Eli Elinoff & Kali Rubaii (eds.)

The Social Properties of Concrete

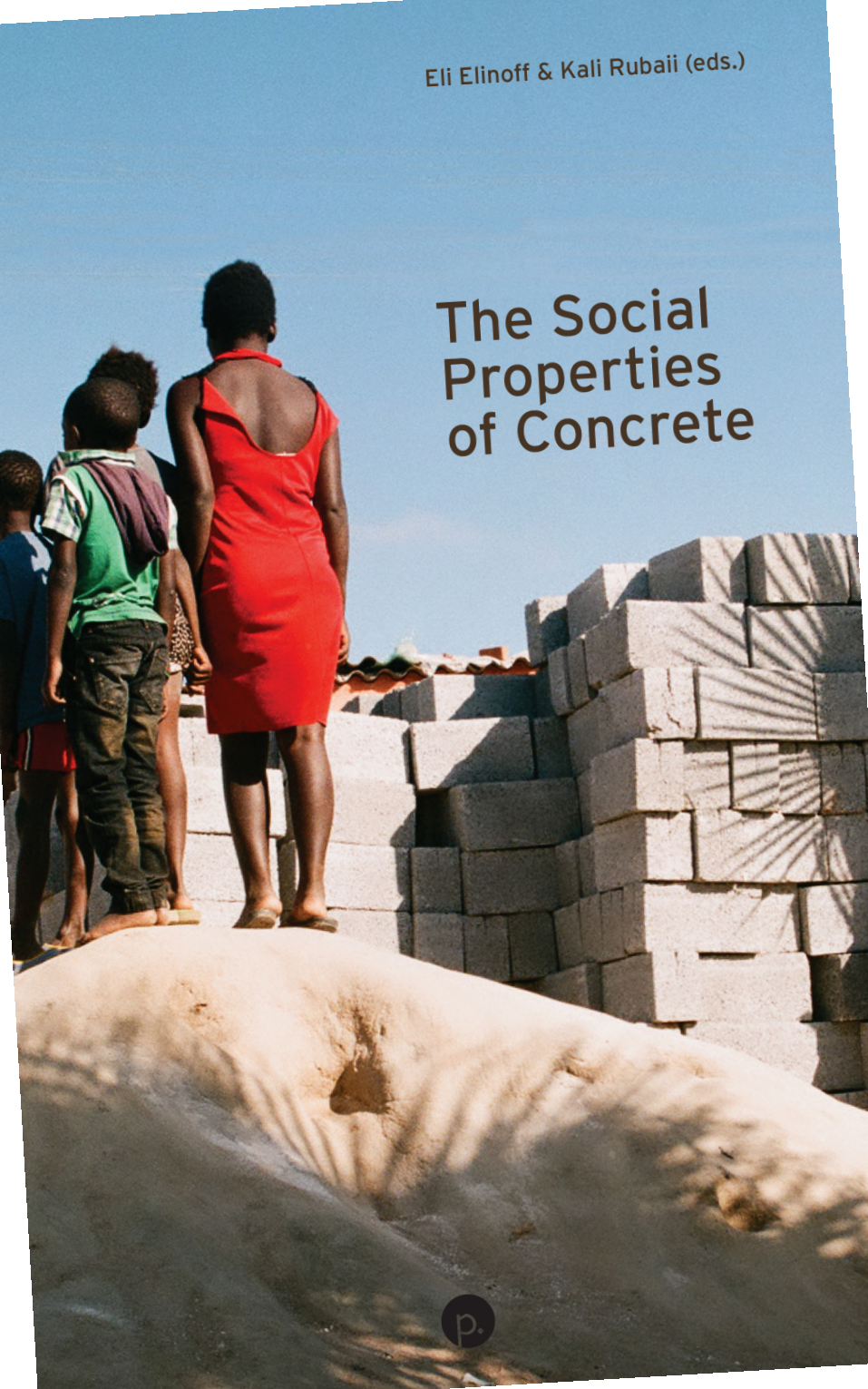

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Fig. 1. Detail from Hieronymus Bosch, *Ship of Fools* (1490–1500)

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The Social Properties of Concrete

Contents

Acknowledgments

This volume emerged from a series of provocative panels, workshops, and conferences organized by different people between 2017 and 2021. Although not coordinated in a formal sense, these events produced a loose collective of scholars working in various parts of the social sciences and humanities on issues related to concrete and cement. Without these people and their hard organizational work this project would not exist. Thanks specifically to Cristián Simonetti and Denis Byrne's two-part panel at the Knowledge/Culture/Ecologies Conference organized by Universidad Diego Portales and Western Sydney University in 2017; Heid Jerstad and Julie Soleil Archambault's panel at the American Anthropological Association meeting in Washington, DC, also in 2017; and Victor Sacha Cova's brilliant three-day event entitled Concrete Anthropology, held at Aarhus University in 2018. Kali Rubaii also organized an adventurous multidisciplinary sequel to the Aarhus event at Rice University, "Ecopolitics of Concrete," under the auspices of a grant in 2019. At that workshop, a hands-on cement and concrete-making activity was led by Jon Chaconas. Finally, Rubaii and Eli Elinoff organized and hosted a multi-day online workshop that resulted in the outline and chapter drafts for this project in the beginning of 2021.

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This book was launched in the earliest days of the COVID-19 pandemic in 2020. Planning, drafting, editing, workshopping, and organizing took place across multiple stages of quarantine, self-isolation, lockdown, travel, and stasis. Perhaps even more than other writings, this book emerged from the blurring of our domestic and our workspaces. We'd like to thank our families for welcoming this project into our homes and for their patience with many late night and early morning Zoom calls as we negotiated time differences across the world. That support made this possible.

We also thank the many communities and community members whose lives are featured in the chapters presented here, whose insights are reflective of surviving, seeking justice, and making worlds in the age of concrete.

PLASTICITY

Elihu Rubin

Concrete holds a tension between being rigid and plastic at the same time. Attention to the material's plasticity at one stage raises the question of what to do with it once it becomes fixed and obdurate, posing new challenges for how we reimagine our cities and their futures. This chapter explores the material's plasticity through a careful examination of a monumental icon to twentieth-century automobility, the Temple Street Garage in New Haven, Connecticut. This project occurred under the banner of forward-looking optimism, but also enacted a kind of brute force on the city and its residents, displacing city blocks in the aim of wrenching the city into the future.

It can be difficult to explain my reverence for the Temple Street Garage in New Haven, Connecticut. Garages rarely evoke the degree of awe usually reserved for cathedrals or skyscrapers. Despite its ubiquitous presence in cities large and small across the United States, the municipal parking structure is an unsung and overlooked component of the built environment. The Temple Street Garage, however, elevates this ordinary edifice to an

Figure 26.1. Temple Street Garage, facing North toward the New Haven Green, 1996. Photo: Robert Ellickson, Yale Visual Resources Collection #301068.

epic, almost confrontational format: spanning two city blocks (760 feet long) in the city's central business district and made almost entirely out of poured-in-place concrete, the Temple Street Garage is a modern monument to the mid-twentieth-century preoccupation with parking as an expression of the public interest.

Designed by the noted modernist architect Paul Rudolph, the building was intended, from the start, to be spectacular and optimistic. When it opened in 1962 the garage was a confident symbol of a time when cities advanced bold proposals to modernize the urban environment. After sixty years of service, however, the garage is beginning to show its age. From today's vantage point it can be difficult to recreate that sense of buoyancy and excitement. The building is still owned and operated by New Haven's Department of Transportation, Traffic, and Parking, but exhaust and grit stain its surfaces. Nets have been installed in a few places where the concrete is flaking to catch falling debris.

The sheer scale and material monotony of the garage can be overwhelming. In a 2008 video reflecting on the work of Paul Rudolph in New Haven, the architectural historian Vincent Scully put it this way: "As it is on the street, I think it's very unsympathetic. It overwhelms the street with its dark presence; [it has] none of the scale of the street, none of the invitation that streets have. It's a brutal image on the street, I think" (Taylor and Rubin 2008).

That sense of brutality has come to describe an entire generation of concrete structures from the 1960s, and it has been elevated to a moniker of architectural style: "Brutalism." Derived, at least in part, from the French *béton brut,* meaning "raw concrete," the term evoked an unvarnished manifestation of the material's substance. For some advocates, an exposed concrete structure expressed a kind of honesty: it had no "façade" in a traditional sense; no false, decorative applications of historicist bric-a-brac. To lay hands on the building was to commune with its very essence.

To the layman on the street, however, academic pronouncements about material honesty did little to soften the image of a gigantic concrete garage that dominated a relatively narrow street. My sense of admiration comes not from the "brutalism" of the garage but from the way that Rudolph exploited concrete's amazing plasticity — its receptivity to the diverse forms that contain it. Having arrived on site as mud, the concrete was poured into a great ark of thin wooden boards, reinforced with steel rods, where it made the transition from malleable to fixed.

The building's form is composed of long, flat trays held aloft by a series of paired vertical supports, or piers. Accentuating the continuous, flowing quality of the concrete, Rudolph united the unfurling parapets with the structure of the building. These low barriers — arranged in a dynamic, A-B-A-B (or dash-dot-dash-dot) pattern — curl outward, held aloft by vaulted forms that created the illusion of a series of arches. It was an effect made possible by the local ship-builders who were hired to assemble the wooden forms that molded and shaped the concrete. An early reviewer called it "Rudolph's Roman Road," because

of the apparent likeness to an arched aqueduct. But Rudolph's expressionist forms masked what was essentially a trabeated structure of posts and lintels (McQuade 1963, 108, and see also Rohan 2014, 67–75).

Indeed, despite the supposed honesty of exposed concrete, Rudolph embedded in the garage a large degree of artifice. Concrete is not only plastic but also impressionable. The concrete of the Temple Street Garage is impressed with the grain of the thin boards used to make the forms, and in places the building appears to be composed of petrified wood. Thin ridges, where the wet concrete oozed between the seams of the boards, express the weight of the structure pressing down. Frozen in place, the ridges catch the light and generate a striated texture that may have been Rudolph's attempt to integrate an element of ornamentation into the body of the structure.

The overall spatial experience that Rudolph created is both exhilarating and full of contradictions. The staggered parking trays, connected by short ramps, seem endlessly long; but the ceilings are quite low — better suited to the ground-hugging cars of the 1960s than to the high-clearance SUVs of today. The garage feels at once expansive and cramped, futuristic and antique, elemental and elaborate, brittle and elastic, massive and quaint.

The other awesome element of the Temple Street Garage is the hubris of it — the fascination of the very idea that this amount of effort and space would be given over to car parking. In post-World War II America, cities throughout the United States were fighting a battle to defend their preeminence against expanding suburban sprawl. And in the age of the automobile, if cities were to be places to live, work, visit, and shop, there needed to be ample space to park. In this way, the Temple Street Garage — and thousands of other municipal garages built in the 1950s and 60s across the United States — ushered in a radical transformation of what a city was and how it worked. Today, it forces a reckoning with the choices that urban leaders — politicians, planners, property owners, and policy-makers — made in their efforts to

rescue cities from a perceived crisis of viability in an increasingly diffuse and car-oriented metropolitan environment.

It was a heady time for charismatic mayors like New Haven's Richard C. Lee, who fully embraced modern architecture and urbanism as both instruments and symbols of progressive investments to modernize the central city. Lee was under the spell of advisors like Maurice Rotival, a professor of city planning at Yale and an acolyte of the famed modernist Le Corbusier, who proposed extensive urban clearance and rebuilding around a new organizing structure of high-speed, limited-access highways. The garage was part of Richard C. Lee's slate of monumental building projects that represented New Haven's stature as a leader in the field of urban redevelopment. And for a building as central as this one to the mayor's plan, he sought to hire Paul Rudolph, a modernist luminary who was then the Chair of Yale's Department of Architecture (see Cohen 2019, 65–66).

New Haven's first major experience with federally-funded Urban Renewal was the condemnation and clearance of the Oak Street neighborhood to make way for an urban connector highway that provided the city with its own on-ramp to the I-91 and I-95 Interstate Highway interchange. For Lee, the Oak Street Connector was a "Dream Come True" and the culmination of two distinct goals: the elimination of a notorious slum and the installation of a gleaming new piece of infrastructure intended to give idealized suburban shoppers and office workers direct access to the city (see Rae 2003, 312–60, and Jackson 2008, 28–51).

In cities across the country, urban districts like this one — poor, racially and ethnically diverse, and characterized by a mix of land uses, including light-industry, warehousing, and an active commercial landscape of hotels, restaurants, stores, and services, as well as housing — were targeted in a wave of demolition that condemned all of that activity with a single phrase: "slums and blighted areas."[1] It was a devastating sacri-

1 Over six hundred municipalities displaced families through federally funded Urban Renewal projects. Families of color were far more likely to

fice of an entire neighborhood and an unambiguous statement about the city's intended users: they would drive cars and arrive by expressway. In this context, the garage was much more than a place to store cars. "It is a symbol of the city's revitalization" (McQuade 1963, 108, and see Ammon 2016, 140–81).

And for Rudolph, too, there was excitement in the parking garage's role in the city's evolving morphology. He thought of the garage as "throughway design," an extension of the emergent highway network of which it was a part. "I wanted to make it look like it belonged to the automobile and its movement[, …] a system of bridges over large open spans" (*Architectural Record* 1961, 152). Cars traveling on the Oak Street Connector could access the garage directly from the highway without having to navigate city streets.

The architect was intent on solving the problem of the "joint" between the new landscape of high-speed mobility and the traditional urban fabric (Rudolph 2008a). "Many of our problems arise from the automobile. There is a double scale now that has never existed before: a scale for pedestrians and a scale for automobiles," he wrote, "and we have to learn how to make the transition from one to the other" (Rudolph 2008b). The Temple Street Garage was Rudolph's attempt to make this transition through the plasticity of concrete.

Part of this effort can be understood by the two sides of the garage. The interior-block side led directly to two new department stores that anchored the Church Street Redevelopment Project; visitors could avoid city streets entirely. But on the Temple Street side, Rudolph used the supporting piers and overhanging parapets to create a giant portico, or covered walkway,

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be displaced; in many large cities, two-thirds or more of those displaced were people of color and African American neighborhoods were destroyed at disproportionate rates. In the Church Street and Oak Street redevelopment areas in New Haven, 671 families were displaced of which 588 were white. For project-by-project statistics and visualizations of family displacements, see Digital Scholarship Lab (n.d.). The statistics in "Renewing Inequality" do not include single people, nor do they include the extensive displacement of businesses and institutions.

that was lined with street-facing storefronts and restaurants on the block between Crown and George Streets.

Despite this seemingly gracious and urbane gesture, bringing a massive pile of bare, unsanded concrete to the city, had a tragic side as well. In the view of Vincent Scully, the architectural historian, the problem was the wholesale discarding of large swaths of the existing city and the sacrifice of the rich social and architectural worlds that had developed there over time. "The planning ideas of modernism couldn't have been more cataclysmic. You just raze the whole city, and make it new" (Taylor and Rubin 2008).

Scully joined others who lamented the physical and social upheaval caused by Urban Renewal. "How we could believe that that's what you could do to a city, to human beings. I mean, urbanism is moral. It has to do with the way people live. And that's why you can't invent urbanism. You cannot invent it!" (Taylor and Rubin 2008). Yet this is precisely what Rudolph attempted to do: to invent a new urbanism, one focused on highways and garages, despite his astute appreciation for its critical juncture with the existing urban fabric.

How do we hold them both in our heads at the same time? How do we reconcile the optimism of urban rejuvenation — the automobile zooming into the central city — with the displacement that such a move implied? How do we square the restructuring of urban space that deepened residential segregation and marginalized the poor with the raw appreciation, even reverence, that we feel for such monuments as the Temple Street Garage? It requires a cognitive plasticity that may only be possible for those with the privilege to observe the changing city from a secure vantage point.

As with many issues in architecture and urban development, we must face stark contradictions. One reaction, as understood by Paul Rudolph himself, is to acknowledge that our cities are shifting and restless terrains that require adaptability over time. "One thing is certainly clear," Rudolph wrote, "our cities constantly change. This suggests that those buildings which form the bulk of our cities, such as housing, and office, and com-

mercial buildings, should be open-ended and capable of being modified, expanded, converted, et cetera" (Rudolph 2008a).

In 1962, Rudolph said that despite urban change, cities would never get rid of automobiles. He may be right; they continue to dominate in the vast majority of American cities (Rudolph 2008b). But there are now distinct opportunities to diminish the impact of cars on the built environment, and New Haven's Temple Street Garage — along with countless other concrete garages in other cities — would be a great place to start. Considering adaptive reuses for the long, flat trays of the garage, starting with its often-empty roof, calls for a different kind of plasticity; and I believe it's something Paul Rudolph would have welcomed.

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