

Resilient Assemblages: Expanding Access and Equity through Practices of Piggybacking

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“Piggybacking Practices” is an ongoing research project and recent virtual exhibition and symposium presenting one possible approach to expanding access and equity in the designed environment through incremental, opportunistic means. Piggybacking practices are defined here as multiple-use propositions capable of anchoring undercapitalized activities alongside other more traditional forms of urban development. Piggybackings exploit gaps or niches in the logics and economies of conventional spatial practice while assembling disparate actors together into new and more equitable and resilient forms of collectivity.

The Piggybacking Practices Exhibition highlights a range of formal and informal piggybackings (with and without the involvement of design professionals), and this paper, like the recent symposium, examines roles for architects, designers, and planners in identifying and visualizing latent sites, situations, and practices where piggybackings might intervene in the cause of equitable communities. It also reveals how piggybacking practices present opportunities for architects to effectively serve more than one client—to operate with “hidden agendas” in pursuit of alternative values beyond profit by “smuggling” a larger set of design objectives into conventional design contracts. In this way, piggybacking practices present architects and designers with opportunities for expanding access and equity, in part, by overcoming the limitations of our own disciplinary economy.

BUILDING EQUITABLE COMMUNITIES IN AN ERA OF PRIVATIZATION: CHALLENGES AND OPPORTUNITIES

Amidst growing calls for equity and social justice to once again become an animating force among architecture’s disciplinary agendas, it’s worth briefly recalling Modernism’s social ambitions, which—however flawed or misguided—sought to widely distribute the benefits of good design in service of a more equitable society. In contrast to our present circumstances, where private interests dominate, these ambitions matured alongside a sustained period of public-sector activism that retreated dramatically in the final decades of the last century.

Architect Finn Williams, co-founder of the London-based social enterprise Public Practice, demonstrates the magnitude of this shift with one illuminating statistic. In his 2018 essay “Designing Upstream: Rebuilding Agency Through New Forms of Public Practice,” he reveals that at the height of the welfare state in the UK—when the London County Council Architects’ Department was the largest architecture office in the world—nearly *half* of all architects were employed directly by the public sector, contributing to the design of social housing and other public works.¹ Williams goes on to quote one architect’s reflection on that time: “We were going to build a better and more equal society.”² Williams then points out that by 2017, following the collapse of the post-war consensus, and after nearly four decades of privatization (initiated by prime minister Margaret Thatcher in the 1980s), the percentage of UK architects employed by the public sector had fallen *below one percent*. While the exact details of the rise and fall of the public sector’s direct involvement in community design are beyond the scope of this paper, and were different in the U.S. than in the U.K., the broad outlines of the story are nevertheless similar: the public sector has largely outsourced its once active role to the private sector, leaving architects without a well-resourced partner to act in the interest of underserved communities.

This pronounced shift from public to private sector has haunted the design professions for the past four decades, and frustrated architects’ efforts at serving marginalized communities. Will this post-pandemic era finally produce a moment of reckoning? It’s much too soon to tell. (As of this writing, the Democrats’ proposed infrastructure package remains stalled in negotiations on Capitol Hill.³) But given the ongoing scarcity of robust public-sector support for equitable community development and design, how are today’s socially minded architects to practice? It seems that for now, architects and designers must continue to devise resourceful strategies for partnering with and elevating undercapitalized and marginalized communities while simultaneously operating within the limitations of a disciplinary economy that is considerably constrained by the predominantly bottom-line interests of the private sector. For now, architects and designers must continue to utilize targeted, opportunistic tactics to advance community interests—albeit marginally and incrementally—in an era of protracted resource scarcity.

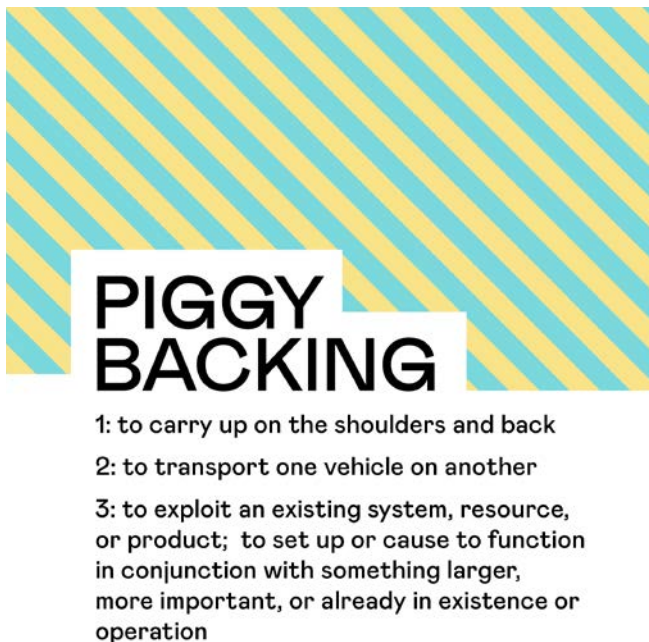


Figure 1. Defining piggybacking. Image by the author.

It is in this context that “Piggybacking Practices”—an ongoing research project and recent virtual exhibition and symposium, hosted by the Fay Jones School of Architecture and Design at the University of Arkansas and organized by this author—presents one possible approach to expanding access and equity in the designed environment through incremental, opportunistic means. This paper, like the recent symposium, examines an emerging set of tactics for expanding access, equity, and resilience in the designed environment through incremental, opportunistic means. It provides an overview of these tactics—defined here as “piggybacking practices”—in relation to contemporary forms of inequality in the built environment. Using a sampling of case studies, the paper will demonstrate how architects, designers, and planners are using these tactics to identify, visualize, and activate latent sites and situations in the cause of equitable communities.

These case studies help to reveal a broader set of sensibilities and commitments shared by an increasing number of socially minded design professionals today. We will see how piggybacking practices present opportunities for architects to effectively serve more than one client—to operate with “hidden agendas” in pursuit of alternative values beyond profit by “smuggling” a larger set of design objectives into conventional design contracts. In this way, piggybacking practices present architects with opportunities for combating entrenched inequality, in part, by overcoming the limitations of our own disciplinary economy.

PIGGYBACKING PRACTICES: A DEFINITION

What are piggybacking practices? *Merriam-Webster* offers three related definitions of piggybacking in verb form:

1. *To carry up on the shoulders and back, as in a piggyback ride.*
2. *To transport one vehicle on another, as in piggybacked transport.*

In these first two definitions, piggybacking involves a literal carrying; an assist—leveraging one actor’s capabilities to extend the performance of another.

3. *To exploit an existing system, resource, or product; to set up or cause to function in conjunction with something larger, more important, or already in existence or operation.*⁴

This third definition begins to suggest hybrid programs and networked relations, where one actor’s availabilities align with another’s needs—akin to certain forms of cross-species entanglement.

For our purposes, piggybacking practices in the built environment can be defined as multiple-use propositions capable of anchoring undercapitalized activities alongside other more traditional forms of urban development. Piggybackings exploit gaps or niches in the logics and economies of conventional spatial practice while assembling disparate actors together into new and more equitable and resilient forms of collectivity.

These practices are best described by example: rooftop agriculture, market-rate condominiums sponsoring basement artist residencies, and intergenerational student–senior homeshares. These are just a few of the twenty-one case studies that formed the basis of an online exhibition and symposium I organized this past spring at the Fay Jones School of Architecture and Design at the University of Arkansas. The exhibit, and the symposium, were part of an ongoing effort to answer the following questions, among others:

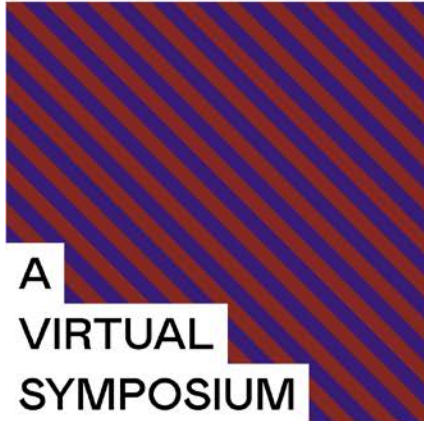
1. To what contemporary cultural and economic pressures are these piggybacking practices responding?
2. What role can piggybacking practices play in countering these forces?
3. What insights do these practices offer for architects and planners seeking practical avenues for expanding equity and access in underserved communities?

PROSPECTS FOR ADVANCING ACCESS AND EQUITY THROUGH PIGGYBACKING PRACTICES

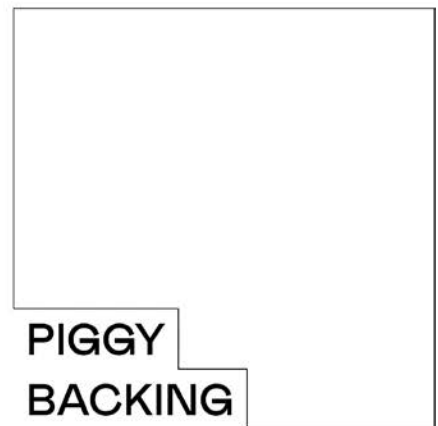
It’s been clear for at least two decades now, that efforts by architects and planners to address today’s mounting public crises—climate change, housing shortages, and record levels of inequality—must be staged from within the increasingly dominant frameworks of financial capitalism and corporate urbanism. As public-sector commissions dwindled in the 1970s and 80s, ushering in an era of rampant privatization, architects and designers were forced to adapt in order to serve the needs and



Symposium Exhibition About



This virtual symposium, hosted by the Fay Jones School of Architecture and Design at the University of Arkansas, assembles some of today's most innovative architects, urban designers, and scholars for a two-part conversation exploring "piggybacking practices" in relation to contemporary forms of inequality in the built environment.



MONDAY, MARCH 15, 2021, 4-6 PM CDT

Session 1 will examine common piggybacking tactics such as niche inhabitation, resource sharing, and waste stream capture, and ask how these tactics can be leveraged in support of larger strategic aims.

PANELISTS

Clare Lyster
CLUAA, Chicago, IL

Dan Adams and Marie Law Adams
Landing Studio, Somerville, MA

Ivi Diamantopoulou and Jaffer Kolb
New Affiliates, New York, NY

MODERATORS

Mason White and Lola Sheppard
Lateral Office, Toronto, Canada

MONDAY, MARCH 22, 2021, 4-6 PM CDT

Session 2 will explore the emancipatory potentials of piggybacking practices in relation to the wider discourse around advocacy and activism in architecture and urban design.

PANELISTS

Georgeen Theodore
Interboro, Brooklyn, NY

Teddy Cruz and Fonna Forman
Estudio Teddy Cruz + Fonna Forman, San Diego, CA

Joyce Hwang
Ants of the Prairie, Buffalo, NY

MODERATOR

Dana Cuff
cityLAB at UCLA, Los Angeles, CA

Hosted by the Fay Jones School of Architecture and Design
University of Arkansas

Organized by Brian Holland
Assistant Professor of Architecture

Both sessions are free and open to the public as part of the Fay Jones School's Spring 2021 lecture series, co-presented by *Places Journal* and the University of Arkansas Division of Diversity, Equity and Inclusion.

[Register](#) on Zoom



Figure 2. Excerpt from the *Piggybacking Practices* website. Image by the author.

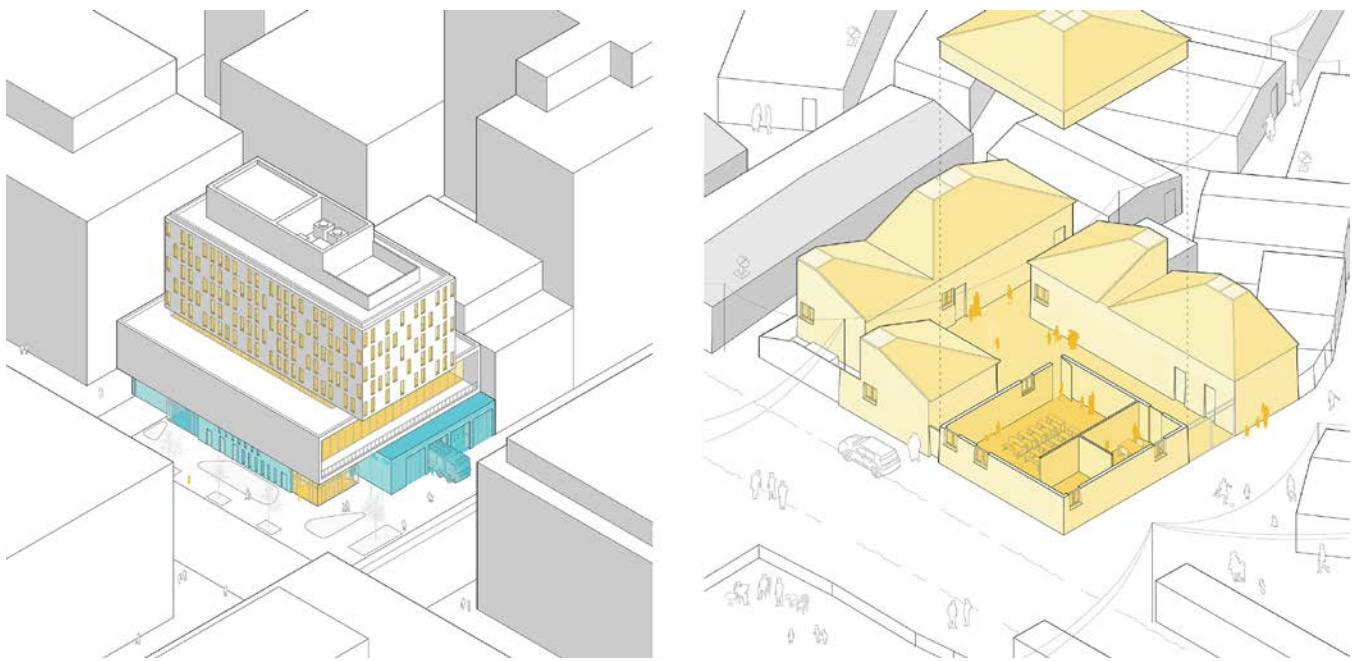


Figure 3. Case studies from the *Piggybacking Practices* virtual exhibition. Drawings by the author.

desires of the market economy. This dramatic and pronounced shift—from public- to private-sector service—has haunted the design professions for the past four decades and frustrated architects’ efforts at serving marginalized communities. Now, facing multiple social and environmental crises, including ever-growing levels of inequality, how are today’s socially minded architects to practice?

Piggybacking practices are—at least in part—a response to this challenge; they’ve emerged in the wake of the public sector’s decades-long retreat from urban planning and design, and alongside widespread increases in urban inequality. Often lacking the necessary land or capital to build in a traditional manner, piggybacking practitioners operate tactically, within the space of the other. They scan the urban landscape looking for opportunities in vacancy, waste, and un- or underexploited niches. These opportunities may be spatial—that is, existing in, on or in-between buildings and sites. But they may also be temporal—existing within the daily, weekly, seasonal, or onetime gaps between use and non-use.

At the *Piggybacking Practices* symposium in March of 2021, the panelists spoke of the following motivations in their work, among others.⁵

- Expanding public access and opportunity.
- Capturing waste streams and revealing hidden value.
- Empowering the marginalized.

These objectives are evident in the following selection of case studies, excerpted from the *Piggybacking Practices* online exhibition.⁶

PIGGYBACKING CASE STUDIES

West End Square 50 is a unique mixed-use building by TEN Arquitectos that piggybacks three different programs atop each other—fire station, squash courts, and housing—to increase housing affordability in an expensive neighborhood of Washington, D.C. (fig. 3, left). The project was realized through a public-private partnership that leveraged the untapped potential of an underutilized site.⁷ Instead of merely replacing the previous, aging fire house with another standalone station, the project dramatically increased the value of this publicly owned lot by stacking six stories of affordable housing above the fire station.

Similar approaches are being explored in other cities, including Boston, as property values escalate and local governments look to leverage the untapped value of their land holdings. In 2018, for example, Boston’s Housing Innovation Lab initiated a public conversation to explore the potential of what it termed “Housing with Public Assets,” targeting a similar piggybacking tactic to enhance the redevelopment of its aging municipal facilities.⁸

The Jarahieh School for Refugees is an example of waste-stream piggybacking that crosses continents and cultures to capture the architectural by-products from an international exposition. The Milan Expo of 2015 consisted of 70 temporary pavilions that amounted to an expenditure of 13 billion euros. Intent on putting this massive, short-term investment to longer-term use,

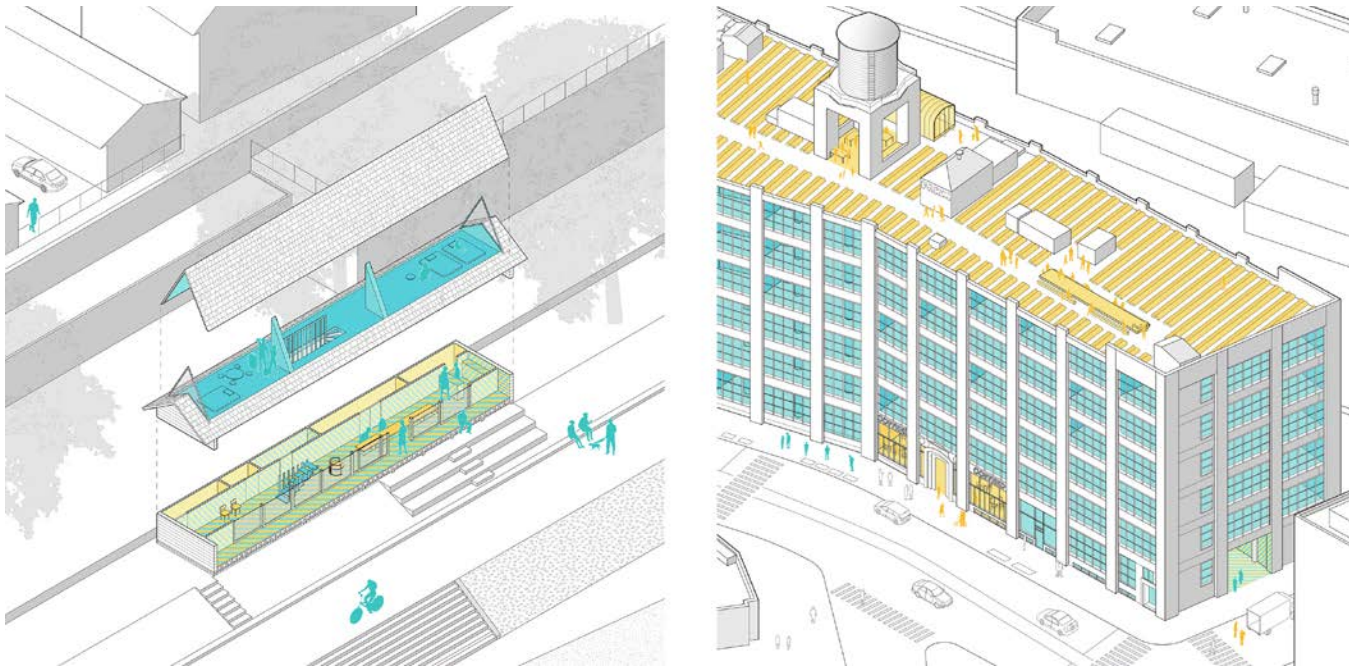


Figure 4. Case studies from the *Piggybacking Practices* exhibition. Drawings by the author.

Save the Children Italy made a commitment to the architectural reuse of its own expo pavilion in support of its larger philanthropic mission.

The organization connected with London-based CatalyticAction to plan for and implement the pavilion's afterlife as a semi-permanent school for Syrian refugees in Lebanon. To do this, CatalyticAction adapted the pavilion's modular design, reconfiguring its six independent frame structures to support the needs of both the school and the larger community of the settlement (fig. 3, right). The structure was assembled, insulated, and clad by residents of the settlement working alongside the design team from CatalyticAction, who tapped into local skill sets and material knowledge as the basis of an inherently participatory process.⁹ The end result is a multipurpose school and community center that leveraged underutilized international resources along with local skills and materials to improve quality of life in the Jarahieh settlement.

In 2016 Airbnb founded an in-house design and innovation lab called Samara. Headed by the cofounder of Airbnb—a graduate of the Rhode Island School of Design—Samara was conceived with a heady mix of design vision, tech-sector solutionism, and corporate ambition stimulated by fear of decline. The idea was to build upon Airbnb's experience as a peer-to-peer homestay platform to branch out into product design, architecture, and even urban planning.⁹ The group's first test project was the Yoshino Cedar House, located in a small Japanese fishing village with an aging population and a declining economy. The aim was to rejuvenate Yoshino's economy with Airbnb-style tourism, while simultaneously creating a shared community center for the town

and preserving cultural heritage. The resulting project, designed with architect Go Hasegawa, is a hybrid community center and homestay that offers spaces for communal cooking, dining, and social gatherings on the ground floor, and private spaces for up to seven Airbnb guests on the upper level (fig. 4, left). The project is managed by a 31-member cooperative that shares both hosting duties and revenues—a percentage of which is earmarked for a community investment fund. The town, which donated the land, clearly perceived a benefit to letting Airbnb finance the construction of the community center. As Samara's first foray into design and planning and an experimental economic model, Yoshino Cedar House was never intended to turn a profit for Airbnb. It remains to be seen whether the model will prove to be either replicable or scalable to serve other communities, or whether it will remain a one-off corporate experiment with "community design."

Brooklyn Grange, a soil-based commercial farm located on the rooftops of three large industrial buildings in New York City, seeks to leverage the collective social capital of the community gardening project to realize urban agriculture's potential as a venue for public action on topics of social, environmental, and economic concern (fig. 4, right). Unlike other rooftop commercial farms, which prohibit public participation in greenhouse farming operations for reasons of food safety and security, Brooklyn Grange encourages it. Brooklyn Grange constitutes three extensive soil-based rooftop farms designed and programmed to address a more expansive audience. They employ a wide variety of techniques—including polyculture, on-site composting, and beekeeping—and host a weekly farmer's market during summer months and internship and training programs. The enterprise

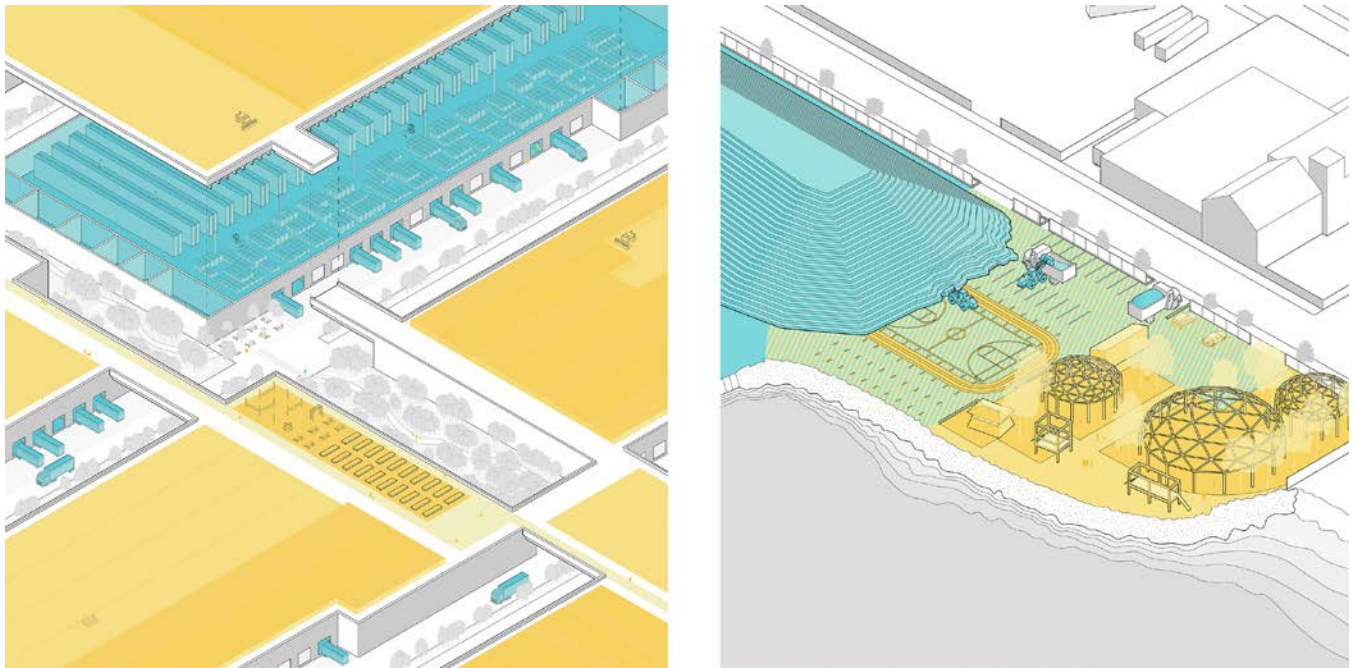


Figure 5. Case studies from the *Piggybacking Practices* exhibition. Drawings by the author.

also comprises a green-roof consulting business and a community-events venue with a skyline view. Brooklyn Grange depends on the economics of piggybacking, but it also employs the tactics of piggybacking as a means to catalyze the public, strategically leveraging its rooftop lease toward the establishment of a novel agricultural commons in the heart of the city.

As Brooklyn Grange demonstrates, rooftops are now more commonly considered as sites for supplementary uses, including energy harvesting, habitat creation, and rainwater collection and management. A speculative proposal for rooftop industrial agriculture and community recreation, developed as part of the author's teaching and research with architecture students in a graduate research studio, applies this thinking to the vast agglomerations of distribution warehouses that increasingly dominate the landscape of the contemporary city.

The typical distribution cluster consists of sprawling one-story warehouse structures devoted solely to the efficient storage and distribution of goods, these enormous complexes—the logistical lynchpins of the contemporary supply chain—generate tremendous economic activity but are culturally and ecologically barren. These architectural deserts destroy species habitat and gobble up prime farmland, blanketing the urban landscape under acres of asphalt, concrete, and elastomeric roofing. Astonishingly, many of these warehouses are as big as the farming plots they have replaced, in essence trading one industrial monoculture for another. This relentless horizontality creates vast tracts of 'terra incognita'—effectively blank sections of city known only to those who work there. And this, often despite their frequent proximity to commercial districts and residential communities.

A speculative proposal for a complex of "Eco-Warehouses" suggests an alternative planning strategy for distribution clusters that would rezone future warehouse districts in support of both rooftop agriculture and recreational parkland (fig. 5, left). Here, multiple warehouses are compacted into an efficient mat configuration, with loading zones and trucking lanes thread in between. Air-rights transfers and robust roof structures generate developable farmland above efficiently networked clusters of warehouse buildings. A cut-and-fill operation depresses grade by several feet while lifting existing topsoil to the warehouse rooftops, facilitating ease of pedestrian access to rooftop levels from adjoining streets and neighborhoods. Parking lots and loading zones work in concert with distributed ecological systems to provide the necessary wind breaks, water catchment areas, and species habitat to support both agricultural and ecological productivity. Lastly, the introduction of recreational bike paths, playgrounds, and community gardens in and among the farming plots offers up these reclaimed roofscapes for public use and generates an unlikely typology of urban agricultural parkland—an elevated public farm that fuses normally conflicting programs into a singular, symbiotic urban ecology.

Finally, the P.O.R.T. (Publicly Organized Recreation Territory) in Chelsea, Massachusetts, spearheaded by Landing Studio, demonstrates how heavy industry can work alongside the public sector to enhance the public realm amidst the industrial operations of an active waterfront (fig. 5, right). Here, public and industrial users navigate the seasonal oscillations of a shifting salt pile. Landing Studio's design for the site takes both user groups into account to maximize the opportunities produced by this temporal difference. The salt pile is at its largest in winter

when the Massachusetts town's demand for road salt peaks. When the salt pile retreats in the summer, a multi-use public space is revealed to provide the public with fair-weather access to the waterfront.

The project was the result of years of complex negotiations between the city, the property owner, the industrial operator, and Landing Studio. Suzanne Lanyi Charles wrote in J.A.E. that the "project's programmatic richness could not have been fully realized...if not for the architects' early involvement in the planning of the project and their collaboration with state agencies, city representatives, local community leaders, and attorneys."¹¹ Hybrid projects like P.O.R.T. demonstrate that planners and designers must develop a wide circle of collaborators and an expanded repertoire of techniques if they seek to build resilient public-private assemblages through piggybacking operations like these.

CONCLUSION

This paper highlights several resourceful strategies—piggybackings—for partnering with and elevating undercapitalized and marginalized communities while simultaneously operating within the typical service model of professional architectural practice.

At their best, piggybacking practices create surprising entanglements that provoke novel forms and programs of social exchange capable of promoting greater equity and resiliency in the built environment. In part, this is an argument against monoculture and in favor of mixed uses—an approach that requires a wide range of initiatives, policies, and practices, and challenges designers to develop a repertoire of new techniques and sensibilities.

In closing, the following questions are offered as a prompt for further inquiry:

1. How might architects, designers, and planners entice agents of corporate or institutional power—our typical client base—to seed opportunities for future piggybackings by those in the margins of the urban economy?
2. With what other practices might these tactics be paired in pursuit of broader goals like the expansion of access and opportunity in the cause of more equitable communities?

Perhaps projects like the ones detailed in this paper, and in the Piggybacking Practices online exhibition, can play some role in answering these questions. What's certain is that they demonstrate the possibility of design action in the near-term—however modest—while we await longer-term progress toward a renewed public commitment to more equitable forms of community design and development.

ENDNOTES

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