

Neeraj Bhatia & Mary Cooper (eds) (2013) *The Petropolis of Tomorrow*. New York: Actar & Rice Architecture. 576 pp., (hardcover), ISBN: 978-0989331784

Carolyn Loeb & Andreas Luescher (eds) (2015) *The Design of Frontier Spaces: Control and Ambiguity*. Burlington, Vermont: Ashgate. 268 pp., £65 (hardcover), ISBN: 978-1472419767.

What these two edited volumes have in common is that they are both directed at understanding frontier zones and the fluidity of borders. In his thoughtful contribution to *The Design of Frontier of Spaces*, Michael Leaf suggests that a frontier is “a place of encounter, of interaction and contestation between disparate groups, with the potential for new forms of social mixing, place of promiscuity” (*Design of Frontier Spaces*, p. 195). Despite some of the early claims associated with the age of globalization, borders that mark frontiers have not disappeared. Taken together, the scholars who have contributed to these two volumes address a wide variety of perplexing questions as to what actually happens at the frontier. Some scholars examine the frontier as an ‘empty space’ waiting to be filled. Others see it as an interface separating different logics, systems, or modes of regulation. Still others have discovered what they regard as sites of intrigue and deception.

The point of departure for *The Petropolis of Tomorrow* is the claim that a new form of hybrid urbanity has emerged with the pairing of the city and resource extraction. “Envisioning the oil platform as a new geography of urbanism,” Filipe Correa exclaims in the ‘Forward’, “the work examines how the process of petroleum and natural gas extraction can serve as the backbone for more comprehensive urbanism at sea.” This nearly 600-page edited volume is a *tour de force*. The collected essays offer a broad survey of oil extraction along the Brazilian coast, looking at the hybrid social projects that link industry and urbanism to create “an alternative twenty-first century extraction town” (*Petropolis of Tomorrow*, p. 9)

The Petropolis of Tomorrow is a design and research project examining floating cities associated with offshore oil extraction approximately 150 miles from the coast of Rio. These distant offshore platforms are an alternative to the land-based urbanism typically associated with resource extraction. Oil companies have begun to look upon these new ‘floating frontier towns’ as semi-permanent platforms that can house workers and facilities for the storage of materials. As these frontier islands acquire more functional operational capacities outside the production of oil, they become laboratories for investigating how urban space and place are produced and conceived. This project is not just an exploration of new floating urban typologies. It also offers a speculative vision of the integration of infrastructure, landscape, and architecture within the wider spectrum of economics, politics, and the environment. The proposals for new systems of infrastructure-at-sea are responses to the dilemmas faced by *Petrobras*, the state-owned Brazilian petrochemical corporation. As oil rigs are located farther and farther out at sea, increased transportation costs for both transporting oil and for moving oil rig workers have become prohibitive for profitable production. In seeking to deal with the tremendous logistical nightmare of maintaining uninterrupted resource extraction, *Petrobras* has begun to explore how to relocate oil rig workers offshore.

This edited volume is the scholarly outcome of a transcontinental applied research network called the South American Project. This multidisciplinary research effort brought together scholars affiliated with the Harvard University Graduate School of Design, the California College of the Arts, School of Architecture at Rice University, and the Department of

Architecture at Cornell University. The overall focus of this design-research project is “the new *Petropolises*” – or new cities that come into existence to foster resource extraction. Despite the rapid expansion of infrastructural-logistical landscapes directed at oil and gas extraction from the sea, the conjoined fields of architecture and design have devoted surprisingly little attention to the unique challenges that this new form of urbanism faces.

In contrast to a focus on landscape urbanism, *The Petropolis of Tomorrow* provides a glimpse at seascape urbanism – with its floating frontier cities. This new archipelago urbanism represents a significant departure for city-building in the 21st Century. The industrial landscapes associated with resource extraction from the sea present a multiplicity of changes at once logistical, organizational, and infrastructural. If, as Keller Easterling suggested in *Enduring Innocence* (2005: p. 64), “the sea is the alter ego of the land,” then we need an alternative conceptual vocabulary to describe floating ‘sea cities’. The contributions to *The Petropolis of Tomorrow* have taken this first step toward theorizing the new realities of “floating cities” only loosely tethered to land.

While *The Design of Frontier Spaces* shares a fascination (and even fixation) with frontiers and borders, its contributors take the discussion in an entirely different direction. The starting point for this edited volume is the assertion that borders are much more than “lines on maps” – they are also spatial zones where elements of design, architecture, infrastructure, and logistics come together to not only limit and/or enhance social interaction but also to create new meanings. The single great strength of this collection of essays is the scope and breadth of its concrete investigations. The contributions to the volume are divided into three distinct sections: 1) the border as a line through space; 2) border buildings; and 3) spatial ambiguity and (dis)embodied memory. This separation helps a great deal, since the scholarly perspectives of the essays range from art and humanities to history and urban geography. The classification scheme enables readers to identify common themes in the three sections while not becoming distracted by the great diversity of sites.

The high and consistent quality of the theoretical interventions in *The Design of Frontier Spaces* means that scholars from multiple disciplinary backgrounds can gain useful insights from essays that may be outside their normal field of vision. By providing fresh perspectives and opening up new terrains of scholarly exploration, these two volumes are indeed significant contributions to the study of borders, frontiers, and spatial relations more generally.

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