular pageant, but the ritual appeared as deeply traditional because, for example, it always ended at the venerable Capitoline temple, founded in the sixth century BCE. The Capitoline temple, in turn, changed appearances radically as it was rebuilt after devastating fires, transforming from an Etruscan-Italic temple to a lavish Corinthian affair, but the triumphal ritual always culminated at the temple, anchoring Romans' perceptions of the monument as historical even when its physical structure was new. The triumph and its monuments created illusions of ritual continuity and architectural antiquity by relying on their affective and experiential aspects: performance, spectatorship, sensorial engagement, topographical resonance, and collective memory combined with the physical and visual presence of monuments to make Romans feel as though they were experiencing a timeless ritual in front of ageless buildings. This paper's interdisciplinary approach, which draws on art and architectural history, cultural anthropology, and memory studies, illuminates how the flexible nature of Roman rituals and the dynamism of Roman architecture were interdependent, camouflaging each other and thereby nurturing extraordinary aesthetic, performative, and formal innovations in both arenas.

PS13 The Poetics of Roman Architecture
Diane Favro, University of California, Los Angeles, Session Chair

A 'Concrete Revolution': Magna Mater and Post-Gracchan Rome

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In his Architecture of the Roman Empire I (1982), and indeed throughout his work, William MacDonald argued for an experiential reading of Roman architecture. This led him, more than any other scholar at the time, to appreciate the formal advances that came with the use of concrete, to the extent that he coined the phrase 'concrete revolution' to describe them. This paper embraces both strands of MacDonald's work to explore the impact of a vast concrete structure barely known at the time of his work, and little discussed even today, with a view to proposing a concrete revolution of a different kind.

Set on the southwest corner of the Palatine, the restored Sanctuary of Magna Mater unified two temples (perhaps three) with a huge platform for scenic games. Complete with barrel-vaulted substructures and a via tecta, it effected a scenographic reconfiguration of the landscape, akin to the Sanctuary of Fortuna Primigenia at Praeneste. Ovid names a Metellus responsible for the work, identified as Caecilius Metellus Numidicus or Caprarius, censors in 102 and leading voices of the senate's conservative majority. By assessing a visitor's experience of the building, the nature of the cult, and the deep divisions among the political elite in post-Gracchan Rome, this paper argues that conservatives used its form to impose senatorial control over a cult that embodied two forces that, in their estimation, most threatened the mos maiorum: the non-Roman, and the populous non-elite. It proposes that, in Republican Rome, concrete was a political material, and the complex an early indication of what could be achieved when magistrates recognized its potential for circumventing long-standing time and money restrictions in public building; as conservatives and progressives battled for control, concrete facilitated political revolution.

PS13 The Poetics of Roman Architecture
Diane Favro, University of California, Los Angeles, Session Chair

The Templum Pacis and the Poetics of the "Flavian Baroque"

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Through a dynamic framing of nature and time overtly sanctioned by traditional Roman priestly authority, the Templum Pacis embraced a range of perspectives to aestheticize Vespasian's political ascent and rhetorical founding of a new age of peace, in every conceivable sense of pax. This interpretation challenges the limiting scholarly contention that the complex was a visual embodiment of martially-enforced peace, presenting it instead as an architectural text wherein multiple readings were situated in the affective power of built form in concert with landscape, artistic display, and ritual. Rather than narrowly correlating to a particular message, the architectural experience was the meaning. The temple enclosure's fluid reception by a diverse audience holding discordant individual interests, along with a shared endurance throughout Rome's destabilizing fragmentation in the recent civil unrest, enhanced the experiential narrative of the complex. Continuous with the innovative solar-based aesthetic of light and form characteristic of Neronian concrete-built architecture, the location of the Templum Pacis near the appropriated Colossus of Sol engendered a cosmic, animate experience; this ensemble related the seasonal cycles of fructification in the complex's botanical collections and associated rituals of sacrifice to the imagery of the Augustan Ara Pacis and its time-focused aesthetic through an interplay with the obelisk and meridian dedicated to Sol. More than projecting a single or principal meaning, the inescapable allusion to the Augustan works enabled a synergy between individual interpretations and a culturally conditioned recognition of a broad, collective text centered on augural and pontifical authority. The Templum Pacis thereby presented a visual, spatial, and temporal rhetoric of emotive experience that externalized Rome's ethos and one's own personal sensibility, effectively opening viewers' Roman subjectivity to themselves. Such a "baroque" experience (and not just cerebral intuiting) of religious and political meaning manifested a palpable and multiplex encounter with universal authority.

PS13 The Poetics of Roman Architecture
Diane Favro, University of California, Los Angeles, Session Chair

Architect Figures in the Plays and Plights of Rome

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The comic plays of Plautus were performed on temporary wooden stages in open forums and circuses of Rome during religious festivals and other special occasions from about 205 to 184 BCE. Rarely do these comedies, with their bawdy themes and cunning slaves, figure into architectural history. Where they do, it is usually for their brief allusions to Roman settings. For instance, in Curculio, a costume supplier describes his immediate vicinity, including the markets, courts, colonnades and shrines of the Roman Forum. Yet, together with such occasional descriptions of contemporaneous settings, these plays also provide insights on the architectural ambitions associated with these topographies.

Of Plautus' twenty-one surviving plays, some begin with direct reference to their place of performance, thus linking imagined settings (typically in Greece) to actual settings in Rome. Such meta-theatrical speeches invite audiences to critically and comically compare local and represented situations. Other plays invoke official language of the Senate to parody the purpose and extravagance of Roman triumphs. Surging with confidence from victories in foreign wars, Rome routinely honored its returning military leaders with lavish processions, entertainments and commemorative constructs. In contrast, Plautus features returning war heroes and braggart soldiers being cuckolded and defeated by the "authority and auspices" of cunning slaves. Significantly, these cunning slaves are frequently called architectus. Such euphemistic attributions qualify and vivify both the acts of dramatic scheming within the play and the playwright's work of plot construction. However, their meaning is not strictly literary, since the "triumphs" of these comic "architects" invite interpretation of the tactics and accomplishments of actual architects in Roman society.

Drawing on specific scenes and language, this paper uncovers a proto-architectural discourse latent in the plays of Plautus, while revealing the dramatic and metaphoric efficacy of architects in Roman culture.

PS14 National, International: Counterculture as a Global Enterprise
Caroline Maniaque-Benton, Ecole Nationale Supérieure d'Architecture de Normandie, France, Session Chair

Counterculture Housing as Civil Intervention: Tel Aviv's Arlozorov Homeless Camp as Architectural and Civilian Laboratory

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While most scholarly and general-public attention to illegal housing in Israel is directed at West Bank settlements, a fascinating phenomenon of illegal counterculture housing is occurring at the country's metropolitan center: homeless housing by Tel Aviv's Arlozerov train station using geodesic domes, inspired by Californian hippie architecture of the 1960s.

A product of Israel's 2011 social justice protests against neoliberal economy's elimination of guaranteed housing from the Zionist social contract, Arlozorov encampment is an experiment in self-housing and alternative society, explicitly inspired by hippie counterculture. Arlozerov homeless, protected from eviction by the Supreme Court, initially built scrap shelters which were repeatedly demolished by city inspectors for fear they might gain legal residency to public land.

Housing activists and architecture students intervened to support dwellers with construction solutions inspired by hippie precedent. Activists familiar with counterculture communities in California and New
Mexico and contemporary Burning Man festivals suggested geodesic dome shelters. Joined by architecture students from Technion IIT and Bezalel Academy, the homeless constructed fourteen $400 domes and compost toilets. Set by Tel Aviv's central station, Arlozerov is visibly a laboratory for counterculture values and their architectural spaces, revolving search of alternative living outside Israel's neolibralized housing market. Construction of geodesic domes and composting toilets on site uses instructions available on mobile phones from websites further exposing the community to global contemporary and historical counterculture society.

Domes' cheap, durable architecture requires neither foundations nor a solid roof, thus satisfying municipal regulations and evading demolition. Moreover, the geodesic dome retains cultural associations with formal invention, knowhow and aesthetics which associate Arlozerov with ingenuity rather than incapacity. The quest to alleviate Israel's contemporary housing crisis engages Arlozerov as ongoing experiment inspired by hippie use of American 'open spaces', leading counterculture activists back to Californian 'outlaw builders' experiments in shelter a half century earlier.

PS14 National, International: Counterculture as a Global Enterprise
Caroline Maniaque-Benton, Ecole Nationale Supérieure d'Architecture de Normandie, France, Session Chair

Destructive Architecture: The Street Farmers' Fierce Animals

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For the anarchist group "Street Farmers," which formed at the Architectural Association of London by Bruce Haggart and Peter Crump in the early 1970s, animals acquired a destructive role in the equation between the environment and the architecture of the city: cows devoured city blocks; cockroaches and bees infected buildings; goats filled the streets and hindered traffic. Animals were icons of fury and ate away the inanimate, grey, corporate fabric of city blocks. The Street Farmers envisioned the literal erasure of built form as an act of civic mobilization against legislative authoritarianism, bureaucratic inefficiency, traffic jams, surveillance of citizenship, and power grids of centralized control. The built environment was not seen as a place of beauty and light, but as a place of oppression and darkness. Street Farmer was destructive architecture.

The geopolitical reality of the old continent, with its burdened historic underground, fluctuating borders and scarce unoccupied land induced a different set of utopian approaches than in the US. In the United States, the alternative of cheap available land in the Southwest desert regions enabled communes to sprawl, inspiring a massive youthful exodus. In Britain, nevertheless, the lack of real square meters fostered anger, which was expressed in methods of creative destruction.
The architect's hand, which in the modern movement signified the addition of built form as a genuine creative activity, now held a gigantic spray can, which was a liquid depletion weapon of the urban fabric. For the Street Farmers, buildings institutionalized in material form the state and, in reverse, the process of "un-building" was a resourceful vision of reversing authority. Therefore, destruction was seen as a creative design mechanism, aiming at the strategic, procedural and systemic decomposition of inorganic matter.

PS14 National, International: Counterculture as a Global Enterprise
Caroline Maniaque-Benton, Ecole Nationale Supérieure d'Architecture de Normandie, France, Session Chair

Belgium's Countercultural Episode: Between Thinking and Doing?

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During a brief episode in 1970-1971, one of Belgium's main architectural periodicals was renamed Environnement. With an editorial set-up including Lucien Kroll, Environnement advocated an explicit interest in architecture's relationship with the environment. Environmental questions were here not limited to green energy or ecological concerns but included also wider 'problems' that shared a strong urban component: unbridled urban expansions, environmental and urban politics, and the involvement of users in the creation of their 'habitat' (considered broader than housing). Also in 1970, the Centre d'Etudes et de Recherches de l'Environnement (CERE) is founded, in Brussels. I will use this brief yet explicit environmental episode as a starting point for studying counter-cultural ideas and realisations emerging in Belgium at the time. Such initiatives can be found in theoretical discourses but also, to some extent, in built work, including self-build and autonomous houses, vernacular and organic architecture, anarchist landscape design, and collective living experiments. In addition, counter-cultural ideas also informed an appreciation for existing spatial practices otherwise excluded from the debates on architecture and the city: including caravan parks, spontaneous architectures, and the so-called 'bidonville de luxe' (Lucien Kroll in Environnement 7-8.1970). This paper will draw from debates and discourses demonstrating the resonance of counter-cultural ideas in local architecture debates in Belgium. For this purposes it will focus on the journal Environnement, and the debates and activities of the Centrum voor Architecturaal Onderzoek en voor Onderzoek van het Environment (CEA-CERE), the architectural-urban leg of the experimental Internationaal Cultureel Centrum in Antwerp, and connected to the CERE in Brussels. Both initiatives evidence not just a broad theorization of the relationship between architecture and environment but also a focus on realizations and actions.

PS14 National, International: Counterculture as a Global Enterprise
Caroline Maniaque-Benton, Ecole Nationale Supérieure d'Architecture de Normandie, France, Session Chair

Out From the Edge

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In early 1974, on the edge of the University of Sydney campus, a dozen or more architecture students began constructing an "autonomous" house. Over the next four years, the students raised a crude shelter from recycled and scrounged materials. Features included a beer bottle Trombe wall, a 44-gallon drum solar hot water heater, and a malfunctioning methane digestor. Over its short lifespan the house also hosted a series of alternative technology fairs, where its architectural experimentation intersected with fringe lifestyle experiments and the burgeoning environmental thinking of the period. Demolished in 1978, the house was a techno-social experiment that explored architecture's role in the making of alternatives to consumption-oriented modes of living.

This paper will explore the concepts, actors, materials and technologies assembled by the Sydney Autonomous House. An international flow of radical educators, and key countercultural and architectural texts to Australia during the '60s and '70s heavily informed the project. For example, figures such as Buckminster Fuller and Sim Van der Ryn were involved in Australasian student architecture congresses of the period. The project itself circulated via publication in journals such as AD and Radical Technology. The students' own international travels and Australia's distinctive countercultural ferment during the period were also critical. One student, for example, travelled in 1973 to Steve Baer's Zomeworks, Robert Reines' ILSS Laboratories and Arcosanti in North America, as well as Graham Caine's Eco-House and the Cambridge Autonomous Housing Research Group in the UK.

Accounting for Australia's first prototypical autonomous house will support a re-centring of autonomous house histories (typically focused on a small number of North American or British examples). It will also provide insight into the way countercultural architectures became reformulated and reconfigured as they circulated and materialised across the world.

PS14 National, International: Counterculture as a Global Enterprise
Caroline Maniaque-Benton, Ecole Nationale Supérieure d'Architecture de Normandie, France, Session Chair

Anarchy in the UK: Architecture from Counterculture to Punk

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Where should we seek the sources of late- and post-modern tropes in design like play, autonomy, direct action, self-organization, and desire? In anarchism, this paper suggests, as it reconsiders the relationship between anarchism and architecture by returning to the era of counterculture.

The tributaries of countercultural holism have recently been traced to the belief systems, cybernetics and ecology of the West Coast of the USA, but countercultural radicalism must also be traced to Western European sources in existentialism, Marxism and anarchism. At the 1967 Dialectics of Liberation conference in London, one of the plentiful interchanges between European and American ideas, a remarkable roster of speakers included American anarchist Paul Goodman, known among architects for his book Communitas (1947), written with his brother Percival Goodman. And it is in the mid-1960s UK that anarchism was again encountered by architects through the work of Colin Ward and Paul F.C. Turner, which was disseminated through the Architectural Association and Architectural Design.

Drawing on the legacy of the Scot, Patrick Geddes—who as a pioneer of urban design (and indeed of the holistic approach so embraced by American counterculture) was influenced by and was influential for anarchism—the attention paid by Ward and Turner to playgrounds, squatting and the appropriation of the city from centralized authority pointed to a role for architecture after the decline in the prestige of state socialism and corporatism alike. This role for architecture was as an enabler of "event."

By the mid-1970s, counterculture's nemesis—punk—sustained an anarchist revival which architecture struggled to assimilate. Anarchism did not need architects, but architects began to need anarchism, this paper argues, allowing architecture to "prefigure" a better world, rather than actually plan or build it.

PS15 Natural Disasters and the Rebuilding of Cities
Adriana N. Scaletti, Pontificia Universidad Católica del Perú, Session Chair

Colonial New Orleans: Disasters and Reconstruction in the Crescent City

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New Orleans, Louisiana, was founded in 1718 on what is known today to be unstable land. In 1719, a flood devastated the budding city. Several other strong storms quickly followed and forced reconstruction. The French colonists who built New Orleans had no experience with Louisiana's climate or repetitive tropical storms and flooding. Damage from disasters occurred so frequently that the difficult work of reconstruction characterized the city's first few decades. The lack of population of the area generated the sending of criminals and other unwanted individuals from France. These ended up taking an active part in the construction and reconstruction process.

This paper discusses the reasons for founding the city where it still stands today, in a disaster-prone area, and the early challenges confronting New Orleanians. It also examines colonial materials on a large scale: primary sources from various archives originally written in French and translated by the author.

Despite concerns that residents would leave their city to seek safer living conditions on higher land or move back to the home country as some did, early New Orleanians displayed a resilience that can be compared to that found recently in the aftermath of the 2005 Hurricane Katrina. Other settlements had a different fate and eventually disappeared whereas New Orleans always rebuilt itself after each disaster, showing an exclusive sense of its own survival.

Since the location of New Orleans became obvious for commercial purposes, early disasters provided the opportunity to rebuild a new town, more adapted to the needs of the colony. Once that town was built and the other local cities proved to be ineffective as capital of the colony, New Orleans appeared as a suitable choice and therefore colonists started investing more into the future of their city.

PS15 Natural Disasters and the Rebuilding of Cities
Adriana N. Scaletti, Pontificia Universidad Católica del Perú, Session Chair

"An Opportune Thing Perhaps": Perfecting a City through Disaster

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In the morning of June 29, 1925 an earthquake hit Santa Barbara, California, a small city 100 miles northwest of Los Angeles. The early morning occurrence resulted in few casualties, but about sixty, mainly commercial, buildings in the city center sustained irreparable damage. Despite the destruction, many residents actually considered the earthquake a blessing in disguise. In the proceeding year, city officials, mobilized by local residents and organizations, began attempting to pass a building ordinance spurned by the worry that Santa Barbara's charms—its luxurious climate and location bounded by mountains and ocean in temperate southern California—were being diminished by a "commonplace mass of heterogeneous building" containing the "good and bad jumbled together" making it indistinguishable from a characterless main street in Iowa.

But the earthquake's destructive force created an opportunity for Santa Barbara, and one that provided an opening for officials to bypass potential political and social conflicts of a building ordinance. The disaster catalyzed changes and hastened an urban transformation that might have taken decades and reshaped the city's structure and aesthetics. The city center's reconstruction in Spanish revival architecture displayed to its boosters the civic benefits of an aesthetically uniform architecture as a vital aspect of a community, much like public health regulations or municipal services. Additionally the reconstruction process allowed local boosters to popularize ideas testifying to the Spanish revival style's seemingly natural fit to Santa Barbara's climate, geography, and—noting that traditional Spanish structures experience little damage in the earthquake—seismic hazards. Through the use of correspondence, reports, and publications produced by local individuals and organizations I argue that for many in Santa Barbara the earthquake's chief civic contribution was to allow leaders to frame a narrative about the city turning into a better and more natural version of itself in the disaster's aftermath.

PS15 Natural Disasters and the Rebuilding of Cities
Adriana N. Scaletti, Pontificia Universidad Católica del Perú, Session Chair

The Failed Effort: Planning without Memory after Peru's 2007 Earthquake

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The Ica region, located in southern Peru, suffered a great disaster in 2007: An earthquake and the subsequent mismanagement of the tragedy left scars that are still visible in every town and city of the region. In many ways, the live of its inhabitants changed enormously because in minutes schools, hospitals, and in many cases, their own houses were destroyed.

Most of the media and academic attention was given to the most urgent problems, such as housing and construction techniques, and obviously, the reestablishment of basic services like healthcare and education, but little was given to the social aspects of the tragedy, like memory and heritage, and that resulted in the already unsuccessful urban plans, let alone individual plans for city landmarks.

This paper analyzes the memory and heritage of the iqueños, and its relation with the mismanagement of the tragedy, studying two cases: The failed attempt to destroy and rebuild the church of Luren in Ica and the destruction of La compañia church in Pisco, both with different reactions of civil society and dissimilar outcomes. And given its relevance, both cases give us light of why the efforts for rebuild the entire region failed and why all the urban plans made for it never were applied.

PS15 Natural Disasters and the Rebuilding of Cities
Adriana N. Scaletti, Pontificia Universidad Católica del Perú, Session Chair

Restoration and Resilience in 17th-Century Bridgetown, Barbados

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Over the course of four decades from the beginnings of English colonization in the 1620s, the Caribbean island of Barbados became probably the most densely populated and intensively cultivated agricultural area in the English-speaking world. From unpromising swampish surroundings, the island's largest urban area, Bridgetown, rose to the status of primate port, a convergence point for island, inter-island and international trading networks. England's hold on this strategic sugar-producing territory - a crucial part of its expanding empire - was claimed through comprehensive and continuous occupation, yet the colony's built environment proved to be brittle and fragile. By 1694, Bridgetown had experienced multiple disasters, with the havoc caused by natural hazards across the island compounded by the urban hazard of fire. Five times the town was almost totally destroyed, and on each occasion it was rebuilt, on the same spot, and along the same lines.

Approaching the repeated destruction as a form of cultural production, and considering seventeenth-century disasters in Barbados in comparative perspective alongside devastating contemporary events in London and Jamaica, this paper considers adaptation, investment (financial and psychological) and identity-making in the successive process of reconstructing Bridgetown. The responses of colonial settlers, imperial officials and others will be explored through critical analysis of archival documents, contemporary texts and visual representations of the Caribbean port. Speed was essential in rebuilding, in order to maintain an appearance of commercial and military dominance, and the town's persistent plan came to signify the resilience of the colony and its inhabitants. We see a colonial, slaveholding society acquiring an "antiquity" and deriving a sense of honor through rising from ruins.

PS16 'A Narrow Place': Architecture and the Scottish Diaspora
Neil Jackson, University of Liverpool in London, UK, Session Chair

Unraveling Scottish Architecture in Canada: Percy Nobbs, Ramsay Traquair, and Their Montreal Networks

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This paper assesses the special role of Scottish architects in the development of Canadian architecture. In particular, it considers the careers of Edinburgh-trained architects Percy Nobbs (1875-1964) and Ramsay Traquair (1874-1952), pioneering educators at the School of Architecture at McGill University in the early twentieth century. "Unraveling Scottish Architecture" highlights evidence of how Nobbs and Traquair boosted each other's careers and argues for a Scottish buddy system that trumped Canadian egalitarian values.

Scottish architects were particularly "adaptable to other cultures," suggested architectural historian Isabelle Gournay twenty years ago.[1]This paper adds the significance of networking to her "chameleon effect" theory. In Montreal, for example, Scottish architects overtly supported other Scottish architects. Nobbs handpicked Traquair as his successor at McGill University, knowing him from Robert Lorimer's Edinburgh office. They were preceded by Stewart Henbest Capper, who also hailed from Scotland. The pattern was not exclusive to the academy. Practicing architects hired and recommended each other for jobs in Montreal, advancing to the top of their profession in a subculture of Scottish builders a world away from Robert Adam's "narrow place."

While Nobbs left a substantial built legacy, Traquair built next to nothing in Canada, focusing instead on measuring Quebec churches and houses, showcased in his magnum opus, The Old Architecture of Quebec of 1947. Nobbs and Traquair both left massive archives, including correspondence, photographs, drawings, lecture notes, and personal artifacts. Drawing heavily on their outsider positions, both men advocated a national architectural style in Canada. Juxtaposing their archives illustrates the high cultural status of Scottish architects in Canada and allows us to unravel their remarkable professional and familial inter-relationships.

[1]Isabelle Gournay, "The First Leaders of McGill's School of Architecture: Stewart Henbest Capper, Percy Nobbs, and Ramsay Traquair," SSAC Bulletin 21 no. 3 (September 1996): 63.

PS16 'A Narrow Place': Architecture and the Scottish Diaspora
Neil Jackson, University of Liverpool in London, UK, Session Chair

Seeking Solace in the Mediterranean: Basil Spence in Malta

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In the late-1960s, Basil Spence (1907-1976) acquired a traditional house in Malta. It was certainly not one of the typical run-of-the-mill holiday villas that were popular with foreign visitors at the time. Rather it was the complete anti-thesis of the speculative type of new accommodation that was fast sprouting to cater for the influx of British expatriates who lured by tax incentives took up residence in Malta.

The property acquired by Spence, appropriately named Dar tal-Għar, enjoyed extensive views of a then pristine and enchanting countryside-setting of terraced fields with rubble walls sloping down dramatically to the rugged coastline. The property was basically a variant of a cave-dwelling combining a cluster of man-made structures that merge with the natural rock formation. The Dar tal-Għar project was totally different in spirit and genre to the large-scale and, at times, monumental projects that Spence worked on. Although certainly not a high-profile project, being limited in size and having only featured fleetingly in publications on Spence, it provides us with a radically different insight as to Spence's work. In his conversion of the cave-habitation, the creation of the artist's studio perched high on the cliffs, and the formation of a rock-pool for bathing we are introduced to Spence in the guise of a sensitive artist-architect working in harmony with nature, not dominating or subjugating it, but interacting with it in synergy.

The project is a master class in landscape architecture as Spence skillfully weaves an intricate relation between the man-made structures and the natural rugged landscape of terraced fields and rocky outcrops. The principal sources for this paper will be the sketches and photographs in the Basil Spence archives (RCAHMS) and interviews conducted with Spence's son-in-law Anthony Blee and architect Richard England.

PS16 'A Narrow Place': Architecture and the Scottish Diaspora
Neil Jackson, University of Liverpool in London, UK, Session Chair

An Extraordinary Intuition, Robert Lorimer's Work outwith Scotland

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The title is taken from Hussey's biography of Lorimer who he describes as having an 'obstinate idealism and extraordinary intuition.' Lorimer trained in both Edinburgh and London but his home and office were always in Scotland. Although he is most famous for his work in Scotland he had an extensive practice outside Scotland. My paper will look at how he is influenced by vernacular of the locality of the project not simply transferring the tried and tested style he had developed north of the border. Lorimer studied and sketched buildings throughout his life and the National Collection in Edinburgh holds these sketch books along with his office drawing collection which provides evidence of what he created, what inspired him and what interested him.

His first commission was a house in Wimbledon which embraces the Queen Anne Style. In Surrey his three houses look to that vernacular, beloved of Lutyens. His first large country house was Brackenburgh in Cumbria where he looked at local houses such as Hutton-in-the-Forest. On the Kent coast he restored and extended the 14th century Lympne Castle adapting the local rural vernacular but was influenced by English contemporaries such as Philip Webb. He designed churches in Plumpton, Cumbria, Aldershot, Berkshire and perhaps most controversially at Stowe School. Further afield he built a fishing lodge in Norway and a town house in Helsinki, Finland. His work of the Commonwealth War Graves Commission included projects in England, Italy, Germany, Macedonia and Egypt. This paper will explain and illustrate how Lorimer responded to the spirit of each place. With 'obstinate idealism and extraordinary intuition' he responded to the locality of each commission whilst retaining his unique 'Lorimerian' style.

PS16 'A Narrow Place': Architecture and the Scottish Diaspora
Neil Jackson, University of Liverpool in London, UK, Session Chair

Emsallah House (1889-1891): Rowand Robert Anderson in Africa

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Sir Robert Rowand Anderson (1841-1918) was perhaps the most prolific Scottish architect of the 19th century. His original handling of historic styles and his powerful compositions made him celebrated throughout the United Kingdom. Having been trained under Sir George Gilbert Scott, his work is mostly related with Gothic revival although he also designed some Italian Renaissance Revival buildings, such as McEwan Hall, Edinburgh. Although during his lifetime he designed numerous large buildings, this paper will focus on a relatively modest commission: a medium size house that he designed for himself at Tangiers, Morocco. The project for Emsallah House, as it was to be known, is striking for its lack of ornament and historic references and its adaptation to the local climate and building traditions. Although finally unbuilt (Anderson built a smaller house in the city centre, which has not survived), the drawings allow us to understand all the relevant aspects of the design. At the peak of the expansion of the British Empire, this project is another example of British architect´s struggle to adapt their designs to local conditions when building abroad. It also reveals an almost unknown aspect of Anderson´s career. This paper will analyse Anderson´s design for Emsallah house and its ancillary buildings, in the context of his overall production. It will also emphasize its most original aspects, such as the plan layout and the cooling devises, comparing them to other contemporary British architects´ buildings in southern latitudes.

PS16 'A Narrow Place': Architecture and the Scottish Diaspora
Neil Jackson, University of Liverpool in London, UK, Session Chair

A New Country to Design

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Of all the Scottish architects who reached great heights of success outside their native home, none could have boasted of occupying an office that housed a king on the floor above.
This was the position the Scottish architect J. M. Wilson found himself in. With the pride of being a student of Lutyens, the glory of the title of Government Architect of Iraq and the unique sense of emerging possibilities, Wilson seized the opportunity and arguably had the greatest impact on the emerging architecture of twentieth century Iraq. Wilson was discovered by Gertrude Bell, one of the main figures in the creation of Iraq after WWI. He reached a unique position of power partly because of the influential network she introduced him to. They shared a close friendship, a passion for Islamic and Mesopotamian archaeology and a skilful approach in employing that expertise in nation building and more subtly in sugar-coating colonialism.

Bell changed socio-spatial practices aided by the urban and architectural designs of Wilson. This change claimed to be respectful of Iraqi culture but was in reality cementing British values and rule. The use of traditional decorative features masked a new spatial order that was totally foreign to Iraq. Alien architectural typologies, new space hierarchies, new residential designs in affluent areas and unprecedented urban interventions altered the new country so dramatically that the legacy of these changes still endures.

In a post WWI changing world, the lure of absolute power in designing a new country became the ultimate motive for both Bell and Wilson's diaspora.

PS17 Evidence and Narrative in Architectural History
Michael Osman, University of California, Los Angeles, and Daniel M. Abramson, Tufts University, Session Co-Chairs

Large Data: Shaping an Architectural History from 70,000 Pieces of Evidence

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How might large data sets shape the work of architectural historians? Architectural history has relied on tangible forms of evidence—material, visual, and textual—that have been managed according to the capacity of archives and archivists to house and catalog content. Architectural historians necessarily framed questions according to the accessibility of that content and the ability to assess a body of evidence within a manageable period of time. Digitization has rendered some previously inaccessible and very large collections both accessible and—with computational support—analytically viable. Some massive digitization efforts have offered new types of evidence for use, even as they require new working methods and tools, and afford the ability to ask new questions.

This paper presents a large data project to demonstrate some emerging issues facing architectural historians who choose to work with new forms and scales of evidence. Focusing on a global archive of digitized news reports covering the post-World War II era, our paper, we will demonstrate the processes required to formulate a useable data set to create a spatial history of suburban riots in the United States between 1945 and 1980. Specifically, we will articulate and explore some of the critical questions and methodological problems inherent to analyzing large and valuable databases (ours includes 70,000 individual event entries which can be defined by 70 variables). How can historians approach working with such large quantities of evidence? How are these bodies of digital data different from more traditionally accessible forms of evidence (how, in fact, is 'data' different from 'evidence')? How does working with large data sets change the questions we ask, and how might it shape our working processes? What tools are required in order to render this evidence legible? And how can large data change what we already know about topics in architectural history?

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Striking and Imposing Beauty: On the Evidence of Aesthetic Value

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What is the value of the Seagram Building? In 1964, the answer was variously $17,000,000 or $20,500,000 or $36,000,000, with the range depending less upon mathematical calculation than upon theoretical constructions of value. These theoretical constructions were presented to a series of judicial panels in the context of an appeal made by the Seagram corporation against what it considered to be the excessive tax assessment levied by the New York Tax Commission. Arguments in the appeal centered upon the question of aesthetic value—what had the Seagram Corporation gained by erecting an "architecturally superior and well-known building?" A similar case followed almost immediately, when the tax assessment applied to the neighboring PepsiCo Building designed by Skidmore, Owings, and Merrill also prompted a protest and appeal. In that case, judges determined that the building was not "in the same category as the Seagram Building."

But what is the evidence to support such judgments? This paper will explore the evidentiary implications that these conflations of aesthetic and monetary value have for architectural history by posing the question, is the legal archive truthful? Or, more precisely, what does it mean for architectural history to consider this legal archive a source of evidentiary truth?

Starting from a critique of Peter Collins' adumbration of the distinctions and commonalities of architectural and legal judgment (Architectural Judgment, 1970), and then outlining the potential for new theorizations of legal architectural history, the paper will pursue the difficulty faced by architectural histories in considering the aesthetic register as a sphere of factuality.

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From Truth to Proof: Science behind Public Works in 19th-Century Berlin

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In 1859 Friedrich Adler, architect, conservationist, and public servant, was commissioned by the Prussian Ministry of Trade, Industry and Public Works to scientifically and exhaustively document medieval red-brick architecture in Prussia. During the 36-year period the publication's agenda evolved from collecting evidence of Prussian architectural legacy – the construction of an historical narrative during a period of identity formation – to creating instruction manuals for contemporary neo-gothic architecture. This paper examines the context – political, architectural and scientific – that fostered this change in agenda and the way in which evidence (sketches, measurements and details of medieval architecture) morphed from representing historical truth to representing statistical proof: from logical certainty to statistic probability as a means of constructing an argument.

The paper will highlight how evidence was selected, and accompanying narratives 'interpreted' this – at times inconclusive – evidence. It will close with a short comparison to another commissioned scientific work: Rudolph Virchow's Reinigung und Entwässerung Berlins, which collected statistical data from four years of environmental research in order to provide scientific evidence in support of political and economic arguments for municipally-provided water infrastructure. Although the experiments aimed at objective, empirical truth, in the end, the gap between proof and truth meant that 'good enough,' became the most convincing argument.

Both works participated in modern governmentality and the planning of public works in Berlin, providing both scientific universals and solutions to practical urban problems.

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The Revolutionary Architecture of Haiti: Construction without Origin

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The Haitian revolution is constructed in myth - the myth-making of the enslaved who organized at a level outside the noological apparatus of the colonial project, as well as the myth of the colonizer for whom the very suggestion of a slave insurrection would undermine France's bourgeois revolutionary establishment. These mythic configurations leave behind architectural artifacts. The forts, caserns, and armories of the colonial apparatus betray a subtle anxiety about the ultimate ground of this colonial endeavor in slave labor. The revolution as monumentalized in Henri Christophe's Sans Souci Palace and Citadelle Laferrière, artifacts of the world's first independent black nation, attempt to solidify in architecture the ephemeral condition of insurgency.

Revolution complicates the role of evidence in architecture's historiography. It is perhaps symptomatic that no archival holdings of the Sans-Souci Palace and Citadelle Laferrière exist; all that remain are literary productions and mythical traces. Yet I do not aim to resolve fantastical accounts into a most plausible narrative, I take instead the mythos of these buildings to stand as evidence of a revolutionary impetus that is not accessible to the archive. Historiographies of colonialism have long recognized the instruments of power at work in the construction of the archive. The maps, planter's guides, and treatises on race that circulated between Saint-Domingue and Paris often served not as evidence of the smooth functioning of the colonial apparatus, but as anxious markers of a revolution that was unthinkable even as it occurred. Perhaps these configurations speak to the very condition of revolution, being not formed according to strict causality, but manifesting through the indeterminacy of a clinamen, or swerve, by which events lack fixed origin; and perhaps this might lead us to read the very groundlessness immanent to the revolution back into its artifacts, configuring a void beneath architecture's solid ontological foundations.

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Riegl's Evidence

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Alois Riegl was a lawyer, an art historian, and, for a few years at the end of his life, an employee of the Austro-Hungarian Ministry of Cults. During this short period he authored of one of the most original and influential theories about the public utility of historical architecture of the modern period, his 1903 "Modern Cult of Monuments, its Origins and Developments." Marshalling an astonishingly broad set of case-studies from over a thousand years of architectural history, Riegl proposed a whole new way to think about the modernity of monuments, and a novel legal blueprint for how bureaucratic states should treat such buildings.

The literature on Riegl's "Cult" essay is ripe with analyses of his philosophical influences and his renewed intellectual relevance in a postmodern age. Yet, the debt that his theory owes to his practice as an expert witness for the state has been overlooked. (In contrast, art historians have long-ago parsed the formative influence of Riegl's earlier position as a museum curator on his formalist method).

This paper reconstructs Riegl's evidentiary process as a monuments inspector and administrator, retracing his steps as he was dispatched, or dispatched others, to dozens of monuments across the Austro-Hungarian Empire. Riegl's innovative method was to re-narrate the heated debates surrounding monuments, telling stories of competing aesthetic experiences, and delivering a judgement by comparing the "values" revealed therein. Given the patchy nature of his archive, our own approach must also be a reconstruction, borne of detective work. Based on meeting notes, texts, and other institutional archives, I speculate whether he travelled to each monument, what he witnessed and heard at each contested site, and the role that written, graphic and visual evidence played in birthing his often-hailed "relativist" aesthetics.

PS18 Spaces of Displacement
Irit Katz, University of Cambridge, UK, and Felipe Hernandez, University of Cambridge, UK, Session Co-Chairs

Black Markets: Hidden Architectures of Refuge in Cape Town

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Post-apartheid South Africa is host to a large influx of refugees and asylum seekers primarily from the African continent. In recent years, this has coincided with increasing xenophobic violence, which particularly targets black African immigrants, thus creating a new landscape of displacement within urban areas that remain scarred by apartheid era forced removals. This paper focuses on two particular buildings in Cape Town which form part of an emerging landscape of pan-African support in the city. They are a series of markets that offer vital spaces of refuge for those fleeing violent conflicts and economic collapse across the continent, as well as for those displaced by victims of xenophobic violence within South Africa's borders. This paper argues that this emerging spatial typology could be understood as 'Black markets' in recognition of the often tenuous legality within these spaces, and simultaneously to draw attention to the racialized nature of hostility in the country. Furthermore, drawing on both AbdouMaliq Simone's concept of 'Black Urbanism' along with bell hooks' notion of the margin, this paper argues that the minor and everyday architectures of these migrant markets are spaces of radical potential. Through the adaptation of largely existing buildings into a series of multiple labyrinthine spaces, these markets offer alternative financial, educational and communication support systems, they host religious and community events, and often include residential accommodation. These new sites of spatial displacement occupy marginal locations, and are largely rendered invisible with the exception of times of extreme crisis. It is partly this 'hidden status' that enables these markets to facilitate transnational movement, as they are linked into networks of similar support structures in other parts of the world. This paper is based on ethnographic fieldwork undertaken in Cape Town, and contributes to literature on the spaces of refuge formed by refugees themselves.

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Camps de Regroupement: French Military Forced Displacements in Algeria, 1954–1962

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During of the Algerian War of Independence (1954–1962), the French army demarcated a number of rural inhabited areas as forbidden zones in which not a single human forced displacement of roughly three million Algerian people and the construction of an alarming number of camps, which the French army strategically called centres de regroupement (regrouping centers).

Two years after the infamous Battle of Algiers, a French young civilian surveyor leaked his secret report on the camps, provoking a major media scandal in both French and international newspapers in 1959. The media not only denounced the outrageous conditions of the inhabitants of the militarily controlled settlements, but also urged the French authorities to prevent and improve these offensive circumstances. In the wake of this pressure—including that from the United Nations—the French colonial regime transformed certain camps into villages and conducted a sophisticated propaganda campaign. Nevertheless, the camps continued to proliferate, in particular with the enforcement of the military Plan Challe that systematically extended the forbidden zones, fortifying Algeria's borders with Tunisia and Morocco.

Based on military archival records, this paper investigates the raison d'être of the camps de regroupement, their judicial characteristics, spatial configurations, modes of construction, and socio-economic impacts on the Algerian population. It aims at interrogating the position of the French colonial (military and civilian) authorities in the aftermath of the Vichy regime (1940–1944) and the First Indochina War (1946–1954).

PS18 Spaces of Displacement
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Designing the World War II Incarceration of Japanese Americans

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On 19 February 1942, Franklin D. Roosevelt delegated to the United States Army the authority to create military areas from which they could exclude any persons. This spatial authority was directed toward 'enemy aliens', identified racially as people of Japanese ancestry living on the West coast of the United States, although there was no evidence of planned espionage or sabotage. The process required housing units for an imprisoned population of 130,000 twice over--first for seventeen Assembly Centers and then for ten semi-permanent prison cities named Relocation Centers. The initial planning discussions engaged a spectrum of carceral typologies for 'evacuees', 'enemy aliens', 'internees', potential saboteurs, and criminals. The government selected the euphemistic term 'evacuation' to refer to the mass incarceration, as if the prisoners were fleeing from a national disaster. Its scale made it the army's largest domestic defense project on the west coast. The state generally created distopian material environments based on standardized design units, alleviated to some degree through the prison population's vigorous utopian planning and building projects such as George Nakashima's designs for model barracks and occasionally by the more liberal policies of a civilian administration. Numerous civilian New Deal agencies, dedicated pre-war to relief work, transitioned into the total war effort. As their contribution, professional planners and architects assisted in building complete physical, social and political infrastructures for the new prison cities in remote locations, playing roles not easily sorted as dominant or sub-dominant.

This paper will examine this model of mass incarceration through a careful analysis of state, military and economic power along with utopian and community modes of building. The paper's objective is to illuminate mid-century precedents and typologies for the creation of material carceral environments in spatial displacement and the state's role in mobilizing nationalism and national belonging in the process.

PS18 Spaces of Displacement
Irit Katz, University of Cambridge, UK, and Felipe Hernandez, University of Cambridge, UK, Session Co-Chairs

Failed State(s): Displacement and the Reinvention of the Post-Colony

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Failure. Within its logic, failure proffers its own symptoms. Instability lingers at the periphery of this incongruity when considering the transformation of colonial spaces into those of the post-colony. Nowhere is this more evident than in Somalia during whose near-fifty years as an Italian colony and subsequent mandates by transitional external governments, the conditions by which the Nation was conceived also became the means by which they were dissolved. Identifying failure and its antecedents, including civil violence, imperiled sovereignties, and the limits of autarchia (self-sufficiency) provide crucial strategies for the revision of tradition in Somalia following its independence from Britain's Trusteeship in 1960. The imperatives of architecture as a material analogue to failure will be examined in Mogadishu and recast through its multiple displacements.

The paper opens the possibility for questioning how agonistic encounters within and against the mobilities of modernism have shaped postwar African cities. Mogadishu, hollowed-out by war and impoverishment, must be reconceptualized through the afterlives of conflict. Fused with dogmatic notions of colonial Italian bonifica—reclamation—imbricating both individual and capital, the post-colonial cities of formerly Italian East Africa intensified a crossing of urban-rural spaces in which the violent codes of self-sufficiency were enacted.

Failure, in its capacity to execute an ethics of production within architecture and urbanism, stages the terms by which cities can be redrawn. Bringing together an analysis of (post)colonial engagement within Mogadishu and its shadow, the refugee camp, overlapping spatial histories of displacement reveal how crises challenge the valences of aesthetic engagement. Throughout the continent today, cities are being built as arbiters of globalized forms that subtend conceptions of security. Consequently, the paper will locate the mechanisms by which forced migration into and out of spaces of displacement may yield an alternative future for the legacies of the African landscape.

PS18 Spaces of Displacement
Irit Katz, University of Cambridge, UK, and Felipe Hernandez, University of Cambridge, UK, Session Co-Chairs

Learning from New Julfa: The Case of Polish Refugees in Isfahan

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In 1942 and as the result of evacuation from the Soviet Union, more than 100,000 Polish refugees arrived in Iran. Amongst those, 20,000 children were relocated to the historic city of Isfahan, where they resided for three years until being once again displaced across the globe. While there was hardly any building specifically built for this purpose in Isfahan most of this group were housed in a Christian district of [New] Julfa. But Julfa itself was a district constructed for a displaced group of Armenians during the sixteenth century. Despite the simultaneous socio-political difficulties at the time in Iran, the memoirs of these children represent the case of relatively positive memories and prosper. Having more than twenty establishments in Isfahan, the management of this group was a collaborative effort between religious and governmental institutions of Polish, British and Iranian origin. What architecturally was significant, was the role of the spatial qualities of these twenty establishments and their relation to the city of Isfahan on creating a period that helped the children regain their physical and emotional strength. Focusing on the historical district of Julfa and its relation to the rest of the city of Isfahan, this paper will explore two architectural points: First, how the city of Isfahan was re-appropriated to facilitated the relocation of refugees during the 1940s. Second, which architectural and urban characteristics of Isfahan has influenced the construction of a positive impression during the time of crisis.

PS19 Rethinking Medieval Rome: Architecture and Urbanism

Marius B. Hauknes, Johns Hopkins University, and Alison Locke Perchuk, California State University Channel Islands, Session Co-Chairs

Mapping Medieval Rome

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Perhaps the greatest challenge to studying Rome between the years 400 and 1400 is the absence of a holistic, spatiotemporal understanding of that city's medieval urban fabric. Before posing questions—let alone answering them—it is essential to know what was where when. The "Mapping Medieval Rome" project proposes to assemble extant and extinct evidence onto a historically and topographically accurate digital map. The collaborative project is made possible by a robust cartographic platform devised by an interdisciplinary team of art historians, architects and designers centered at the University of Oregon, Stanford University and Dartmouth College. "Mapping Medieval Rome" will reveal the complexity of the city beyond what has been possible in the absence of such digital, collaborative approaches. Our new map builds upon cartographic enterprises from the pre-digital age augmented by archaeological, visual and written sources. Never before have the city's churches, towers, houses, roads, bridges, streets and wells, as well as pilgrimage paths, processional routes and the like been united in a meaningful way to permit complex analyses. By considering such a diversity of evidence, we both aim to reevaluate existing hypotheses about the forces that shaped and reshaped city life, and to expose previously invisible networks of influence—be they demographic, familial, spiritual, topographic, aural or otherwise. All told, our map of the medieval city will provide new insight into the social and physical factors that shaped lives and spaces over centuries. The project's significance reaches beyond the confines of medieval Rome by not only promising to become one of the main tools for investigating the city writ large, but also—given Rome's rich urban fabric and its spiritual and political importance—by permitting us to revisit the medieval period and the history of urbanism more broadly.

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Fora as Sites of Collective Memory in Gothic and Post-Gothic Rome

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The sixth century was a time of change in the city of Rome. While the city was not the capital of the Roman Empire anymore, it transformed into the cultural capital Roma Aeterna. Earlier the Forum Traiani and the Forum Romanum were important locations for political interactions, but also places where ideals of Roman identity were embodied. The architecture of the fora, relating to the Roman past, was important for Roman self-understanding and legitimization. The buildings and the fora themselves, being memory-transfers or fixed-points of history, were parts of a process, which both constructed and stabilized the self-image of Roman society and established the ever important continuity with the past. A continuity, which had in fact been broken by the Gothic rule. This presentation examines how the fora were used in this period and what the old monuments meant as memory-transfers of Roman identity in a city that was not ruled from Rome anymore and sometimes not even by Romans. The development of the sites will be used to explain the meaning Rome developed as a symbol of the Roman Empire and as an important part of the narrative of the Goths about themselves as "new" Romans.

How did the inhabitants of the city maintain their Roman identity in a world, where they were under the rule of the "barbarians"? Did the fora and their architecture become battlegrounds of collective memory with the old Roman aristocracy on the one side and the Goths on the other, or were both parties joined together in a struggle to uphold the idea of Rome as part of the Roman Empire? Furthermore, what were the implications for Roman identity, as expressed through the architecture of the fora, when Rome was returned to the control of the Eastern Empire?

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The Dominican Gothic Church of S. Maria sopra Minerva in Rome

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The non-reception of Gothic architectural principles in the design of large churches in medieval Rome has been a problem that has vexed architectural historians for some time. Apart from some features, such as windows with pointed arches and occasional ribbed vaulting, the large churches of the city were not built in the Gothic style. In recent years, however, some other Gothic structures have caught the attention of scholars, and are now considered among the medieval city's most interesting medieval buildings – for example, the 'Aula Gotica' in Cardinal Stefano Conti's palace at SS. Quattro Coronati, built in 1246-54, or the Sancta Sanctorum Chapel at the Lateran, as rebuilt and redecorated in 1277-79. These structures show that medieval Romans knew and appreciated Gothic architecture. Why then, was it not used in the building of large churches?

An exception was S. Maria sopra Minerva, which was a big Gothic church the Dominicans built in the centre of Rome near the Pantheon from 1280 onwards. To understand its design, it is important to see its Dominican as well as its Gothic features. One has to reconstruct its original form, because the appearance and structure of the church have changed radically since it was built. To do this one has to leave aside many later additions from the fourteenth to the eighteenth century, as well as the nineteenth-century 'restoration' by Fra Girolamo Bianchedì in 1848-49, and the subsequent decoration of the church before and after its rededication in 1855. Reconstructions proposed so far are not completely satisfactory. For this reason this paper will consider afresh the original Gothic and Dominican character of the building and assess its importance in the history of architecture in medieval Rome.

PS19 Rethinking Medieval Rome: Architecture and Urbanism
Marius B. Hauknes, Johns Hopkins University, and Alison Locke Perchuk, California State University Channel Islands, Session Co-Chairs

The Power of Thirst: Water and Power in Late-Medieval Rome

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The Power of Thirst investigates water scarcity and its privatization in Rome between the late-tenth century-when references to ancient aqueducts and the public water supply essentially cease-and the pontificate of Nicolas V (1447-1455), when the ancient Aqua Virgo was partially restored after centuries of decreasing flow. Since the 1990s, Rome's medieval water supply has received wide scholarly interest, particularly among archaeologists. This is especially so for the period between 537/38, when the Visigoth army cut Rome's aqueducts and laid siege to the city, and the late-tenth century when the restored aqueducts are no longer mentioned. Once the big-boned technological infrastructure disappears from the urban scene, so too does the interest of most scholars of medieval and Early Modern Rome. Rather than focus on aqueducts, in this talk I will concentrate on smaller local sources specifically urban springs, streams, and the Tiber River, and simpler technologies associated with digging wells, creating irrigation systems, and building cisterns. Based on archival, topographic, and cartographic research, this talk introduces issues of the ownership of and rights and access to urban springs, streams, wells, and fountains. I explore how the papacy, cardinals, monasteries, and Rome's noble families developed, distributed, utilized, and administered a scarce water supply, and the various impacts-social, political, economic, technological, and topographical-that these strategies had on Rome's urban development, particularly between the twelfth and fourteenth centuries.

PS19 Rethinking Medieval Rome: Architecture and Urbanism
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Fascist Medievalism: Architecture, Authority and Dissent in Rome

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The demolitions involved in the excavation of the Mausoleum of Augustus and the creation of a surrounding piazza began on October 22, 1934, and eventually led to the destruction of 27,000 square meters within the city of Rome.[i]What was selected to remain is as important as what was destroyed: Mussolini routinely called for the isolation of ancient monuments, but in the case of the Mausoleum, there were buildings that stood in the way of the ideal isolation. Three medieval churches were protected and worked into the various plans for the piazzale over 30 years.

Despite this and other cases, in the study of Italian Fascism and the regime's urban and architectural interventions in Rome, the medieval city is often overlooked- the antique world looms much larger. But the medieval offered a certain ideological utility to the regime as well, which must be examined. Using digital mapping and modeling tools, and case studies including the preservation of medieval buildings during the production of the Piazzale Augusto Imperatore and the destruction of churches during the excavation of the Via dell'Impero, this project constitutes a palimpsestuous exploration of the legacy of medieval Rome. Beyond recognizing the use, manipulation, or destruction of medieval sites, this paper seeks to highlight the enduring power of medieval architecture on the Roman landscape, identifying the possibility or actuality of production of political and ecclesiastical authority, and dissent from that authority, in order to produce a deeper understanding of the continuities and ruptures between the medieval city, the fascist city, and the present.

[i]Spiro Kostoff, "The Emperor and the Duce: The Planning of Piazzale Augusto Imperatore in Rome," in Art and Architecture in the Service of Politics, ed. Henry A. Millon and Linda Nochlin (Cambridge: Harvard University Press, 1978), 270.

PS20 Reopening the Open Plan
Joseph L. Clarke, University of Toronto, Session Chair

Proxemic Plans

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Even as the open plan proliferated in the postwar period, easy correlations between its literal transparency and openness, and the freedoms it afforded users were questioned. Other forces were beginning to be perceived; invisible patterns that constrained and conditioned subjectivity itself. During the 1960s and 70s, specialists from diverse disciplines attempted to map these non-physical structures, and to instrumentalize their findings toward the production of optimized human environments.
This paper seeks to revisit this moment through the work and networks of anthropologist Edward T. Hall. Hall studied the patterns underlying human behavior in various cultural contexts, and why it was that individuals were blind to these. Since there was no rigorous system for quantifying such phenomena, Hall founded Proxemics, which comprised a suite of data gathering methods and a notation system that might record them. In this world revealed by Proxemics, "plans" were reconceived to include not only the placement of walls and furniture, but the control of hitherto imperceptible human-environment interactions.

One tangible outcome of these investigations was a decade-long study of the new John Deere corporate headquarters building in Moline, Il, by Saarinen Associates. Here, where new types of open and flexible plans were implemented, Hall discovered a complex ecosystem of physical architectural structures interacting with hidden hierarchies and subliminal spatial cues. In this singular instance, the forms of enlightened modernist design could be seen meshing with the emerging behavioral functions of the "new spirit of capitalism." Accordingly, the results of the study were frustratingly ambiguous, and, I will argue, called into question the utopian role of architecture as facilitator of human-environment integration.

PS20 Reopening the Open Plan
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The Open Plan Shop Floor: Free Space/Controlled Labour

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The open plan is an ideology. It suggests openness, flexibility, and freedom, but what kind and for whom? For the factory architects the freedom to arrange the columns, walls, and furniture, but certainly not for the builders. If anything the open plan coincided with the removal of expertise from the builders to the engineers. For the factory managers the freedom to arrange the machines, and materials handling systems, but certainly not for the workers. If anything the open plan coincided with the rise of the work plan, with the prescriptions of their work in advance and the supervision of its execution. This paper will contest this ideology by investigating the open plan shop floor in Germany at the turn from nineteenth to twentieth century. In contrast to the claims of its universality it will demonstrate the contradiction and ambiguity of the open plan between freedom and control in this specific context. Here the company directors on the one hand welcomed the flexibility in the layout of the shop floor, the freedom in the arrangement of the machines, and the openness for the supervision of work, but on the other hand divided the open plan shop floor in discrete functional and spatial units for clarity and transparency of the work process. This paper is based on my research in the company archives in Berlin, and on my reading of the publications of their directors in trade journals at the time. It will argue that with the freedom of the machine from the mechanical transmission system the freedom in the organisation of space increased for architects and factory managers, and thereby also the freedom in the organisation of work. However, crucially at the same time the possibility of freedom in labour, in the self-organisation of their work, decreased for builders and workers.

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Joseph L. Clarke, University of Toronto, Session Chair

The Fifth Plan

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This paper will consider the open-plan as it sits within the long arc of 'open-plan thought' across five iterations: proto-modern, modern, post-modern, sequel-modern, and, most importantly, the present.
I will begin with a hypothesis about the present, namely that there is a new plan afoot. Its terms are not those of the gangly hollowness of proto-modern plan experiments in iron and steel (as seen in nineteenth-century train stations, department stores, and exhibition halls), nor the full-on open-plan of modernism (universal, free), nor the je-ne-sais-quoi plan of post-modernism (neo-historical, juxtaposing), nor the plan-non-chalant of recent reinvigorations of modernist architecture (data-driven, a-formal). And yet, this contemporary plan approach does descend from these four earlier paradigms of plan thinking. I've provisionally labeled it the "fifth plan."

As surely as the fifth plan descends from these precedents, it differs decidedly from all of them. Architects' understandings of plans depend on an ability to distill the characteristics of plan-based organizations: open or defined, perimeter or interior, figure or system, history or future, homogeneous or varied. The fifth plan confounds these classifications because it conflates spatial temperaments. It slips into and out of categorical restraints as needed. It signals neither a return to, nor a rejection of previous plan models and, most importantly, it cannot be singularly aligned or contrasted with its antecedents. Kimihiko Okada's "Toda House," for example, includes both closed cells and open regions of space; it is geometrically abstract and figured; and it is at once symmetrical and punctuated with minor asymmetries.

My interest in this panel stems from my role as an architect teaching and practicing today. This panel strikes me as an exciting opportunity to discuss transformations taking place in our collective thinking about the contemporary plan, recent changes that are deeply entangled in a modern century filled with plan experiments.

PS20 Reopening the Open Plan
Joseph L. Clarke, University of Toronto, Session Chair

Irregular Rhythms of Bürolandschaft Buch&Ton (1959/60): The Effective Production of an Ideal Society (of Labourers)

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The space of Bürolandschaft (office-landscape) is the direct result of a scientific inspired design method – namely Organisationskybernetik [cybernetics of organisation]. It had been developed since 1956 by a trans-disciplinary team of German computer and information scientists, mathematicians, philosophers, designers and architects close to the Hamburg-based management consultants Eberhard and Wolfgang Schnelle. The method and its spatial result – the Bürolandschaft – claimed to be a comprehensive, holistic method to organize, plan and design office spaces. Understood as a political hypothesis – Bürolandschaft represents a new, cybernetically organized society (of labourers), that after World War II promised a society on equal terms, a pluralistic community and a self-organizing form of governance. Ideally the design-method aimed to translate a stable society into objective, controllable mechanisms of society. Thus the designers of Bürolandschaft claimed, on the one hand, to suffice a human scale of an intimate architecture, and on the other hand, to create a space that is efficiently organized to allow dynamic alignment of ever modulating work processes for ever-evolving requirements. The ultimate aspiration of the design-team was to create and organzie a space that seeks to free all workers from work through full automation.

In my presentation I will analyze the spatial design and organization of the first-ever built office-landscape Buch und Ton (1959/60), which was conceived and designed for the mail-order-business of the German publishing house Bertelsmann. In doing so, I understand this specific work-space as an instrument of subjectivation and will probematize the forces composing these spaces, asking if it only portrays the orderly appearance of works in a space of production that is rigorously defined by wage compensation? Or – paraphrasing Jacques Rancière – if the practice of architecture orders new (labour) relations, in relation to society?

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Joseph L. Clarke, University of Toronto, Session Chair

The Political Economy of Flexibility in the Open Plan Office

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Since its popularisation in the post-war years, the open-plan office has been in a constant state of adaptation in Europe and America. Changing attitudes to workplace management and labour relations, innovations in technology, transformations in the architecture industry and the financialisation of real estate, have all contributed to its mutation as ideal and as formal reality. The different types of open plan office are usually considered as isolated episodes: the cubicle, burolandschaft, systems planning, shearing layers, and the more recent hot desking, are written as historically contingent experiments, emerging as solutions to specific problems. Such readings are valid and essential, yet this approach does not address a set of broader questions: Why is it that the concept of flexibility transformed so dramatically during the closing decades of the twentieth century? How did the changing form of the open-plan office relate to broader transformations in the political economic context underpinning it, and the rise of neoliberalism? How is it that the notion of flexibility, associated with welfare state policies and 1960s radicalism, was coopted by profiteering corporations, developers and financiers, for ideologically opposite aims?

This paper endeavours to address these questions with reference to the use of open plan offices by the finance industry between the 1950s and the 1990s, considering the relationship between the user, the architect and the investor in the production of corporate space under the rise of neoliberalism.

PS21 City Models: Making and Remaking Urban Space
Annabel Wharton, Duke University, and Alan Plattus, Yale University, Session Co-Chairs

Virtual London: Modelling Growth in an Historic City

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London's population is set to grow by 20% over the next 15 years, and most of that will come in the central area, which is also the historic core of the city. This growth is being achieved by vdense, sometimes very tall developments which are transforming the way the city will look.

Planning for this change relies on accurately predictly its effects in order to avoid or limit harm to public interests, including the enjoyment of the historic environment. This process relies on the City Model, a virtual London. It is not a public asset, nor even one thing. It exists in about 10 versions which have been developed by private companies over 20 years. They sell time in the model to developers who test options and in this way refine designs to meet the UK's strict planning requirements. The models include both permitted unbuilt projects and known ones in the pipeline.

The still shots and animations produced in City Model are presented to publicly elected decision makers. The authorities themselves and the public at large has no access to the model, and Londoners are largely unaware of this information. They have, really, little idea of the dramatic change their city is experiencing. Some have criticised the process as undemocratic. Others point out that virtual environments are misleading. They are poor surrogates at best for human perception. Furthermore, this technology has encouraged a new kind of architecture that takes unusual forms often the product of attempting to limit impacts identified in City Model.

This paper will look at the way City Model interacts with public and private interests in a process that is meant to be transparent and accountable. The author is a practitioner who uses the model to gain consents for major developments in central London.

PS21 City Models: Making and Remaking Urban Space
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A Model for the Global, Islamic City: The Ibn Battuta Mall, Dubai

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In the fourteenth century, the Arab traveler, Ibn Battuta embarked upon his famous journey across the known-world. In the twenty-first century, the global metropolis of Dubai commemorated this journey by opening a mall, dedicated to Ibn Battuta's adventures. The Ibn Battuta mall is designed as a series of six courts, executed in the architectural style of six countries visited by the medieval traveler: al-Andalus, Tunisia, Egypt, Iran, India, and China. With a focus on the Islamic world, the mall recreates architectural and sculptural monuments from pre-modern Islamic dynasties, presenting a spectacular pastiche of classical Islamic civilization, while housing the familiar brands of the contemporary, global economy. Built by a state-owned development company, the mall presents an abridged, sanitized narrative of the "greatest hits of Islamic civilization," for local and international consumption.

Rather than relying on any single city model, this paper argues that the Ibn Battuta mall presents a global, Islamic model for the new city of Dubai. While it is tempting to dismiss the mall as neo-Orientalist kitsch, this paper argues that the Ibn Battuta mall makes a more nuanced claim regarding Dubai's identity. By recreating the travels of Ibn Battuta for modern consumption, the mall presents classical Islam not as dogmatic or insular but as a dynamic, global enterprise – just like Dubai itself. In doing so, the project situates Dubai not only as the de facto inheritor of the glories of the Islamic past but as continuing a rich tradition of Islamic globalism, one that is rooted in scientific, cultural, and capitalistic ventures, facilitated by the connectedness of the Islamic world.

PS21 City Models: Making and Remaking Urban Space
Annabel Wharton, Duke University, and Alan Plattus, Yale University, Session Co-Chairs

Transposing Difference: The Combined Arms Collective Training Facility and the (Re)Production of the City

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In 2001 the Army Corps of Engineers published a design guide for the Combined Arms Collective Training Facility (CACTF) containing instructions for replicating urban space within military bases to condition soldiers for anticipated deployments in urban environments. Needing to be concrete and flexible, mimicking the appearance and experience of expected theaters of war while maintaining a certain structural integrity, the CACTF utilizes a reductive form of modeling in respect to fidelity, but not in respect to scale. As such, it posits crucial questions about how models negotiate the specific and the generic, and what constitutes the generic: according to a third-party contractor, a CACTF could be "Mogadishu today, Afghanistan tomorrow." Unlike larger-scale installations that replicate specific areas of the Middle East, the CACTF (located at 58 discrete domestic locations) attempts to create a composite model of urban space, warped to the doctrinal requirements of urban warfare and the potential areas of its real performance. It is a model capable of representing the full breadth of possible contexts of conflicts, aiming for realism in each of its iterations, while allowing for repetition of disciplined performances of the actual tactics of war.

In 2005, a CACTF was constructed at Fort Benning, Georgia: the first built directly from the standard plan. Analyzing this facility in relation to the design guide and its other iterations, this paper argues for 'difference' rather than 'affinity' as the defining feature of a model, and 'transposition' rather than 'standing-for' as its principal functionality, examining how a model can act as part of and apart from the world. It uses the CACTF's contradictory representational tactics to investigate the meaning of a model, addressing the dichotomy between structures and appearances (how space is created and characterization is applied) and how a model performs, while simultaneously being a site of performance.

PS21 City Models: Making and Remaking Urban Space
Annabel Wharton, Duke University, and Alan Plattus, Yale University, Session Co-Chairs

Change of Scale: A Model of City as Territory

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The topographical model of Iceland on display in Reykjavik City Hall is more like an urban visualization than a geological survey. While not a model of a city per se, it manifests the spatial and social parameters of a public realm through graphic abstraction and analytical coding. In Iceland, public space operates at the scales of landscape, planning, and infrastructure. The scales of architecture and urban design, meanwhile, are mere perfunctory participants in the construction of collective meaning and memory, even in the capital. Iceland does not rely on its built environment to exert cultural symbolism and political power. The spirit of the nation lies elsewhere, in the land itself. Publicness is territorial not urban.

Ironically commissioned to celebrate the 200th anniversary of Reykjavik in 2006, the 75m2 model argues against the significance of "city." It has entered the zeitgeist because it fills a vaguely perceived but indeterminate void in the public's consciousness of its environment. The importance of nature to Iceland is obvious, but the model uniquely renders nature cultural. The lack of ideological intent behind the construction of the model further distinguishes it from many canonical visualizations of the public realm. The graphic abstractions of the model include the use of different scales for horizontal and vertical measurements and the use of applied color onto natural topography, as opposed to built form, to denote cities and towns. A subtle gray line representing the road network of the nation is an especially powerful code, as it communicates the symbiotic relationship between topography, infrastructure, and settlement.
The architectural setting of the model—an unusually permeable and decentralized seat of civic government—is as serendipitous as the motivation behind its creation. Both the immediate setting of the model and the context of the capital accentuate its meaning.

PS21 City Models: Making and Remaking Urban Space
Annabel Wharton, Duke University, and Alan Plattus, Yale University, Session Co-Chairs

Models of Destruction: Negotiating Scale, Reforging Relations in Post-WWII Germany

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In 1946, the brothers Treuner were commissioned to build a model of the destroyed Frankfurt city center. Famous for their portray of historical Frankfurt, built between 1923 and 1961, the short-term project of the rubble-model throws their longer project in stark relief. Where the historical city was built with "affectionate detail" based on measures, drawings and photographs, the model of destruction was a "sketch of Frankfurt's decline" according to a newspaper article from December 1946.

Models—and especially models of cities—as scaled manifestations of architectural imagination are tools for architectural world-making in miniature. They represent the existing, document the historical or envision the future fabric of our urban surroundings. But what happens when their subject is destruction? On what scale do they operate when the city they portray is not desired, but despised, and the architecture is not one of potential, but of trauma?

In the Frankfurt rubble-model the attention to detail rendering scale was displaced to material "authenticity": the rubble in the model was ground up rubble from the streets of Frankfurt. I argue that this literal scaling down of material destruction into its representational size stands for what would become an architectural technique for German postwar design: scalar interpretability as formal choice. The traumatic eradication of detail in the built environment would become an aesthetic measure toward a remaking of the world in an interpretable scale. Where in the rubble model the ruins of the Paulskirche (the symbol of German democracy) stood as mast for the thrashing remains of city fabric, it was this shift from scalar denomination towards interpretability that promised a tentative re-negotiation of subject to object—a reforging of lost relations.

PS22 The Global and the Local in Vernacular Architecture Studies
Louis Nelson, University of Virginia, and Gretchen Townsend Buggeln, Valparaiso University, Session Co-Chairs

Negotiating the Research Terrain of European Allotment Gardens

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This paper considers aspects of working in a transnational context for research and writing three books that investigate European allotment gardens between 1870 and the present, primarily in Britain, France, and Germany. The third book, which covers the past four decades, considers some of the recent manifestations of urban agriculture outside of Europe. All three volumes argue that allotment gardening is a vernacular practice and that it has an aesthetic dimension. The ability of the allotment gardener to exert some form of aesthetic agency is a primary motivating factor for having, organizing, and cultivating a plot, even when some autonomy is being curtailed by the recent enlistment of design professionals in the configuration of allotment sites, increasingly integrated in green space planning as of the post-World War II Reconstruction era.

Field work and published research on allotment gardens has mostly remained confined within national borders. Each country has its own scholarly traditions, its methodological preferences, its own resources, and its formal and informal networks of authorities on the topic. The complexity of this situation is compounded by the interdisciplinary nature of the research that draws from various disciplines such as horticulture, agriculture, landscape architecture, city planning, architecture, history, environmental history, and leisure studies. Straddling these divides to synthesize or articulate a nuanced account of national differences must be balanced by a scholarly investment in each of the cultures studied that places both research and published outcomes above the vulnerability of parochial quibbling. An American-based scholar, often perceived as enjoying plentiful resources and funding, must establish credibility with the field researchers and scholars whose work will be critical to his/her analysis. A collaborative approach that goes beyond scholarly integrity and acknowledgment of sources must be cultivated with scholars, associations, and repositories that share a commitment to the topic.

PS22 The Global and the Local in Vernacular Architecture Studies
Louis Nelson, University of Virginia, and Gretchen Townsend Buggeln, Valparaiso University, Session Co-Chairs

Modern, Urban, and Ephemeral: Vernacular Architecture in Japan

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The "Japan" section in Encyclopedia of Vernacular Architecture of the World (EVAW) lists old-fashioned dwellings called minka and mixed-use buildings called machiya as the vernacular architecture of Japan.1 This selection of building types makes a stark contrast to the wider selection on Buildings and Landscapes, which includes the twentieth-century urban and suburban developments in North America. While the complicated definitions of vernacular architecture may have contributed to this difference, such unbalanced selections across geographical areas pose a question: how can we use the methods and theories developed primarily in the West to examine the non-Western vernacular architecture?2 This question is relevant particularly in the areas in which vernacular architecture studies is unfamiliar to local scholars and professionals, such as Japan.

To address the question, our paper reinterprets the modern, urban, and ephemeral built environment in Japan, a type that is not represented in EVAW, using the approaches of vernacular architecture studies. Through a case study of black markets called yami-ichi, which temporarily occupied spaces and illegally sold goods to meet the needs of postwar urban population growth, we situate vernacular architecture studies in the local scholarly genealogy including urban history, architectural history, and folklore studies. We also discuss ethical and practical challenges/opportunities of fieldwork in Japan, where a system like IRB is nonexistent, archives are poorly organized, buildings are constantly replaced, and people's attitudes toward historical buildings are different. This paper expands what counts as Japanese vernacular architecture and facilitates discussions on how to systematize vernacular architecture studies in the non-Western world.

1 Paul Oliver ed., Encyclopedia of Vernacular Architecture of the World (New York: Cambridge University Press, 1997), 987–1004.
2 For the issue of definition, see Dell Upton and John Michael Vlach, "Introduction," in Common Places: Readings in American Vernacular Architecture (Athens: University of Georgia Press, 1986), xv.

PS22 The Global and the Local in Vernacular Architecture Studies
Louis Nelson, University of Virginia, and Gretchen Townsend Buggeln, Valparaiso University, Session Co-Chairs

The Slovenian Vernacular: Wide Networks, Local Definitions

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When Yugoslavia entered post-war socialism, architecture and preservation in the northern republic of Slovenia were well established as professions with key discourses, founding figures, and seminal texts. The introduction of a new modernity posed a new challenge for these disciplines: how would they construct the new, socialist environment? This question became more fraught as professionals faced another, perhaps greater challenge that has largely remained unaddressed in the North American scholarship: how would they rebuild the pre-socialist to fit into the new proposed modernity? Studies of Yugoslav art and architecture have higlighted the search for a specifically Yugoslav definition of the modern; this paper interrogates the local understanding of the existing vernacular within this.

Taking the small, medieval Krakovo district of the Slovenian capital, Ljubljana, as a case study, this paper investigages Slovenian socialist-era scholarly conceptions of Krakovo's vernacular housing as it existed from the 1220s forward. Across socialism, the district was extensively studied, yet physically neglected, until its declaration as a locally significant historic area in 1983. Unsurprisingly, district conservation plans, city urban plans, and architectural and preservation professional writings reveal that Krakovo was revered by preservationists as historic, but largely ignored by architects and planners as non-socialist. This clash in approaches, however, masks a shared professional search for a place for the local in the new, emerging socialist modernity. From the early 1960s on, Yugoslav professionals were increasingly involved with international organizations, Western counterparts, and transnational exchanges. Despite international interest in the vernacular from the 1970s forward, preservationists' and architects' gaze remained turned inward in their discourse. As preservationists and architects operated in a decentralized environment, their local work on Krakovo drew on historic and new discourses but remained focused on the socialist city. With this focus, the local city became their center, located on others' periphery.

PS22 The Global and the Local in Vernacular Architecture Studies
Louis Nelson, University of Virginia, and Gretchen Townsend Buggeln, Valparaiso University, Session Co-Chairs

A Transnational Vernacular? Comparing the Landscapes of Co. Carlow, Ireland and St. Simon's Island, Georgia

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Pierce Butler, the first senator of the state of Georgia, sent home to Ireland for labourers who could make the ditches, embankments and drainage channels that he remembered from his county Carlow childhood. This vernacular expertise in draining the Irish midlands' water-logged fields was then used to lay out Butler's Island, a substantial rice plantation on St. Simon's Island, Georgia. How to make and bound a field in an unpredictable hydraulic environment was a problem for farmers on both sides of the Atlantic. The Irishman James Carroll of Maryland also imported ditchers from Ireland in the early eighteenth century to help with draining and constructing his tobacco plantations, if to a different crop's requirements. Despite the difference in climate between Ireland and the American south, the design problem was substantially the same- how to control the level of water within a field by making banks and ditches and how to vary the water level when required. In Ireland, the resulting farmland produced oats or wheat, in Georgia, rice. Irish practices for compacting clay into an impermeable layer and for building simple wooden sluice gates were crucial for keeping saltwater away from young rice shoots.

This paper will explore how Irish vernacular landscape became etched into the soil of the American south. It will also suggest how the Atlantic global economy collapsed the national boundaries of the vernacular while arguing for more comparative analysis of its elements, techniques and built forms. The vernacular's ability to move smoothly from the local to the global, while seemingly paradoxical, is an essential aspect of its character. It also lends the study of vernacular architecture and landscape design substantial interdisciplinary weight and reach.

PS23 The Architecture of Coal and Other Energies
Gary A. Boyd, Queen's University Belfast, Ireland, and Denis Linehan, University
College Cork, Ireland, Session Co-Chairs

An Industry behind Industry: Scottish Coal's Golden Era

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The importance of Scotland's coal industry been overlooked because of the prominent
success of the heavy industries that it fuelled, especially, steel, engineering,
shipbuilding, chemicals and textiles. Yet, without coal, none of these industries, and the
complex industrial base of which they formed a part, could have developed. Indeed,
even in the late 1950s, coal supplied well over 90% of the country's energy needs, and
was a pervasive part of the landscape.

Such was its prevalence, with over 200 mines taken into public ownership at
nationalisation in 1947, that the industry was so familiar it was almost invisible. The
surface arrangements of the collieries had created a mining vernacular, into which the
gradual intrusion of pithead baths, medical facilities and canteens from the 1920s by the
Miners' Welfare Fund had begun to introduce a more formal architecture.
However, it was following World War II that the most striking visual changes
occurred. Empowered by nationalisation, the industry set about a modernisation
programme resulting in the closure, consolidation, and reconstruction of old mines, and
the concentration of production in a new generation of 'superpits', most designed by
émigré, Austrian architect, Egon Riss. The new collieries dominated the surrounding
landscape, and underlined the UK Government's faith in coal as the fuel of the future.

This paper describes how this golden era of Scottish coal came about, and then goes
on to explain how it melted away in the face of competition from other hydrocarbons and
a heavily subsidised nuclear industry. Such is the scale of this decline that, with the
exception of the excellent National Mining Museum Scotland near Edinburgh, very little
physical evidence can be found of this once great industry, and much but not all of the
associated architecture has been lost.

PS23 The Architecture of Coal and Other Energies
Gary A. Boyd, Queen's University Belfast, Ireland, and Denis Linehan, University College Cork, Ireland, Session Co-Chairs

Outposts of Krupp and the Internationalization of Coal

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In the early decades of the twentieth century, the German steel manufacturer Friedrich Krupp AG expanded its global profile beyond its historic core in Germany's Ruhr Valley. Among other international engagements, the company established branches throughout the Mediterranean including in Algiers, Port Said, Suez, Oran, Naples, Bona, Bizerte, Tangier, and Genoa. These branches allowed freighters to store their own coal en route to Russian and Indian ore mines, rather then relying on third parties for this purpose.

In this paper, I will examine a small selection of storehouses, silos, and other buildings associated with this new corporate constellation. Through these examples, we will see how the design program of these corporate outposts both echoed and diverged from the well-established architectural program of Krupp's plants and workers' colonies in the Ruhr Valley. In so doing, I challenge the common conception that Krupp emblematized the confluence of corporate, industrial, and national history, marking the corporation as a virtual microcosm of the nation and its economy. This examination moves beyond dyad of corporation and nation to shed light on Krupp in a global context by showing how coal, fueling industrial growth and emerging from the earth irrespective of national borders, literally made the an company an international one.

I associate these sites with Krupp's mining operations as well, which are most commonly associated with the mines in their own backyard. Less well known are the significant operations Krupp conducted in Spain, among other locations. These include Krupp's entanglements with the Orconera Iron Company in Bilbao, the Maquinista Terrestre y Maritima in Barcelona, and the Eschevarita shipyard in Cadiz. I will examine how, at both these mining sites and those of Krupp's associates in Spain, the company exercised a certain localized control by way of both building on and denuding the natural environment.

PS23 The Architecture of Coal and Other Energies
Gary A. Boyd, Queen's University Belfast, Ireland, and Denis Linehan, University College Cork, Ireland, Session Co-Chairs

Devil's Darkness

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This paper looks at smoke, chimneys and architecture in the nineteenth century's 'shock city', Manchester. Smoke, particularly that produced by the burning of coal for steam-powered mills, rapidly became one of the unavoidable realities of the industrial city – 'Manchester devil's darkness', in Ruskin's words. It was also Manchester's prevailing image - a forest of chimneys belching fumes over the middle or far distance of the city view. What the chimney conveyed - as airborne sulphur, as deposit, as light-filtering cloud - had its own physical prevalence that was of at least equal significance to any other of the new urban forms produced by industrialization. Yet industrial chimneys (or smokestacks) are one of the great ignored architectural forms of the Victorian city, studied only as a vehicle of pollution by environmental historians or in the taxonomies of industrial archaeology. It was the chimney and its smoke that motivated and marked some of the most important dichotomies in the city: between the world of labour and the spaces of the civic city; between the 'sacrificial zones' of the poor and the tree-lined middle class suburbs; between a city of inherited decorum and one of super-ordinate functionality (famously contrasted by Pugin); and even between the pre-industrial and industrial epochs whose memories and realities ramified through the Victorian imagination. In all this the chimney was a necessity for architecture but also its enemy. The chimney was a technology for the conveyance of waste: it had its own technical specialists, its pressure groups campaigning for its regulation, and its own hastily developed legal framework. And, of course, smoke had its architectural consequences as an effluent whose corrosive and discolouring effects began to be responded to in the design of buildings and the choice of their materials.

PS23 The Architecture of Coal and Other Energies
Gary A. Boyd, Queen's University Belfast, Ireland, and Denis Linehan, University College Cork, Ireland, Session Co-Chairs

Coal and Cooperation: An Architecture for Rural Electricity

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On August 10, 1941, a crowd of visitors and spectators congregated near the town of Genoa, Wisconsin to celebrate the arrival of rural electricity in the area, thanks to the power provided by a new coal-burning generating facility. Commissioned the Rural Electrification Administration (REA), a New Deal agency, the Tri-State Power Cooperative plant transformed its local grid into the largest cooperative electricity generation and distribution network in the world at the time, serving over 20,000 farms. An isolated and visually striking structure in the rural landscape, the facility's design was the brainchild of Roland Wank, the chief architect of the Tennessee Valley Authority (TVA). In his work for TVA, Wank had succeeded in transforming hydropower dams along the Tennessee River into tourist attractions with dramatic visitor centers, recreation areas, and powerhouses. Wank believed that the same effect could be had with this coal-burning plant. Lacking the rushing water and serene reservoirs that rendered hydropower so attractive to visitors, Wank instead deployed architectural style and programming to transform the Tri-State plant into a place that would attract sightseers and foster interest in rural electrification. Working with local engineers, the architect called upon precedents such as Ford's Highland Park "Crystal Palace," contemporary Swedish consumer cooperatives, and his own work for TVA to realize a radically new kind of power plant that dramatized the arrival of coal by rail and transformed the massive steam generators into a grand spectacle, incorporating spaces for community functions, education, and cooperative meetings. In articulating a new architecture for rural public power, Tri-State Power functioned as a critical proof of concept that TVA-style federal land-use planning could occur anywhere in the United States with access to coal and a rail line.

PS23 The Architecture of Coal and Other Energies
Gary A. Boyd, Queen's University Belfast, Ireland, and Denis Linehan, University College Cork, Ireland, Session Co-Chairs

Cardiff's Coal Exchange: Architecture, Politics and Social Life

Juliet Davis
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The Cardiff Coal and Shipping Exchange was built between 1883 and 1886, designed by the architect Edwin Seward who built extensively in the city in the late Victorian and Edwardian eras. Architectural history has been fairly reticent on Seward's achievements and he is little known outside Cardiff. Where the Coal Exchange itself has been written about, it has not been particularly applauded as a result of its variable quality and asymmetric form, the compromises evident in shifts in materiality and ornamentation around its facades and its curious siting in a former Georgian square. Local history has compensated to an extent by often emphasising the Coal Exchange's importance in the production of financial capital during this era – it was the place where the first million pound cheque was written, a place where wealth accumulated in the hands of merchants and financiers and, at least for some, it represents a period of pride in Cardiff's urban development. This paper addresses what is not told or explained in either of these kinds of accounts, drawing on archival records, photographs and survey materials. First, it sets out to explain the resulting architecture, including deviations from plan and vision, as a manifestation of wider politics and volatility in the price of coal. Second, it aims to explain its complex and labyrinthine floor plates in terms of a complex social life focussed on the Trading Hall where ship owners, agents and many others interested in coal met, but also including offices and porter's rooms, dining spaces, a temperance bar, a coffee tavern, grill, billiard and smoking rooms that together testify, not just to the production of wealth, but to a world of Victorian commerce in the heyday of industrial capitalism in South Wales.

PS24 Graduate Student Lightning Talks R.
Scott Gill, University of Texas at Austin, Graduate Student Representative, GSLT Chair

Town Planning and Self-Determination: The 1900s Russian Poland

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The dynamic growth in industry, commerce and trade characterized the Russian Poland's (the borderline Polish provinces of Imperial Russia) urban life at the turn of the twentieth century. Rapid development - regarding population, economy or construction market - affected not only major cities of Warsaw and Lodz, but also provincial towns like Czestochowa, Kalisz or Wloclawek. The official town planning of the 1900s, based on Imperial patterns, although often offered metropolitan future for expanding cities, proved to be inefficient for the Polish reformers. They entered the scene altogether with hygienists, architects and politicians, trying to promote the Western-oriented town planning solutions. Their goal was to create the autonomous, Polish urban discourse. Also sanitation, urban development plans or efforts to make Kalisz or Czestochowa 'modern' towns were part of the broader politics of the urban middle-class members, who aspired to take primary position within the province's political life.

This contribution is primary concerned with the 1900s town planning in Russian Poland to shed new light on the early Polish initiatives to create urban discourse, understood as a network of technologies, public hygiene reform, social practices and policies of governing industrial urban society. Working with archival sources, cartography and press, I will examine the case of the municipal enlargement plan for Czestochowa (1900-1902) which proposed a scheme for the future industrial metropolis of a half million population. Why the project for Czestochowa was rejected by the Polish professionals and how official town planning proved to be inefficient for them? The knowledge offered by these circles was the new science of 'urban planning' developed in the West, offering possibilities and solutions often compared and contrasted with the administrative schemes for cities in Russian Poland. This presentation will try to examine questions about the network of the national Polish politics and town planning.

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American Architects and Early Preservation Theory

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The emergence of the architectural preservation movement in the late nineteenth century occurred alongside the modern professionalization of architectural practice. The increasing number of restoration projects in Western Europe fueled disputes among theorists, artists, and architects regarding the ethics of restoration. Existing preservation historiography largely places American architects outside of these debates, considering the United States' then relative paucity of architectural monuments. Yet during an era in which Americans increasingly looked to their Colonial built environment as a source of national cultural heritage, it seems likely some would have followed those debates with interest. My research seeks to establish the degree to which architects in the US engaged with the European preservation debates, especially those of Great Britain and France, between the 1880s and 1920s. Two general modes of transnational dialogue emerge: American architects who toured and studied in Europe and the coverage of preservation topics in professional architectural journals, many of which first appeared at this time. The transmission of preservation theory through architectural publications highlights a little-known aspect of the transatlantic influence on early American preservation thought.

This paper presents an analysis of the American view of preservation debates as seen in late-nineteenth and early-twentieth century architectural journals. Articles in publications such as the American Architect and Building News suggest they played a prominent role in engaging architects in preservation issues. They also display a distinctly British viewpoint in their coverage. Many articles and notices on European restoration projects were written by British authors or even copied wholesale from British publications. Yet a closer examination of the journals' editorial sections reveals that the American editors also contributed their own opinions and analysis of the debates. By the 1910s, existing and newer publications, like the Journal of the AIA, increasingly addressed distinctly American preservation topics.

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Tehran University: Beaux Arts and the European Tradition in Iran

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This paper examines the founding of Tehran University in 1934, which was begun under the direction of Reza Shah Pahlavi (r. 1925-41). Reza Shah established the Pahlavi Dynasty in 1925. The opening of the University for both sexes was revolutionary and ended the traditional system of education in Iran. The campus is a distinguished architectural expression of both progress and modernity. Individual buildings for specific disciplines, such as the School of Fine Arts or the Medical School, are of a streamlined classicism. The University was designed along the École des Beaux-Arts system of architectural planning, with strong axes and cross axes and the Library as the central focal point.

As part of his goal to modernize Iran, Reza Shah invited the French archaeologist and architect, André Godard, a graduate of the École des Beaux-Arts in Paris, to design the new campus. The master plan was drafted by Godard together with the other European trained architects, such as Roland Dubrulle, Mohsen Foroughi, and Maxime Siroux, who introduced the latest trends in both architecture and planning to the fledgling university. The monumentality of both the architectural style and overall planning were appropriate for the grand scale of this important, national university.

Reza Shah's reign exemplified a tension between his desire for a secular government with influences from Europe, and the more conservative factions such as devout Muslims and clergy who objected to what they saw as corrupting westernization. This paper examines how the architecture of Tehran University reflects Reza Shah's bold new vision for Iran where men and women could pursue education equally in a modern architectural setting. Through its function and architecture, the campus presents ideas of progress, science, modernity and civil education and thus ends the religious instructors' historic monopoly over education.

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From "Abrigo da Nora" to the "Modular-System": Housing Projects by Portuguese Architect Justino Morais 1960-1980

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This article is part of a PhD research focused on the comparative study of around twenty affordable housing estates designed by Portuguese architect Justino Morais for public institutions in the 1960s and 1970s. The majority of these estates were designed with a "Modular-System" - a system of typological and morphological units modularly organized - developed by Morais in 1962 and applied in projects from 1966 onwards.

Starting from the experience of Justino Morais in Olivais Sul (a large public housing operation on Lisbon, 1960), we intend to analyze in this paper the projects of the architect before the use of the "Modular-System", accompanying the beginning of Morais' work as a "Regional Architect" of the HE-FCP (Habitações Económicas - Federação de Caixas de Previdência, Affordable Housing department of the Federation of Welfare Funds), which included vacation single-family houses or apartments, and small housing projects in a more rural and/or industrial setting. Among these first works, the "Abrigo da Nora" - a vacation house that Morais built for himself and his family - acquires a special meaning, for it can be assumed as a prototype of a minimum dwelling typology. This analysis culminates in the application of the "Modular-System" in various types of housing estates located in the Lisbon Metropolitan Area, between 1966 and 1972.

It is also essential to reflect upon the cultural, social and economic context that served as a background to the development and application of this "Modular-System", taking into account both the Portuguese architectural environment and the international references that inspired Portuguese architects in the second post-war period. The goal of this paper is to build a panoramic view over some aspects of Justino Morais' work in these decades, in order to raise a series of questions to be developed in the ongoing PhD thesis.

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Municipal Visions, Urban Actors: Istanbul from Above, 1943-1957

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A decade into the foundation of the Republic, when invited by the Turkish Government to undertake the master planning of Istanbul in 1935, the French urbanist Henri Prost has welcomed this compelling task on one condition only: that an up-to-date photographic city map be provided before any investigation could take start, thus marking the onset of his two year-long collaboration with the Turkish Air Force. The early twentieth century coupling of war and surveillance technologies had seized utmost manifestation in the medium of aerial photography, constituting a radical deviation of urban imagery from the earthbound towards the celestial, and soon after, the application of aerial vision had found solid grounds within the practice of urban planning both in technical and representative terms. This inquiry employs aerial representations as a framework of totalizing gaze through which the actors partaking in the urban transformation process are located, while the photographic space that emerges in the face of this new mode of vision is investigated by the underlying mechanisms of power relations and spatial control.

By this scope, two municipal publications of the early Turkish Republican period are adopted as subjects of inquiry: Güzelleşen İstanbul, issued in 1943 by Istanbul Municipality as a public brief on urban renewal projects of the past two decades; and its 1957 counterpart, Istanbul'un Kitabı. Constituting the earliest instances of their genre, the two publications are not merely representative of the rapid course of modernization in light of revolutionary progress, but they as well fall within a period of political transition from a secular-nationalist model to a religious-liberal one: a course of changing socio-economic context, governmental agendas and of actors in charge. Working through the two publications, this paper thus aims to document the projection of these underlying dynamics on the transformation of Istanbul's aerial representations.

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Finding Parity for the Lost Geometries of the Global City

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Architectural praxis in today's global city is troubled by a shifting conception of space, from the narrowly disciplined space of pre-modern geometry that allowed the form, content and style of architecture and public space of the global city to be a readable, iconographic praxis (Panofsky 1924; Perspective as Symbolic Form), to the radically splintered, non-unitary, socio-spatial discourse and practice of contemporary architecture and space that leads to the contemporary city (Ex: Rowe 1978: Collage City; MoMA NY 2014: From Architectural Assemblage to Collage City). With globalization and the vast migration of people and circulation of different materials, culture and icons, space has become non-unitary, heterogeneous and fractured. With a comparative analysis of spatial conceptions in the two periods that bookend this shift, namely the pre-modern and the contemporary, I engage the shifting disciplinary frames for spatial imagination from the geometrical ((Descartes' renewal of Euclidean space in philosophy and analytical geometry 1596-1560, Alberti's development of a science of painting and architecture 1404-1474, Kepler's optics 1571-1630), to the social (Lefebvre's dialectical "social space" in 1974, Soja's "spatial turn" in critical social theory in 1984, Bhabha's "third space" in 2004). The questions that frame this inquiry are: How do imported objects/architectures (symbolic form) create meaning in their new cultural surroundings and enable a new spatial imagination? How do the newly introduced materials shape the imagination and perception of the recipient who in turn shapes space? How does the 'foreign' spatial imagination (modernity) overlay in the transcontinental encounter with older cultural identities and geometrical imaginations?

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Rural Architecture during the Communist Regime in Romania

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Nicolae Ceausescu, the second leader of the communist regime in Romania, made many controversial decisions between 1973 and 1989 regarding the built environment, including systematization. This process aimed to create hygienic and modern living conditions throughout the country, concentrating inhabitants into apartments, making more agricultural land available, and reducing the overall number of rural localities. There had been cases of village demolitions from 1973, but in 1988 the systemization project was officially launched at national level. Despite the closed borders and limited communication, several countries learned of planned demolitions of villages and expressed their disagreement. Several organizations emerged swiftly to protect the villages' heritage, such as Opération Villages Roumains, which formed at the end of 1988, and the Mihai Eminescu Trust, supported by Prince Charles. Valuable work has been conducted by these actors as well as others, and various projects have been developed to study, maintain and promote pre-communist rural heritage, which is commonly described as the last enclave of authentic tradition in the region. However, perhaps due to Ceausescu's communist regime and increased global interest in 'authenticity', studies have tended to overlook the communist rural architecture that preceded his leadership (that is, between 1949 and 1967). In fact, fieldwork in the village of Sancraiu-Almasului revealed that many of the 'traditional' houses were replaced during the first two decades of communism by their owners. The layout of the outbuildings and gardens was in keeping with the traditional design, although the style and size of the houses differed. The rural architecture built during the communist regime (1949–1989) is seen as a gap; however, what if it presents a link between traditional and contemporary houses? My research explores the contribution of this architecture to the discourse of the vernacular.

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Colombia's Social Housing: Modernization and Morality

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The belief that society can be changed through architecture exists at the core of many reform initiatives in the built environment, to which the improvement of the living conditions of the low-income population clearly belongs. The public housing built in Colombia by the state agency Instituto de Crédito Territorial (Institute of Territorial Loans, ICT) from 1939 to 1991 was guided from this same belief.
However, the public housing projects of the ICT also operated as an instrument to foster industrialization and the economy, aiming to achieve the modernization of the country. The goals of public housing in Colombia, as proclaimed by architects, politicians and bureaucrats during this time, were also related to the goal of providing an immaculate and health promoting living environment, where families could lead lives according to the catholic moral code. The work of the ICT is thus characterized by the tensions resulting from the overlapping of interests; defined by the sometimes conflicting discourse of hygiene, morality, and efficiency in the building process.

This study explores to what extent these tensions were spatialized in the projects of public housing built by the ICT between the 1940s and the 1960s, viewed in the broader context of political violence, discrimination, economic inequality and growing flight of the poor to urban centers; all realities during this time.

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Perspectives on Trecento Perspective: Modern and Classical

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A significant part of the history of Trecento perspective concerns perception; external perception, what someone sees from a particular viewpoint as they observe a fresco in a medieval church, and internal perception, what a Franciscan monk living in Italy seven hundred years ago for example might see in a vision, a dream, or while experiencing a mystical experience. The historiography of Trecento perspective follows two parallel paths; the treatment of the subject by classical scholars and its treatment by Modernist artists and architects. The result is two distinct approaches to perspective prior to Alberti; Classical and modern. The Classical approach finds its basis in a line of scholarship originating with Panofsky's Perspective as Symbolic Form. The modern approach has its basis in the travel sketches of early Modernist artists and architects, and a treatise by Mark Rothko written in the late nineteen thirties but only published recently.

Charles-Edouard Jeanneret traveled to Italy in 1907 four years prior to his much more familiar Voyage d'Orient in 1911. His travel sketches include watercolors and pencil drawings of several Trecento frescoes and analyses of Santa Croce, Orsanmichele, and Santa Maria Novella. In 1910 Frank Lloyd Wright lived in Fiesole outside Florence. In 1918 Itten's Preliminary Studio at the Bauhaus included an assignment to study Giotto's Annunciation scene. Four years prior to the Itten color study Panofsky completed his dissertation on Durer. In 1924 he published Perspective as Symbolic Form. In 1923 Le Corbusier published Vers Une Architecture. How these divergent individuals engaged identical works of art at almost the same time in history with different sensibilities and different rhetorical tools will provide the focus of this talk.

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"By Means of Rome": Venturi before Post-Modernism (1944-66)

Rosa Sessa
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In 1948 Robert Venturi undertakes his first European journey. He toured England and France, but it is Italy which captivates the 23-year-old architecture student. While there, even the tone of his letters changes: he writes profusely about his wanderings through Italian cities and towns describing his architectural discoveries, such as the importance of color and decoration in buildings and the relevance of the urban context. In particular, the city of Rome acted as a place for a real architectural "revelation" - as Venturi would later recall - inspiring new questions and suggesting unexpected research topics which he would consistently explore throughout his life. Venturi would return to Italy in 1954, this time as a Rome Prize Fellow at the American Academy in Rome. During his two years spent at the international cultural institution, he travels extensively across Italy, Europe and North Africa, devoting himself to his research on historic architecture of the Mannerist and Baroque period, while also verifying the intuitions of his previous Italian tour.

Starting from archival records, the paper investigates the evolution of the Italian themes in Robert Venturi's early works as a theorist and an architect. The examined period follows his years of formation, from his enrollment at Princeton University in 1944 to the publication of Complexity and Contradiction in Architecture in 1966, here considered as the ultimate achievement of his first twenty years of research on historic architecture. The research sheds light on a lesser-known period of Venturi's life, nevertheless crucial for a deeper understanding of his later works and his engagement in the Post-Modern discourse. The research aims at providing a wider perspective on Venturi's work in order to gain a more complete and less biased insight on one of the most controversial figure of the Twentieth century architectural debate.

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Domestic Space in the Times of Change: The Collapse of the USSR

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How does a dwelling contribute to social change and how does a dwelling transform under the pressure of a social upheaval? This study explores the transformation of dwellings at the time of socio-political rupture related to the collapse of the Soviet Union in 1991. Despite the long term presence of dwellings in the socio-spatial discourse, home is often seen as a secondary space to the production of social change. Unlike urban public spaces, the spatiality and architecture of homes have not received the amount of attention they deserve in the context of this socio-political transformation. Therefore, this study both investigates the role of a home in the creation of the post-Soviet condition, and asks how socio-economic and political change transformed both dwellings and public ideas about the home.

This work relies on archives, popular sources and interviews to track and interpret the socio-spatial and architectural change of dwellings. Field work for this study is primarily performed in two post-Soviet megacities: Kiev and Minsk. Knowledge about homes is organized under four conceptual scales: the scale of a human body; a room and an apartment; an apartment building; its courtyard and its street.
The late Soviet and post-Soviet home is viewed as a combination of forces: the Soviet civilizing project performed through the staged reinvention of housing typology and the dwellers everyday resistance resulting in porous boundaries, fluid choreographies and marginal spatial performances. This study adopts a Lefebvrian view of space as a means of power and hierarchical production, supplementing it with the postcolonial idea of spatial resistance. Instead of adopting a teleological model of transition-the post-Soviet societies being en route to the Western model of democracy and everyday life-this project tracks the patterns of continuity and change that can be observed in the late Soviet and post-Soviet domestic spaces.

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Revealing Lives: Uncovering Servants through Building Analysis

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Domestic service plays an essential role in the history of the upper class in Britain and America. Spatial analysis of country house evolution reveals the majority of changes occur in domestic service areas, attesting to its importance in such large households. Partially motivated by a desire to understand bygone practices, it is a subject that continues to inspire both academic and public enthusiasm. Its relevance indures as we continue to uncover ways that, through its prolificacy, it impacted modern lifestyles. While a large body of work on British country house domestic service exists, no significant research exists on the architectural and social characteristics of domestic service spaces in their American equivalents. Using two case studies (Kiplin Hall, UK and Kingscote, USA), this paper discusses the benefits of a holistic research approach, advocating the primary use of building fabric as a means of understanding how individual houses were used by their "silent inhabitants": diverse populations within country houses whose individual lives went largely undocumented. With this methodology, material culture analysis sets a strong research foundation by uncovering significant evidence for change. Combining this information with historical documents such as census records and household accounts reveals how servants actually used the spaces they inhabited. Many current studies perpetuate an upstairs–downstairs dichotomy by taking a socioeconomic approach, one that inherently separates elements of what was in reality a symbiotic system. In contrast, this evidence-led approach prompts questions that encourage a focus on the dynamics between individual buildings and their inhabitants. In so doing, it provides a model for broader historical studies addressing issues about how architectural structures born of a common nexus were adapted to unique cultural contexts to produce new forms of social and political household relations.

PS24 Graduate Student Lightning Talks R.
Scott Gill, University of Texas at Austin, Graduate Student Representative, GSLT Chair

Distant from Homeland: Urban Imagery in Late Ottoman Travelogues

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From 1850s onwards, Ottomans paid full attention to the modernization and industrialization spearheaded by Western cities. These cities were influential sources of observation and inspiration to co-opt with the modernizing reforms. This motivated increasing number of Ottomans to travel to Europe and write about it. Increasingly outspoken press of the era conveyed travelers' ideas via periodicals or books. Travelogues held an appeal for many (including rulers, Ottoman elite, and commoners) as being instrumental for retaining imperial identity, historicizing and modernization with genuine locality.
In view of that, this ongoing study evaluates Ottoman travelogues written mostly after 1850 focusing on urban and architectural content of them. It is formed as a reading of selected travelogues to expose the mental attitudes of Ottoman literate, their perception of urban and built environment and the role that they attribute to architecture in modernization.

This article is a close inspection of six travel accounts; an early example of an Ottoman travelogue with plans and drawings; a monogram on a European building with a trip plan; travel accounts of prominent journalists, the very first of Ottoman travel guide; as well as an early instance of female authorship: Resimli İngiltere ve Fransa Sefaretname-Seyahatnamesi by Beylikçi Nuri Efendi (1834), Efel Kulesi by Huseyin Galib (1861), Paris'den Londra'ya ve Otel Metropol by Ebuzziya Tevfik (1880), Avrupa'da Ne Gördüm by Ahmet Ihsan Tokgöz (1891), Avrupa Seyahatnamesi by Hayrullah Efendi (1892) and A Turkish Woman's European Impressions by Zeynep Hanım (1906). It draws particular attention to the travel guides' impact on travelers' experience; use of maps, drawings and visuals during the excursions and for the publications; narrations on embarkment and comparisons with the homeland.

PS24 Graduate Student Lightning Talks R.
Scott Gill, University of Texas at Austin, Graduate Student Representative, GSLT Chair

The Colonization of Angola: The Case of the Cela European Settlement

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Since the early 1900 the Portuguese government tried to occupy Angola through agricultural settlements, and for that purpose some survey missions were carried out. It was only in 1928 that this type of colonization was attempted, but the result was a failure.

In the 1950s, the Estado Novo dictatorial regime initiated a new colonization policy. The Cela settlement, one of the large-scale colonization programs sited in Angola, was located in the Amboim Planalto, near Gabela, in South Cuanza, and started its activity in 1952.

The plan of Cela was designed by architect Fernando Batalha. It was composed by 15 connected villages, in a total of 350 houses (each village was composed of around 28 houses and two of the villages were never occupied due to economic issues). For this large operation around 14.000 native families were displaced to give room to the European farmers. Despite the vastness of the land to be plowed, the resort to native work was forbidden until 1963. This operation can be considered an example of "white" settler colonialism and compared with other European models.

The simulation, in Cela, of the habits that the rural population had in the metropolis was intended to welcome the settlers in what seemed to be a strangely familiar environment, despite the huge difference between Northern Portugal and the Angolan Plateau. This was reflected in several aspects, from the names of the villages (homonymous to metropolitan ones) to the housing typologies and aesthetics (single-family houses, reminding some metropolitan models).

Nowadays, Cela has been refurbished and is back to production under an Israeli company which states that the model is a reimplementation of the moshav concept. Is it? Or it is just a way to easily incorporate/use a model put into place during the colonial period by a postcolonial state?

PS25 Colour and Light in Venetian Architecture
Andrew Hopkins, University of L'Aquila, Italy, and Deborah Howard, University of Cambridge, UK, Session Co-Chairs

Animating the Stones of San Marco: Light, Colour, Shimmer, Ritual

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Recent research on Byzantine and Eastern Orthodox sacred space by Alexei Lidov and Bissera Pentcheva, drawing largely on ekphrastic writings, has emphasized how sacred space was generated not only through the physical setting of architecture but also, and perhaps especially, through the ephemeral affects of ritual, natural and artificial lighting and its interaction with the materials and surfaces of interior revetment and furnishings. San Marco in Venice, which Cardinal Bessarion famously referred to as an "alter Byzantium", seems particularly ripe for a comparable analysis given its emulation of Byzantine architecture as well as its traditions of mosaic decoration and marble revetments, and its appropriation of Byzantine stones and liturgical furnishings. Paul Hills has written eloquently about the role of colour and light in San Marco from the standpoint of a broader aesthetic that impacted later Venetian painting. Fabio Barry has also explained the marble pavement's design and perception as an image of the primaeval chaos and the sea, an idea closely related to Paul the Silentiary's ekphrasis of the marble pavement of Hagia Sophia.   This paper explores, by contrast, the ways in which Byzantine aesthetics of lighting and colour are appropriated and adapted within the Venetian context in meaningful ways that spoke to Western European and specifically Venetian rituals within the Ducal Church, as well as to broader constructions of sacred presence in European Christianity. The evidence of the phenomenological experience of San Marco will be brought into relation with inscriptions, iconography and ritual texts to suggest how the stones of San Marco were animated, reinforcing the Western European concept of the Church buildings, described in dedication rites, as the living stones of the institutional church.

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Retrofitting in Venetian Church Architecture: The Proliferation of Thermal Windows in the Post-Tridentine Period

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The post Tridentine period was one of the most productive church building periods in Venice. Over sixty new churches were built between 1550 and 1700. However, the majority of the city's extant ecclesiastic architecture was also renovated, restored and retrofitted during this time. One of the most common features that was retrofitted into such churches were windows, and in particular, thermal windows. Inspired by the Diocletian baths in Rome, thermal windows were first reinterpreted in Venice by Andrea Palladio and used in his churches of San Giorgio Maggiore and the Redentore. The design quickly proliferated throughout the city and was one of the more economic and practical ways that existing churches could conform to the post-Tridentine guidelines that encouraged brightly lit, clean interiors; a problem in particular for the dark, cluttered gothic churches of the city.

This paper looks a range of examples, focusing in particular on the Gothic churches of the Frari, Santi Giovanni e Paolo, Santo Stefano and the Carmini, to demonstrate how this practice manifested itself in individual churches. All four churches were renovated in the early seventeenth century and as part of the work undertaken, thermal windows were inserted into their clerestories and into a number of side chapels as well. While the thermal windows are no longer extant in the Frari and Santi Giovanni e Paolo we have excellent visual documentation which allows us to piece together how they would have looked when in place. This paper looks into the motivations - both spiritual and practical - behind the installation of these windows and why they became so popular in Venice. It argues that – among other features – the insertion of thermal windows were a clear demonstration of how seriously the Venetians took the Counter Reformation.

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Materials, Colours and Architectural Orders of Venetian Façades

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For the inner façades and exterior elevation of the Convent of Santa Maria della Carità in Venice, Andrea Palladio uses two different building materials: Istrian stone and brick. The resulting dichromatic effect highlights the role of the architectural orders in relation to the body of the façade as a whole. This attention to chromatic features will come to characterise the last part of the architect's work in particular (e.g. Portico del Capitaniato in Vicenza). Dichromatic façades, however, are also a traditional feature of Venetian palaces, where elements of Istrian stone are often placed on top of brick surfaces that then are plastered with the "regalzier" technique. It is Sebastiano Serlio that first realises the many possibilities of this construction technique: he updates and adapts it to the language of architectural orders so as to underline and show the distinction and contrast between the "flesh" and "bone" of the building ("La carne della fabbrica e [...] le ossa che la sostengono": Quarto Libro, 1537). The façade of Ca'Corner Mocenigo in Campo San Polo, built by Michele Sanmicheli beginning from 1551, is one of the clearest examples of this versatility of colours in expressing the role of the architectural orders in a monumental façades. The purpose of this paper is to revisit the role of building materials and their colour in the design of Venetian palaces' façades, in the transition from the Middle Ages to the Renaissance, and to investigate the relationship between this Venetian tradition and the new language of architectural orders.

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The Manipulation of the "lume terminato" in Venetian Palaces of the Seicento

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A chapter of Vincenzo Scamozzi's "Idea dell'architettura universale" (Venice 1615) is dedicated to the different qualities of light and their use in architecture. Scamozzi distinguishes between the "lume vivo perpendicolare" and several types of "lume orizzontale", -stating that Venice is the city of the "lume terminato"-, and lists several recommendations for the orientation and the planimetric and volumetric organisation of private palaces. The paper does not investigate either Scamozzi's theoretical approach or his buildings, but his classification of the intensity of light is useful for specifying the characteristics of Venetian light and to investigate the attitude of local architects in respect of that specificity. The "lume terminato" doesn't express in itself a positive quality, but its manipulation can lead to results that enhance its potential.

The paper will focus on Venetian private palaces of the 17th century and propose a comparative study of some main halls (porteghi) and their relationship with the adjacent rooms and the outside. Traditionally the portego runs through the entire depth of the building, culminating in a tight sequence of openings. This loggia on the water, which could be called the bright core of the building, has a dual function: it introduces light and opens the view, as a kind of proscenium, on the urban setting. The interaction or even the continuity between inside and outside is based on the staging of light and on the influence of light on building materials. Among the phenomena that should be analysed are, for instance, the effects of the coloured reflections of water on the walls and the shining terrazzo floors that, rather then imitating marble as Scamozzi states, demonstrate analogies with a water surface.

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Towards the Light and the City: The Orientation of Churches in Venice

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The orientation of church building has aroused new interest among scholars of medieval architecture and archaeologists. Focusing on the early Christian churches of Rome, they have pointed out various factors to explain remarkable deviations from the eastward alignment: pre-existing sepulchral monuments and buildings; the road networks; the liturgy, including the prayer direction; and lighting.

Venice constitutes an intriguing case study to address the question from a different perspective, for the city did not pre-exist but developed hand in hand with the foundation of churches. By mentioning the decree to celebrate in the eastern part of the church among the attainments of Pope Vigilius in the 6th century, Doge Andrea Dandolo's Chronica extensa suggests that the apse towards the East was an accepted norm in Venice. To what extent did the early churches of Venice follow the papal order? What were the reasons for departing from the rule?

Since the 14th century a number of churches founded before the 13th century were rebuilt and re-aligned to different directions. If this can be connected with a decline of orientation due to changes in the liturgy and the growing supremacy of urban design in Italy and throughout the Christian West, what were the specific aims, principles and conditionings behind the new alignments in Venice?
In the following centuries the scarcity of light seems to have been one of the major concerns leading to the transformation and renovation of Venice's sacred buildings. Were there any attempts at maintaining the 'spatial axis of light' toward the main altar, whose importance was reinstated in the post-Tridentine era? The architecture of the new churches of the Redentore and the Salute, two final touches to an already accomplished and celebrated city, will also be assessed within this broad scenario.

PS26 Publicly Postmodern: Government Agency and 1980s Architecture
Karen Burns, University of Melbourne, Australia, and Paul Walker, University of Melbourne, Australia, Session Co-Chairs

Publicly Postmodern in Chicago: The State of Illinois Center

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Commissioned by the Governor of Illinois, Helmut Jahn's controversial State of Illinois Center (1985) was an audacious attempt to reinvent the typology of the government building via Postmodern techniques of mimicry, abstraction, enlargement and fragmentation. While the curved façade and colored spandrels were startling enough in Chicago, a city dominated by Miesian modernism, it was the 17-story, glass and steel-framed atrium that received most attention. With references to the rotunda of neo-classical civic buildings (notably Henry Ives Cobb's demolished Federal Building of 1906), and to the intersecting platonic forms and constructivist aesthetic of Tatlin's Tower, the intent was to express and enable a new era of openness and transparency in the workings of the notoriously corrupt State government. Once completed, the Center was subject to an anguished debate about the possibility of governmental architecture in an urban landscape and culture dominated by commerce. Stanley Tigerman identified a source of unease in the, "mixed-use concept for a public building in which civic functions are blended with a Western-style capitalistic retail presence." Others believed the decorative aesthetic mirrored the worst aspects of popular culture, debasing the lofty goals of government. Harry Weese called the Center, "tinselly and decadent – a goldfish bowl that symbolizes the fragility of our society." Focusing on the intentions of the architects and their client, as well as the reception of the building by critics and users, this paper will examine the State of Illinois Center in relation to two contexts: the challenge the building presented to Chicago's modernist and largely business-oriented architectural and urban heritage; and aspirations for new forms of public building and public space in during the Postmodern era. In doing so this paper will present a counter-example to received ideas about the Postmodern agenda in the United States.

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Postmodern Architecture in the Land of the Patriarchs: Architecture, Religion, Politics

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Shortly after Israel conquered the West Bank in the Six-Day War, a group of rightists Israelis attempted to settle in the heart of the Palestinian town of Hebron, where, allegedly, the biblical Patriarchs and Matriarchs - Abraham, Isaac, Jacob, Sarah, Rebekah, and Leah - are buried. Inspired by the city's monumental history and its landscape of vaulted domes, tall minarets, and thick stone walls, they envisioned themselves re-inhabiting a pristine biblical landscape. Quickly, however, the Ministry of Housing assigned a team of architects to house the settlers in Upper Hebron, a new neighborhood overlooking the old city. Against the settlers' orientalist plans, the architects crafted a modernist neighborhood of multistory apartment buildings. It didn't take long before the prefabricated houses and anonymous streets of the new neighborhood, that came to be known as Kiryat Arba, became a site of contestation. Eager to inhabit a more ancestral look-alike landscape, near the Tomb of the Patriarchs, settlers blocked roads, squatted in the old city, and began drafting their own architectural plans. By the 1980s, the settlers struggle proved successful as, under their supervision, architects working for the Ministry of Housing began designing residential complexes dotted with arcs, domes, and traditional Arabic window screens, geared exclusively for settlers, in the heart of Hebron.

Focusing on two housing projects commissioned by the Ministry of Housing, one from 1972 and the other from 1986, this paper elaborates on the shift from modernist to vernacular architecture in the Jewish settlement in Hebron. Narrating the heated design debates that accompanied this transition, it also points at the competing political and theological claims voiced by government officials, architects, and settler activists. By doing so, this paper shows how a peculiar species of postmodernist architecture was forged out of the coupling of messianic zeal with an expansionist government policy.

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Defining Reform: Postmodernism in Post-Maoist China

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The death of Chairman Mao Zedong in September 1976 ushered in an unprecedented series of far-reaching economic and political reforms in China—reforms actively conditioned by architectural form, theory, as well as practice. Of particular, if somewhat ambiguous, significance was the term "postmodernism," which comprised an assemblage of aesthetic theories and physical forms introduced to China via the country's architectural elite from abroad. This paper explores the term's initial instrumentalization by the state in an effort to both explicate and rationalize China's dramatic turn away from Maoist-era economic policy.

Charles Jencks and Fredric Jameson were two key figures in the initial theorization of postmodernism in the United States, Europe, as well as China, and they warrant particular attention here. It was Jencks, for example, who introduced the term to a room of Party-affiliated architectural elite at Qinghua University as part of a 1979 tour to Beijing. Six years later, in 1985, Jameson spent a semester at Beijing University delivering his own theorizations of a uniquely postmodern cultural logic to audience halls of Chinese students.

Based on archival research and interviews with practitioners and academics, including both Jencks and Jameson, the paper attends specifically to the ways in which the historical and cultural disjunctions at work in postmodern theory were embraced by Chinese architects as well as officials eager to both reengage with a Chinese architectural past nearly erased by the horrors of the Cultural Revolution and shrink the profound developmental and discursive gap existing between China's architectural community and the United States, Europe, and Japan at the time. This work looks specifically at the etymological sources for and subsequent iterations of multiple, distinctive "postmodernisms" by a Chinese architectural establishment still coming to terms with the profound failures of Maoist-era governance yet uncertain of its alternatives.

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Dissolving Monumentality: Schultes and Frank's Berlin Chancellery Building

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This paper examines a crucial government project—Axel Schultes and Charlotte Frank's Federal Chancellery Building in Berlin—completed in the waning years of postmodernism's trajectory, but no less emblematic for that fact. After the fall of the Berlin Wall in 1989 and Germany's decision to return to Berlin after years of retreat in Bonn, the government sought to define a new image for itself through the architecture of its past and future capital. A yearning for a return to tradition infused the series of government competitions held to determine the master plan and individual buildings of the federal district, and the results show the government's attempt to discover a simultaneously light and monumental architectural idiom.

This typically postmodern monumentality is most apparent in the proposals submitted to the Chancellery competition held in 1994. O. M. Ungers's colonnaded design won third prize, while the firm KSV placed second with a proposal that jurors deemed indisputably classical. Yet Schultes and Frank seemed to have struck the balance between continuing the rhetoric of modest transparency established in Bonn and offering a new architectural confidence to the reunified nation. Their design, a nine-story, partially transparent cube flanked by lower wings, was intended to elicit "sympathy at the first glance," as the architects stated. Its forbears are the pastoral government buildings designed at the beginning of the postmodern turn for developing nations, like Le Corbusier's designs for Chandigarh or Louis Kahn's National Assembly in Dhaka, as well as Romaldo Giurgola's high postmodern New Parliament House in Canberra. By using this mode of monumentality, I argue, the German government intentionally and explicitly aligns itself with the political liberalization of postcolonial capitals. Yet implicitly, it also aligns itself with economic neoliberalization; this dissolved monumentality powerfully evokes the elimination of barriers fundamental to Germany's new role in the global economy.

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Karen Burns, University of Melbourne, Australia, and Paul Walker, University of Melbourne, Australia, Session Co-Chairs

Experiencing Democracy: Post-Modernism as Public Expression

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In Portugal, post-modernism is the public expression of the democracy that followed the 25th April of 1974 Revolution. It captures the moment when Portugal aims to reinvent itself, no longer the centre of an empire, but a small country with a lot to prove. In fact, throughout the eighties, post-modernism is the expression of a new emerging municipality power: a large number of schools, cultural centres, fire stations, libraries, are made in the post-modern fashion.

The epitome of that is the Matosinhos Town Hall by Porto's architect Alcino Soutinho; and in Lisbon, the Casa dos Bicos intervention by Manuel Vicente/Santa Rita, which is part of the official state programme of the 17th Council of Europe Art, Science and Culture Exhibition. These two public buildings are the figureheads of hundreds of designs and buildings all across the country. In magazines, catalogues, booklets of that time we can find a stream of plastically incorrect, hybrid architectures, that are not a reflexion of market values but of the will to transport architecture to the public arena and experience democracy with them.

This paper aims to do a survey on these long forgotten examples of very crude, in-your-face designs and buildings, an completely unchartered and unloved territory, even though they mean, almost in a cathartic way, the experiencing of democracy through architecture. Be it by the way of neo-vernacular collages, twisted classicisms, incongruous fragmentation, pop bright colours, fake monumental status, zoomorphic references, cartoon-like architectures.

These designs and buildings are children of the 1974 Revolution, not really of the market forces. Even thought they also mean a distancing of militant political approaches in favour of a mundane enjoyment of everyday life circumstances.

Architecture is less neutral vessel and becomes a trial, an ultimate experience as a wild expression of a new born democratic regime.

PS27 Culture, Leisure and the Post-War City: Renewal and Identity
Alistair Fair, University of Edinburgh, UK, Session Chair

Flumes and Verrucas: A Short History of the Early Years of the British Leisure Centre

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The leisure centres built from the late sixties and through the seventies are an unexplored building typology in the British urban landscape. They are nevertheless a highly suggestive source, as they articulated many of the widespread aspirations for Britain as an affluent society in an age of economic optimism. The leisure centre shifted the focus of the welfare state's provision of amenities away from more traditional issues of hygiene or fitness, towards more nebulous concepts of happiness, free time and even glamour. Early schemes for leisure centres have a surprising grandiosity of intention, often 'containing ballroom, disco, ice rink, bowling alley, restaurants and bars' - along with globular pools which would bring some of the lifestyle of the Costa del Sol and California to Swindon and Sunderland, where the swimmer would be 'surrounded by palm trees and deck chairs and waiters'. Modernist technologies and tensile structures would shelter the user from an inclement British climate – an inward looking space within, but providing escape from, the surrounding city. Although accessibility questions were often to the fore in the placing of leisure centres within the urban fabric, they were seen as fulfilling a fundamental role in the civic life of a community, providing some of the functions of more traditional building types; according to one commentator they had 'taken on a social significance which had previously been associated with the parish church or local hall. They have become an object of community identity.'

The paper will show that the leisure centre grew out of a widespread discourse that leisure was a new and pressing political problem. It will also discuss the largely forgotten architectural firm Gillinson, Barnett and Partners, who specialised in leisure centres, but were unexpectedly cerebral in their approach.

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Regenerating North London: Cedric Price's Interaction Centre

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In 1979, Prince Charles paid a visit to the Interaction Centre in North London, UK's first purpose-built community arts centre designed by British architect Cedric Price and one of his few materialized buildings. The visit was tailored so as to demonstrate the Crown's social commitment for the regeneration of depressed neighbourhoods. Although Prince Charles described the Interaction Centre as 'another prefabricated building'-anticipating his famous statements against contemporary architecture-, he praised the role of the initiative in transforming a derelict urban area by means of community and council involvement. The Interaction Centre was part of an ongoing cultural project promoted by the Inter-Action Trust, a charity organization founded by American-born activist Edward David Berman in 1968. Berman reclaimed the use of an abandoned bombed land owned by the Camden Council. After years of negotiations between the Council and the Inter-Action Trust and an important fundraising campaign, the land was leased in 1976 to start the project. A building rarely discussed before, the Interaction Centre and its urban implications are reviewed in this paper based on material from Cedric Price's Archive - kept at the Canadian Centre for Architecture in Montreal - and interviews with Berman. The research explores the Interaction Centre from three perspectives. First, it addresses the social and political context of the urban area as well as the involvement of the Camden Council in promoting this pioneering initiative. Second, a thorough analysis of the building is undertaken to determine whether its potential for adaptability and functional multiplicity might have operated as a catalyst for urban and community regeneration. Finally, a closer look to the current state of the area after the demolition of the building in 2003 aims to discuss the extent to which the Interaction Centre was seminal to define the present identity of the neighbourhood.

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Le Corbusier, City Elites, and Civic Culture in Ahmedabad, India

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In March, 1951, M.B. Kadri, the Chairman of the Recreational and Cultural Committee of the Ahmedabad Municipal Corporation invited Le Corbusier to design a new civic museum for the city. As Le Corbusier met with city officials and viewed the site, the project expanded into a fully-fledged cultural center, including the museum, a library, conference hall, two theaters, and craft workshops. By summer, Le Corbusier was touting the project at CIAM's eighth meeting at Hoddesdon, England, which focused on modern planning strategies to revitalize the cores of cities. Despite this initial burst of enthusiasm, the project was only partially carried out, and the site never became the thriving cultural center that client and architect imagined in 1951.

This paper will trace the fraught history of Ahmedabad's cultural center to draw out the layered debates about civic culture in postcolonial cities like Ahmedabad in the first years of their independence. Based on archival and onsite research, it will show how Le Corbusier attempted to overlay his own ideas about universal modern culture onto an already entrenched local debate about the role of cultural institutions in a decolonizing urban context. For the elite cadre of industrialists who controlled Ahmedabad's government and backed the project, cultural institutions introduced during the British Empire, particularly museums, were tainted by their colonial legacy. Nevertheless they were necessary to elevate Ahmedabad in an imagined cosmopolitan competition with other cities in India and the West. Thus, Ahmedabad's elites sought to recast the cultural institutions associated with colonialism as postcolonial spaces to forge an independent, modern civic culture and to shape an educated citizenry to partake in it. Yet, ruptures soon emerged between client, architect, and citizen as they attempted to move from generalities to a specific vision of modern civic culture in Ahmedabad.

PS27 Culture, Leisure and the Post-War City: Renewal and Identity
Alistair Fair, University of Edinburgh, UK, Session Chair

The Third Zone: Designing a Cultural Center for Ivry-sur-Seine (1962-1986)

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Marxist attitudes toward social change and historical action dominated the conversation within the French Left since 1945, and played a major role in shaping political and cultural debates. However, these shared language and ideals also had a concrete effect on the built environment: they allowed architects to collaborate with communist civil servants, and to agree on "the city" as a common project representing both a means of utopian thinking, and a unit of governance and design. Because the most effective field of action for French communism was the municipal level of government, these architects helped to program midsized cities around a particular communistic lifestyle, and to assert the Party's centrality in France's post-war cultural life.

This paper addresses the masterplan that Renée Gailhoustet and Jean Renaudie designed for the downtown urban renewal of Ivry-sur-Seine, one of the bastions of the Parisian Red Belt. Envisioned to modernize a decaying urban fabric, the project translated concerns to combine, on a tridimensional level, constituent elements of the city. Reinforced-concrete housing towers and mixed-use megastructures, linked by pyramid-like complexes fanning outward in abundantly planted terraces, blurred the boundaries between public and private. Responding to Roland Leroy's 1972 book La culture au présent, which proclaimed access to culture as a means for workers to join the struggle for social and political change, the whole was structured around its "third zone": a cultural center. Consisting of apartments intertwined with retail spaces, workshops, an indoor public market, a library, a transforming theater, the cultural ensemble, along with a Resistance Museum, were never built. Their dismissal epitomized challenges the project faced from the mid-1970s onwards, when the problem of representation of the working-class created a scission between communist architects and leaders. Anticipating claims for participation and self-management, it lasted almost 25 years, spanning either side of May '68.

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Alistair Fair, University of Edinburgh, UK, Session Chair

Museum Politics and the City: Karlsruhe and Frankfurt 1980/90

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Strongly connected with political efforts to stimulate urbanity, the bicentennial history of German museums shows varied concepts and parties involved. The paper draws an existing but to date not examined line between two outstanding museums projects, serving as examples for the museum's general role of conveying identity in the post-war era.

The Badische Kunsthalle, erected 1848 during the first "Gründerzeit" of museums in Karlsruhe, the capital of the duchy of Baden, was after the destructions of WWII not renewed by the government of Baden-Württemberg until 1990. On the other hand, the Museumsufer Frankfurt with eight new museum buildings commissioned by the municipality between 1979 and 1988 highlights the second "Gründerzeit" of museums. Considering that Frankfurt has never been a residence city, but in the post-war era evolved as a financial marketplace mocked as "Bankfurt", Kulturdezernent Hilmar Hoffmann aimed to accelerate the cultural improvement of the city. At Karlsruhe however, no longer being a capital, the museum represented by its directors claimed responsibility for a new building while insisting on Karlsruhe's threatened status as a cultural metropolis.

This paper will compare both the museum projects by highlighting their political backgrounds, their architecture, as well as their importance for the development of cultural metropolises around 1980, using an extensive and diverse array of primary sources including concepts like the „Nutzungsanforderung für den Wiederaufbau der Kunsthalle Karlsruhe" (1974) or the „Entwurf für einen Museumsentwicklungsplan in Frankfurt" (1979), as well as architectural plans, jury commissions, correspondence and photographs from archives in Frankfurt, Stuttgart, and Karlsruhe.

These sources illuminate how the planning, construction and work of the museums are related inextricably to the cultural and the political purposes of their owners and how this interdependency essentially shaped the way museums conveyed identity in the post war city.

PS28 On Style
Mari Hvattum, Oslo School of Architecture and Design, Norway, Session Chair

Style Debates in 1920s German Architectural Discourse

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In spite of the negative connotations 'style' has in contemporary architectural discourse, there was no consensus on the meaning or value of the concept amongst architects and critics in 1920s Germany. Although style was a dirty word for some like Hermann Muthesius, it was the pinnacle of achievement for others like Walter Curt Behrendt. This division was partly due to conceptual confusion between 'the styles' and 'style' but also was a legacy of Gottfried Semper's attempt to elevate the discussion of style from historicist debates to consideration of the artistic intent that results in an aesthetic system.

By the 1920s, many leading thinkers like Hans Poelzig, equated style with fashion, which was seen as fleeting, superficial, and therefore irrelevant (even though being fleeting was also considered a positive attribute of modernism); for others like Bruno Taut style represented a historicist approach to design that considers the surface of architecture instead of the space; for still other architects like Erich Mendelsohn, style was a quasi-mystical concept that embodies the Zeitgeist, "the strong spirit that means style for us," and therefore exceedingly difficult to achieve but still the ultimate goal for architectural aesthetics; and for others like Mies van der Rohe, style was problematic both because it suggests conformity, rather than originality, and appearance rather than essence. None of this complexity prevented the hope that the 'new world' ushered in by the end of the First World War would lead to a new 'style,' as Behrendt's 1928 declaration of the 'Victory of the New Building Style' attests. This paper will explore the multivalent aspects of 1920s German debates on style in order to better understand the nuanced meanings of the term in contemporary discourse.

PS28 On Style
Mari Hvattum, Oslo School of Architecture and Design, Norway, Session Chair

Egypt, Rome, and the Dynamics of Stylistic Transformation at the Hôtel de Beauharnais

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The Style Empire offers a unique laboratory to study the dynamics of stylistic transformation. It represents a particular moment in the history of Greek, Roman, and Egyptian forms, since it is the last attempt to create a new French court style, devised consciously, like the court ceremonial Napoleon reinstated, as a successor to the styles of the Bourbons. At the same time it is a revival of Greek and Roman forms, but renewed by the discovery of Herculaneum and Pompei, Napoleon's Egyptian expedition, and nourished by Piranesi's widening of the range of classical forms to include Etruscan, Republican Roman or Egyptian forms. Also, it announces 19th-century neo-styles and eclecticism in its systematic combination of design styles and forms from different periods and places, both European and non-European, in one object, building or interior.

The Hôtel de Beauharnais in Paris (Germain Boffrand 1713; redecorated by Laurent-Edmé Bataille 1803-6) is the laboratory chosen here to study the poetics of eclecticism at work in this style. It presents a complete break with 18th-century design concepts based on caractère and convenance, and offers instead a series of immersive experiences to the visitor in which the portico, statues, chimney pieces, obelisk and chandeliers all make present, in all their historical layeredness, an ideal absent past. The principles at work here can best be understood, it will be argued, in terms of the innovative eclecticism developed in the cosmopolitan context of Alexandria in the Hellenistic era.

PS28 On Style
Mari Hvattum, Oslo School of Architecture and Design, Norway, Session Chair

The Birth of Architectural History Out of Stylistic Critique?: Paul Frankl and the Principles

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In 1914 Paul Frankl published his thesis The Principles of Architectural History where he introduced a specific history of architecture. The method of his choice was stylistic critique as a description of the medium specific aspects of architecture, in order to distill the driving forces of historic change below a history of proper names (Vasari) or of building types.

Frankl develops his narrative from post-medieval architecture, since he believes that the continuity of its formal vocabulary since Brunelleschi up to the 19th century allow for a comparative approach. This speaks of Frankl's indebtedness to Wölfflin, yet in difference to the latter's broader principles relating to all the fine arts, the book of Frankl is one of the first publications exclusively analyzing architecture in an academic historic manner, i.e. with the methodical apparatus and theoretical models developed out of art history and philosophy, – in difference to history written by theorizing architects, conservators, amateurs and connoisseurs. Therefore Frankl felt the need to define a set of categories specific for a description, analysis and critic of architecture as an autonomous form of art, separating it from painting and sculpture, but also from the text-based discipline of history, which in turn allows his study on a single field of architectural history to be read as an exemplification of a general theoretical approach – and for the contemporary historian as an exemplification of scientific thinking and writing on architectural history of the early 20th century, as part of modernist epistemology.

This paper will deliver a close reading of the argument on style and a comparative analysis to his influential peers such as Heinrich Wöllflin and August Schmarsow, in order to discuss the insights and shortfalls of this approach as well as its offspring up to this very day.

PS28 On Style
Mari Hvattum, Oslo School of Architecture and Design, Norway, Session Chair

On Experience of Gothic Style

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Johann Wolfgang von Goethe's fears of encountering a 'mis-shapen, curly-bristled monster' turned into sublime admiration when he finally stood before the Strasbourg Cathedral: 'My soul was suffused with a feeling of immense grandeur.' His famous account of the Gothic cathedral in 'Von deutscher Baukunst' (1772) unveils a contradiction between expectation and experience of the Gothic. In his text Goethe exposes the process of reconciling his initial preconceptions about the Gothic style with the actual disturbing, impressive sight of the building. Only through repeated visits Goethe came to transform his prejudices of the Gothic, and his intimidation with the actual sight of the cathedral.

Goethe was not alone in his contradictory feelings. Other eighteenth-century accounts are also testimonies of the divergence between negative preconceptions about the Gothic style and the actual positive experience of Gothic buildings. Goethe presented a historicist solution, but many eighteenth-century architects did otherwise. The French architect Jacques-Germain Soufflot, when analysing the church of Notre Dame in Paris through his own movements, proposed, in an a-historical gesture, to disregard 'entirely the chimerical and bizarre ornaments of the Goths', while focussing on the church's spatial qualities.

My paper argues that we can only understand this turnaround of judgement of the Gothic style if we study it from the point of view of the observer of these buildings. This turnaround precisely happened through experience, which allowed eighteenth-century architects to find solutions for their conflicting feelings. By moving through the buildings they came to understand the idiosyncrasies of the Gothic, from its ornamentation to its spatiality. Starting from Soufflot's lecture 'Mémoire sur l'architecture gotique' (1742), my paper will analyse similar experiences of eighteenth-century architects who proposed, instead of Goethe's historicization, to focus on the a-historical aspects of the Gothic. It thus aims to unveil the complexity of the workings of style.

PS28 On Style
Mari Hvattum, Oslo School of Architecture and Design, Norway, Session Chair

Style-Theory as Inquiry on the Creative Act

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The redefinition of the concept of style in the nineteenth century - a broad theoretical "foundationalist" inquiry central to the era's architectural preoccupations - reflected the desire to understand the cultural and material mechanism through which "authentic" architectures were born. It focused upon the artistic unity within a given historical period not as some abstract speculation on ideal form but as a fascination on the constitutive formation of artistic cultures: not what makes an architecture beautiful, but what makes it authentic and living. It was such search for "authenticity" that paradoxically motivated the turn to "historical" styles-that generated the phenomenon of "revivalism."

Focusing mostly upon the theoretical work of French architect Eugène-Emmanuel Viollet-le-Duc (1814-1879) as a case-study - but not excluding references to the work of Owen Jones and Gottfried Semper - I will explore how "style-theory" was a search to understand the profound nature of the creative act itself, how it sought to grapple with humanity's very "shaping power." Using the insights of German philosopher Hans Blumenberg as a guide, I will seek to seize the promethean impulse basic to nineteenth-century inquiry on style underscoring its more imaginative and less reflective form of motivation, be it myth, faith or passion.

PS29 The Politics of Memory, Territory, and Heritage in Iraq and Syria
Wendy Shaw, Free University of Berlin, Germany, and Ethel Sara Wolper, University of New Hampshire, Session Co-Chairs

Memory and the Question of Style in Iraq

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Iraq has witnessed many critical situations and serious challenges since its establishment as a monarchy in 1921. In response to such tragic events as regime changes, wars, and terrorist attacks, many Iraqi artists and architects have produced art that focuses on Iraqi's cultural heritage. Since the 1960's, they have used this rich history and culture to inspire the Iraqi people, incorporating certain symbols with what they see as moral, patriotic, and heroic messages as a way to develop an idealized Iraqi contemporary style that encourages Iraqis to face their challenges.

As means of political propaganda, Iraqi rulers have focused on new monuments rather than conserving the old built environment. Their dismissal of past monuments has created a huge challenge for Iraqi artists and architects who value the old built environment as a keystone for reconnecting the past, present, and future.

This paper classifies the main contemporary ways of dealing with cultural heritage and memory in Iraq according to the successive different governments that ruled Iraq since 1921. In addressing the formation of an Iraqi style while preserving Iraqi cultural heritage, it provides an analysis of some examples of Iraqi artists' and architects' works through different political epochs.

PS29 The Politics of Memory, Territory, and Heritage in Iraq and Syria
Wendy Shaw, Free University of Berlin, Germany, and Ethel Sara Wolper, University of New Hampshire, Session Co-Chairs

Urban Memory and Preservation in Kuwait

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The demolition of the old Kuwait city along the lines of a new master plan for transportation and land use transformed the meaning of urban space in Kuwait between the late 1940s and the 1980s. Much of this transformation was informed through the ideas of important international designers who worked with local firms to produce local examples of universal modernist architecture.

Today, rising land values in downtown Kuwait city have caused shifts from residential to commercial usage, at times resulting in further demolition. Forty years after their construction many modern structures simply deteriorate or are replaced by high-rise structures. This situation has spurred the architectural preservation community to enhance research and preserve memory images of the city's historical past, both through the low-rise traditional buildings of the early 20th century and in mid-to-late 20th century modernization.

In their book, Modern Architecture Kuwait 1949-1989, Fabbri, Saragoca and Camacho pose the question; "How was architecture practiced in the absence of historical heritage, major local architectural references... or a strong urban footprint?" Among the planners, Alison and Peter Smithson, who came to Kuwait in 1968, advocated for buildings that could help to define a national identity which would differentiate Kuwait from other Arab cities while combining Arab urban tradition and contemporary design.

This paper shows how features of traditional Arabic architecture were reintroduced into the city center in a case study of a mixed-use structure built during the late 1970s for which the author was project architect while at The Architects Collaborative (TAC). Damaged during the 1990 invasion and subsequently repaired, the project's outward appearance remains a visual link with the medieval residential setting of Kuwait's pre-oil years while also reflecting the economic boom of the 1970s.

PS29 The Politics of Memory, Territory, and Heritage in Iraq and Syria
Wendy Shaw, Free University of Berlin, Germany, and Ethel Sara Wolper, University of New Hampshire, Session Co-Chairs

Environmental Issues and Urban Heritage: Ecochard in Damascus

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In Islamic societies from the Maghreb to the Middle East, the idea of heritage emerged recently without any necessary link with the idea of conservation, with which it has been frequently associated in the West. Instead, heritage, conceived as something inherited from the past, is continuously used and re-used for the new needs and habits of the users. The idea that heritage is convertible derives from the idea that the city itself is subject to endogenous self-regeneration processes.

Through the reading of the Plan Directeur de Damas, drafted by Michel Ecochard and GyojiBanshoya between 1964 and 1968, this paper examines how heritage assessments must be preceded by the evaluation of environmental frameworks. Upon his arrival in Damascus in 1930, Ecochard had worked for the Syrian Archaeology Service with Jean Sauvaget, who contributedto Ecochard's awareness of the city as a superimposition of historic urban layerings (Hellenistic, Roman, Islamic). Preparing the 1936 and the 1968 masterplans, Ecochard, therefore, turned his attention towards the elements that have guaranteed the survival and the prosperity of the city throughout the centuries: its environmental and ecological framework. Framed by first and last chapters entitled, "Environnement," and "La ville ancienne," the Rapport Justificatif attached to his plan reflects this approach.

Recognizing the continuity of the 1968 Ecochard's masterplan of Damascus to the present, this paper examines how and in what terms the environmental framework of production - in the case of Damascus, the larger Bargada oasis – has played a role in reinterpreting the so-called Islamic city for the present. To what extent does environment, in addition to and perhaps more than the more frequently valorized - and contested - issue of heritage, inform urban planning in Damascus?

PS29 The Politics of Memory, Territory, and Heritage in Iraq and Syria
Wendy Shaw, Free University of Berlin, Germany, and Ethel Sara Wolper, University of New Hampshire, Session Co-Chairs

De-Centralization of The Power: Historic Preservation in Turkey (1951-1983)

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In order to understand how 'heritage' operates in a society, it is essential to analyze who defines the 'heritage' for whom, when and in which conditions. One of the most important transformations of Turkey -in terms of defining and managing heritage- has been the establishment of 'the High Council for the Historical Real Estate and Monuments' in 1951. The High Council (HC) has been formulated as an autonomous public body to make decisions about all historic structures and sites in Turkey. During its 30-years life span, the HC has defined and managed the heritage within a politically and economically unstable state in the midst of rapid urbanization, industrialization, and immigration. The council has ambitiously enlisted buildings into the national registry system and introduced the term 'conservation site' through legislative changes enacted in 1973. It has created building categories for old structures depending on the level of intervention they may need. These categories include both monumental buildings and residential architecture.

This paper explores how the HC set up heritage-related policies in Turkey and why not all of these policies worked. It chronicles the pitfalls of decision-making processes in a central organization and addresses why the central authority was replaced by local groups. While the HP was not perfect, in an era where conservation had long stood as an obstacle for urban development, it facilitated raising consciousness of the management of cultural heritage and aligned concerns about cultural heritage with international developments. However, because of its powerful central decision-making mechanisms, there were significant problems with decisions of the HC. In many cases, HP has been inconsistent, making different decisions for similar material/structural problems. As importantly, with lack of local support, many of their decisions on heritage sites were proven to be inapplicable.

PS30 Architecture and Carbon
Jason Nguyen, Harvard University, and Marrikka Trotter, Harvard University, Session Co-Chairs

Carbon-Sink Cities: Wolf Hilbertz, Biorock and Autopia Ampere

Paul Dobraszczyk
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Despite the obvious value of carbon-neutral buildings, sustainable architecture is very rarely discussed in terms of how a building is actually made - hardly surprising given that the materials used for buildings – timber, stone, brick, iron, steel, concrete and plastic – involve subtracting from nature. Unless we return to living in structures provided by nature – the caves of our distant ancestors – can architecture and cities ever be made without destroying some part of the natural world?

This paper uses the work of architect Wolf Hilbertz (1938-2007) to think through how such a non-subtractive architecture might be created. Focusing on Hilbertz's development of Biorock in the 1970s - minerals grown in saline water by means of a wire-mesh supporting a low-voltage electric current - this paper considers the implications such a process might have on conceptions of sustainability in architecture. Not only does Biorock create structures that adapt to otherwise hostile environmental conditions, it also acts as sink for carbon dioxide. Widely used to repair coral reefs damaged by rising sea temperatures, Hilbertz also proposed the creation of entire cities that would literally grow out of the sea, demonstrated in his Autopia Ampere project, begun in 1970.

Reevaluating the work of Hilbertz reflects a profound change in how humanity now regards its relationship with nature. In a globalized world, there is no nature that is not already a product of an interaction between humans and the world in which they live. This realisation – and the coining of the term 'Anthropocene' to describe it – not only changes how we might think of our buildings and our cities; it actually demands that we do so at the most fundamental level, that is, how we source or produce materials and how we combine those materials to make buildings.

PS30 Architecture and Carbon
Jason Nguyen, Harvard University, and Marrikka Trotter, Harvard University, Session Co-Chairs

Architecture, Agriculture and Microbiology in Mexico: The Origins of the Rockefeller Foundation's Green Revolution, 1940-1964

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Between 1940 and 1964, the Rockefeller Foundation conducted a series of agrilogistic experiments in Mexico, using architecture, agriculture and microbiology as its primary tools. The aim: to reformulate the arrangement of carbon chains and proteins comprising both humans and their food sources, in the service of a more perfect, productive, utopian future. While researchers at Cal-Tech and Rockefeller University, funded by the Rockefeller Foundation, pursued new ways to transform human bodies at the molecular level through the emerging science of microbiology, their Foundation supported counterparts at the Autonomous University of Mexico at Chapingo applied knowledge of this new science to the transformation of seeds, soil conditioners and fertilizers. Pairing high profile genetics research with crop yield laboratories in Chapingo, Mexico, designed by Augusto H. Alvarez, as well as the more modest agricultural architecture-or agritecture-of grain silos and harvesting facilities, the Rockefeller Foundation first fostered the techno-scientific criteria and practice of the global industrialization of agriculture we now call the Green Revolution. Through a close reading of the Mexican Agriculture Project's first research, testing and educational facilities, known as "El Horno," (The Oven), in Chapingo, this paper asks how experiments to create universal, homogenous, high yield grains, echoing Mexican theories of race which championed human hybridity, informed the architecture at the origins of the Rockefeller Foundation's Green Revolution.

PS30 Architecture and Carbon
Jason Nguyen, Harvard University, and Marrikka Trotter, Harvard University, Session Co-Chairs

Architecture and Carbon Economies in the Victorian Age

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The Victorian age in Britain witnessed the full flowering of the mineral-based economy. The efficient harnessing of steam power had been achieved, with its concomitant impact upon the subterranean extraction of coal, transforming architecture not merely formally and materially but ontologically too. This reflected what economists have described as the transition from organic to energy-intensive, carbon-based economies in the industrialised world, setting in train the now apparently irreversible and devastating conversion from fungible to consumptible modes of production. Steam-powered mechanisation through the mass combustion of carbon enabled industrialised nations to punch through the so-called 'production ceiling' that had limited organic economies in the past. By the 1850s in Britain the burning of coal to produce heat energy accounted for some 90% of total energy consumption. Thus, compared to previous epochs of architectural production, much Victorian architecture both embodied and represented the phenomenon of machanisation as the means of this energy transfer. One of the most basic parameters of this new ontology was the vastly increased input of energy surrounding procurement and transportation of materials. Whether it be marble, stone, iron, encaustic tiles, glass, or the humble brick, all were subjected to processes of mechanisation resulting from the extraction and combustion of carbon. Consequently, the embodied energy inputs of building production increased many fold.
Drawing on the insights of leading economists, this paper seeks to explain the nature of Victorian architecture's new ontology, and how it shackles any full understanding of such architecture to an appreciation of the carbon-based economy upon which it was reliant for its existence. Highlighting specific examples, the discussion will engage with instances of this reliance through material extraction, processing, transportation, and on-site construction, suggesting that 'Victorian architecture' was not only a new architecture of energy, but fundamentally, and because of this, one of carbon also.

PS30 Architecture and Carbon
Jason Nguyen, Harvard University, and Marrikka Trotter, Harvard University, Session Co-Chairs

Como Frame

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Studying the entangling of carbone (coal) with the rarified, structural lattice that became the signature of northern Italian interwar modernism reveals a complex material and political economy that fueled and threatened the frame's proliferation. Coal and steel shortages were linked to economic calamities that both impacted the construction industry and were registered in aesthetic and constructive shifts in the frame. Rather than a technological triumph, the vicissitudes of exposed reinforced concrete, aluminum and steel frames exhibit a struggle to reconcile aspirations for an architectural ideal with environmental constraints. The scarcity of quality coal, backwards mineral extraction techniques and industrial processes, shortsighted trade practices, revolutionary rhetoric regarding modernization and national pride, international sanctions, autarkic policies and political debates over aesthetics both encouraged innovation and, at other times, drove the frame into crisis.

This paper reconsiders the material economies that afflicted the three stages of the frame's development: first, its birth as an appropriated construction system and as an unintentional image during Italy's economic downturn and the first "coal crisis" around World War One; next, its proliferation as the symbolic expression of Italian modernity and industrial rebirth, as well as a means of insinuating Italian architecture into international discourse; and finally its crisis, as League of Nations embargoes and the transfer of strategic materials to the war effort reinforced political polemics against modern architecture and its chief expressions. Rather than heroic narratives of design genius or linear models of technological change and innovation, this essay employs a materialist method focusing on carbone to chart the inconsistencies, difficulties, conflicts and compromises that characterize the exposed structural frame in Italian modern architecture.

PS30 Architecture and Carbon
Jason Nguyen, Harvard University, and Marrikka Trotter, Harvard University, Session Co-Chairs

Combatting Carbon: Iceland's Basalt Architecture and the Tourist Conundrum

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The Code of Hammurabi issued the first known set of building regulations, defining the legal obligations of architects, builders and occupants. Incised on basalt stele, a carbon sequestering porphyritic rock, the physical form of the Code predicted the detrimental impacts of humans on the environment. Examining an unconventional approach to carbon-based architecture, this paper will explore the form, material properties, and performance of Iceland's basalt architecture. As a rock that rapidly traps carbon emissions with a very low ratio of leakage and a material promising a green alternative to carbon fiber, basalt is abundant on the volcanic island and forms much of the constructed landscape of Reykjavík, the capital city. Structurally and formally, basalt was frequently

Employed by the city's most prolific designer and only appointed State Architect of Iceland, Guðjón Samúelsson (1887-1950). Several of his projects, such as Hallgrímskirkja Church (1937-1986) and the National Theatre of Iceland (1928-1950), transform the geometry of basalt into dramatic expressions of neo-gothic and Art Deco. Contemporary projects, such as the Harpa Concert Hall and Convention Center (2011) by Henning Larsen Architects, reinterpreted the geological forms into glowing, crystalline constructions along the harbor. Carbon conscientious consumption also fueled the infrastructure of the capital: Reykjavik pioneered hydroelectric power in the 1920s, geothermal residential heating districts in the 1930s and, currently, Iceland is one of four countries pledging carbon neutrality through the Climate Neutral Network of the United Nations Environment Programme.

However, recent tourism campaigns with low-cost layover packages are bringing overwhelming numbers of people to the island. The annual visitation to the Blue Lagoon is more than double the entire nation's population. The infiltration of ecological adventurers traversing the Full and Golden Circles are putting a strain on an island once famous for its closed-loop self-sufficiency, calling into question the price of cultural tourism.

PS31 Medieval Vernacular Architecture
Alexander Harper, Princeton University, Session Chair

Stalls, Houses, and Markets: Negotiating for Power along the Cathedral Edge

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Although the great cathedrals of the thirteenth century largely define the field of medieval architectural history, the quotidian buildings that surrounded and often abutted them played an equally important role in establishing social patterns for a town's ecclesiastic and lay members. Often consisting of canons' residences, temporary mercantile stalls, and more permanent markets, jurisdiction over these structures reflected the relative power of the town, bishop, and cathedral chapter. In France, between ca. 1150 and ca. 1230, the spatial relationship between the cathedral and these commercial and domestic spaces changed dramatically, first through the extension of the cathedral into its surroundings in the construction of dramatically projecting buttress piers, and then in a second expansion through the construction of chantry chapels between those piers. Cathedral expansion altered the social environment of the town's built cartography and reveals how existing cultural processes mapped onto this transformed landscape.

Using the case studies of Paris, Chartres, Reims, and Laon, this paper demonstrates that the chapter's degree of control over the vernacular structures erected along cathedral edges heavily influenced the decision to construct, or less frequently to not construct, chantry chapels. Drawing largely on evidence from charters, regulations, and dispute resolutions, I show that chapel construction is negatively correlated with (1) the establishment of control of the cathedral boarders by the cathedral chapter or similar community and (2) the exploitation of that jurisdictional control as a source of income. Consequently, as a contested space within the social dynamic of chapter, town, and bishop, the architectural forms of cathedral peripheries played a key role in the construction of authority and assertion of social hierarchy. In contrast to the elite architecture of the cathedral itself, it was the temporary wooden stalls of the periphery that revealed the practical hierarchy of a town's various constituencies.

PS31 Medieval Vernacular Architecture
Alexander Harper, Princeton University, Session Chair

Connections and Intersections in Vernacular Architecture of Mount Athos

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The basic Lavra plan first used by Athanasios on Mount Athos in 963 became a model for subsequent adaptation to the most varied and difficult topographies.

It also gave rise to formal conflicts between elements in the evolution of each monastic settlement over centuries of change.

Resolution of these conflicts was often effected by ad hoc, creative use of vernacular technology and design.

Varying wall thicknesses and corridor widths in adjacent phases of building at Xenofontos required and resulted in ingeniously planned connections between structures.

Vaulting of entrance passages, whether penetrating walls at varying levels or cut past adjoining rock formations resulted in shifting of axes, angles, curvature and slope all of which make for unique and spatially exciting transitions in Simonopetra, Koutlemoutsiou and Dochiariou.

Changing patterns of surface decoration demonstrate both a yearning for formal order and the necessity of vernacular solutions,

e.g: (1) structurally unnecessary relieving arches used to establish harmony with the rhythmic order of larger arched openings as at Chilandari; (2) spandrels that reflect not only limited control of brick fabrication and the crudity of local slaked lime mortar but also creativity in varied infill design patterns.
The seemingly fragile character of connecting balconies outside upper fortress walls evolved over time into a series of decorative "necklaces" against the power of vertiginous masonry as in the monasteries of Iveron and Simonopetra.

Sometimes that very inventive vernacular technology fails aesthetically, as in addition of utility spaces to Simonopetra's exterior balconies or succeeds as in protruberances from the inner walls at Chilandari.
There is universality of meaning in this freedom of vernacular creativity.

The author's on-site sketches, drawings and photographs illustrate the theoretical perspectives. These were made during two visits, one lasting a month, living in several monasteries.

PS31 Medieval Vernacular Architecture
Alexander Harper, Princeton University, Session Chair

Vernacular Tradition versus an Imported Model at Santa Maria Novella

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Before the Gothic era, all medieval construction was largely based on local materials and building traditions. In Central Italy, where even the grandest churches remained unvaulted, constructional practices followed traditions in use since the Early Christian era. In Lombardy, on the other hand, c.1100, masons developed a vaulting system based on a domical, ribbed groin vault of brick. Over the next two centuries, Lombard vaulting spread southward to Tuscany. In Florence, in the Dominican church of Santa Maria Novella (1279-1355), the Lombard vaulting tradition encountered the Central Italian tradition of unvaulted structures. It also encountered French Gothic, newly imported into Central Italy by the Cistercians and adopted by the Dominicans as a model for the plan and elevation of their Florentine church. Although documentation of the construction process is scarce, much can be derived from the building itself. The locus of critical interaction between these various building traditions can be found in the walls and vaults of the two nave bays next to the crossing. Analysis of the structure reveals the "clash" between the Cistercian Gothic model, the Florentine building tradition using local stone, and the Lombard brick vaulting tradition, During construction a decision was taken to radically redesign the rest of the nave. The design change was no doubt advocated by the vault masons— probably Dominican lay brothers— supported by the local wall masons, and reluctantly adopted by the Dominican fathers. Thus, at Santa Maria Novella, two vernacular traditions, one Lombard and one Florentine, united to triumph over the imported French Gothic model, creating a new and influential interior space that vividly illustrates the link between constructional practices and design. Santa Maria Novella would serve not only as a model for the nave of Florence Cathedral, but would continue to prove fruitful for Italian Gothic throughout the 14th c.

PS31 Medieval Vernacular Architecture
Alexander Harper, Princeton University, Session Chair

Turning Vernacular into Imperial: Talar-Fronted Palaces of Seventeenth-Century Isfahan

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Attending the royal banquette in Isfahan, the German traveler Kaempfer (1651-1716) dedicated several lines to the description of a now-vanished Safavid palace and its surrounding garden. As Kaempfer relates the reception was held in an expansive frontal portico called talar. Adjoining a masonry structure, this wooden talar was airy, spacious, and open to the nature on its three sides. The octagonal, slender wooden columns that carried the high flat roof allowed for a free flow of air and a sweeping vision of the surrounding nature.

This building was indeed among the few number of similar talar-fronted palaces, whose genesis has been the subject of discussion and controversy among scholars.Focus on formal style, and symbolic role of architecture has directed most architectural historians to search for a role model in places such as Persepolis or Mughal capital. This paper suggests an alternative approach to explore these buildings in terms of the lived experiences they facilitate, and materials and technologies employed in their construction.

Instead of looking far away for political motives, this paper turns to the spatial organization of vernacular architecture of the Caspian region. As the favorite retreat of the Safavid kings, for decades the light wooden structures, open plans, and particularly frontal porches in the region fulfilled the Safavid's Turco-nomad desire for uninterrupted connection with nature; and inspired a new spatial organization where the boundary between inside and outside disappeared.

On the other hand, the structural elements of these talars illustrate distinct similarities to wooden hypostyle structures seen in the medieval religious architecture of Azerbaijan and Anatolia. Putting this in the context of the seventeenth century Ottoman-Safavid conflicts and migrations from the area, the paper further sheds light on the possible modes of transformation of knowledge and skills which were employed in the constration of these talars.

PS32 Reinserting Latin America in the History of Modernism: 1965– 1990
José Bernardi, Arizona State University, and Humberto Rodríguez Camilloni, Virginia Tech, Session Co-Chairs

Ricardo Legorreta, His Ideas for the Contemporary Architecture

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Ricardo Legorreta´s (1931-2011) architecture stood out as an alternative to formal architectural models of the modern movement from the beginning of the sixties of the twentieth century. It has received abundant criticism that has stressed its spatial as well as plastic merits. In his work, the qualities that distinguish his buildings have been expressed.

This paper is intended to provide the interpretation that this architecture is the result of personal processes of self-criticism, exploration in support structures as well as interaction with other disciplines. An explanation of the following topics - which I think are basic to understanding "the concept of architecture" of Legorreta - will also be offered: scale (height of the interiors among other measures) and monumentality, relationship with the natural (not the urban) landscape, cancellation of the curtain facade, ornamental systems and their relationship with the "classical" aesthetic between 1940 and 1970, understood as the compositions that became the modern movement.

I will start by presenting some images of landmark buildings in order to introduce to the public the historical questions to be resolved with the paper. The first two "Camino Real" hotels (Mexico, 1968; Ixtapa, 1981), a turning point in the work of Legorreta, will be considered. It will be mentioned that his position previous to those hotels stood out for: structural experimentation, composition in the style of the modern movement (glass box, anti-symmetry) and that the points that distinguished his later work for which he most renowned are those already mentioned: monmentality, aesthetic variation, connection with the landscape, color and texture.

Finally, and as a conclusion to the explanation of the topics that differentiate his way of thinking, a proposal of which is the position of Legorreta's work in the international architectural culture, will be offered.

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Henry Klumb: Puerto Rico's Critical Modernist

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The German-Puerto Rican architect Heinrich "Henry" Klumb (1905-1984) is Puerto Rico's most celebrated modern architect. Over the forty years that he called Puerto Rico home, Klumb enjoyed a highly productive architecture practice. His major successes consisted of his public works, university buildings, churches, and residences. Despite the strong modern lineage evident in his buildings, Klumb's lifelong pursuit of a principled and noble approach to architecture led him to cast a critical eye towards some of the leading figures and dogmas of the Modern Architecture movement. As a consequence of these views, key aspects of Klumb's architecture can be seen as creative adaptations rather than blind adoptions of modern design practices. Through this paper I demonstrate Klumb's three principal creative adaptations that are evident in his Puerto Rican houses. I also trace the genesis of those adaptations to pivotal moments and experiences in Klumb's life. The first creative adaptation was the balancing of natural and built elements in those houses he designed for and built in dense urban spaces. The second adaptation was Klumb's idiosyncratic use of spatial-structural planning grids to merge his houses with their surrounding landscapes and natural landmarks. The third adaptation was his drawing inspiration from local building traditions to formulate a modern stilt house suitable to the highly variable, mountainous topography of Puerto Rico. In the end, Klumb's legacy should be seen not as having brought the Modern Architecture movement to Puerto Rico (an untenable historiographical proposition) but rather in bending and willing Modern Architecture towards a more humane and environmentally sensitive endeavor. This paper draws upon the research that I conducted for my doctoral dissertation. The fieldwork for that research included site visits to Klumb's houses, and extensive archival research at the Architecture and Construction Archives of the University of Puerto Rico in Rio Piedras.

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Reflected Image: Architectures Colombiennes in the Pompidou

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Between December of 1980 and February of 1981, the Centre Georges Pompidou hosted the exposition "Architectures Colombiennes; alternatives aux modèles internationaux" curated by Jean Dethier. This exposition was accompanied by the homonym book by Anne Berty. Until this moment, dissemination of Colombian modern architecture had been limited. Some projects, which corresponded to the pragmatic spirit of functional rationalism characterizing Colombian modern architecture in the 50's (illustrated in its majority by the works of Cuellar, Serrano and Gomez), had been included in the exposition curated by Henry Russell Hitchcock "Latin American Architecture since 1945" (Moma, 1955). Some other projects were published in isolation in European magazines in the 50's and 60's (Architecture d'Aujourd'hui, Domus). Only when Francisco Bullrich attempts to give an account of the state of Latino American architecture in "New Directions in Latin American Architecture" (Braziller, New York, 1969; spanish version "Arquitectura Latinoamericana" H. Blume, Barcelona,1969), Colombian architecture was presented once more in the Latino American context, this time identifying singular characteristics such as the use of brick and highlighting protagonists such as Rogelio Salmona, who starts to be recognized internationally, with his projects being object of diverse publications and critical exercises such as those by Argentinian Marina Waismann (Cuadernos Summa - nueva vision 2 y 3, Buenos Aires, 1975).
Despite criticism from a distance, the Pompidou exposition contributed to the construction of an identitary image of Colombian architecture in the 80's and 90's. The way in which common values from the architecture presented were assumed generated that, nonetheless their limited valorative scope, these constituted paradigms of a modern, appropriate and distinct architecture in Colombia and Latino America: traditions and local construction materials; intense relationship with the geography; respect with the natural and built environment; commitment with the life of citizens through the public space generated.

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Paulo Mendes da Rocha Revisited: Inflexion in Tectonics

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Starting from fragments in the reconsideration of design approach of the Brazilian architect Paulo Mendes da Rocha, this proposal search revisit his architectural design with dialogues between the critical theory among the 80s. Buildings such as the Brazilian Museum of Sculpture (1987) and the Pinacoteca de São Paulo (1988) represent this inflection. From concepts about the phenomenology place and the tectonic expression, we intend to establish the revisitation establishing his break points with brazilian architect Vilanova Artigas (1915-1985).

The discussion precisely begins of the possibility of dialogue with the international historiography, since the work of Paulo Mendes da Rocha is revisited constantly in contemporary architecture exemplified by the Pritzker in 2006 and Biennale's Golden Lion in 2016. The dialogue is therefore possible and as urgent, just for the importance of his projects in the later context of modern movement, so particular and specific about the space needs in which it is conceptualized. We intend to restore a connection of the brazilian architecture with the historiography after the modern movement, more specifically the architectural designs in the 80s, emphasizing the poetics of construction and place phenomena. The potential to expand the interpretations aligning to the tectonic theory amplified the discussions of the several theoretical approach, like Kenneth Frampton, Solà-Morales and Montaner.

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Pride in Modesty: Regionalism in Brazilian Northeast

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Facing a broader and diverse Architectural history in Latin America, Arango (2000) pointed that women and indigenous people contribution still remains to be inscribed in cultural discourse. Modern Architecture trajectories in Northeastern Brazil remain undisclosed or dwarfed compared to the huge work done in the region, especially those that could bring together indigenous, American and African cultures. The absence is seen on several comprehensives Latin American Architectural compendiums, for instance in Latin America Architecture in Construction 1955-1980 (Bergdoll et alli, 2015) - most of the works in Brazil Northeast are not even mentioned. According to Albuquerque Jr. (2009) Nordeste (Northeast) was an invented concept to explain Brazilian otherness. The region was the destiny of Brazilian modernists, as Mario de Andrade´s Folk research mission (1938) also known as the vigorous core of our nationality (Blake, 2014). The Italian architect Lina Bo Bardi was based at Bahia, Brazilian Northeast in order to search vernacular culture (1958-64) (Pereira, 2008). Lina Bo Bardi perceived Northeast Brazilian popular culture as more eastern than western; likewise, the social theorist Gilberto Freyre used some eastern otherness not as Said`s (1978) Orientalism but to explain Brazilian culture (Burke and Pallares-Burke, 2008). Lina Bo Bardi could use vernacular knowledge to educational purposes through popular art museums (Anelli, 2015) once "local knowledge was something to be rescued, rationalized and integrated into technological and economics modernization" Del Real (2012). Similar initiatives were done using Northeastern handcrafts by the local architect and interior design Janete Costa through her female gaze collected domestic handcrafts pieces in order to industrialize them after doing small interventions (Gati, 2014). Vernacular knowledge was used by architect Armando de Holanda (former Bowncentrum architect) to conceive Roteiro para Construir no Nordeste (1976) publication: nine points to build with simplicity and economic resources in tropical regions, considering pride in modesty.

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D. Fairchild Ruggles, University of Illinois, Urbana-Champaign, and Nikolas Bakirtzis,
The Cyprus Institute, Session Co-Chairs

Reading Urban and Built Legacies in Ceuta: Whose Heritage Is It?

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Ceuta is a Spanish enclave in Northern Africa, on the southern shore of the Strait of Gibraltar. Legendarily evoked as one of the mythical Hercules columns, its geographical location has always driven the attention of different civilizations.

For centuries an important Muslim commercial stronghold, the city was conquered by the Portuguese in 1415 and stayed in European hands ever since. The arrival of a new power and creed implied a re-evaluation and a reduction of the built urban space. The key issue spanned around the foundation of a new Christian image where not only the cathedral would evolve from the former main mosque, but also new fortifications would mask Islamic defenses. Updating but also granting a novel rhetorical language were key vectors, at a time when urban concepts and practices were being modernized through a renovating hygienist spirit in Europe.

The course of the Portuguese city was confined to the former Arab medina limits for more than two centuries, when Spain took over in 1640. In spite of the subsequent wide expansion beyond the walls and more recent urban reconfigurations, that nucleus has managed to keep traces of its historical stratigraphy. Through historical cartography and field work, this paper wishes to argue how medieval and early modern decisions still resonate in the city's center contemporary urban morphology.
Furthermore, a re-reading of structural superposition is proposed. The perseverance of the former mosque's orientation, the maintenance of the ancient main street axis and square or recent archaeological findings of the Caliphal gate inside the early modern ramparts, act as motto for discussing and interpreting the resilience of urban and architectural legacies. Balancing policies of Europeanisation with heritage resourcefulness, Ceuta provides chronological data to challenge conceptions of identity in a disputed border territory.

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Fener, Istanbul: Landscape Mediating the Past and Present

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This paper aims to examine the Fener/Phanar neighborhood on the Golden Horn of Istanbul/Constantinople - one of the important cities of medieval and early modern Mediterranean. Fener - historically, politically, and religiously significant, has well defined boundaries, still bearing the footprints of the city walls. Its urban fabric consists of three parts; institutional monuments, residences, and landscape. Monuments include the Ecumenical Patriarchate, a Byzantine palace, a Sufi convent, schools, and many embassy churches. Its residential fabric is mainly made out of row houses, for the most part deteriorates from neglect. Its landscape can be classified in two groups: First, terraces, courtyards, small gardens hidden within its congested urban nexus; second, its edge on the Golden Horn, overlooking the medieval settlement of Galata. Geographically, the neighborhood sits on a hillside allowing astonishing views of the city from its open spaces. Yet, its intimate connection to the waterfront - where the shoreline had recently been expanded by immense, yet barren parks built on infill; is disconnected from its urban fabric by a high density traffic road. Swept by numerous fires in the 16th to 18th centuries, recurrent building activities followed the footprint of its medieval layout, with extremely narrow and steep streets almost preventing vehicular traffic. Fener's history is ideologically charged with diverse demographic movements; once populated by affluent Greeks, now shelters low-income migrant groups, as well as a marginalized young population. Thus, the neighborhood oscillates between its recollection of a layered memory, and its strenuous efforts to exist in a contemporary world. This paper questions whether a holistic landscape approach can mediate Fener's transition "for subsequent growth and development;" aims to investigate means to represent its layered identity through relating its diverse spaces of landscape offering new means of accommodating both its memory and the necessities of modern life.

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The Medieval City of Athens in a Postmodern Context

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Athens, the capital of Greece, is renowned and largely admired for its classical past. Medieval Athens, which was continuously inhabited, turned to a provincial Byzantine town, which probably flourished in the 11th-12th centuries. A relatively great part of the Athenian medieval cultural heritage –including churches and ancient temples converted into Christian churches, workshops, domestic architecture, public spaces and fortification walls– had survived the misadventures of the Turkish occupation (1456-1821) and the Greek War of Independence (1821-1828).

Architects Stamatios Kleanthis and Gustav Eduard Schaubert, who designed the first modern city plan of Athens (1833), tried to preserve its Byzantine monuments. Nonetheless, giving prominence to the classical heritage of the capital at the expense of its medieval past was a major political decision by the Greek government and archaeology of that day. A large middle Byzantine neighborhood in the region of the ancient Agora and two middle Byzantine churches in the Roman Agora, which were demolished for the sake of the excavations of the ancient archaeological sites, are telling examples of 19th-century cultural policies concerning Athens.

However, a considerable part of the Byzantine architectural heritage of Athens is still extant among the classical monuments, as well as the neoclassical, modern and post-modern buildings of the present-day city and has been enriched by recent archaeological digs. Its preservation, study and promotion are nowadays an ideological and political priority of the Greek state.

This paper will deal with the fabric of medieval monuments in Athens, their social value and spatial relation to the city's ancient Greek and Roman monuments as well as to contemporary buildings, their stylistic influence on 19th- and 20th-century Athenian buildings of the so-called "Neo-Byzantine" style, and their present cultural dynamics in terms of preservation and cultural management.

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'Mediterranean' in Transition: Europeanizing Rhodes' Walled City

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In Rhodes' walled city a century ago, there were roughly thirty mosques dating from the four centuries of Ottoman rule that ended with Italian colonial occupation (1912-1943). Today, the three largest still stand but they are in disrepair and closed, and many smaller ones have been removed to restore the Byzantine chapels on top of which they were built. This paper documents the transition Rhodes' town has made from an Ottoman backwater to a tourist mecca that traffics in a Disneyland-ish version of medieval heritage, ultimately addressing the changing meanings of 'Mediterranean' as well.

Rhodes has been reconfigured to match the image of a medieval Christian town in two phases. First, the Italian administration cleansed the area that had housed the crusading Knights Hospitaller (1309-1523) of Turkish bay windows to return it to its original appearance, beginning the process of packaging Rhodes for European tourists - who visit it in ever-increasing numbers.

Long after the island became part of Greece in 1947, the second phase began when UNESCO included Rhodes in its World Heritage list on account of its medieval walls and architecture – despite the fact that walls and architecture alike were drastically reshaped by Italian renovations. What looks like medieval urban fabric today is at least as revealing of 1920s ideas about medieval cities and architecture as it is of the area when the Knights resided there.

The demolition of neighborhood mosques is more recent still, and has been financed partly by the European Union. What does it tell us about Europe, when the EU funds the destruction of Islamic heritage on EU soil? Is the European notion of a Mediterranean city becoming one that cannot be both European and Muslim, all while the percentage of Muslims in Europe continues to grow?

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Barcelona's Cuitat Vella: Urban Palimpsest of Catalan Nationalism

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The city of Barcelona remained enclosed in its medieval fortifications until the mid-nineteenth century, when the Catalan engineer, Ildefons Cerdà proposed a plan for the expansion of the city into the surrounding plains. This expansion in grid form, left the historic city, the Ciutat Vella, intact and operating as the city's political center, although twentieth-century development has since made deep incursions into its medieval fabric. The survival to-date of this urban heritage is partly due to the Barcelonan's continuing insistence since the mid-nineteenth century on the revival of a Catalan independent state and their identification with the Ciutat Vella as the core symbol of this national identity. Catalonia's autonomous political organization within the Spanish state was terminated in 1716 as a result of the Spanish War of Succession, an act that also resulted in the destruction of the easternmost part of the Ciutat Vella by the new regime. This paper will focus on two polarizing periods of urban transformation in the Ciutat Vella in which Catalan nationalism has instigated urban change. The Catalan Renaixença movement of the early twentieth century initiated demolitions in the Ciutat Vella which mobilized public opinion regarding the value and meaning of unearthed Gothic architectural heritage, later utilized to create city tableau within the medieval quarter. In the manner observed in the works of anthropologist Eric Hobsbawm, they sought to invent traditions and a past that would inspire political change. After the demise of Franco, Oriol Bohigas, inspired in the 1980s by Aldo Rossi's notion of the city as a place of collective memory, promoted the restoration of public spaces, as well as the installation of new cultural institutions within medieval monuments, to ensure their preservation. The Ciutat Vella today survives as a palimpsest of the on-going Catalan construction of their identity as a potential nation.

PS34 The Tenement: Collective City Dwelling Before Modernism
Irina Davidovici, ETH Zürich, Switzerland, and David Knight, Royal College of Art, UK, Session Co-Chairs

Dorothy Henderson, Tenements and Grassroots Action in Glasgow

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In the period between the 1970s and 2000s Glasgow's renewal of its inner city housing stock was characterized by a conscious re-engagement with historicist tenemental housing models. Whilst on the surface this may be 'written off' as simply being evidence of a commitment to aspects of postmodernist imagery, the program of renewal, which employed neo-historical aesthetics and traditional housing typologies, can be better understood as an example of the emergence of a more consciously collaborative and grassroots development agenda which saw the growth of forms of reciprocity between state, private and community interests towards social development. This collaborative approach, this paper suggests, is an important source of the historical pastiche and ordinariness that characterized much architecture of the period.

This paper illustrates this thesis using the Glasgow neighborhood of Woodlands, where in 1974 a local widow, Dorothy Henderson, formed the Woodlands Residents Association. The Association reacted to urban decline by organizing neighborhood renewal through the restoration of historic urban fabric and the construction of historicist new tenements, by adapting state policy to local needs and by instigating and nurturing collaboration with professionals. Regional and national state agencies, corporate groups, designers and architects, non-profits, communities and individuals each can be seen to have engaged with and adapted superficially monolithic practices and policies towards a plurality of outcomes, thereby generating meaning, social inclusion, sense of place and continuity at various scales. In this way the community in Woodlands, this paper suggests, used ordinary Glaswegian tenemental architectures as a mechanism for reactivating a culturally meaningful social life for the inner city in opposition to the perceived social failure of Glasgow's postwar overspill program. As such, the example of Woodlands can be seen to have been instrumental in developing a significant mode of postmodern inner-city renewal that continues to be effective today.

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Tenement Reform and the Invention of the Chicago Apartment, 1890-1915

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In 1902 Chicago's Builders and Owners Association objected to proposed tenement reform legislation: "The word 'tenement' brings us back to conditions in certain parts of the world from which we have escaped. We wish to be up to date and to have apartment building environments of which the city can be proud. We desire to substitute the word 'apartment' for the word 'tenement' wherever it occurs in this ordinance." Jane Addams and the progressive reformers at Hull House who promoted the legislation agreed; Addams recognized the tenement "stigma", rejecting rumors that she favored erecting a six-story "model tenement"-- "I would not think of considering anything more than a three-story house . . . representing as nearly as possible the standard of the high-grade apartment house." Promoting the ordinance, reformers cited the enormous costs Glasgow incurred demolishing entire tenement districts.

This paper explores how tenement aversions influenced new multifamily designs as apartments eclipsed tenements while bypassing single-family construction in Chicago. Courtyard apartments, with their sun-parlors, balconies, planters, and landscaped, street-facing, courts, were conceived as antidotes to the dark, windowless, crowded 100%-lot-covering buildings that horrified reformers. Novel apartment designs also drew upon hospital pavilion models for inspiration. As courtyard apartments accumulated density, they diffused it through a pattern of circulation that divided large buildings into discrete "entries," refuting charges of eroded familial privacy and promiscuous social and sexual mixing in tenements. I analyze these developments in designs by Treat & Foltz, Edbrooke & Burnham, Henry Holsman, Harry Waterman, and Frank Lloyd Wright. Apartment living never fully shook the tenement stigma. The paper concludes with an analysis of the City Club of Chicago's 1913 competition for a model 160-acre residential subdivision, in which housing reformers and architects reflected continued ambivalence towards the social, economic, and cultural possibilities of multifamily housing.

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Early Modern High-Rise Living and the Tenement Experience

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The history of multi-apartment urban residences in Scotland goes back to well before Modernism and even the industrialised age, as they were frequently used in Early Modern burghs where residency was a prerequisite of citizenship, and outward urban expansion was not a viable option. This paper will investigate early examples of tenement types in Edinburgh focusing onto three main periods; firstly, the multi-storey, multi-property buildings of the Old Town in the Sixteenth century, such as Gladstone's Land; secondly, purpose-built, speculative developments such as Mylne Court in the late Seventeenth century, also in the Old Town; and finally the adoption of an optimised, polished tenement model within Edinburgh New Town in the Eighteenth and Nineteenth century. Through a comparison of visual and written documentation, and by contextualising these buildings within their economic, social and political settings, I argue that communal vertical living in Early Modern Edinburgh can be considered an influential forerunner to the modern tenement, being faced with –and responding to- contemporary issues also faced by the modern tenement, such as the relationship between tenements and the surrounding urban fabric; the degree of separation between productive/commercial activities and spaces for inhabitation; the level of privacy to be expected within the apartment, between apartments, and in the neighbourhood; the usage of common areas such as staircases and courtyards; the interactions between different stakeholders, such as local authorities, central government, private investors, and actual inhabitants; the issue of social inclusion vs social segregation; and the requirements of serialisation and optimisation of spaces vs flexibility of use and organic growth. This paper argues that Early Modern multi-apartment, high-rise buildings offered pragmatic and flexible responses to these issues, and could represent a varied, creative, and thoughtful palette of precedents, to help frame and direct our current understanding of tenements' contemporary role and potential.

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The Berlin Block and the New Bourgeois Dwelling

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The publication of Gustav Assmann's Plans for Urban Dwellings (Grundrisse für städtische Wohngebäude) in 1862, in conjunction with the Berlin extension plan by James Hobrecht published the same year, signalled the emergence of the Berlin block as the ubiquitous urban typology that came to constitute the entire city. Assmann provided a catalogue of blocks in plan for various plot sizes, each showing small, medium and large apartments that could be flexibly adapted according to need. Representative of his time, Assmann conceived the block as an undifferentiated system that could house different categories of families, from the bourgeoisie to the working class, and, most importantly, a system that could flexibly adapt to accommodate the dynamically changing pattern of inhabitation corresponding to a mobile and fluctuating population. While Assmann's plans show lines of continuity from the bourgeois apartment blocks of the Biedermeier, I argue that his book signals a new instrumentality of the plans of the block. From the 1860s onwards, they become key components in the discourse of the disciplines of reform: an emerging field of knowledge increasingly concerned with the spatial organisation and government of the entire city. This paper traces a dual trajectory of typological evolution and social reasoning between 1860 and 1900, evidenced by discussions in the Verein für Öffentliches Gesundheitswesen and other bodies of reform. Questions arose surrounding the size and grouping of families, the inclusion and exclusion of servants, the size, adjacencies and hierarchies of rooms to retract and strengthen the as too loosely perceived bonds of the bourgeois family. In these discussions, the evolving plans of the block helped to articulate new norms and spatial values that contribute to a new understanding of the bourgeoisie as protecting not only the value of the family, but also the security of the city itself.

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The Chinese Tenement as a Contested Built Form in Colonial Hong Kong and Singapore

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This paper traces the transformation of the "Chinese tenement" in colonial Hong Kong and Singapore between the 1890s and early 1920s, a period that witnessed a series of speculative land booms, rapid influx of working class migrants, and emergent debates over housing and social reform amongst colonial administrations across the British Empire. Although the tenements in the two territories have long been associated as a distinct "Chinese building type" that originated from South China due to their peculiar configuration governed by the use of standard Chinese timber, their actual forms were singificantly shaped by colonial building policies and investment practices that involved the participation of many agents. These include European and Chinese builders, who captialized on the lucrative housing market under the colonial captialist system by engaging with profitable speculative building activities. The ongoing demand for tenements also benefited the so-called "rentier-lords," who made profits by subdividing the tenement floors and renting them to a large number of laborers. While the crowded conditions of these dwellings became a concern for colonial officials who saw them as potential hotbeds for epidemic outbreaks, efforts to regulate their construction did not always succeed due to resistance by property owners, who argued that these rules would lead to a reduction of floor spaces and concommitant displacement of many poor laborers. Depite these contentions, ongoing negotiations between the parties did result in incremental improvements and modifications of the tenements. They also prompted local architects to derive alternative tenement designs that were adpated to specific conditions. It is argued that revisting the contested rationales behind these developments can enable a better understanding of the role and significance of the tenements as well as the transnational exchange of knowledge, investment practices and political exigencies that shaped urban forms in the two cololonal terriories.

PS35 Reading the Walls: From Tombstones to Public Screens
Flavia Marcello, Swinburne University of Technology, Australia, and Lucy Maulsby, Northeastern University, Session Co-Chairs

Noverit Posteritas: Writing on Walls in the Streets of Renaissance Italy

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It is well known that classicizing inscriptions were widely used in Renaissance Italy to mark elite domestic buildings with the authority and identity of their patron-owners. Previous studies have tended to discuss these textual interventions on the designed surfaces of the palazzo as personal statements of a given patron's erudition and desire for memorialization. A collective and comparative reading of façade inscriptions will instead reveal shared strategies of textual and figural display as a means of binding the city's identity through the combined efforts of individual interventions. The opening case example considers a unique set of inscriptions that survive from the small city of Mantua and date to the phase of urban expansion promoted by the local Gonzaga rulers, in the decades following 1460.

The paper moves between better-known monumental 'private' inscriptions of individual palaces and the often-overlooked 'public' texts that were widely affixed to both private and public sites. The latter were often mundane statements that legislated behavior, professed civic cohesion, claimed sponsorship of public amenities or quite simply indicated the ownership of rental property by a third party. By considering both textual forms in conjunction, I will argue that the blurred and contested boundaries between domestic and public urban space were literally inscribed on the walls of the streets of the Renaissance city. Comparisons will be drawn between evidence from various Italian cities, and the proposal will be advanced that through the sixteenth century wall inscriptions came increasingly to be used as an instrument of government control, as they functioned as visual markers of how authorities sought to manage the everyday uses of public space.

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Text in the City: Mildred Constantine, MoMA, and Signage

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Mildred Constantine brought early, critical attention to the visual qualities of signage that proliferated in the United States around midcentury. As the first curator of graphic design at the Museum of Modern Art, a position she held from 1943 to 1970, Constantine organized, "Signs in the Street," a 1954 exhibition that made signage and outdoor advertising commensurate with modern art. Later, she continued to explore the visible effect of lettering and graphics in the built environment, co-authoring with Egbert Jacobson, "Sign Language for Buildings and Landscape." Published in 1961, the book addressed the contemporary problem of rampant signage and public advertising media cluttering the American cityscape amidst rapid growth and development.

Constantine's pioneering work on signage, in particular the early exhibition, joined an emerging intellectual and professional scrutiny of the features that characterized the ordinary and everyday landscape in the postwar period, best known in the writings of J. B. Jackson, Peter Blake, Kevin Lynch, and Robert Venturi, among others. In analyzing her exhibition and book, I examine aesthetic debates of the day over the "visual pollution" of letters on buildings and words in space that affected architectural design, urban policy, and the experience of the city. By bringing light to her contribution concerning signage, this paper will also situate it alongside the rise of supergraphics in postmodern architecture and even today, when entire buildings are conceived as media facades.

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Writing Civic Histories on City Gates in Golden Age Spain

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A Latin inscription dated 1575 on the Puerta de Visagra—the primary city gate of Toledo, rebuilt only a few years earlier—boasts that "impious Arabic epigrams" were removed from the city's gates and towers and that "ancient inscriptions of the godly fathers of the city" were restored by King Philip II. Indeed, a program of epigraphic editing seems to have been initiated five years earlier by the city's royal administrator. Such attempts to purify Spain's ethnic and religious identity come as no surprise during the reign of the Most Catholic King, but what interests us here is the increased use of the city gate as a surface for writing and rewriting civic history, both with text and image. Functioning as an urban prolog, the city gate in Early Modern Spain, and, perhaps, throughout Europe, becomes increasingly verbose when compared to its medieval predecessor even as its defensive function becomes increasingly outmoded and as print culture makes cities accessible to ever wider publics. Giving special attention to the rival cities of Toledo and Burgos, this paper explores the changing role of city gates, and thus, of cities themselves, in Golden Age Spain by examining the messages inscribed on their walls. Investigating not only what they say, but how and why these messages were composed and to whom they were addressed will deepen our understanding of the changing role of the city in the early modern era.

PS35 Reading the Walls: From Tombstones to Public Screens
Flavia Marcello, Swinburne University of Technology, Australia, and Lucy Maulsby, Northeastern University, Session Co-Chairs

Loquacious Berlin: A Public Sphere in the Age of Digital Reproduction

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This paper focuses on the symbiosis between building façades and banners with political messages in Berlin. This practice, carried out by squats and alternative residential projects, began during German division, and was revived after 1989.

The buildings, dilapidated and covered in colorful murals and overgrown ivy, work tightly with banners and posters to convey countercultural meanings. The inhabitants of these buildings fight for affordable housing, gender inclusiveness, and spaces for creative exploration. In contemporary Berlin, where gentrification and urban revamping have taken their toll, such messages are newly relevant.

These eloquent façades blur the boundaries between public and private, between text and architecture, between a building as a place to live and as support of artistic or political views. The banners turn the façades into screens for collective communication—a tangible public sphere in the age of digital reproduction, carved out in the interface between the space of the street and the space of the private building. Architecture becomes more than an object of aesthetic connoisseurship or preservation; more than a means to shelter; and more than a tool for profit: it becomes political and dialogical.

The countercultural use of banners has ingrained the façade as a medium for visual, verbal, and urban dialogue. This habitus has informed more formal works, such as Jean Remy von Matt's 2009 mural on Brunnenstraße. The message ("This building used to be in a different country") was painted on the façade of a building that used to be in East Berlin.

Tellingly, von Matt works in advertising. His work suggests a fluidity between the language of political propaganda and that of marketing; indeed, communities such as the KA 86/Tuntenhaus have turned this around by using commercial lettering for decidedly non-commercial, subversive text ("Capitalism normalizes, destroys, kills").

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Speaking to the Eye? Writing as Supplement in Architecture Parlante

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This talk considers the role of architectural epigraphy in late eighteenth-century France, focusing on the so-called architecture parlante of Claude-Nicolas Ledoux and Etienne-Louis Boullée, which sought to make of architecture an expressive image that would 'speak to the eye' (Ledoux). At the same time as their projects articulate a model of immediacy and directness through striking combinations of mass and volume, light and shadow, however, inscriptions also feature frequently and prominently. What role does writing have to play on buildings whose stated basis is the self-sufficiency of expressive form alone to communicate purpose and function? Reading this work in relation to sensationalist debates on language in this same period, I see it as working through, and mediating between, two opposing models of visual and verbal communication promoted by different camps of linguistic reform: between those promoting a spontaneous and natural form of expression, and those who favored a carefully constructed language of conventional signs. In this light, the dialectical juxtaposition of immediate (visual) and mediate (epigraphic) expression in architecture parlante may be an implicit admission of the limits of architectural form as a communicative medium - but it also makes of this work a productive site for the staging and reconciling of this period's complex debates on language, and on the problems of architectural expression.

PS36 Open Session 2: Trauma and Conflict
Victoria Young, University of St. Thomas, Session Chair

Post-Traumatic Architecture: Re-planning Al Manshiya and Wadi Salib

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Trauma is defined as a wound or an injury caused by an act of violence on one's body, or as a severe anxiety caused by an unpleasant experience. The victims of traumatic events may develop psychological stress disorder, which is manifested in several symptoms: post-traumatic stress disorder.
The 1948 Arab-Israeli had caused both physical and psychological trauma. The symptoms of this trauma are still visible today in various Israeli cities.

As a result of the war, Israeli cities had annexed formerly owned Palestinian villages and neighbourhoods. Along the years, these vacated Palestinian houses were settled by Jewish immigrants, turned to slums and became the target of several urban renewal projects. These renewal projects mainly asked to erase all traces of the neighbourhood's Arab past, and to introduce a new urban order.

This research focuses on Al Manshiya in Tel Aviv-Jaffa and Wadi Salib in Haifa, two former Palestinian neighbourhoods, which were vacated from their original inhabitants. This research surveys the re-planning process of both neighborhoods, its implementation and its current status. Asking whether one can depict symptoms of post-trauma in the urban scheme and in the buildings' architecture.

Al Manshiya was torn down completely in the 1970's, in order to make place for Tel Aviv's new central business district. This project was never fully completed, as the symptoms of the post-trauma are manifested in the disconnected grand office buildings, the urban void and the parking lots surrounding them.

The majority of Wadi Salib was torn down as well, as several decaying buildings are still standing in the cleared and empty neighbourhood. The emptiness, neglect and oblivion emphasize the post-traumatic experience. In the recent years however, several projects asked to deal with the neighbourhood's past and heritage. This could confront the trauma, and cure the neighbourhood from its symptoms.

PS36 Open Session 2: Trauma and Conflict
Victoria Young, University of St. Thomas, Session Chair

Shaping Space in Districts of the British Punjab

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With the agricultural colonisation through canal networks, in the western doabs (interfluvial lands) of the Punjab in later decades of the nineteenth century, the British rulers restructured space (social and physical) to suit their imperial purposes of power and economy. In addition to agricultural growth and increased international trade, the land grants favoured certain classes, influencing the social and political basis of the Punjabi society. The landscape of the West Punjab was altered forever with rapid urbanisation, as new districts and headquarter towns were established. This process of socio-economic development has been studied only partially, and never previously from the perspective of architectural, urban and landscape history.

This paper will address the remaking of (physical) space at the district scale during British rule in the Punjab (1849-1947), when new districts were created, and discuss the changing role of the district headquarter towns. It will argue that the re-appropriation of space in the British Punjab should be understood in the light of the political and economic needs of the imperial system. Several old towns (Sialkot, Gujranwala, Gujrat, Sheikhupura, Jhang) were expanded, while some new towns (Lyallpur/Faislabad, Montgomery/Sahiwal, Sargodha) were built, to act as intermediate centres between the big cities and small towns. Focusing on selected examples, the paper will analyse primary resources including district maps, and architectural and urban documentation collected through fieldwork.

PS36 Open Session 2: Trauma and Conflict
Victoria Young, University of St. Thomas, Session Chair

Mass-Housing, Urban Space, and Identity: 1968 in West Berlin

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In 1968, a group of architecture students at West Berlin's Technical University formed Aktion 507 in order to critique post-war planning policies within the city. Following modernist principles, post-war policy makers began separating the city by function, with residential developments relocated to the suburbs. The general belief was that nineteenth century tenements were responsible for the 'undemocratic spirit in the city' and not suitable for the new 'democratic' Germany. Thus, the action taken was to demolish tenements and replace them with prefabricated satellite housing developments. In reaction, Aktion 507 curated an exhibition, 'Diagnosis on Building in West Berlin', focusing on the 'critical analysis of current construction activities'. The exhibition centred on the Märkisches Viertel, a 17,000 dwelling development jutting the Berlin Wall in the north of the city. Aktion 507 argued that architects, speculators, the senate, and construction companies exerted a 'totalitarian rule over the city'. The ideology of the student movement in Berlin, I would argue, was in a symbiotic relationship with the post-war cityscape with readings of urban planners, Marxists, sociologists amongst others were translated through the lens of Berlin's unique character and position in the post-war world. For example, Marcuse's theory on the repressive mechanisms of society held special significance in a post-fascist era where former National Socialists still held positions of power, and where left-wing intellectuals flocked due to exemption from military service. Likewise, the Märkisches Viertel, with its 'intolerable defects in social infrastructure', highlighted the wider social implications of relocating inhabitants from the inner city under the guise of social housing. This paper documents the use of architecture as a vessel through which political, cultural and social conflicts were argued and contested which, through involvement with residents, Aktion 507 irreversibly changed West Berlin, both as a physical and political space.

PS36 Open Session 2: Trauma and Conflict
Victoria Young, University of St. Thomas, Session Chair

'Pure Architecture' and Anti-Facist Revolution: The Case of the Historical Museum of Bosnia-Herzegovina

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The Historical Museum/ previously the Museum of Revolution in Sarajevo, was built to commemorate the anti-fascist national-liberation movement in WW2. Centrally located, in the so called Museum Quadrant, this building, once dubbed as a "pure architecture", in reference to the key international Modernists, is now a faded, damaged and scarred structure. It operates with negligible institutional patronage but with determined enthusiasm of its small staff.

As an institution of public memory, the Museum has strong associations with architecture, not only because it resides in one of the finest buildings of the regional Modernism, but also due to its conscious effort to see architecture and architects as allies in its struggle for the continued function and mission. Procured in an open competition based on the winning design by a group of Zagreb architects in late 1950s, on the edge of the modernist masterplan for the new city centre, the architecture of the building is now used as the scene and a backdrop for facilitation of the diverse narratives that preoccupy the country, the city and its international visitors.

The original monument of the 'people's revolution' the Museum seeks to shape the fragile nation's identity once again as a 'people's museum'. With the older collection of artefacts, military equipment and artwork of partisan's and worker's movement, its current permanent exhibition features the fractured artefacts of life during the siege of Sarajevo in 1990s. This reminder of momentous and also contested public traumas is in many ways symbolic to the situation in Bosnia-Herzegovina, a country whose sense of cultural belonging had been shattered and reshaped a number of times in its history.

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