Choice" program gave guests a financial incentive to skip room cleaning that resulted in severely disrupted workflows and deterioration of interior finishes because of a buildup of mildew and other dirt. Finally we hear directly from a handful of Starwood house-keepers Brody was able to interview, but his strongest evidence is the union action that successfully convinced Starwood to cancel the program in Hawaii. He sees this case study as a key example of why workers need to be integrated into the service design process, not just guests and design professionals.

The final chapter again promises the voices of hotel housekeepers that are crucial to Brody's advocacy of a co-design approach to hotels. Chapter 6, "'We Truly Listened to Our Guests': Rethinking the Redesign of the Hyatt Regency Chicago," offers a case study of a labor dispute largely escalated by management's failure to consult with hotel staff about a renovation. By not acknowledging interior design choices that made the work of hotel housekeeping more difficult, the Hyatt Regency found itself in a drawn-out labor dispute with a union local. Again, access to some hotel maids and their thoughts enhances this chapter but the results are tantalizing more than satisfying, leaving the reader wishing for more. Brody is clear about the role of collective bargaining in making the voices of hotel housekeepers heard within the hotel corporate hierarchy, but also mainly interested in renewing his advocacy for management/ labor collaboration through a vaguely defined co-design approach. In his conclusion, Brody continues his close reading of popular culture images of hotels, in this case the Jennifer Lopez motion picture Maid in Manhattan from 2002. He again emphasizes the contrast between the popular imagination of hotels and the more complex reality.

In Housekeeping by Design Brody attempts to expand the Marxist critique of the dehumanizing conditions of work to consider the "dynamic and often fluid relationships that exist among guests, workers, and managers" in a hotel (4). Brody's advocacy of a user-led

design approach that includes hotel workers is intriguing and most successful when linked to specific examples where co-design might have resulted in a different outcome for a labor dispute. Ultimately, however, this advocacy falls short of describing how co-design would work in practice. Scholars of vernacular architecture will appreciate the interdisciplinary approach to investigating hotel use, but perhaps find the evidence supporting Brody's conclusions rather thin. Using the lens of hotel design and housekeeping, this book offers a wide-ranging but ultimately shallow critique of service industry labor relations in a neoliberal economy.

## **AUTHOR BIOGRAPHY**

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## Jesse LeCavalier

The Rule of Logistics: Walmart and the Architecture of Fulfillment

Minneapolis: University of Minnesota Press, 2016.
296 pages, 101 black-and-white illustrations, 11 plates
(Kindle ed.: 112 black-and-white and color illustrations).
ISBN: 978-0-8166-9331-3, \$105.00 HB
ISBN: 978-0-8166-9332-0, \$30.00 PB

Review by Mark Gillem

Kindle \$17.49

The Walmart museum occupies a carefully restored three-story brick building directly across from the beautifully recreated town square in downtown Bentonville, Arkansas. It is an act of place-making that is as good as anything Walt Disney created in his own make-believe towns. Outside a reimagined soda fountain, street-side tables rest neatly

on wide brick sidewalks, red-and-white awnings protect continuous storefront windows, ample on-street parking adds color and motion, and tasteful signage harkens back to a simpler time. These elements all work together to paint a picture of the idyllic American small town. But behind the façade is a rapacious corporation whose logistical practices have led to the decline of real small towns scattered across the American land-scape. The irony is unmistakable.

In his remarkable book, The Rule of Logistics: Walmart and the Architecture of Fulfillment, Jesse LeCavalier, currently an assistant professor of architecture at the New Jersey Institute of Technology, introduces readers to the logistical systems used by the corporation largely hidden behind the attractive streetscape of Bentonville's historic downtown. He begins the story in Las Vegas, another make-believe place, far away from Walmart's headquarters in Bentonville. The setting is a retail real estate convention organized by the International Council of Shopping Centers, the industry's main trade group. The topics range from how to market a municipality's advantages to site locators for major retailers to what to do with abandoned buildings left behind when those same retailers move on to more profitable (or perhaps more heavily subsidized) pastures. Walmart's booth at the convention was, appropriately, one of the largest.

How has a company with such humble beginnings—the Walton five-and-ten opened in 1950 on Bentonville's town square and the first Wal-Mart opened in 1962 in Rogers, Arkansas—amassed an unmatched retail empire? The answer to this question lies in part within LeCavalier's book. It is, of course, not alone in its documentation and analysis of Walmart. The company's approach to retailing and management has been the subject of thousands of popular and scholarly books, papers, and articles. What LeCavalier offers is a way of looking at the corporation through the lens of space, in particular logistical spaces, rather than personnel policies,

corporate environmental practices, or Walton management philosophies. This is new ground and a significant contribution to the field of architectural studies (not to mention business). LeCavalier uses Walmart to help deconstruct the relationship between business operations and buildings and he argues that the nature of the logistical enterprise is what actually shapes Walmart's, and hence much of America's built landscape.

LeCavalier organizes the book into five major sections. In section 1, "Logistics," LeCavalier sets the stage for Walmart's model. The linkage to military logistics (made both by LeCavalier and the company itself) is especially relevant and offers an informative perspective on the movement of goods in support of a clear mission. The battlefield for Sam Walton was not overseas in some remote jungle or desert, however, but in the small towns and cities of America. His goal was to defeat the retail competition through a superior logistical enterprise.

LeCavalier's references to military theorists like Carl von Clausewitz, Antoine-Henri Jomini, and James Huston help reveal the military legacy of Walmart's logistical strategies and tactics. Left largely unmentioned here, however, are the costs of this retail war. The most obvious are the many American communities struggling to keep local businesses and historic downtowns viable. But there are others. Walmart's reliance on Chinese products taxes the U.S. economy and national security. By repressing the labor rights of its workers and limiting their wages Walmart offers the lowest price possible, but at the expense of Chinese workers and the Chinese environment. By investing part of its trade surplus in U.S. Treasury bills, China inflates the value of the dollar, which lowers the cost of its imports. The expanding trade deficit with China, in part thanks to Walmart's logistical efficiencies, has likely given Chinese military strategists some of the funds needed to build out their own expansive logistical network. But they are not building big-box retail outlets; they are building new

military bases across the South China Sea to establish dominance over the region. In turn, the United States responds by increasing its own defense budget, thereby increasing the nation's deficit, which ultimately hurts most the very people who rely on Walmart's low prices to stay afloat.

Section 2, "Buildings," focuses on the three primary building types in the Walmart portfolio: the supercenter, the data center, and the distribution center. Each type has its own unique logistical signature designed to maximize efficiencies and the flow of products into and out of Walmart stores across the world, and the flow of capital into (but not out of) the hands of Walmart's shareholders. A brief history here describing how shopping evolved into a self-service model is informative and leads smoothly into the discussion of prototypes and formats Walmart uses to process, store, and display products.

Section 3, "Locations," describes in detail how Walmart locates its stores and support facilities using increasingly complex systems on Earth and in space. While a helpful discussion centers on political and economic issues related to locating Walmart stores in and around Vermont, this section could have better benefited from more in-depth analysis of the controversies and compromises that revolve around Walmart's locational decisions across the world.

Section 4, "Bodies," focuses on the human dimension of Walmart's massive distribution centers and describes how the evolution of human-machine systems is changing the dynamic to one where the machine thinks and the human labors. In light of recent warnings about artificial intelligence by Elon Musk, as well as a Hollywood fascination with the topic in television (think of HBO's Westworld) and on the big screen (the 2017 thriller Ghost in the Shell), this section has increasing relevance.

LeCavalier devotes section 5 of the book, "Management City," to Walmart's home region of Northwest Arkansas and suggests that this assortment of gated communities, strip malls, museums, and megachurches is a new form of urbanism, a "new citadel of logistics" (212). While this may be a stretch given that many American cities are experiencing this phenomenon, the clarity with which LeCavalier describes the region through text and his own images is informative and impressive. Aerial images (harkening back to Sam Walton's own love affair with seeing from the sky), photographs, maps, and even building sections help tell the story of the region. In a section devoted to the Crystal Bridges museum we hear from the project's sponsors, its architects, and its patrons, and LeCavalier offers a rich description of what on the surface appears to be a rather oddlyplaced major American museum.

LeCavalier's research methodology is, in itself, an impressive exercise in logistics. He takes us on a grand tour of Walmart's world. His research scope is impressive and includes references to architectural history, planning theory, military theory, and logistical systems development. Sources include Google Earth, real estate development websites, local municipalities, newspapers, the author's own field surveys, convention paraphernalia, Walmart annual reports, military archives, corporate collections (Walmart as well as Boeing, Rand, Bell Watch, ESRI), trade associations, architectural offices, and historical societies. His own travels from Warrenton, Oregon, to Merced, California, to Bentonville, Arkansas, and to the last holdout state of Vermont is further testament to his thoroughness. He offers many rich quotations, including from Sam Walton, who proclaims things like, "I think our main real estate effort should be directed at getting out in front of expansion and letting the population build out to us" (78).

The writing is relatively free of jargon and the images and figures help tell a compelling story. Too often, however, LeCavalier appears to back away from obvious opportunities for critique that could inform the reader of more nuanced readings of Walmart's spatial practices. For example, a cleverly paired set of images compares the original rendering for a Walmart store in Warrenton, Oregon, which its planning commission rejected, to the revised rendering that the commission eventually approved. They are nearly identical save for three rather humble screening devices. While the caption discusses variations to siting, visual screening, and parking configuration, the design choices and their politics are left invisible to the reader. This is a missed opportunity to dive deeper into the approvals process for one of Walmart's main building types. A more robust discussion could have better informed communities in their future negotiations with the rapidly expanding retailer.

In the end, *The Rule of Logistics* succeeds in helping the reader better understand the sociocultural, political, and economic drivers behind the design decisions of one of America's largest logistics companies—a company that also happens to fulfill the dream of many American consumers for cheap and easily accessible products. The book also offers fresh insight into the origins of the low-density, automobile-oriented development commonly referred to as sprawl. As a result, LeCavalier expands the field of urbanism studies by carefully and creatively linking logistics with the contemporary built environment.

## AUTHOR BIOGRAPHY

Mark Gillem is a professor of architecture and landscape architecture at the University of Oregon. He holds a PhD in architecture from the University of California, Berkeley, and is a fellow of the American Institute of Architects and a fellow of the American Institute of Certified Planners.

## Max Hirsh

Airport Urbanism: Infrastructure and Mobility in Asia

Minneapolis: University of Minnesota Press, 2016. x + 204 pages, 100 black-and-white and color illustrations.

ISBN: 978-0-8166-9609-3, \$87.50 HB ISBN: 978-0-8166-9610-9, \$25.00 PB Kindle, \$23.75

Review by Owen Gutfreund

Airports are architecturally unlike other buildings because of their expansive footprints, their unique and complex programs, their visibility from so many directions, distances, and elevations, and their symbolic role as economic and technological civic statements. Airport exteriors are usually visually striking and photogenic, while their interiors often contain a glossy landscape of consumption replete with futuristic overtones. As a result, many books about airports have focused on these characteristics, either offering artful photographs of trophy architecture or exploring the design and planning of the walled micro-city within, and the implications thereof. Few authors or scholars have looked beyond the walls and boundaries of airports to consider their broader cultural, economic, and regional contexts. Fortunately, Max Hirsh's Airport Urbanism is unlike most airport books.

In fact, despite the title of his book, airports themselves are not Hirsh's primary object of study. Rather, he has used airports and the related transport systems to shed light on new and changing patterns of multinational mobility. He shows us that the dramatic growth in air travel to and within Asia has not been driven just by an increase in international businessmen and wealthy tourists, but has also included four notable groups of less-affluent travelers: middle-class

retirees from the growing roster of more affluent Asian countries; expats returning for visits; international students; and middle-class workers traveling domestically as what Hirsh calls post-agricultural "migrant workers." By considering this fuller range of travelers, Hirsh provides readers with a nuanced view of economic and cultural changes in the region, and the roles that airports and air travel play in these historic changes. His is not an as-expected critique of the impacts of globalization, formalization, and modernization, in which megastructures like airports are interpreted as physical manifestations of these external forces. Instead, he shows us that Asian air travel is inextricably tied to an unexpectedly rich blend of activities, informal as well as formal, entrepreneurial as well as staterun, local as well as international. Furthermore, he shows us that the neighborhoods surrounding the airports are an important component of the air-travel ecosystem.

Hirsh builds his case by drawing on studies of four large Asian cities and their airports, from four different nations: Bangkok, Hong Kong, Kuala Lumpur, and Singapore. It is worth noting that the national contexts vary considerably—economically, politically, socially, and culturally. This breadth enhances the utility of the book, increasing the contribution that it makes to scholarship, both on airports and on cities in Asia more generally. The Hong Kong case-which gets far more attention than any of the others—also encompasses its mainland megacity twin, Shenzhen. Separate but unequal airports serve this dual-centered metropolitan region that straddles the geographic and political barriers between semi-independent Hong Kong and mainland China. The Shenzhen airport serves most of the region's domestic travelers, with flights to dozens of destinations throughout mainland China and a handful of nearby countries. Meanwhile, the Hong Kong airport supports international flights to worldwide destinations. It is not unusual for big cities to rely on two coordinated airports

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