emphasizes how archives and affects frequently overlap, “the declarative order of the archive proving an effective foil for the affective prejudices buried within it; and the urgency of affect often catalyzing archival histories and establishing them as sanctioned truths.” It is in this sense that she defines the modern “monument” as forged in the “oscillation” between the two, never “simply one or the other, but rather always situated at the intersection of both” (194).

The five monuments that form Rajagopalan’s case studies date from the twelfth to the seventeenth century, and all of them are Islamic monuments. Four of the five are well-established nodes in the contemporary tourist landscape of New Delhi: the Red Fort, the Jama Masjid (Friday Mosque), the Purana Qila (Old Fort), and the Qutb complex. The fifth, the Raisal Numa Dargah, is a far less well-known Sufi shrine surrounded by a colony of qawwals (performers of Sufi devotional music) near Delhi’s Connaught Place. Despite the fact that the monuments date from hundreds of years earlier, Rajagopalan explores their histories only from the mid-nineteenth century to the late twentieth century. Readers unfamiliar with South Asian history will find ample context to help them make sense of the history of each monument’s origins. South Asian specialists will also discover significant new details thanks to Rajagopalan’s assiduous archival research. Readers seeking an analysis of the architectural features of these settings will probably be disappointed, however; instead, the focus is on how each became a “modern monument” through a combination of absorption into the colonial archive and subsequent affective reframing during moments of historical rupture.

Rajagopalan begins each chapter with a “paradigmatic ‘moment’ in the life of the monument and moves backward as well as forward in time to chart its historical permutations” (19). For the Red Fort, a Mughal imperial fortress built by Emperor Shahjahan in the seventeenth century, the paradigmatic moment came in 1857, at the end of a hard-fought battle during which the British attempted to retake control of the fort from Indian “mutineers,” who launched a rebellion against British rule that nearly succeeded. Following a series of brutal and punitive demolitions and evictions by the British at the cessation of hostilities, representations of the Red Fort as a site of British valor and sacrifice circulated through the English press, and eventually the fort became the site of a major new British military installation. By 1918, when the anti-British Indian nationalist movement had gathered strength, the monument was reframed once again by the ASI, this time for an Indian audience, with the redaction of any mention of the role the fort had played in the Pyrrhic British victory.

Other monuments had other moments. The Raisal Numa Dargah, resting place of a saint popular during Mughal emperor Aurangzeb’s life (1618–1707), entered the scene in 1918 by virtue of its inconvenient location within the grid of Edwin Lutyens’s newly planned capital. As with many such sites acquired through eminent domain, actions by members of the community for whom the shrine still held meaning were determinative in deciding its eventual fate, and in shaping how the site was recorded in Delhi’s official list of “monuments.” The Jama Masjid, built, like the Red Fort, under Shahjahan’s rule, emerged in 1932 as a space of anticolonial protest somewhat shielded by its status as an active place of worship. As such, the mosque enabled an affect of “sovereignty and autonomy” among the members of its multireligious community of users. The Purana Qila, another Mughal monument swathed in a mythic narrative of Delhi’s origins as the alleged site of Indraprastha—the capital of an ancient Hindu kingdom recounted in the Mahabharata—took on additional meanings in 1947, following the Indian partition. That year, and for two subsequent years, the Purana Qila was used to house internally displaced Muslims as well as Hindu Partition refugees from Pakistan. The Qutb complex, which includes a shrine, an elaborate minaret, and a mosque built with spolia from numerous preexistent Hindu temples on the site, is introduced to the text in the year 2000, when a strident Hindu fundamentalist group petitioned to hold a “purification” ceremony to release the Hindu idols entrapped in the mosque’s walls. In each case, Rajagopalan traces the recursive paths between archival inscription and affective reappropriations that together constitute each monument as something more than the sum of its official representations.

Building Histories is well researched, rigorously organized, and very well written. Some readers may object to Rajagopalan’s rather chaste adherence to official archival sources; after all, the number of potential “communities” for whom historical monuments in Delhi are meaningful in some way is nearly infinite, and now includes various civil society preservation groups in the city, such as the mostly volunteer Indian National Trust for Art and Cultural Heritage (INTACH). But that objection is in some ways tantamount to wishing for a different book. The real contribution of this study consists in its offer of a new conceptual framework for understanding the complex architecture of archival inscription. Others will profit from exploring different archives, in different settings, by attending to Rajagopalan’s example.

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Note

Jiat-Hwee Chang
A Genealogy of Tropical Architecture: Colonial Networks, Nature and Technoscience
London: Routledge, 2016, 290 pp., 97 b/w illus. $180 (cloth), ISBN 9780415840774; $53.95 (paper), ISBN 9780415840781

Tropical architecture developed in the nineteenth century as a global discourse across the networks of the British, French, and Dutch empires. Each node that became a site of tropical architecture had a distinct trajectory and areas of emphasis, yet climatic design unifies the diverse histories of these sites. The multiple discourses that have defined tropical architecture as a field developed diachronically through numerous disciplinary terrains, including medicine, sanitation, meteorology, civil engineering, architecture, and environmental design.

In A Genealogy of Tropical Architecture, Jiat-Hwee Chang builds upon scholarship inaugurated by Mark Crinson, Hannah le Roux, and Ola Uduku, who first revealed tropical architecture to be a neocolonial discourse that developed after World War II and operated within asymmetrical power...
Chang examines tropical architecture from the vantage point of Singapore, producing a highly granulated history that shows how unequal power relationships were spatialized through regimes of technoscientific knowledge. This scholarly endeavor demonstrates how the seemingly apolitical and ahistorical publications on tropical architecture that have persisted well into the twenty-first century have a genealogy that extends beyond the immediate postwar period and is deeply embedded in early colonial ideology. Shade, natural lighting, and ventilation—ostensibly ideologically neutral environmental elements that form the bedrock of tropical architecture—were the products of broader colonial discourses that collectively constituted the tropical sciences. Chang investigates an extended period, from the beginning of the nineteenth century to the third quarter of the twentieth century, in order to historicize tropical architecture in colonial discourse, charting its disciplinary migration from hygiene to architecture. In the process, tropical architecture was subject to the ideological machinations associated with the vicissitudes of the British Empire. Initially developed as an instrument of direct imperialism, tropical architecture became a means of exercising soft power after World War II, as decolonization led to the empire’s transformation into the Commonwealth.

David Arnold has proposed the idea of tropicality as a discursive construct that was based on the dual connotations of “the tropics,” which were viewed as paradisal lands, yet not suitable for inhabitation by Europeans. Chang builds upon Arnold’s insistence on the ambivalence embedded in conceptions of the tropics to examine how tropicality informed colonial architecture and led to the development of tropical architecture.

The focus of chapter 1 is the problematic historiographical construct of the “tropical colonial style,” which attempted to adapt Palladianism to tropical climatic conditions. Chang argues that the early colonial houses in Singapore were constructed through heteronomous and heterogeneous modes of production. In exercising the concept of heteronomy and bringing into focus the agency of actors other than the architect—clients, contractors, builders, and masons—Chang challenges the centrality of a single agent and thus the successful implementation of absolute colonial power. This approach echoes the one employed by Partha Mitter and Preeti Chopra in their earlier histories of the colonial built environment. By emphasizing improvisation and adaptation as heterogeneous modes in the production of early colonial architecture, Chang furthers the proposition that the process of tropical acclimatization cannot be attributed to a singular agent or author. The standardized codes of construction that emerged after 1870 were predicated on the agency and authorship of earlier actors, who are absent from the archival record.

The second chapter charts how military engineers attached to various royal commissions and the Barrack and Hospital Improvement Commissions codified knowledge about the acclimatization of buildings through the planning and design of British military barracks in the tropics. In a methodological departure from the first chapter, in which he shows how colonial architecture was a product of multiple agents, in this chapter Chang traces how military engineers established the foundations for what later emerged as the norms of standardization and quantification of tropical building practices. With the British Empire’s metamorphosis into the Commonwealth, the discourse on tropical architecture developed by military engineers was absorbed into the mid-twentieth-century discourses on international development. Chang demonstrates how the colonial project of sanitation generated spatial strategies for ventilation, natural lighting, and hygiene through chaotic processes of trial and error. His portrayal of the British Empire as a laboratory of experimentation recalls Gwendolyn Wright’s argument that the French colonies served as laboratories, or champs d’expérience, for investigating the efficacy of architectural and urban paradigms. Building on Wright’s work, Chang traces the messy process of constructing tropical architecture where colonial power had its limits, not only in the production of architectural knowledge but also in the implementation of such knowledge.

In chapter 3, the strongest in the book, Chang shows how techniques of governmentality enabled the formulation, colonial dissemination, and “tropicalization” of the pavilion-plan hospital and established it as a standardized spatial form. Chang argues that the governmental processes of data collection and statistical analysis focused on quantifying soldiers’ health and computing its monetary value for the empire. These calculations formed the basis of a series of interventions that included the quantification and standardization of the pavilion-type hospital plan. The creation of plan types as optimal spatial tools for regulating soldiers’ health also relied on the analysis of climatic data. Further, the regulation of an individual’s health was not limited to medicine and architecture, but also extended to government-prescribed bodily regimes of diet, exercise, clothing, and exertion—a set of practices that constitute biopolitical power. Brenda Yeoh has demonstrated how colonial power was hindered by the inability of the colonial state to exercise complete control over bodily regimes. Chang builds on this premise to propose that implementation often remained incomplete and that a top-down governmental rationality, or governmentality, led to an architectural outcome that relied on pomp and grandeur to compensate for limited colonial power. The messy process of tropicalization, predicated on racialized ideas about the tropics, clearly demonstrates how seemingly neutral, environmentally oriented building elements became codified as ideologically loaded features of tropical architecture.

In chapter 4, Chang investigates the adaptation to the tropical colonies of the mid-nineteenth-century sanitary movement, with a focus on the work of the Singapore Improvement Trust. His analysis of the uneven implementation of sanitation and hygiene policies reinforces Anthony King’s theoretical formulation of colonial cities as urban formations that have distinct European and native enclaves. Chang acknowledges, however, that recent scholarship, including Rebecca Brown’s history of Patna and Swati Chattopadhyay’s scholarship on Calcutta, shows that the colonial city cannot be reduced to a simplistic model of distinct enclaves. This chapter seems to represent a missed opportunity for Chang to delve beyond the existing paradigms to consider colonial cities as complex urban formations. Might Singapore’s unique status as a cosmopolitan city on an island have offered an opportunity for a more granular analysis of the city’s sociospatial divisions?
By the mid-twentieth century tropical architecture was well established as a field of study. With the increasing decolonization of imperial terrains, tropical architecture was transformed into a body of technoscientific knowledge within the discipline of architecture that was largely oriented toward climatic design. In chapter 5, Chang chronicles the discourses and institutions that led to this transformation, especially the Colonial Liaison Unit, subsequently known as the Tropical Building Division, at the Building Research Station in Garston, Hertfordshire, England. The discussion is based on the assumption that technoscientific architectural knowledge emerged as part of a broader shift in mid-twentieth-century colonial governance toward a rational technocratist modality. Chang advances several criticisms of the privileging of climate as a determinant of architectural form. For one, a climate-based technocratist approach rendered political problems outside the calculus of architecture. Second, the use of climate as a geographic register reduced concerns about location to climatic data, which meant that places with similar climates would necessarily receive the same architectural solutions, irrespective of sociocultural norms. Finally, the technocratist modality led to the further accumulation of power at the sites of knowledge production, which were generally located in metropolitan centers. London was indeed an important node in the production of knowledge about tropical architecture, and this chapter makes an important contribution by chronicling the unwritten histories of tropical building stations. However, it ultimately reinforces the centrality of London in a rapidly changing world order after World War II. It would be interesting to see how emerging Commonwealth building stations bypassed older centers of nineteenth-century empires. The case of Australia as a center of knowledge production would certainly challenge the centrality of London. The education of architects like Balwant Saini in Australia highlights how the postwar geographies of tropical architecture networks were changing rapidly.8

Chang next chronicles, in chapter 6, how the production and dissemination of knowledge about tropical architecture changed with the emergence of the British Commonwealth. The resulting rise of applied building sciences and the emergent field of environmental design changed architectural practice in Britain. The teaching of tropical architecture was transformed into exercises that centered on climatic design and marginalized cultural and socioeconomic issues. Through the flattening of regional and cultural differences, tropical architecture and the notion of tropicity were transformed into rational, global design strategies that were based on the precise correlation of architectural elements—building envelopes, window sizes, and shading devices—to quantified climatic data. Through this process any architect, even one completely unaware of the future building’s cultural context, could create optimal architecture that was claimed to be highly responsive to the local climate. Chang argues that these developments led to the ready dissemination of metropolitan knowledge and professionals alike, reinforcing the power and knowledge hierarchies that had formed the basis of colonialism.

A global history of tropical architecture poses a methodological challenge in an academy that is structured around an area studies paradigm privileging place-bound histories. As a global discourse, tropical architecture had crisscrossing yet different trajectories in diverse locations, trajectories that were further complicated by the differences between French and British notions of colonial and tropical architecture. Oriented from the vantage point of Singapore, A Genealogy of Tropical Architecture adds to the emerging body of scholarship on tropical architecture as a networked imperial discourse that had a profound epistemological impact on the architectural curricula in the Anglophone tropics after decolonization. Chang’s book is a welcome and much-needed addition to existing histories of modern architecture in the formerly colonized world, which rarely find their way into the standard surveys of modernism. Ambitious in its scope, the book’s aim to account for the entire history of tropical architecture is both its strength and its weakness. On the one hand, it offers a long history of an idea that evolved with the vicissitudes of the British Empire—an absolute intellectual treat. On the other hand, the book’s attempt to trace a vast sweep of time inevitably leads to areas where the scholarship is diluted. Chang’s treatment of the period after the establishment of the Department of Tropical Studies at the Architectural Association is less rigorous than his treatment of tropical architecture in the nineteenth century.

The book is particularly relevant and highly valuable at a time when the growing body of knowledge around anthropogenic climate change has epistemically reversed how we view the relationship between architecture and climate. As it has become apparent that buildings, as one of the key consumers of fossil fuels, contribute significantly to climate change, the relationship between architecture and climate has undergone a paradigmatic shift—from one in which climate was a determinant of architectural metrics to one in which architecture is an active agent in the transformation of global climatic systems. This book examines how discourses of tropical architecture systematized the relationship between architecture and climate to create the field of climatic design, which was predicated on the idea of climate as an eternal and enduring phenomenon.

BOOKS

Notes


Edward R. Burian

The Architecture and Cities of Northern Mexico from Independence to the Present

Austin: University of Texas Press, 2015, 350 pp., 34 maps, 30 color and 488 b/w illus. $65 (cloth), ISBN 9780292771901

Edward R. Burian's newest book not only draws our attention to a startling lacuna in the history of the architecture and urbanism of Northern Mexico but also expertly addresses this scholarly omission. Most architectural histories of Mexico focus on pre-Columbian, colonial, and twentieth-century modern architecture, especially the architecture produced in and around Mexico City. As Burian notes, even canonical books on colonial architecture in Mexico “almost completely ignored colonial architecture north of Zacatecas” (1). Aside from an unevenly implemented 1914 inventory of historic sites in Northern Mexico, undertaken in response to a Mexican federal order, and a skeletal inventory of cultural resources compiled in 1988 by the Instituto Nacional de Antropología e Historia in the states of Tamaulipas, Chihuahua, and Nuevo León, Burian's book represents the first attempt to document the architecture and urbanism of this region systematically. Burian argues that the industrial character of the region—shaped by historic and economic ties between Mexico and the United States and Europe—has contributed to this elision, since Mexico has often been imagined as “a folkloric antidote to the industrial technology of the United States” (2).

The destruction of much of the nineteenth-century fabric of Mexico’s northern cities and a lack of comprehensive archives in the region made Burian’s task difficult. His archival and field-based research, conducted over ten years in dozens of Mexican cities—sometimes with the expert guidance of local historians—documents for the first time architects in the region such as Carlos Gómez Palacio of Torreón, works in the region by famous architects from the United States and Europe, like Walter Gropius and Myron Hunt, and the intertwined architectural economies of the United States and Northern Mexico, as seen through the work of Alfred Giles and others. With this survey-style architectural guide—the type of publication historian Stephen Fox has termed a “gazetteer”—Burian successfully accomplishes what he set out to do by building “basic knowledge” of immeasurable historic value that also uncovers fertile ground for future in-depth analysis of the region.

The opening chapters present sweeping narratives of the geography, cultural landscapes, history, and morphology of the region. The body of the work is organized geographically from east to west, through humid to dry geologic conditions across Mexico’s northern states: Tamaulipas, Nuevo León, Coahuila, Chihuahua, Durango, Sonora, Sinaloa, and Baja California Norte and Sur. The book’s organization contributes to its versatility. Historians, preservationists, tourists, and architects can use it as an architectural guide, a historic and preservation reference, a source for architectural survey material, or a trove of examples awaiting future research. For each city, town, and village, dozens of examples are organized temporally, spiraling out from the older historic cores to newer peripheral developments. Significant examples are accompanied by detailed descriptions of materials, composition, and “sensory experience.” Beyond monumentality, Burian defines significance, in part, through his own hapric encounters with these buildings—buildings that linger in his memory are here archived. The buildings’ urban context is privileged; while few examples are accompanied by architectural plans, the book’s illustrations include more than thirty urban core plans and more than five hundred well-formatted photographs.

Rather than offer a chapter-by-chapter overview, I will present here examples from disparate Mexican states to elucidate some of the historical trends that animate the region. The cities of Northern Mexico are in many ways defined by both their proximity to the United States and their distance from Mexico City. The region was sparsely populated by Mexicans or Anglo-Americans before the Mexican–American War (1846–48), but then the construction of three railroad lines was initiated in the 1880s, and by 1910, Mexico City was linked to Nogales, Arizona, as well as to El Paso and Nuevo Laredo in Texas. Transportation boosted the development of cities and towns, as new terminals and hotels were built amid expanding grids. Burian describes the formal characteristics of memorable sites like the Hotel Salvador in Torreón, Coahuila, and the Hotel Ancira in Monterrey, Nuevo León, as a part of this transportation urbanism. He documents the relationship between urbanism and the development of transportation, from the railroad to the construction of Mexican highways, noting that “American-style” suburbs developed from the 1960s through the 1980s as old riverbeds in Chihuahua and Durango, for example, were converted into autopistas, or freeways.

Concurrent with the construction of the three railroad lines that connected Mexico City to the U.S.–Mexico boundary in the 1880s, the Law of Colonization permitted foreigners to acquire large areas of land in Northern Mexico. Rapid industrialization is evident in Monterrey, Ciudad Juárez, Torreón, and Hermosillo. Additionally, during the regime of Mexican dictator Porfirio Díaz (1876–1911), foreign enterprises were largely exempt from taxation, which helps to explain how Mexico became the world’s third-largest producer of oil. The city of Monterrey is still home to the largest steel mill in Latin America and serves as Mexico’s industrial and distribution center for the northern states. Burian documents emerging building types in the eighteenth and early nineteenth centuries: banks, breweries, commercial buildings and factories related to the industrial and agricultural developments of the region, and new institutional buildings and state prisons, notably the Cárcel de Estado in Ciudad Chihuahua, and a state penitentiary in Hermosillo, Sonora.

The circulation of architectural expertise and building materials across the U.S.–Mexico border characterized the development of buildings and cities in the region. Architects from the United States—especially from St. Louis, Missouri, and San Antonio, Texas, which had important rail connections with Nuevo