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Simon De Nys-Ketels, PhD Candidate
Department of Architecture and Urban Planning, Ghent University, Ghent, Belgium

For a long time architectural history has been monopolized by the “problem of the predominantly Western architectural canon.”1 Recently, however, architectural historians have not only started to look beyond the classical canon, uncovering or reassessing long-undervalued buildings and geographies, but have also begun questioning canonical thinking altogether. The well-trodden path of the “live-and-work” narrative is being abandoned to make way for a more fine-grained understanding of how (beside the architect-genius) an array of actors, agencies and institutions, operating within socio-political and technoscientific contexts, have also shaped the built environment.

Jiat-Hwee Chang’s *A Genealogy of Tropical Architecture* is an important contribution to this burgeoning body of literature. Nowadays entailing a wide range of styles, “tropical architecture” as such was baptized and institutionalized in the 1950s. However, focusing on Singapore as a case in point, Chang looks beyond this “founding moment” (p. 3) of tropical architecture, showing how formal and technical design solutions used for building in the tropics actually predate this founding decade and are deeply rooted in nineteenth- and twentieth-century British colonialism. In this respect, he draws on and extends the earlier work of Anthony D. King, in particular his seminal book *Colonial Urban Development* (1976).2 Fully developing the notion of a genealogy in his book, Chang unearths how racial and medical discourses, socio-cultural constructs of “tropicality,” asymmetrical colonial power-relations, and most important of all, the development of a technoscientific network, have had a profound impact on Singapore’s architecture.

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Using six separate, thematic chapters, each with its own topic, Chang dissects these various origins of tropical architecture. Subdivided into two main parts—building types, and research and education—the chapters are chronologically ordered, and intelligently complement one another, to form a well-crafted, although somewhat fragmented genealogical narrative of tropical architecture.

The first chapter uses the notion of “heterogeneous engineering,” introduced in 1987 by the historian of technology, John Law, to question the significance of the architect-genius in the development of early colonial housing for Europeans during the nineteenth-century, foregrounding the somewhat neglected role of engineers, building surveyors, and local contractors. Chapter 2 shifts attention to the typology of the cantonment and the military barrack. It is here in particular that Chang’s indebtedness to the early studies of the cantonment in British India by King come to the fore. On the one hand, Chang shows how specialized technoscientific knowledge enabled construction standards and type-plans for military barracks to be adapted to the tropical climate from the second half of the nineteenth century onwards. Building codifications meticulously stipulated room size, ceiling heights and window surfaces, ensuring that these spaces were well-ventilated, and as sanitary as possible. Such building standards and type-plans functioned as what Chang calls “technologies of distance” (p. 10), allowing the construction of similar barracks across the British colonial world, thus making the military barrack a “global form” (p. 78).  

On the other hand, this second chapter builds on Foucault’s notion of governmentality to unveil how the military cantonment became a sanitized European enclave and a colonial space of exception. Chapter 3 addresses similar themes. As mortality rates, meteorological data, and nosological statistics diagnosed the tropics as a pathological site, Chang describes how the European pavilion-typology hospital needed to be adjusted to the tropical climate in the early twentieth century. Again, good ventilation was considered key to producing salubrious spaces, and the realization of sanitary hospital buildings sought to install a “regime of biopower” (p. 112), similar to sanitary reform in Great-Britain. However, as Chang argues, this inherently colonial regime differed substantially, as it privileged British citizens over Asian inhabitants. Introducing the notion of “ornamental governmentality,” Chang (p. 94) reveals how differences in ornamentation and comfort of the hospital wards for Europeans and Asians had to manifest and reaffirm the asymmetrical power relations of British colonialism.

The fourth chapter tracks renowned British sanitarian, William J. Simpson, and his investigation of “native” housing and living conditions during the interbellum period. Despite the extensive surveys Simpson carried out in Singaporean neighbourhoods, Chang shows how the implementation of type-plans for Singaporean housing failed due to a lack of updated maps, reliable statistical information, and funding.

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3 Pedro Guedes has been addressing similar themes, see e.g. Pedro Guedes, “Infrastructures for the Spice Trade: factories and fortified enclaves on the shores of the Indian Ocean and Far East,” in Christoph Schnoor (ed.), The 31st Society of Architectural Historians, Australia and New Zealand (SAHANZ) Annual Conference, Auckland: Society of Architectural Historians, Australia and New Zealand (SAHANZ), 2014, p. 703–714.
The two last chapters, which deal respectively with research and with education related to tropical architecture, constitute the second part of the book. Chang describes in Chapter 5 how a technoscientific network was constructed through conferences, local building research stations, and especially the Colonial Liaison Unit, a central research body led by George Atkinson that advised the Colonial Office. Drawing on actor-network-theory, he argues that this network was contingent rather than stable, and not only worked to centralize power in the metropole’s Colonial Liaison Unit, but could also benefit the periphery. The last chapter returns to the founding decade of the 1950s. Expanding earlier work by Hannah Le Roux and Ola Uduku on the connection between the Architectural Association and architecture in West Africa, Chang highlights the political roles the Royal Institute of British Architects (riBA) and the Department of Tropical Studies at the Architectural Association, led by architect Otto Koenigsberger, played in the education and dissemination of climate-responsive design.

Well-written and thoroughly documented, together, these chapters convincingly show that tropical architecture predates its “founding moment” and is deeply ingrained in British colonialism. However, the thematic chapters not only convey the book’s central argument. Using interesting theoretical points of entry such as heterogeneous engineering (Chapter 1) and ornamental governmentality (Chapter 3), they also provide valuable insights into their own respective topics, be it with respect to the different building typologies, research or education.

That said, and although Chapter 2 and 3 are closely interrelated, A Genealogy of Tropical Architecture sometimes reads more like an edited volume than a book with a single narrative. Indeed, despite the fact that some protagonists—Atkinson, Simpson, the rIba—appear multiple times throughout the book, each chapter makes its own argument, introducing new architects, policy makers, engineers and governing bodies. As a matter of fact, three of the six chapters have already been published as articles or book chapters elsewhere. Bringing these texts together has the merit of compiling Chang’s main writings on the topic in one volume, and the substantial introduction does make a contribution by shedding light on the common threads of tropicality, governmentality, and technoscientific networks that run across these texts. Nonetheless, most of the chapters read as finite entities, rather than as parts of a clear and overarching argument. The splitting of the book into two parts testifies of this somewhat artificial construction. In the first part, the use of particular building typologies or even specific buildings to address broader research questions works well rhetorically, but this stands in stark contrast with the second part’s very broad scope of research and education. Off course, the chapters are chronologically organized, and part two addresses the late-colonial and postcolonial period, during which much better coordinated networks of knowledge were established. As such, Chang reasonably argues that this shift of scope away from specific building typologies towards key institutions and their technoscientific knowledge production and dissemination adds more to the burgeoning body of literature on tropical architecture than the more usual focus on concrete built production. Still, this very different approach further divides the already fragmented narrative.
Nonetheless, be it a book or an edited volume, *A Genealogy of Tropical Architecture* remains the result of a formidable and meticulously executed research effort, and an extraordinary piece of scholarship because of this. By drawing on wide-ranging bodies of theory, especially a skillful cross-fertilization of the Foucauldian notion of governmentality and Latour’s actor-network-theory, Chang provides valuable new insights that expand earlier work by Peter Scriver on British India.\(^4\) However, the book not only focuses on a different context, it also reveals how Chang thinks through this interdisciplinary theoretical framework to analyze thoroughly the emergence of tropical architecture in Singapore. As such the book provides useful theoretical understandings of governmentality and actor-network theory in colonial and decolonization contexts.

Intelligently blending this stimulating theoretical knowledge with a startling amount of diverse and geographically disperse archival sources, Chang’s research is quintessentially interdisciplinary. However, he does limit his research to British colonial and post-colonial networks, and however varied his sources may be, they remain exclusively Anglophone. He is well-aware of these omissions and admits in his preface that “important histories and significant contributions to tropical architecture of other European and American colonial powers are not included,” nor are “the influences of institutions and actors from the socialist countries, Scandinavia and Israel” (p. xxi), which have been explored by scholars such as Haim Yacobi and Lukasz Stanek. Nonetheless, using Singapore as an entry point to discuss global technoscientific networks and knowledges, he does not appear to acknowledge fully the important impact actors and institutions of other, non-Commonwealth nations might have had on these networks. Recently, it has been suggested that, with respect to technoscientific networks underlying the built production in the tropics, international connections existed that transcended (former) colonial boundaries, and charting these pose particular challenges for future research.\(^5\)

Through the concept of a genealogy, Chang aims to foreground “previously peripheral discourses” (p. 3), but by leaving out alternative narratives of French, Belgian, Lusophone, German or other (post-)colonial powers, he implicitly reiterates the Anglophone-dominated discourse of architectural colonial history. A case in point is Robert Matthew, one of the key figures in chapter six. He was the first president of the Commonwealth Association of Architects, a daughter-organization set up by the RIBA as a platform to disseminate information on tropical architecture. As Chang points out, the RIBA used this association to “maintain its ties with the ‘allied societies’, the former / decolonizing countries” (p. 205). However, although he refers to the work of Miles Glendinning, Chang omits to mention that Matthew was a prominent figure in the *Union Internationale des Architectes* (UIA), a Paris-based organization with many members from


outside the Commonwealth, and, as Glendinning has shown, an organization that strongly influenced Matthew’s work as an architect-diplomat. Moreover, not only did the UIA shape the architectural views of Robert Matthew, views that undoubtedly influenced his work at the CAA, the UIA also juried international architectural competitions and provided a forum for debate on (tropical) architecture in decolonizing countries. These are additional plot lines that certainly would have enriched Chang’s genealogy.

Despite these criticisms, A Genealogy of Tropical Architecture remains an outstanding piece of academic literature. Even if the architects, policy makers, and institutions that feature in Chang’s narrative are predominantly British, he fully succeeds in disentangling and historicizing the various influences operating on these actors and agencies, convincingly unveiling the emergence of tropical architecture in Singapore and beyond. Abandoning the live-and-work approach that has long eclipsed architectural history, and shifting the gaze away from the iconic masterworks and the architect-genius to underexposed geographies, actors, and “grey architecture,” Chang’s book unveils the overlooked socio-political histories behind tropical architecture, thus posing new and refreshing questions that open up the field of inquiry in a stimulating and constructively destabilizing way.

Index de mots-clés : architecture tropicale, colonialisme, influence
Index géographique : Europe, Europe de l'Ouest, Royaume-Uni
Index chronologique : xixe siècle, xxe siècle
Index by keyword: tropical architecture, colonialism, influence
Geographical index: Europe, Western Europe, United Kingdom
Chronological index: 19th century, 20th century

Index de palabras clave : arquitectura tropical, colonialismo, influencia
Geografía : Europa, Europa Occidental, Reino Unido
Periodo : siglo xix, siglo xx

Schlagwortindex : Architektur der Tropen, Kolonialismus, Einfluss
Geographie : Europa, Westeuropa, Vereinigtes Königreich

Parole chiave : architettura tropicale, colonialismo, influenza
Indice geografico : Europa, Europa occidentale, Regno Unito
Indice cronologico : xix secolo, xx secolo

8  G.A. Bremner, Johan Lagae and Mercedes Volait, op. cit. (note 5), p. 236.