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Cover image: The last bit of snow ascent to the summit of Mount Olympus. Photo by Gabe O'Leary (page 58)

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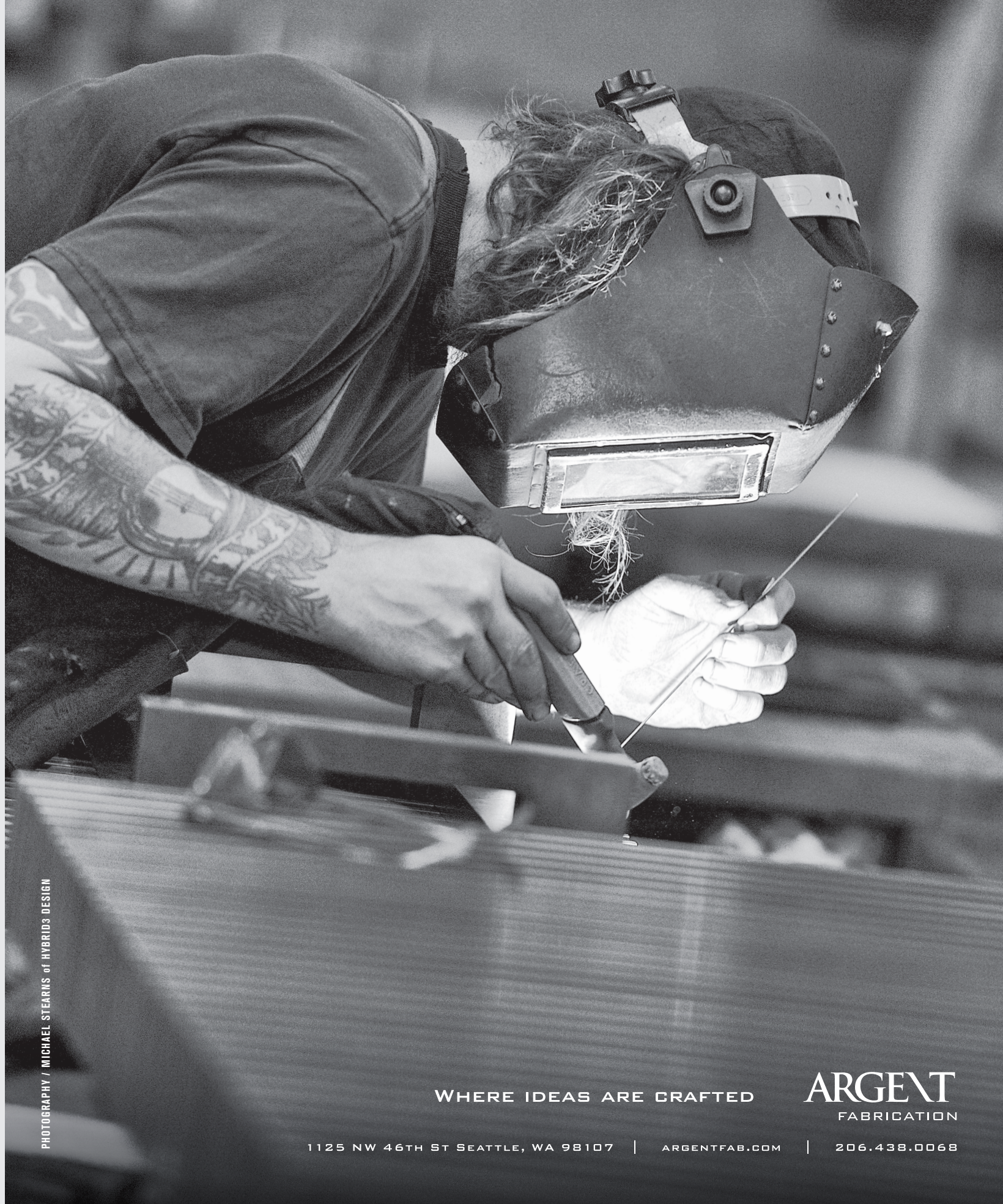


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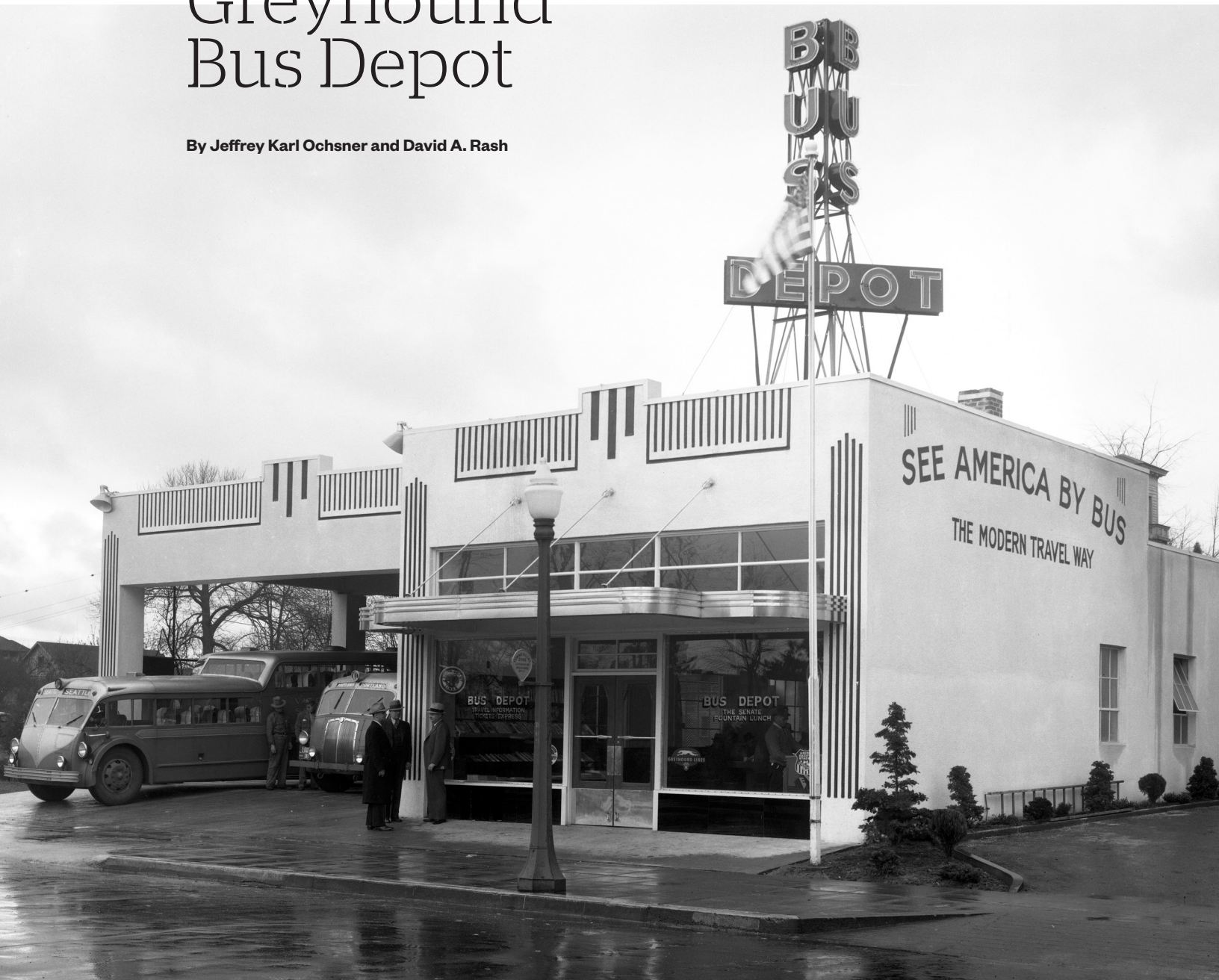
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The Last of Its Kind Olympia's Greyhound Bus Depot

By Jeffrey Karl Ochsner and David A. Rash



Pages 10-12 Victor W. Voorhees, North Coast Bus Depot, Olympia, 1937. Susan Parish Photograph Collection, 1889-1990, Washington State Archives

Conveniently located between the State Capitol complex, just a few blocks to the southwest, and the center of downtown Olympia, to the northeast, the Olympia Greyhound Bus Depot was built as the hub for an extensive network of bus routes serving west and southwest Washington and providing links to Tacoma, Seattle, and the north Sound. Once a center of activity, the building remains Olympia's Greyhound terminal today, but the network of bus routes has withered to service extending north and south along Interstate 5.

Beginning in the 1910s and 1920s, bus transportation developed as an essential component of intercity public transport as western Washington grew rapidly. The capital required for starting a bus line was relatively low, so the field initially attracted many small operators. In the areas already served by electric interurban railways, early bus lines often provided feeder service to interurban stations, and interurban operators began to add buses as an extension to their operations. However, in Olympia and southwestern Washington, which lacked interurbans, buses provided the first reliable intercity public transportation.

In the 1920s, even as bus service expanded, coordination of routes and economies of scale fostered consolidation in the industry. In 1922-23, the Seattle-based North Coast Transportation Company (which went by the name North Coast Lines) acquired the Thompson & Smith Transportation Company. This added bus routes south and west of Tacoma to North Coast's already-expanding Puget Sound bus network and its system of interurban lines linking Tacoma, Seattle, and Everett, as well as Mount Vernon and Bellingham. The next year it began half-hourly service to Olympia and acquired and remodeled an Olympia building as a union bus station (one serving multiple intercity bus operators) for routes connecting to Aberdeen, Shelton, and other small cities and towns.





Greyhound and Trailways acquired and rationalized the remaining independent systems. Greyhound made no changes to the Olympia terminal other than the addition of a large illuminated sign over the entrance to the waiting room, removal of the original tower sign, and filling in of the openings in the wall of the concourse bay.

Intercity bus transportation remained stable and profitable until the early 1980s. However, the Bus Regulatory Reform Act of 1982 deregulated the industry and led to route reductions, fare cuts, labor unrest, and reduced cash flow. Bus companies cut unprofitable routes and generally limited their operations. In the late 1980s, Greyhound acquired the financially ailing Trailways leading to elimination of duplicate routes and facilities. Since that time, Greyhound has given up many of its older terminals and moved to leased spaces or smaller buildings. The large terminals in Tacoma and Seattle have both been demolished, and buildings that once served bus transit in cities such as Bellingham have been converted to other uses.

The Olympia terminal is protected as a contributing property in the Olympia Downtown Historic District; any building permit for proposed development of the property would be required to go through heritage review. While this protects the building, it does not require that it continue to serve as a bus terminal.

At present, the Olympia terminal remains the only older purpose-built bus terminal in the Puget Sound region still serving bus passenger transport. It is almost the only surviving evidence of the once robust bus network connecting Pacific Northwest cities and towns. x

Jeffrey Karl Ochsner is a professor in the Department of Architecture at the University of Washington. **David A. Rash** is a building science consultant with the Seattle office of Morrison Hershfield; as an independent scholar he pursues research on the architecture of the Pacific Northwest. Ochsner and Rash have worked together on *Shaping Seattle Architecture: A Historical Guide to the Architects* (second edition 2014; first edition 1994) and on several articles and reports. They thank Ben Helle, Deborah Ross, Greg Griffith, and Michael Houser for their assistance with this article.

Although the expansion of intercity bus transportation slowed in the early 1930s, growth resumed after 1935. In 1936 North Coast Lines decided to construct a new terminal in Olympia, which had become the company's hub for southwest Washington. Seattle architect Victor W. Voorhees (1876–1970) designed the one-story depot; Smith & Gunston of Seattle was the general contractor.

This reinforced-concrete North Coast Bus Depot, which opened in April 1937, consists of two unequal bays extending from 7th Avenue SE at the north to the alley at the south. The open-ended concourse bay accommodates buses, allowing side-loading to and from the narrower bay, the location of the passenger waiting area, ticket office, freight room and, originally, a lunch counter called the Senate Café. The narrower portion of the building extends slightly forward and features a cantilevered canopy with curved corners and a 1930s “streamline” art moderne motif. Aside from a small upward projection at the center of each building bay, the other primary architectural embellishments are simplified art moderne elements such as recessed reveals that create abstract pilasters at the end of the bays and spandrels on either side of the parapet projections. The choice of art moderne celebrated modernity and mobility and may also reflect the growing influence in the bus industry of Greyhound, which was using streamlined designs for most of its new terminals. The building also featured a tower with neon signs.

In 1947–48, Greyhound acquired the North Coast Lines, part of the consolidation of bus transportation that took place in the post-World War II era. Indeed, by the 1950s, few independent operators remained in the Northwest as the national carriers



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Work as If Immortal

A Review of Wendy Lesser's *You Say to Brick: The Life of Louis Kahn*

By John Parman

BOOK REVIEW



“When you work together with someone like that, you understand that sublime persistence is the only way to get to the center of things.” —Renzo Piano on Louis Kahn, who employed him in Philadelphia

With his memorable film *My Architect*, Nathaniel Kahn sought to know his father through his buildings, peers, and complicated personal life. Wendy Lesser’s wonderful new biography of Louis Kahn expands on the film’s account, filling in details about his slow-to-ripen career, his relationships, his evolving creative process, and the late-appearing monuments that made his reputation.

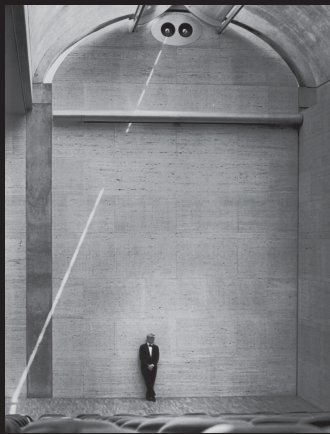
Lesser notes Kahn’s involvement in Donald MacKinnon’s late-1950s study of architects’ creativity at UC Berkeley. When asked if he had exceptional talent, Kahn wrote, “Yes, a sense of order from which design flows. I am unique in this. Order! out of which stems true design and structure.” Kahn’s “order” was influenced by the ruins of antiquity and by modern buildings like Le Corbusier’s La Tourette and Ronchamp. He worked with structure, volume, light, and view—the elements of form. Place and function led to designs that engage their sites or turn inward.

As Lesser explains, Kahn made his reputation initially with his modernist Richards Medical Building at Penn. The work that followed established him as an architect *sui generis*, and she sees the Trenton Bath House as embodying that transition. Kahn ran his office initially as an atelier; the Yale Art Center, designed with Anne Tyng, reflects her influence, and although Tyng joined Trenton late, she grasped what Kahn had intuited from the ruins he visited. The result is a brilliant small work that anticipates the later ones. Lesser describes it eloquently:

**You Say to Brick:
The Life of Louis Kahn**
by Wendy Lesser

Farrar, Straus and Giroux, 2017

“Picture a girl from nearby Trenton—an adolescent, say, just a year or two younger than Kahn’s oldest daughter—who might have come to the Bath House for a swim after it opened to the public. After passing by the front wall’s mural and reaching the central courtyard, she goes left to get into the women’s changing room. Slipping through one of the twisty, doorless concrete entrances that lead in from either side, she finds herself released into the surprisingly grand space of the room itself, all the larger in comparison to the tunnel-like approach. Above her, the high arch of the pyramidal wood roof guides her eye upward to the square hole from which light pours down, making everything, even her own body, seem to bask in the ceiling’s glory. At one side of the room, a five-foot space between the roof and the wall—one of Kahn’s earliest and largest “light joints”—allows the sun to shine directly on her shoulders as she sits on the changing-room bench. Looking around, she notices how lightly the massive pyramid rests on its four corner supports, so that the ceiling almost seems to float above her head.”



Page 16 Louis Kahn looking in the Yale University Art Gallery, 1953. Photo: © Lionel Freedman Archives Page 16 (left) Photo courtesy of Louis I. Kahn Collection, University of Pennsylvania and Pennsylvania Historical and Museum Commission (right) Trenton Bath House interior courtyard. Photo: John Ebstel © Keith de Lellis Gallery This page Photo courtesy of Harriett Pattison Collection, The Architectural Archives, University of Pennsylvania

Trenton Bath House, the Salk Institute, the Kimbell Art Museum, and the National Assembly Building of Bangladesh—Kahn’s masterpieces—use the pared-down elements of his intuited order to define and orchestrate sequences of viscerally human experiences. He achieves this despite differences in scale, purpose, and setting, situating each building in an unfolding present that refers both to history’s ruins and to the ruins it will become.

Building the Monuments

Lesser “reads” Kahn’s principal works evocatively in a series of vignettes that bracket the main text. (She recommends Robert McCarter’s monograph, *Louis Kahn*, as visual accompaniment.) She also exposes the lengthy struggles required to get them designed and built. Kahn engaged an array of collaborators in these commissions, including his client-patrons. He animated the process through design and construction, with others taking significant roles. His openness to ideas from all quarters and his willingness to persevere are rare in architecture, then and now.

Salk and Kimbell were both substantially reworked to address functional concerns and realize the order Kahn sought. At Salk, this meant prying the two wings of the building open and then reconceiving its plaza (on the advice of Luis Barragán) to view the sea. At Kimbell, it meant finding the right arch—a cycloid arch—to give the galleries volume without ruining the experience of the art itself. Kahn’s staff architect, Marshall Meyers, worked this out.

The Bangladesh project was complicated by distance, political upheaval, the challenges of local construction, and Kahn’s death while it was under way. Its completion testifies to the commitment and brilliance of Kahn’s closest collaborators. Dying of heart failure at 74, Kahn lived at full tilt, habitually overscheduled. His office ran on cash flow, mostly losing money. Only the Salk Institute, for which the office was paid for every hour, made a profit.

The Art of Parallel Living

My Architect brought Kahn’s personal life into public view. Lesser elaborates, but it’s clear that, despite turmoil and heartache, Kahn enjoyed his extended family’s loyalty and affection. He had a rare ability to be entirely there with others, as Lesser recounts. Stanley Tigerman, running into a disheveled Kahn at Heathrow, who was returning from his final, fatal journey to South Asia, noted his coherence and gracious gesture to Paul Rudolph, who he admired despite shabby treatment.

“Work as if immortal,” the writer E.M. Forster’s credo, could have been Kahn’s. His “sublime persistence” led to a unique body of work—not purely his own, but only he could have produced it. ×

John Parman is a Berkeley-based writer and an adviser to *Architect’s Newspaper*.

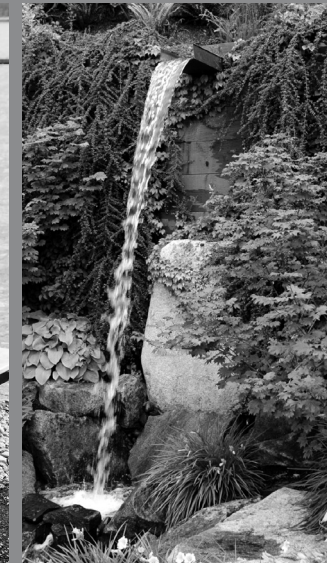
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PERSPECTIVE

University of Providence, Great Falls

An Unexpected International-Style Gem

By Ron van der Veen
Photos courtesy of the University of Providence and Providence St. Joseph Health



Located along the Missouri River in the heartland of Montana lies the state's third largest city, Great Falls. Hovering over the area in Google Earth, one can detect a small section east of downtown that is oriented 15 degrees off the unyielding city grid. This deviation hints at a design marvel that may be one of the most intact examples of international style architecture in America today: the University of Providence, Great Falls.

Originally founded in 1932 as the Great Falls Junior College for Women, the school went through numerous iterations and multiple locations before establishing its current home. In 1958, the college commissioned Page & Werner Architects to design their 22-acre campus. One of the firm's founding principals, Vince Werner, had recently graduated from Montana State University, where he was introduced to a new architectural theory called the international style. From the overall master plan to furniture selection and meticulous interior detailing, Page & Werner embraced this modernist approach for the University of Providence design with uncompromising passion.

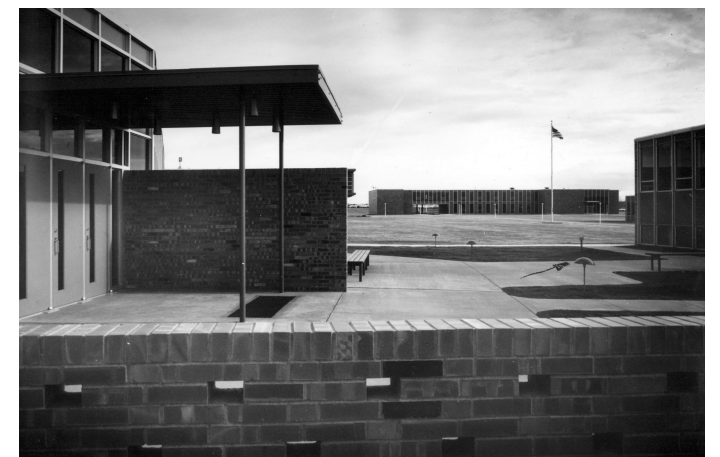
What is so astonishing about the architecture is its absolute consistency throughout. This is especially so considering how isolated Great Falls was from the great intellectual architectural centers in the United States at the time.

The whole campus has remained remarkably intact since the day it opened. It is truly a wonderful and underappreciated example of the optimism and design daring promoted throughout the United States after the war. x

Ron van der Veen is a principal at NAC Architecture and our Side Yard columnist. Ron and his team have been working closely with the University of Providence over the last year to envision the future of the campus. You can reach him at rvanderveen@nacarchitecture.com.



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Rethinking Efficiency

Feature Editor: Sawhorse Revolution

Efficiency has a creeping quality. Like the invasive Himalayan blackberries of the Northwest, it has pleasurable fruits but quickly encroaches on neighboring plants if left untended. Efficiency is a boon to industry, getting things done cheaper and faster. Yet when the value of efficiency creeps into other realms such as art, education, ethics, and social interaction, our culture starts to suffocate. — Our organization, Sawhorse Revolution, teaches kids to design and build structures, but its philosophical drive is to study how groups rediscover meaning in a disillusioned culture rife with apathy. As most design-oriented groups do, we feel a tension between a desire for efficient production and our recognition that spaces that protect creativity, learning, and community are (or, perhaps, should be) inefficient. Inefficiency does not necessarily mean slower, but it does imply unpredictability, which can be difficult, frustrating, and impossible to manage. However, when we avoid reflexively “fixing” certain inefficiencies, moments of genuine, unanticipated meaning can arise. — This reflex though is increasingly difficult to suppress. Today’s dominant economic driver is efficiency, as evidenced by our growing reliance on standardization and automation. As workers we are taught to acknowledge the primacy of this value in some strange hope we may outperform the mechanization that threatens our livelihoods. As human beings, we too easily begin to displace this value into our personal interests, projects, and relationships. — In this ARCADE feature, we explore what is lost in an era where efficiency has forcefully entangled itself in all aspects of our lives. We approach the topic broadly, having prompted our favorite thinkers and writers to consider where inefficiency exists (or existed) and what beauty arises from it. Knowing what we are to lose, we hope to discover some impulse to spend time among the thorns, extricating efficiency from the roots of our culture. ×

FEATURE

Page 26 Illustrations by Emmy Smith

Sawhorse Revolution is a Seattle nonprofit whose mission is to foster confident and community-oriented youth through the power of carpentry and craft. Sawhorse teams diverse teens with carpenters and architects to create inspiring projects in their own neighborhoods. These projects have ranged from tiny houses for homeless people to garden infrastructure to a tree house 30 feet in the forest canopy. Editorial staff for “Rethinking Efficiency” includes Sawhorse cofounders Adam Nishimura and Sarah Smith and longtime Sawhorse Revolution design mentors Plamena Milusheva (LMN Architects) and Katherine Ranieri (Olson Kundig). Find out more at www.sawhorserevolution.org/

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How Focusing on Efficiency Can Block Scientific Discovery

By Mott Greene

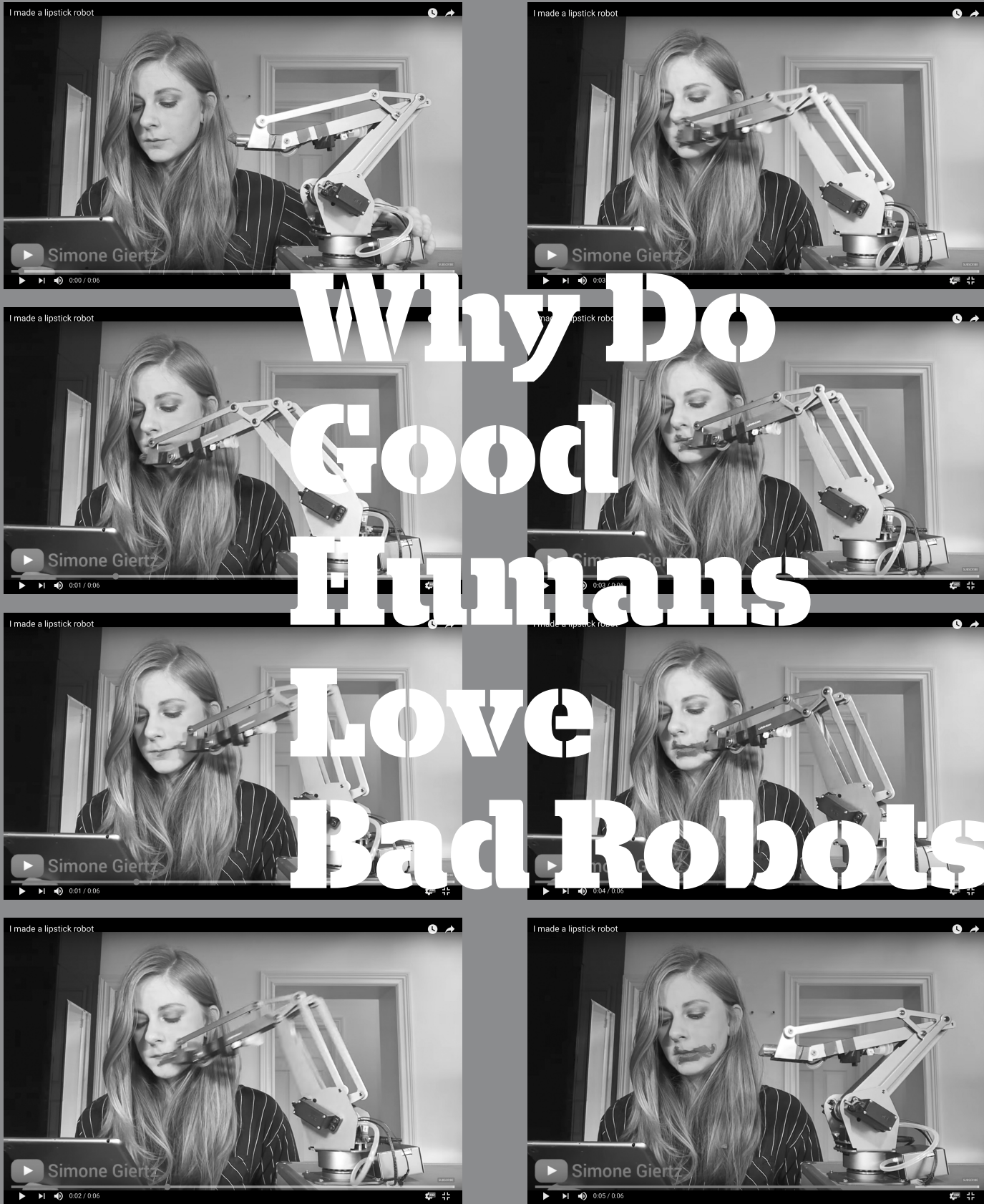
The core meaning of the word “efficiency” has nothing to do with speed, cost cutting, profit, mechanized production, or capitalist logic in general. It simply means competency to produce a good outcome. Someone who works efficiently has ample experience, doesn’t make rookie mistakes, and knows how to sequence tasks when making or doing something. Efficiency is a “late-stage” concept that comes after exploration—after most of the discoveries, and mistakes, have been made. It is a refinement, not something that happens at the beginning. Human beings learn by making mistakes. Learning what works is largely a process of eliminating what doesn’t, and the result is greater “efficiency.” ———— Anyone who has followed the development of the sciences for the last 30 or 40 years knows that the pace of fundamental discovery has slowed remarkably. No new major theories have appeared in cosmology, physics, biology, geology, or chemistry since the mid-1970s. Sometimes the reason given for this is that we have “come to the end of science”—we have found out, in general, how the world works and therefore should not expect new theories, since the ones we have are already right. The actual reason for science’s slowdown is quite different and somewhat alarming. ———— The lack of new fundamental discoveries in the sciences is largely a product of economic considerations. The period from 1945 to 1975, known in France as the “30 glorious years,” was a time of abundant, worldwide economic growth that led to increased productivity, more jobs, more tax revenue, and more flexibility within governments to spend economic surpluses (yes, surpluses) on fundamental scientific research. After 1975 economic growth began to slow, leading to belt tightening, cost cutting, and the notion that “wasteful governments” stood in the way of the efficiencies of private enterprise—that small firms, venture capital, and R & D by private enterprise would rekindle the growth rates of the prior decades. Governments, the great providers of invention and discovery throughout the midcentury, now were cast as their villainous opponents. ———— The shift to favoring private enterprise as an engine for innovation and discovery brought about a fundamental (and fundamentally disastrous) change in science. Once private capitalist firms were charged with producing new things, the things they chose to produce were not really new but took the results of basic and applied research of the previous years—funded by governments and universities—and tried to make them profitable through refinements and modifications. This is because profitability and scientific discovery are, generally speaking, incompatible. The reason why we have universities and “nonprofit” organizations is because the initial stages in the development of any idea are inefficient, risky, and carry a high probability of

Discovery is a stage in human enterprise when inefficiency reaches a maximum value,

because at this point you’re doing something that no one has ever done before.

failure, somewhat above 60%. Novel ideas are costly. As Ben Franklin pointed out, like newborns, they require intensive care and resources, and a period of conceptual infancy is always a precondition to mature success. ———— People who exalt private enterprise as a sort of panacea talk about efficiency as a synonym for getting rid of waste, or streamlining, or rationalizing. But in order to make something efficient, you have to have something rough to work on: something new, potentially valuable, not yet on its way to profitability. Trying to make the processes of discovery and invention efficient is a contradiction in terms because discovery and invention are *by their very nature* inefficient. Discovery is a stage in human enterprise when inefficiency reaches a maximum value, because at this point you’re doing something that no one has ever done before. ———— This does not mean exalting inefficiency. Inefficiency is a necessary, but not sufficient, condition for invention. However, if you want something really new, you have to be patient. Later on, considerations of efficiency, profitability, and productivity can enter in, but never, never at the beginning. x

Mott Greene is a historian of science and technology. He is currently writing a book on the impact of neoliberal economics on scientific discovery. A former MacArthur Fellow, he is an affiliate professor of earth and space sciences at the University of Washington.



Why Do Good Humans Love Bad Robots?

By Plamena Milusheva

Through spectacular, often self-destructive failures, Simone's robots begin to highlight the unique qualities of being human.

As I absentmindedly glance at my phone, an email comes through. “I think you’ll like this,” the subject line reads. One click later, I’m introduced to the “Queen of Shitty Robots,” Simone Giertz. The next hour passes quickly as I find myself enthralled by the YouTube star’s “Shitty Robot Nation,” the name she uses to refer to the small empire of fantastically incompetent machines she has built. Her YouTube channel offers me video after video of awkward clapping robots, aggressive slapping alarm-clock robots, and chopping robots wielding knives. Every person with whom I share these Internet gems is sucked into Simone’s tech-age slapstick, responding with a universal reaction of glee. However, the delight inspired by Shitty Robot Nation runs deeper than the simple joy of watching someone get smacked in the face repeatedly by a hand-shaped alarm clock. Through spectacular, often self-destructive failures, Simone’s robots begin to highlight the unique qualities of being human. — We humans often view robots in terms of what they can do better than us. They are faster, smarter (in algorithmic, calculative sort of ways), and more accurate than humans, and this realization causes unease as robots perform an increasing number of jobs better than people. The angst created by our perceived competition with robots for jobs contributes to our delight as we watch the spectacular incompetence of Simone Giertz’s robotic creations. These videos provide an innocent outlet for the very human tendency to take slight pleasure in the harmless failures of our rivals. Since robots have no feelings, hopes, or dreams, we can laugh at them guilt-free as they fail at their jobs, which include applying lipstick, brushing teeth, and feeding popcorn to humans. — The failure of robots is not nearly as funny when the automated doors at the grocery store refuse to see you or when your “smart” car’s self-park feature fails and runs into onlookers during a live demo. Shitty Robot Nation is funny because it is *designed* failure. No humans were harmed in the process (except maybe Simone, a little). And while Simone’s robots fail in amusing ways because she designed them for entertainment purposes, if a team of software and hardware experts engineered the same robots they would still be bad at these simple tasks. A robot that is as efficient as we are at folding laundry—something that we do with ease using any number of learned or self-developed methods—is still many years away. — Behind the slapstick humor of Simone Giertz’s Shitty Robots, under the layer where we find small joys in the failures of our rivals, lies the most powerful reason we delight in this particular brand of bad robots. By being terrible at all of the mundane, intimate tasks that comprise much of our daily existence, these robots remind us of their inability to fully replace humans. In a memo

Page 30 Stills taken from the video *I Made a Lipstick Robot* by Simone Giertz, which can be found on her YouTube channel “Simone’s Robots.”

from 2007 to top executives, Starbucks chairman Howard Schultz discusses the elements that make a cup of coffee special, focusing on the romance of the unique sensory experience created through human connection. Ten years of testing and innovation later, the company stands by that memo, reinforcing the value of the human experience through its continued employment of baristas. — As we prepare for changes not just in the job market but also in how we engage with each other and our environments, we can use a humorous reminder of what makes us uniquely human. Maybe if we address the scary parts of advancing technology by making progress on the ethical and economic implications of ubiquitous robotics, we can focus on developing the skills and knowledge that will make us better at being humans. I may not be able to make 100 car tires in an hour, but I am very good at shoving popcorn in my mouth and folding my own laundry, sometimes even at the same time. x

Plamena Milusheva is a designer at LMN’s Tech Studio where she often works on shiny moving robots. Before making her way back to architecture, she spent a few years tending to the robots at Metrix Create:Space.



13 Barakhamba Road

By Stuart Smithers

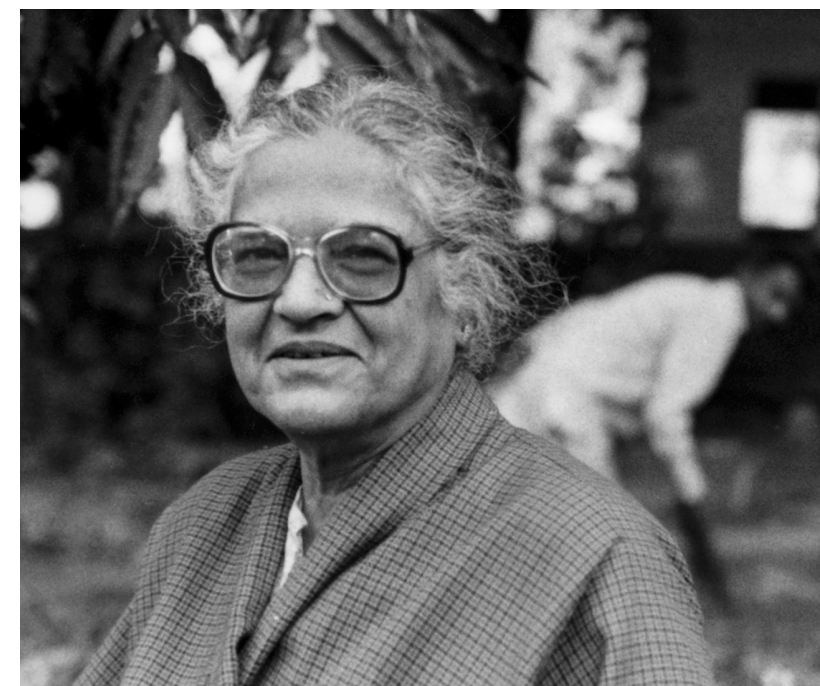
“We are being afflicted with a new disease of which some readers may not yet have heard the name, but of which they will hear a great deal in the years to come—namely, *technological unemployment*. This means unemployment due to our discovery of means of economising the use of labour outrunning the pace at which we can find new uses for labour.”

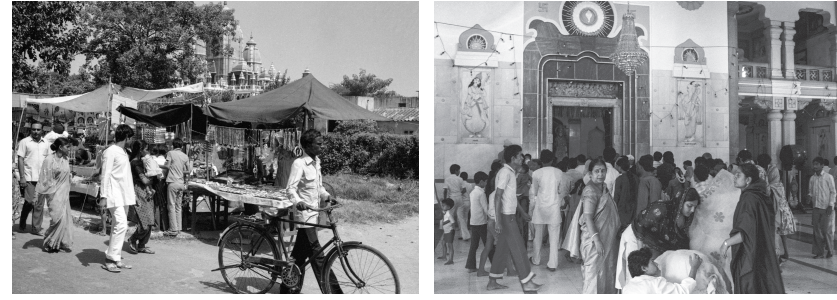
John Maynard Keynes, 1930
Economic Possibilities for Our Grandchildren

Pages 32–34 Photos by Stuart Smithers

There are many students these days who, although supposedly trained in rational disciplines and taught what is often called “critical thinking,” are nevertheless deluded, imagining a future that will not appear.

— In the summer of 2014, while speaking on automation, robots, machine intelligence, and the future of employment at the annual Smoke Farm Symposium, Blaise Agüera y Arcas of Google asked and answered his own question: “Whose jobs are going away? All of ours.” His comments followed a highly cited 2013 Oxford study by Carl Frey and Michael Osborne on the future of employment that suggests 47% of US jobs are at “high” risk of being replaced by computerization or automation in the next decade or two, while an additional 19% of US jobs are at “medium” risk. — When I moved to India in 1985 (to squander grant money for two years while marginally engaged in the study of Vedic culture), I couldn’t figure out what time the mail arrived each day. I slowly discovered the source of my confusion: the mail came three times daily. When I told Mrs. Dutta (my 70-year-old landlady) how remarkable that was, she looked at me sadly and lamented: “Yes, it’s too bad how some things change. When I was a child the mail was delivered five times a day.” It was my first cultural lesson while living at 13 Barakhamba Road in New Delhi. — I recalled my conversation with Mrs. Dutta this summer when I read about India’s transport minister telling reporters that driverless cars would not be allowed in India. “We don’t need it,” the minister said. “Each car gives a job to a driver. Driverless cars will take away those jobs.” When I lived in India waiting three times a day for a cheerful mailman to arrive (with no letters for me), he was riding a bicycle. But the point is the same: It might be unnecessary and inefficient to send mailmen out on three (or five) rounds per day, but it definitely provided more jobs. — In the US, driving jobs collectively represent the biggest employment sector, including taxi drivers, all manner of delivery drivers, chauffeurs, bus drivers, and, of course, truck drivers. In 29 states, truck driving is the most common job. According to Morgan Stanley’s head of global auto research, Adam Jonas, the driverless utopia will arrive between 2023 and 2026, with truck drivers and other commercial drivers hit first. Where





will the drivers go? Will they retrain to compete for your job? — Since the Industrial Revolution we have watched the slow and steady unfolding of the successful marriage of capitalism and technology, replacing workers with machines, while making the means of production more efficient. But unlike machines, people still need work and to be able to feed themselves. While living in Mrs. Dutta's sprawling Lutyens-era bungalow, part of our agreement was that I would be directly responsible for hiring two servants (a cook and a "bearer") and would contribute toward the monthly salaries of another four (two sweepers, a gardener, and the *chowkidar*—a kind of night watchman who had the annoying habit of announcing his presence at all hours of the night by pounding his staff on the stone pavers as he patrolled the perimeter of the bungalow compound). Mrs. Dutta had her own excellent cook; a driver; and a clerk who handled the house finances, received the mail, and performed other duties from his small office on the front veranda. There were probably about a dozen servants employed full-time, most of whom lived at the back of the property in small, primitive structures lining the wall. — Like most middle-class Americans, I had no training in living with servants, nor did I desire servants. I found my private space had become strangely, uncomfortably public. (And indeed, ever since that experience, I have had nothing but pity for poor rich people who are forced to surround themselves with servants and domestic help.) I also quickly realized that I was a novice in these domestic matters, having taken on the work (peculiar for a 29-year-old) of directing several servants under my charge. Through Mrs. Dutta's hints and interventions, I slowly learned aspects of my new unwanted role. I needed to invite people to lunch and allow Sham Lal, my cook, a chance to show off his talent. I hardly knew anybody in New Delhi, so I was now on the alert to meet people, even tourists, inviting virtual unknowns home for lunch or dinner. It was a highly inefficient way to live. But from another point of view, my life on Barakhamba Road was an interesting accident, an encounter with a form of life that opened me to the needs of others, beyond the fetishized private life of the bourgeoisie. — When Mrs. Dutta learned that I had fired the 16-year-old bearer for stealing money from the locked cabinet in my bedroom, she admonished me and patiently explained that I had failed, that of course a boy in his position would steal from rich people—how could I not understand that? It was my responsibility to find a way to work with these challenges and to support and work with people who needed help. The boy's mother was one of the sweepers at the house, and whenever I saw her, my conscience reminded me of my failure. — Today's profit-driven realms of technology, economics, and business

often obscure the dehumanizing contradictions in their successes. If we don't feel concerned for the well-being of fellow humans who have been pushed to the economic and social margins, then we too are suffering the dehumanizing influences of the current economic system. — Mrs. Dutta died in 1993 and, according to the terms of her husband's will, 13 Barakhamba Road was left to an orphanage, to help care for some of the most vulnerable and needy children in society. As our current disruption unfolds we will need to find new ways to care for each other, including the techno-orphans of the future. x

Stuart Smithers teaches religion and cultural studies at the University of Puget Sound. He is also the president of the Rubicon Foundation, cocurator of the Smoke Farm Symposium, and coeditor of *Black Box: A Record of the Catastrophe* (2015).



Patio de Servicio
Luis Barragán, Arquitecto Mexicano

By Patrik Ood-Noir

In Mexico in 1934, the architect Luis Barragán was 32 years old. He had just completed a group of small houses in the vicinity of the Parque de la Revolución, a public park in Guadalajara he designed with his brother at about the same time. The four or five houses are clustered around a cubist house designed by former classmate Rafael Urzúa and are bordered by other small houses designed by another classmate, the architect and priest Pedro Castellanos. All three architects were enormously talented young men. In time, many people would consider Luis Barragán a genius. In 1934, some of the Tapatío intelligentsia already recognized that to be true. — These houses designed by Barragán, Urzúa, and Castellanos are all sympathetic to one another, and it seems obvious that each architect was working to create a unique building while at the same time carefully considering the others' work. The overall effect is one of visually interlocking structures with shared walls and a shared goal of being separate but together.



There is a different sound with each step and along the way
a sensation of moving from the cool, wet shade
of the wash sink into the brilliant and dazzling sun.



One common feature of all these houses is the *patio de servicio*. These working patios are located at the back or side of each house, creating a cluster of spaces open to the sky in the center of the dense modernist block. ——— Three of the four or five houses that Luis Barragán designed contain sculptural staircases (*escalera*) that lead from the ground-floor patios de servicio to small first-floor (*primer piso*) bedroom terraces, then continue up to roof terraces (*azoteas*) and cubic laundry enclosures. These spaces are strung with cord lines for hanging clothing, sheets, dish towels, and other household laundry to dry in the warm Mexican sun. Each patio de servicio is entirely outdoors with the exception of a small enclosed sleeping or resting room (*siesta*) on one end and a tiny toilet and bathing sink on the other. In addition, each has a floor-level mop-sink and a *lavadero*, a deep concrete wash sink with a shallow concrete scrub sink attached. The patios are three and a half by ten meters. The walls surrounding the patios rise up six to eleven meters and scoop a section of pure sky. ——— To look closer, let's take one house's patio, and its staircase, as an example: at different times of the day different areas of the patios de servicio are hot with sun or cool shade (*sombra*). In this house's patio de servicio, the deep concrete sink is gravity fed by a water tank (*tinaco*) on the roof terrace (or neighboring roof terrace), which in turn is fed by the water stored underground in the *cisterna*, which receives water from the public system. The sink sits in the southeast corner in a nook created by the overhang of the bedroom *terraza* above. It is the coolest place on the patio. The subtropical sun never reaches into the cold waterworks of the *lavadero*. It is also protected from the intense summer rains. It is a perfect place to wash laundry. To work. ——— The task of laundry was, and still is today, accomplished by midmorning. It comes after the sweet breakfast or Mexican coffee or juice and after the entire house is swept and then wet mopped, including the sidewalk, the patios, and the stairs—in other words, after the household gets moving into the day. When every piece is washed and placed into a basket, it is then carried up to the *azotea* to hang on the cord lines and dry. The stairway to get there is made of steep one-to-one risers and treads of 25 centimeters. Halfway up is a spot to pause, and a few steps after that pause is another as the stair changes its south-north orientation and heads west. It continues west until reaching the top. ——— The movement of the staircase has the feeling of a rising musical octave. There is a different sound with each step and along the way a sensation of moving from the cool, wet shade of the wash sink into the brilliant and dazzling sun. It is a difficult climb, a strenuous climb, and all the while through all the bodily sensations one must stay present. The stairway has a quality of

danger. There is a metal railing to help with the lift, but if one fell, there would be serious consequences. It forces a sort of consciousness. An attention. ——— Just as one reaches the top, the spires of the Templo Expiatorio, a gothic cathedral, come into view. It is a sort of reward for the work. Now one is with the Gods, whether the church, the sun, the clouds, or the deep blue sky. One is on top of the world after climbing only 10 meters. One with the universe. Transformation. ——— Hang the laundry. ——— On the way down, back to work and real life, the same quality of attention is required. The reflected sun reminds and informs throughout the remainder of the day in the form of cubic patterns, square suns that change with the hours and the seasons. ——— The experience of climbing the great pyramids of the Maya and the Aztecs is recreated in this way daily as one struggles to reach the top. The *azotea*. The full octave. ——— The contemplative view. ——— Washing laundry in 1934 and today in a small house designed by Luis Barragán. Architect. Genius. ×

Patrik Ood-Noir is the great great grandson of Theophane Ood-Noir, a laundryman who took laundry to Honolulu, washed it there, and returned it dry to San Francisco. He lives in Guadalajara with a cat, Albertina.

Pages 35-36 Photos © Patrick Brennan

A Firm, a School, an Art Studio, or an Orchestra? A Conversation with Alan Maskin, Olson Kundig

By Sawhorse Revolution

Given the usual pace of activity and deadlines in the worlds of design, architecture, and building, it's often hard to find space for values aside from efficiency. We turned to Alan Maskin of Olson Kundig for insight into how he makes room for his team members to experiment and grow. — Sawhorse Revolution meets regularly with Alan for tequila, tacos, and conversation. Topics on the table include education, design, creativity, and imagining a future with greater diversity in the design and construction industries. The following interview is abridged from several of those discussions.

SAWHORSE REVOLUTION: You've mentioned that your teams invite members of all experience levels to participate in the creative process for large, visible decisions. Can you describe the process? **ALAN MASKIN:** The mistake I made early on when I first began leading projects was thinking I needed to design everything myself. Over the years, I learned how to ask teams the right questions in order to advance projects. There are times when an unforeseen constraint arises and the team shows up feeling stuck. When that happens, we often pull out paper, have each person draw multiple solutions, pin them up on the wall, and debate them. Every person in the room, independent of experience level, is expected to chime in. At this point, my biggest challenge is learning when to say yes to the things that feel right and not getting too caught up in ego ideas about ownership. — It feels more like art direction or being an orchestra conductor. We're able to achieve much more in terms of amounts of work, and the work feels more experimental and adventurous.

Education and mentorship are, by nature, less efficient than pure production with highly experienced individuals. What lessons from your previous life as a teacher have helped shape your approach to architecture and/or leadership? Part of why Olson Kundig has been the right place for me is because of how seriously the firm takes mentorship and the notion of learning. Built into the culture of our practice are opportunities for inexperienced staff to have access to highly experienced people. I see new architects with kinetic design challenges sitting down with Phil Turner, our 75-year-old kinetic engineer, or working through technical questions with Joe Iano, our resident expert in construction technology. There is a constant dialog on OKpedia, our firm's intranet, where people share recent research or ask for help when stuck. As the firm has grown, it feels more and more like a school—a place with many electives, in-studio events, design competitions, traveling fellowships, and a multitude of ways to be challenged.



In a prior interview with us, you stated that an education in design or architecture is truly liberal arts, combining the sciences and humanities, left and right hemispheres. Does your team continue to foster this duality? Architecture is a difficult course of study for many reasons. From day one, studying various influences, from art to technology to philosophy, occurs simultaneously to the constant challenge of solving design problems. In recent years, my team has initiated research investigations, made films, written fiction, and made graphic novels to supplement and inform the built work. As writer Lillian Hellman said—a statement I often apply to our process—it's “a way of seeing and then seeing again.”

What are your hopes for the younger designers and architects on your team? Do these hopes influence the way in which your team functions? Outside of project work, I also hold team meetings with the 10 people I collaborate with most frequently to discuss how our work and opportunities can grow in the future. We look at this in two ways: one, “How far can this work be pushed, and what do we need to do to get it there?” And two, “How well do the team goals mesh with our individual goals?” — In these meetings, the team spends the first half collectively imagining the future of what we could achieve in terms of project types and regions. The second half of the meeting is spent discussing people's individual ideas about their design careers and what they hope to achieve. This question takes some of them by surprise, especially if they haven't given it much thought or ever said these things out loud. When asked to imagine how their lives or careers might look in five or ten years, people can usually see what is needed to get there, and it almost always involves stretching themselves. ×

Alan Maskin is a principal/owner at Olson Kundig. Olson Kundig was an inaugural partner in Sawhorse Revolution's Design / Build Program and their staff has provided mentorship in the program since 2014. This year, Olson Kundig staff selected Sawhorse Revolution as a recipient of the firm's corporate charitable match program. — Sawhorse Revolution is the editor of this issue's feature.

Pages 38-39 Photos © Ryan Patterson

A Beautiful Mess

Suggestions for the Future of Learning Spaces

By Sarah Smith

In his book *Discipline and Punish*, French theorist Michel Foucault writes of desks in classrooms. To Foucault, the grid format of school desks was "... one of the great technical mutations of elementary education. It made it possible to supersede the traditional system (a pupil working for a few minutes while the rest of the heterogenous group remained idle and unattended). ... It organized a new economy of the time of apprenticeship. It made the educational space function like a learning machine, but also a machine for supervising, hierarchizing, rewarding." ——— Practically, public schooling's function is to provide basic, needed education to its citizens, teaching measurable skills to the greatest number of students. A grid reflects this goal, Foucault writes. The grid is a closed system; students move about within it, but the content is predetermined. This model may be sufficient if simple skill absorption is education's ultimate aim, but Foucault's critique asks us to dig deeper. If we wish for an education environment that provokes creativity, forges community and conscience, and engages young minds in critical thinking, what kind of spaces do we need? ——— If we accept that spatial arrangement matters for learning—that our sensory impressions shape what we think, what we learn, and how we are—it changes the approach to education and the spaces where learning happens. For example, if we want students to interact with other human beings with care, we had better *not* segregate them in desks that sit at measured distances from one another. Instead, we could create spaces that allow students to tangibly encounter each other, the world, and themselves. Because in the end, we, students all, need to practice being human. ——— Two real-life examples will help clarify this messier approach to space and pedagogy. ——— First: A tiny-house build with high school students, carpenters, and designers, all women, at the education program I run called Sawhorse Revolution. This day, half of the projects were inside the 120-square-foot house, about the size of a food truck or a large walk-in closet. Seven bodies were working there, equipped with tools, paint, and 13-foot boards, depending on the team. In this cramped condition, the lessons change. One must be attentive and considerate, so as not to scrape a board against wet paint, or bump into a student on a ladder. In this small space, one encounters and must physically consider the safety and well-being of others. Time is wasted as one group waits for another, offering a chance to socialize, reconsider the problem at hand, or simply rest. ——— Second: A story from a forest kindergarten in Denmark. This December day, three- and four-year-old children spent the afternoon climbing up and down trees, sawing small branches to create a hut for unknown purposes. The saws they used were sharp, and the



Page 40 Photo by Sanderson Doughty. This page Photo © Sawhorse Revolution

children had to rally their limbs and fingers to safely cut low-hanging branches. It was winter in Denmark, but the cold was mostly forgotten in the glee of racing from tree to tree, struggling to collect branches. As one boy hurried to catch up to his friends, he tripped spectacularly and emerged crying, with two bloody knees and mud slathering his hands. One of the teachers calmly walked over and pulled out of her bag a mirror nearly as tall as he was. She held it up; he stared in, his eyes widening, tears forgotten as he took himself in. ——— This mirror suggests a model of education quite distinct from the grid: an open form that encompasses and reflects life back to the students. It is an educator's tool, as are the uncontrolled Danish forest and the cramped, under-construction tiny house. The boy in the mirror sees that he is much more than his pain; the student carpenter has to communicate beyond her comfort zone. In both cases, they struggle with and encounter themselves. ——— When contrasted with the desk grid, a repressive system that recycles content, the environments above create space for exploration, generosity, and struggle. Problem solving can be taught because the students encounter real problems. We need educators who can withstand the discomfort of errors, imperfections, and failures to help transform a difficult situation into a learning experience; educators who can let their spaces become a beautiful mess; spaces that interrupt the daily flow of "I am, I know, I can" and cause us to pause and question what, where, and who we are. x

Sarah Smith is an educator currently serving as executive director of Sawhorse Revolution. She has a master's degree in education from the Harvard Graduate School of Education, where she studied experiential learning, educational philosophy, and the neuroscience of education.

Poetry and Sabotage

On “The Conscious Withdrawal of Efficiency”

By Eirik Steinhoff

W. H. Auden’s claim that “poetry makes nothing happen” sounds like a confession of impotence. But what if we take “makes nothing happen” to be a description of a poem’s power—its capacity, we might say, to conjure the various “nothings” we face: vacuums in power, expression, agency, representation, responsibility, etc.? What if a poem could make these voids visible in ways we otherwise might not see, while also showing us how to fill those gaps with rare new grammars of resistance and belonging? ——— These questions first emerged for me while distributing pamphlets that spliced poetry with political theory during the Oakland Commune (a.k.a. “Occupy Oakland”). I’d been reading Elizabeth Gurley Flynn’s 1916 pamphlet on “sabotage,” written in the aftermath of the 1913 Paterson Silk Strike. In contrast to the typical understanding that reduces sabotage to property destruction, Flynn prefers to define it more broadly as “the conscious withdrawal of the worker’s industrial efficiency.” Sabotage, in other words, as an active effort to *make nothing happen*. ——— Once you hear sabotage defined in these terms, I’d like to think that you start imagining how you might try it yourself—a thought experiment worth engaging, if only for the sake of analyzing the structure we find ourselves in a century later. How does one “withdraw efficiency” in an economy anchored in debt? And what should we compose in its place? But *caveat saboteur*: as Flynn is quick to point out, sabotage is frequently indulged in by capitalists; Detroit and Flint stand as tragic urban emblems of capitalism’s readiness to “withdraw efficiency.” ——— The “general strike” theorized by Rosa Luxemburg is a maximal expression of sabotage as Flynn defines it: a deliberate and comprehensive negation of the status quo schedule of production and consumption. “What scares them most is / That NOTHING HAPPENS,” Anna Louise Strong writes in a poem about the Seattle General Strike of 1919. Paradoxically, workers encounter their power by removing it, indulging in a hyperbolic impotence that reveals previously obscured forces that frighten whoever it is that thinks they’re in charge. The central problem the general strike poses is how to compose the reproduction of everyday life. Once the regular routine

is paused, how will the daily metabolical needs of the polis be maintained? To put this in architectural terms favored by the Industrial Workers of the World: how to build the new world in the shell of the old? Is it possible, in the course of that re-composition, to transform forms that exploit and dominate into forms that liberate and amplify equality? ——— A sonnet composed in what is now called Mexico in the late 1600s by a brilliant writer and renegade nun named Sor Juana Inés de la Cruz affords some leverage here on the question of poetry’s sabotage power. “Sonnet 145” takes notable advantage of the *volta* or conceptual jump the sonnet has baked into its form, most typically between lines 8 and 9. This feature allows her to turn a genre readymade (by Petrarch and co.) to objectify women against itself, to withdraw the form’s standard “efficiencies,” and to thereby transform it—to compose a new space of possibility out of that resistance and rejection. Moreover, Sor Juana literally “makes nothing happen,” insofar as her sonnet ends on the word *nada* (“nothing”). I translated this poem right after the election in a pathetic attempt to do something with words, and to remind myself of the limits of representation. The poem’s conceit is that it refutes a flattering portrait of the poet; as the posthumous editorial note puts it: *She tries to deny the compliments made by a portrait of the poet, which claims to be inscribed by truth, but which she calls out as passion*.

This, you see [*pointing*], chromographic counterfeit that ostentates art’s privilege with fake syllogisms of color, is calculated to mislead your senses;

this [*still pointing*], in which flattery has pretended (a) to excise perennial horror & (b) by vanquishing early-onset rigor mortis to triumph over aging and obliviation,

is a vacant artifice of caution
is a flower blown delicate
is a bivouac flimsy against fate;

is a foolish diligence done wrong
is a deciduous affair, & — properly seen —
is a cadaver, is dust, is shadow, is nothing. ×

“Sonnet 145” by Sor Juana Inés de la Cruz / Translated by Eirik Steinhoff

Eirik Steinhoff teaches at The Evergreen State College in Olympia and at the Washington Corrections Center in Shelton. *A Fiery Flying Roule* is the name of the pamphlet he circulated in Oakland earlier this decade; it is forthcoming in book form later this year.

Unchoreographed Spaces

An Interview with Choreographer and Artistic Director Elana Jacobs of CabinFever

By Sawhorse Revolution



Page 44 CabinFever dancer Emily Craver and musician Lia Kohl perform "Lillian" at the Florsheim Mansion (Chicago, Illinois). Space designed by Andrew Rebori with additions by Bertrand Goldberg. Photo by Joy Jacobs

Page 45 Performance view, *CabinFever: Respire*, MCA Chicago. April 29, 2017. Photo: Nathan Keay, © MCA Chicago



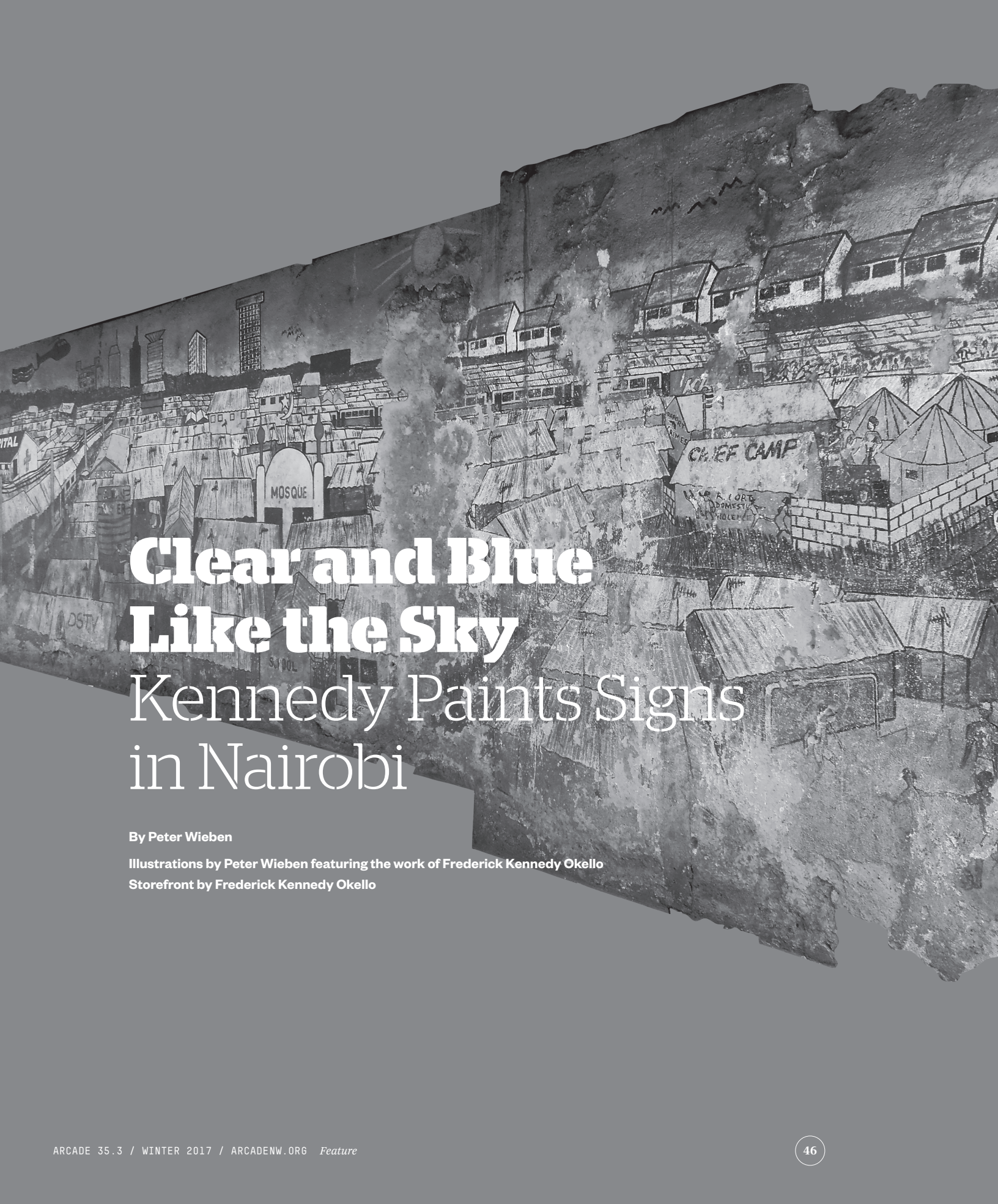
SAWHORSE REVOLUTION: Can you tell us a little bit about CabinFever?
ELANA JACOBS: I cofounded CabinFever in 2011 with the main purpose of reaching new audiences for contemporary dance and performance art. We distinguish our company using homes as our primary venue, creating original music and dance inspired by the homes, the architecture, and the families who live there. For a typical CabinFever show, the rooms of the homes are transformed into living art spaces, showcasing performances inspired by memories, history, and space.

Could you tell us about your process? To make an evening-length work, the creative process can take a maximum of two weeks or be as quick as two days. It's a short, high intensity, very honest process. — Before I create a work that is based in a home, I prepare by interviewing the family—sometimes three to four days in a row. Then I contemplate a seed of an idea from the talk that feels compelling, whether it's a comment from a family member or an entryway of a room that feels really beautiful. Next, I start to create movement that has nothing to do with that seed: just movement that I find compelling. Independently, the musicians create something that they find interesting. — After those three things are created—raw movement, raw music, and the seed of something interesting—we start to play around, matching things together. And then I'll just yell out something that I find true: "That's really funny!" or "There's something really tender about the way you did that." And then we try as a team to expand that truth and that honesty.

Your process sounds very in the moment, with the location, the participants, and each other. How are you able to keep the pieces fresh when the performance comes around? I try to build a couple of moments of unknown into the piece. That's really hard—I like control, and I like planning. But I know that things are going to go wrong, and things are going to actually bloom out of that space. — We recently did a show at the Museum of Contemporary Art Chicago titled *Respire*. A collaboration between MCA,

CabinFever, and electronic improviser Stephan Moore, it took place in the museum alongside the exhibition *Common Time*, which celebrated the life of Merce Cunningham. During *Respire* the dancers performed in many different locations in the museum. — At one point two dancers, Aaron R. White and Emily Pacilio, needed to walk downstairs to get to another location, and I didn't have anything choreographed for that transition. So, I said to the pair, "Go ahead and be inspired by the audience, and look at the space, and be with the space," and that's it. I walked away thinking that I hadn't given them enough information and how that part might be less interesting. — Yet, I was able to catch that moment during the performance, and it became my favorite part of the whole show. They created an entire duet on the spot, just walking down the stairs. It was so moving, and the audience—hundreds of people—was watching them from the bottom of the stairs, watching them have this spontaneous, inspired duet. — A woman came walking down the stairs, and the second she turned to go back upstairs because she noticed the performance, one of the dancers, Aaron, said, "No, come!" And he kind of led her arm in arm down the stairs. Later, the program curator, Erin Toale, earnest eyed, showed us a photo of the moment, saying, "This is what that day was about." — That was a learning experience for me about not overplanning. If I had created specific choreography, the dance would have stood still in that shape. But this was alive, as if not planning let something in that I could never have imagined. ×

Whether through film, music, dance, or whatever medium is readily available to her, **Elana Jacobs** strives to find beauty in the moments otherwise known as "in-between." She revels in the details of the human condition and will do anything to highlight them. Elana is the cofounder/artistic director of the performance company CabinFever and has created works for MCA Chicago, Soho House Chicago, Town Hall Seattle, Theaster Gates's Stony Island Arts Bank, and many families across the US. — www.cabinfeverliveart.com
Instagram: @cabinfeverliveart — **Sawhorse Revolution** is the editor of this issue's feature.



Clear and Blue Like the Sky Kennedy Paints Signs in Nairobi

By Peter Wieben

Illustrations by Peter Wieben featuring the work of Frederick Kennedy Okello
Storefront by Frederick Kennedy Okello



In a corner of a slum in the middle of Nairobi there was a tiny neighborhood in which most of the storefronts were painted by Frederick Kennedy Okello. The stores were shacks made of corrugated steel and scrap wood. Sometimes they had goods, sometimes not. Some were just mud and sticks. But. They were all bright colors. ——— Most of them were covered in writing, and some had beautiful paintings on them. They were all painted by hand, by Kennedy. One building was painted blue, with a giraffe on it. Another had a purple wall with three human faces. There was a depiction of animals boarding the Ark. There was a primary school with paintings of airplanes. ——— Kennedy's paint was intended to color cars and buses. This was the only affordable paint. Once in a while he had to come back and redo his work because it wore over time if the materials or the surfaces were not good. ——— When Kennedy was small, he was given a pen and a piece of paper, and he drew his mother cooking, his father, his brothers, and sisters. He left school when he was still a child. The first time he painted on a storefront, he was 16. He was scared, but he felt he was right to be. He had never even painted before, so it was correct to be afraid. ——— His colors were always bright. Dull colors did not attract attention. He carried many varieties of colors with him. If the owners of the shacks did not know which color to choose, Kennedy advised them. ——— Kennedy believed that accuracy was the most important thing in painting signs and storefronts. Accuracy meant that a thing looked as much like itself as possible. A painting of a pig would be as pig-like as possible. Accuracy told the story of a thing. All of the world's things had stories. Even a pig. Even a screw. ——— His own home did not have anything special painted on it. It was just blue and clear like the sky. His roof was made of steel, and there were small holes in it. Inside, there were no lights except for the light that came through these holes. ——— Kennedy kept an envelope with Polaroids of all the paintings he had done. Buildings, signs, and doors. When it rained, sometimes the buildings fell apart. Sometimes there were fires or buildings would simply collapse. There would be violence, and the storefronts would be erased. For this reason, Kennedy stored his paintings in this envelope. One could walk through the neighborhood and find it bright, with writing everywhere, and artwork everywhere, and prayers written over doorways, or one could look in the envelope, which might outlive the buildings, if only for a little while. x

Peter Wieben is a writer and illustrator in Amsterdam. He has written about the Egyptian revolution, ship-breaking yards in India, surgeries on mice, and the European migration crisis. He stayed in Nairobi for a month in 2017, working on a story about the Kibera slum. While there he met Frederick Kennedy Okello. Okello is a prolific sign and storefront painter, whose work is visible on homes, schools, storefronts, and on signage throughout Kibera. ——— Find more of Peter's work at www.peterwieben.com.



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Architectural Origins, Educations, and Risks

A Conversation with Steven Holl and Ed Weinstein

By BUILD llc

Last summer, BUILD sat down with Steven Holl and Ed Weinstein in Seattle's Pike Place Market to discuss their humble beginnings, their common educational paths, and the life experiences that produced two distinctively successful architecture practices.

BUILD: You both come from gritty, working-class towns in Western Washington; Steven from Bremerton and Ed from Aberdeen. What about these industrial environments prepared you for your studies at the University of Washington and graduate school thereafter?

STEVEN HOLL: There was no noteworthy architecture in Bremerton except for the Puget Sound Naval Shipyard. Growing up I didn't have any relationship to architecture, and at the same time, I can't even remember when I didn't want to be an architect. I loved to draw and paint. My brother and I built tree houses, and we built little roads and little buildings in the earth. When I was 16, I built a car behind the garage.

ED WEINSTEIN: Aberdeen is a really soggy, wet timber town with a lot of fishing, a lot of logging, and very little culture. Like Steve, I had an interest in drawing, built a lot of models, and built a lot of forts. It was a very typical small town. The majority of my classmates went into the woods or into the mills after high school and followed the path of their parents. When I went to the University of Washington, it was intimidating because I wasn't a very good student in high school. I found that the scale of the university was a little bit off-putting. There was an

intimacy to the design studio, where we were able to work on our craft, and that was amazing. I think we felt very much at home in the studio; it was an extension of the kinds of things we enjoyed doing.

You were among the first students to participate in the UW's well-known Rome architecture program started by the late Astra Zarina. The experience must have taught you about so much more than just architecture.

SH: We'd never been to Europe before.

EW: I'd never been east of Idaho. I mean, the arrogance of the two of us: We had decided we were going to study all the piazzas in Italy and do a comparison of their metrics. We got a few books like Camillo Sitte's *City Planning According to Artistic Principles*. We sent Astra a proposal of what we were going to do and she said, "You just have to get over here and sit down and shut up. Do you even speak Italian? Do you know anything about the cultural or economic history?"

SH: She found us an apartment at the Via de' Nari, behind the Pantheon. I became obsessed with the Pantheon, going in there every day to see the light. The funny part about the apartment was that there were no windows. It was at the bottom of a light well.

EW: The most interesting aspect was the exposure to Astra, a very complex personality. She was the most passionate person that I had ever met—much larger than life. It was very revealing to come across someone who was so thoroughly passionate and who lived her life in the way that she did.



There was an intimacy to the design studio, where we were able to work on our craft, and that was amazing.

Being disobedient is not accepting the given as the correct way.

They tell stories of Astra giving cooking lessons on the roof of the dormitory. What are your memories from that?

SH: She said, “If you want to be an architect, the first thing you need to know is how to cook. It teaches you about color, flavor, and texture.” She would sit me down with a wooden bowl and crack the eggs—just egg whites. 40 minutes to make this kind of Italian mayonnaise. She taught me how to do spaghetti alla carbonara.

Even though you attended different graduate schools—Steven at the Architectural Association in London and Ed at Harvard’s Graduate School of Design (GSD)—these paths have much in common given your backgrounds. What similarities have you noticed in your graduate school experiences?

EW: Professor Hermann Pundt, who had taught us in undergraduate school, told me that I needed to go to graduate school and leave Seattle to live in a different kind of city. He suggested Harvard’s Graduate School of Design in Cambridge, where he had received his PhD. I had been working with Lee Copeland, and he suggested the University of Pennsylvania. I applied to both programs and got about the same amount of scholarship funds for both. I went to Lee, and he said, “If I had my options, I’d go to Cambridge because it’s a more pleasant place to live than Philadelphia.” It was on that level of information that I drove to Cambridge. It was a great experience, again because of a few key faculty members. A person who performed a role similar to Professor Pundt was Jerzy Soltan, who was Corbusier’s only employee after World War II. Soltan was absolutely inspiring. With the passion he exuded for architecture, urban design, and painting, he lived the life Corbusier had taught him to live.

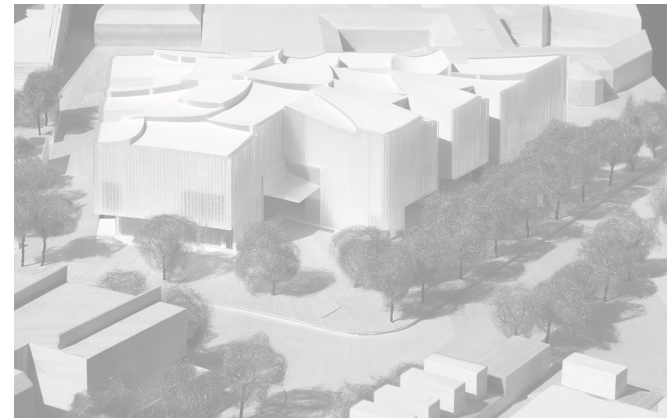
SH: I was accepted at Penn, the GSD, Columbia, and Yale. I went

to all these schools and didn’t like what I saw. Alvin Boyarsky saw my portfolio and said, “Come to the Architectural Association in London!” I got on a plane and went there. When I arrived, I showed Elia Zenghelis my portfolio, and he said, “This is great, why don’t you join our review?” They were studying the idea of giving a form an “architecton,” an abstract pictorial style invented by Kazimir Malevich, and asking students to come up with a site. There was a student who had put it over the Thames, like a bridge. She cut these arches with pink magic marker on either side of it. Rem Koolhaas and I both leaned over and said, “This is brilliant, but you have to redraw it.” That was the beginning of Zaha Hadid.

Upon graduating from the AA and the GSD, what were your professional intentions?

SH: I came back to San Francisco, and I entered a couple of competitions. I took an excursion-fare ticket to New York. My brother was the only person I knew in the city. I met Andrew MacNair, the Institute for American Studies was going on, and it was very exciting and cheap to live there in 1977. I never took the return half of that ticket. While in New York I made this project called the Bronx Gymnasium Bridge. I did all these drawings and won a P/A Award. Because I won, I got a phone call from the dean of Syracuse, Werner Seligmann, who offered me a teaching job just based on this single drawing that was published in a magazine. I taught for 15 years before I had a practice.

EW: This is Steve’s adventurous self. My path is so much more conventional. I graduated in ’75 from the GSD, and I had a girlfriend who became my wife back here in Seattle. There was no work in ’75 in Boston. I went back to work for Joyce, Copeland, Vaughan, & Nordfors, with whom I had previously worked.



Page 51 Steven Holl, Ed Weinstein, and John Ullman in Rome, Italy, 1970. Photo by Unknown Roman Citizen This page (top) Weinstein A+U’s Fire Station 22, Seattle, WA, 2017. Photo by Kelly Rodriguez (above) Model of the Nancy and Rich Kinder Building at the Museum of Fine Arts, Houston by Steven Holl Architects; anticipated completion late 2019. Image courtesy of Steven Holl Architects Page 54 Ed Weinstein and Steven Holl, summer 2017. Photo by Andrew van Leeuwen

I enjoyed the firm and had a great group of young colleagues, but it disbanded in 1977. I had brought a house into the firm as a design project; I took it and went across the street to join my colleague Michael Canatsey to share space, and in three months we decided we’d start a partnership. I got licensed very quickly, as I wasn’t previously. Like all small firms, we were doing back porch remodels, small vacation cabins, and single-family houses. There was a time in Seattle when the city was malleable and you could establish a presence. That became my career path from 1977 to now, almost 40 years later.

You’ve both taken your share of risks in the architecture profession, and many of the victories are clear in your completed work. Can you tell us about a risk that didn’t pay off? A big lesson learned?

SH: I have designed 270 projects and only realized 55. So, the risk is five times more failures than successes. You lose a competition, or get fired, because you won’t change. I have a problem right now with my archive being so big. I have to move it; all these beautiful models over all of these years, and I don’t know what I’m going to do with them. There are millions of hours in these models. It’s almost like a burden. The great thing is when you get a building built, it’s there.

EW: Our practice is clearly different. The majority of our projects do get built, and the risks are almost solely financial. When we agree to do a municipal project under the Washington State fee schedule, and it is a small project—a library or a fire station—we know we’re going to dramatically subsidize it. We do it anyway because we think it is important. All the small municipal projects are like that. When you work with developers, you can occasionally get burned if they can’t secure financing or are overextended. You can get way out over your skis in terms of your willingness to subsidize these projects because you’re so eager to have them constructed. It can happen with institutions as well. They can be very well meaning and very ambitious but never secure their funding.

Steven, you’ve become known for a certain disobedience to the conventional rules of architecture, which has won you commissions like the Museum of Fine Arts, Houston. Ed, you’ve become known for understanding the rules of architecture so well that you can redefine them, elevate the design, and give the client something they didn’t even know they wanted. How did these different, yet masterful, approaches to the rules of architecture develop in your careers?

SH: Being disobedient is not accepting the given as the correct way. That’s worked out for me in four competitions that I won. For the Museum of Fine Arts, Houston, they were supposed to build a seven-story parking garage, and not only did we convince them not to build a parking garage but to build a new school.



In bothering to understand what motivates our clients, we can demonstrate that there's a better way to do things.

I wouldn't call it disobedience. I would call it applying extreme scrutiny to everything that's given to you. I do start out looking at a way to change the game.

EW: My sense, and what I try to teach in the office to my colleagues, is that we need to be very analytical. We need to do our research. When we start seeing relationships, we mine them for substance. We try to create a concept that is authentic to those circumstances. Fire Station 10 is a good example of this, as the only solution was to design a nonstylistic building that grows from its circumstances. As much as possible, we push the edge of the envelope, but not to penetrate it, not to break it, but to know right where the limits are and how to push up against them. In bothering to understand what motivates our clients, we can demonstrate that there's a better way to do things, not just by arguing that it makes a stronger building, but by saying, "Here's what you need, this is what we need, and we can both satisfy ourselves if you trust us." Building trust is something that's common to both of us. x

Steven Holl established Steven Holl Architects in New York City in 1977. He obtained a bachelor of architecture from the University of Washington in 1970 and completed his postgraduate studies at the Architectural Association School of Architecture in London in 1976. Steven is considered one of America's most important architects and has completed cultural, civic, academic, and residential projects both in the United States and internationally. Steven is a tenured professor at Columbia University's Graduate School of Architecture, Planning and Preservation, has lectured and exhibited widely, and has published numerous texts.

Ed Weinstein has practiced architecture in Seattle for 45 years and is the principal and founder of Weinstein A+U. He obtained a bachelor of architecture from the University of Washington in 1971 and a master of architecture from Harvard University in 1975. His award-winning projects include housing, institutional, public sector, and commercial work. Ed has been a graduate studio instructor, has mentored many generations of young architects, and has made significant contributions to Seattle's architectural legacy.

BUILD llc is an industrious architecture firm in Seattle run by Kevin Eckert, Andrew van Leeuwen, Sandy Ha, and Bart Gibson. The firm's work focuses on effective, sustainable, and sensible design. BUILD llc operates an architectural office, contributes to ARCADE with an ongoing interview series, and is most known for their cultural leadership on the *BUILD Blog* (blog.buildllc.com), where you can find part two of this conversation. BUILD intern Amanda Weinstein contributed to this ARCADE interview.

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The Unbearable Lightness of Being in Tech

By Jodie Eilers

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The first time I cut my fingertip off with an X-Acto knife I was 18, up too late trying to cut a mat board within a millimeter of perfect. I got blood on the project and had to start over with printing and trimming and spraying and mounting. Now, at home and a million miles from the office, my drafting table still has X-Acto blades, brushes, straightedge, tracing paper. Analog. Physical things from when design was something you did with your hands. It was tactile. It had a smell. It was ... physically considerable. The same design principles for analog certainly apply to all the digital that has come between me and my X-Acto blades, and these skills have served me and many a client well. But working in (and for the most part, living in) the digital world leaves an emptiness, vertigo. My existence there lacks a *je ne sais quoi* that I cannot find an English word for: a realism, a completeness, a sense of something like gravitas. At the end of my day there are no scraps of mat board, no scent of fresh prints, no Band-Aids.

My craft now is all pixel. I have a very practical awareness of the significance of what I do. I am a UX and visual designer for a not insignificant part of a not insignificant product at a not insignificant company. In fact, if I change the wrong thing, I'll likely ruffle at least a few hundred-thousand feathers. Still, that does not tame my odd but nagging feeling that working in pixels and electrical currents is a sort of "make-believe."

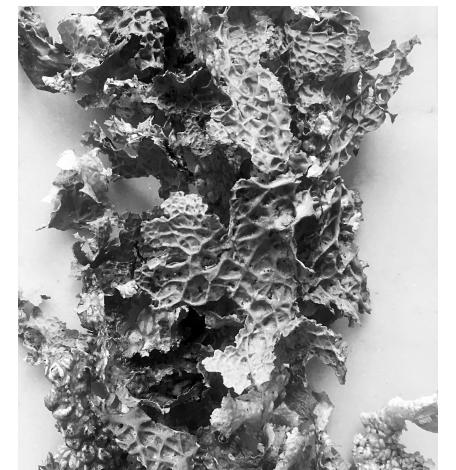
So, in contrast to my day job, my off-hours are filled with an absurd accumulation of hyperanalog, antidigital pursuits that I am using to ground these loose digital wires: mountaineering, foraging, animal processing, indigenous ethnobotany, wilderness first-responder training, and weekend-warrior hunts for cell-service-free old-growth locations. I wonder, often, how many people in tech are having the same metaphysical struggle.

Timothy Egan wrote an opinion piece for the *New York Times* back when we were all abuzz with the news that our digitally adjusted attention spans are now shorter than those of goldfish. Short attention is, admittedly, a slightly different problem, but to me it indicates the same unnerving rabid-gerbil-arms desperation for a sense of grounding, as if the mind is drowning in insignificant content. Egan writes, "I don't know what the neuroscience has to say about this, but I've found a pair of antidotes, very old school, for my shrinking attention span. The first is gardening." DIRT.

My instinct is that the lizard brain within needs weighty, tangible, messy moments, physical problems with serious consequences, actual irritation, sensory assault. It is unsatisfied with the comfy office chairs in climate-controlled buildings, uneasy with the free-coffee dispensers and golden handcuffs. We might find suitable postures in front of our keyboards and, like the sea squirt, conserve energy by digesting our own brains. But the lizard within calls to us: "Rage, rage against the complacency of the Retina LED light!"

I know and deeply respect that the digital world has given us unprecedented connectivity with each other and provided information, solutions. I very much know that it has been a miraculous magic wand, just as much or more than it has been a twisted version of *Through the Looking-Glass*. But from where I sit within the daily grind of the tech hive, digital seems a bundle of nerves and energy trying to stay one minute more relevant than itself. It is ephemeral, it is liquid, it is pathos, it is created in a moment and dies in the next, briefly begging its audience for one viral second of relevance. It is the endless mixing of batter and never baking or smelling or eating, but only imagining the cake and then tossing the concoction to begin again with the next-most-recent recipe. There are more and more chefs in these rapid-iteration, fail-fast digital careers every day. Books have been written about what this fickle, impatient, intangible space is doing to our relationships, our choices, our health.

It is ephemeral, it is liquid, it is pathos, it is created in a moment and dies in the next, briefly begging its audience for one viral second of relevance.



The more our lives resemble the Borg, the more we romanticize Grizzly Adams.



Thus the wave of discomfort rose before me in reaction to the surge of digital ephemerality. Like Egan, I found dirt. It started with a little p-patch. Then I upped the ante by designing for cloud portals and online software. So the pendulum swung higher. I learned to slaughter and process ungulates. I learned to make medicines from things on the forest floor and start fire from nothing. I walked eight days to eat dal at 17,000 feet from a stove that burned dried yak dung. I became a mountaineer.

I know I'm not alone. Walk the streets of Amazon's South Lake Union realm or the sidewalks of Google in Fremont or the promenade through Microsoft's commons. How many logger/miner/fisherman impersonators do you see? What defines a hipster if not a desire for the tactile, the smells and scrapes and dirt and grease and splinters and fire of sweat-earned work? The more our lives resemble the Borg, the more we romanticize Grizzly Adams.

My most successful balancing weekends of late have involved broken crampons and pooping in "blue bags." Does it work? Can I sit down on a Wednesday afternoon for another round of mock-up microedits and feel grounded? For now. But if I start working on VR, Zeus help me. ✕

Jodie Eilers has been a designer of almost every flavor over the past 18 years. She is currently a UX and visual designer for Microsoft Excel. When away from the computer, she teaches mountaineering and climbing for the Washington Alpine Club, invents celiac/paleo/keto recipes, practices foraging and wilderness skills, studies epigenetics and the microbiome, makes art, and looks for ways to combine the above. www.jodieeilers.com



Page 58 The last bit of snow ascent to the summit of Mount Olympus. Photo by Gabe O'Leary **Page 59** (top) Wild fritillaria roots, a nourishing carbohydrate source (bottom) *L. pulmonaria* (Lungwort lichen), common in many Cascade rainforests, has a long history in folk medicine. Photos by Jodie Eilers **Page 60** (top) At a Methow Valley traditional skills gathering, kids used sheets to catch grasshoppers to roast. (middle) A bivy spot at high camp for an Eldorado Peak climb. Photos by Jodie Eilers (bottom) Standing on the rock island at Snow Dome on Mount Olympus, watching the sunset over the distant ocean. Photo by Jason Zabriskie This page Washington Alpine Club instructors on Mount Baker (Koma Kulshnan). Photo by Jodie Eilers



Farm Design That Can Heal the Earth

Rivaling Industrial Agriculture with Natural Systems

By Sam Gregory and Mericos Rhodes

END
NOTE

At our farm, the air is alive with sound. Hardworking bees buzz among burnt-orange squash blossoms. A cow calls to her calf. A hawk rises into the sky on a breeze, the same breeze that rustles a mulberry tree until a handful of fruit falls to the ground. Sweet berries rest on the soil, which gives off a rich, clean scent of its own, and is home to billions of microbes, working hard like the bees to support a nuanced natural system.

Nature is beautiful, bounteous, and diverse. Here at Spoon Full Farm, and at other ecological farms around the world, farmers and designers mimic nature's ecosystems to create an agriculture that matches this beauty, bounty, and diversity with added productivity. In an age when most agriculture sickens our planet, our climate, and our people, ecological farming is a delicious alternative.

The typical landscape of industrial agriculture is neither beautiful, nor musical, nor fragrant. Perhaps you've driven through the endless rows of corn or soybeans in "farm country," where the monocrop pattern is broken only by a combine spewing exhaust. The people who operate these farms will tell you that we can't have both a biodiverse, healthy landscape and a productive farm on the same plot of land. We have to make sacrifices to "feed the world." We must till soil; we must apply herbicides, pesticides, and synthetic fertilizers to miles and miles of genetically uniform crops: that's the only way to feed humanity's fast growing population.

Industrial agriculture efficiently creates calories, but those calories come with steep deferred costs. Pesticides kill pollinators; synthetic nitrogen fertilizers leach into groundwater, rivers, and oceans, creating huge marine dead zones; and soil tillage releases gigatons of carbon dioxide into the atmosphere.

How long can the Earth bear these costs? Must we mine our soil and pollute our planet? Or can we use thoughtful design, based on ecological principles, to create a long-term solution?

Nature has fed herself for millions of years. However, natural ecosystems don't produce enough calories to support modern populations. We need high crop-yields every year. Our farms must both support themselves like ecosystems and also produce enough food.



Up from this healthy soil grows a biodiverse range of crops, dense in life-giving nutrients. Along with potatoes, squash, and other annual produce, our garden grows lavender bushes and nettle hedges. These perennial plants provide consistent habitat for pollinators and predator bugs that eat pest insects, making pesticides obsolete.

Next year, our cows' composted winter manure will add more fertility to our garden. As in every ecosystem, animals are crucial. We rotate our cows from one lush paddock to the next, every day, to stimulate grass regrowth. That's the way bison moved for millennia, grazing and fleeing wolves in a cycle that built up the rich prairie soils. And as our grass grows up, its roots grow down, storing solid carbon underground.

Each element in our farm design supports the others, and therefore the whole. Rather than directly feed our crops, we maintain a system that builds our soil, which feeds the crops for us. We grow an abundance of healthy food, rivaling the productivity of industrial agriculture with a system that is not just sustainable but actually regenerative and communicative: everybody can understand an incredibly delicious carrot grown in a natural system beautiful enough to inspire. x

Rather than directly feed our crops, we maintain a system that builds our soil, which feeds the crops for us.

Thus our design philosophy for farms must not only mimic but also augment nature to outcompete industrial agriculture. We design in response to the specific characteristics of each piece of land, choosing and arranging each detail to create larger patterns of interrelationships that resemble those of an ecosystem. While we can't replicate the infinite complexity of nature, we can design a farm that is both self-sustaining and highly productive.

We start from the ground up, focusing on the health of our soil. We create a constant cycle of decomposing plants and manure to feed a vibrant food chain of soil microbes. Bacteria, fungi, nematodes, and protozoans work together to recycle organic matter, store water, and make nutrients available for plants. We keep this microecosystem intact by never tilling our earth. Agriculture is extractive: harvesting crops, we pull energy out of the ground and ship it elsewhere to be eaten. Keeping our soil whole helps to replenish this energy.

Pages 62-63 Photos courtesy of Spoon Full Farm (Instagram: @SpoonFullFarm)

Sam Gregory and **Mericos Rhodes** are farmers at Spoon Full Farm, a 242-acre ecological farm in Thorp, Washington. www.spoonfullfarm.com

Sam is a farmer and permaculture designer who is passionate about helping our culture solve its climate justice problems by redesigning our food production systems. He equally enjoys growing world-class heirloom tomatoes and creating detailed business plans and financial forecasts.

Mericos expresses his love of nature through writing and farming. He is nearly finished with his first novel, *Rain Shadow*, due for release in 2018. His main life goals are to plant 10,000 trees and to encourage more and more smart, compassionate people to work with the land on ecological farms.

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and Thank You

This holiday season, as we enter the final months of ARCADE's 35th anniversary year, we give thanks to our community, whose generosity and passion manifests in each issue of ARCADE magazine and at our events. Thank you for driving conversations about design in our region and beyond—as writers and readers, event guests and presenters, financial supporters and enthusiastic participants in ARCADE's endeavors.

We extend a heartfelt thank you to our creative contributors, designers, speakers, tireless board of trustees, editorial committee members, and volunteers. May your holiday season be filled with joy and love.

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