DIALECTIC V

THE FIGURE OF VERNACULAR IN ARCHITECTURAL IMAGINATION
Dialectic is the refereed journal of the School of Architecture at the University of Utah since 2012 providing a forum for the true spirit of dialectical thinking. This journal brings together the most compelling opposing voices in the discipline today, interrogating the issues, values, methods, and debates that are important to the community of educators at the University of Utah and abroad.

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## CALL FOR PAPERS & PROJECTS 2017

## ACKNOWLEDGEMENTS
The School of Architecture at the University of Utah has a longstanding commitment to place-based architecture and defining the contours of the illusive concept of the American West. Dialectic V invites contributions that explore the vernacular afresh: as a quantifiable phenomenon, as an analytical category, and as an ethical stance. The editors of the journal welcome new takes on questions including but not limited to the definition, the role, and the challenges of the study of the vernacular.

The contemporary emphasis on locality and the creative expression of time-tested know-how of “common folk” comes out of modern and postmodern valorization of cultural plurality. The turn to regionalism in architecture—whether critical or romantic, principled or a cynical tool to brand a place or pedagogy—is intimately wound up with the perception of capitalism and mass media as either suppressing or manipulating disparate cultural identities, local practices, or complex histories. Scholars like Thomas Hubka, Thomas Carter, and Dell Upton have shown connections between modernist and vernacular practices and how they anticipate each other. It should therefore not be surprising that schools like the University of Utah attend to the lived environment of ordinary folk and look askance at the dazzling acrobatics of global starchitects as a naïve continuation of the modernist legacy. This stance produces and reinforces another ideal: a commitment to community engagement. It provides a framework for foregrounding humble but profound projects and modes of practice that give voice to those overlooked by spaces bleached of memory and rationally produced as commodity for glossy magazines and mass tourism.

However, the vernacular is not necessarily or inevitably a progressive concept. Tania Li and Jane M. Jacob have demonstrated the use of vernacular and indigenous as cognitive categories by colonial administrators to map territories and classify populations for a myriad of exploitative goals. Well meaning donor agencies like the World Bank in turn, perpetuating the same governmental strategies have deployed these same concepts as heuristic devices for denigrating certain people as bounded groups, fixed “forever in place.” In Germany, a racial lens exalted the thatch roofs of its countryside as a proof of an immutable superior nature of German volk. Later all across the Middle East, the progressive ideal of cultural diversity has been leveraged to erect caricatures of walled cities aimed at self-orientalization and maintaining traditional gender and class inequities. The vernacular is an unstable concept—always vulnerable to reduction and capture as cultural commodity and/or uncritical ideology.

What then is the vernacular? Is it foremost an economic entity or a cultural one? Does it refer to a process, language, or an image? Does it signify an object or its background? Is it a heuristic term for “no logo” buildings, or is it a brand and a style in and of itself? Who are the actors involved in the making of the so-called vernacular? What are the different ways it has been instrumentalized in design practice and policy decisions - for example by framing insights into native landscape intelligence and responses to climate? Or does vernacular simply stand in for a life style—growing, building, and buying local—whether as principle or fashion. Is it related to the “greening” of commerce and consumption? Or is it a futile, perhaps reactionary resistance to the elision of place and place-based practices by globalized circulation of goods, ideas, people, and materials? These questions highlight the vernacular as an active and multifaceted term.

We would entertain papers or projects that ask: What is the value of marking the boundary between design produced according to disciplinary and extra-disciplinary criteria? What about architects like Hasan Fathi “reproducing” vernacular and his followers perpetuating the approach? We would welcome proposals to document the Disneyfied use of the vernacular works in current tourism economies? How has a strategic deployment of vernacular studies in the history and theory of architecture operated? How could it? What does it mean to activate the distinction between pedigree and non-pedigree architecture today? Do the tacit structures of software and computation imply a digital vernacular? What is the vernacular of 20th century? Is it constituted by the low cost trailers offered by HUD in the United States and other agencies in different parts of the world or does the stick-frame American suburb qualify, and what does this say about how the vernacular is classed? Are ubiquity and absence of a professional architect all that are required, or is a specific depth of history required? If so, what does this do to the association of vernacular with the voices from below?

The editors value critical statements and alternative practices. We hope to include instructive case studies and exciting models for professional practice. Possible contributions may also include mapping of ongoing debates across the world, book, journal, exhibition, and new media reviews.

Shundana Yusaf
INTRODUCTION

FOREWORD/
MARK LOCHER

EDITORIAL: THE FIGURE OF VERNACULAR IN CONTEMPORARY ARCHITECTURE/
SHUNDANA YUSAF

W.C. Marge, Tintic Standard Reduction Mill, Genola, Utah, 1920
photo by Shundana Yusaf
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Shundana Yusaf is an Assistant Professor of Architectural History and Theory at the University of Utah. She has studied architecture at National College of Arts, Lahore, and architectural history at Harvard, MIT, and Princeton. Her research juxtaposes colonial and postcolonial history with media studies, framing each as a force of globalization. She is the author of *Broadcasting Buildings: Architecture on the Wireless, 1927-1945* (Cambridge: MIT Press, 2014). Her second book-length digital humanities project for the Society of Architectural Historians, entitled *Archipedia Utah*, is a collection of historical information and critical analyses of the 100 most representative buildings in Utah. Her current book, *The Resonant Tomb in the Muslim World, 1250 CE to Present* studies the auditory landscapes of the Sufi shrines in Central and South Asia. This research is supported by Fulbright. Yusaf is the primary editor of *Dialectic V & III* and second editor of *Dialectic II & IV*. 
The publication of Dialectic V marks an important milestone for the University of Utah School of Architecture: five years of publication, our “wood” anniversary. One may argue that five years is hardly a “milestone,” since the word has come to suggest something momentous. Yet a milestone—a small stone marker at the side of the road—seems a fitting metaphor. Milestones are unobtrusive, consistent, and ubiquitous. They mark time and space; they hold both memory and anticipation. Dialectic serves a similar role, creating a consistent pathway for the exploration of issues through divergent voices, what we’ve learned from the past and where we see the future of architecture heading.

Within these five short years, Dialectic developed from the initial volume focused on the work and ideas produced within our School to a hard look at the economic forces shaping architecture and architectural education in Dialectic II: Architecture between Boom and Bust. We then started to drill-down on what we do and know well at our School, starting with design and building in the academy and the profession in Dialectic III: Dream of Building or the Reality of Dreaming, followed by an examination of architecture’s service role, with Dialectic IV: Architecture at Service?

This year we go back to our roots, in a sense, investigating the concept of “vernacular.” This seems an apt topic for our wood anniversary. Wood has links to memory—the history of growth is written in each ring and knot. Wood connects us to our senses in ways many other materials do not. In certain cultures we say that wood “feels warm”; it may remind us of home—a cabin escape secluded in nature. Wood as a material was the choice for early buildings in the American West, providing the structure for the Navajo hogan and the log cabins of the early western settlers—the very buildings that have come to be called “vernacular.” Wood remains a common building material, transformed from the roughly sawn logs of the pioneer cabins to the industrially produced 2” x 4’s piled on the shelves of our local home centers. The art and the nostalgia of the hand-hewn has been all but lost to the efficiency and convenience of the machine-made. Likewise, our understanding and appropriation of vernacular architecture has evolved, and this volume of Dialectic endeavors to parse the concept, role, and future of vernacular in the practice and profession of architecture.

In his essay herein, entitled “Vernacular?,” Dell Upton states, “the idea of the vernacular, no matter what kinds of buildings it encompassed, has always been grounded in categorical oppositions that grow directly out of the experience of modernity.” He continues, “For that reason, I prefer to avoid the term vernacular architecture as an analytic category. What we call the vernacular is part of a historical process comprising the unfolding of simultaneous, intersecting, unbounded, and non-linear threads that produced buildings of every kind.”

Shundana Yusaf, editor of Dialectic V, exposes the politics of those non-linear threads eloquently uncovered by Upton. In her editorial, Yusaf reminds us,

We have to keep picking at our categorization of space and bestowment of the built environment with different meanings and significance. These are not benign exercises. Notions of center and periphery, foreground and background, nature and artifice, art and pedestal, insiders and outsiders are at the heart of cultural attitudes, political discourse and public policy. They form collective sense of belonging and in our immediate American case, inform our foundational tradition of constructing the self through a well-preserved process of minoritization and dehumanization. …The invention of “vernacular” architecture satisfies perfectly the needs of the practice of first othering, then recalling.
it for self-definition and then insisting on a certain internal integrity of the self. This is a defining property of modernity and nationalism.

Dialectic V: The Figure of Vernacular in Architectural Imagination is not a nostalgic look at architectural forms of the past. Rather it is a compilation of serious investigations into modern understandings, utilizations, and appropriations of vernacular. The essays in Dialectic V present critical discourses on important recent and contemporary situations, from travel trailers to Walmart and Hale County to the Himalayas. As such, these essays expose the political roles and responsibilities of architecture.

At the University of Utah School of Architecture, we recognize that architecture is not apolitical. As one of our core beliefs, we state “Architects must take responsibility for their work as a form of political discourse.” We recognize that political action by nature is not necessarily divisive, and architects can be at once students, partners, and leaders in recognizing and resolving inequity and building community. We understand that we must listen deeply to others and carefully study competing views and ideas in order to best formulate a problem. We teach the act of making architecture as an inclusive rather than divisive undertaking. The investigation into the concept of vernacular as presented in this volume of Dialectic exemplifies an important form of listening and studying that we champion.

Dialectic V addresses vernacular as the problem that it is, at times misappropriated and exploited—similar to the term “milestone,” perhaps. At other times vernacular is almost overlooked and yet it emerges, like the memory of wood, from our collective conscious. The ideas within these pages will draw forth recollections, illuminate present situations, and suggest future directions. I am pleased to present Dialectic V: The Journal of the School of Architecture at the University of Utah.

Mira Locher, Chair
The politically charged and polarized air of January 2017 has given a new urgency to reflection on “The Figure of Vernacular in Architectural Imagination.” After premature declarations of a post-racial age, the legal othering of a whole new class of people in United States makes the disciplinary practice of recalling vernacular architecture to define the self and the other a pertinent topic.

Surely architects have been a welcoming social group and their population has greatly expanded as the gatekeepers have let in new voices. Women, Muslim, LG-BTQ, black, Native American, and immigrant scholars and designers in the field clearly see things differently than the disciplinary fathers. They have pointed to the errors of old ways. With them we have realized that architecture since its conception has ennobled monuments above humble structures. It has put them on the pedestal for disinterested judgment and dignified them as objects of art by suppressing their worldly entanglements. We have come to see that the philosophies of beauty and phenomenology, theories of taste and autonomy of art, or notions of artistic genius and Civilization are, after all, not that disinterested. Nor is aesthetic judgment as enlightening as its European male theorists and practitioners made it out to be. In fact, what it honors is little more than ideologies of domination. What it follows is little more than the axis of power, Western modernity and instrumental rationality. Architects, historians, critics, and consumers of architecture have internalized these ideas without question. For all their enlightenment and reflective thought, they are in the thrall of blind faith in might.

One looks around, and such diagnosis gives little cause for celebration. Nowhere in the world has the diversification of bodies and perspectives in the body politic of architecture made a substantial dent in unseating the canon of great buildings of great men around which the discipline has constructed its walls. The current reinstatement of racism and sexism to legitimate station by the American democratic process, begs continued probing of hierarchies that sustain such sentiments. We have to keep picking at our categorization of space and endowing of the built environment with different meanings and significance. These are not benign exercises. Notions of center and periphery, foreground and background, nature and artifice, art and pedestal, insiders and outsiders are at the heart of cultural attitudes, political discourse, and public policy. They form a collective sense of belonging and in our immediate American case, inform our foundational tradition of constructing the self through a well-preserved process of marginalization and dehumanization.

The invention of “vernacular” architecture satisfies perfectly the needs of the practice of first othering, then recalling it for self-definition while insisting on a certain internal integrity of the self. This is a defining property of modernity and nationalism. It is therefore no surprise that the concept of vernacular is the conceit of modernity. There was little use for the word in architecture before the 19th century encyclopedic impulse and the European hubris to order all observed phenomena into rational taxonomies. This ambition summoned “vernacular” to signify the compromised, contingent, and engaged surroundings of autonomous aesthetic form. Believers in the doctrine of autonomous architecture have always insisted that a work of art has a formal integrity all its own and that it stands out from its surroundings by properties intrinsic to it. It has been believed to provoke free play in imagination, delineating and demarcating the interiority of a figure with total freedom and universality.

Upon scrutiny, this “free beauty” makes itself apparent to the imagination by employing criteria of inclusion and exclusion that makes vernacular a background.
Vernacular architecture brings into sharp relief the outer limits of a work. It reveals the contingency of the ideology of universality. As the “other” of the Kantian object of aesthetic judgment, it exposes the brackets of the criteria by which some buildings are put on the pedestal and others left out. Its materiality and aesthetic, asks for a different evaluative criteria. This is the connective thread that stitches the different pieces together into something called Dialectic V. In the history of architecture, vernacular has been variously defined as the non-pedigreed, non-academic, unself-conscious, ubiquitous, home grown, physical environment. In 1964, Bernard Rudofsky called it Architecture without Architects. Fifteen years later, in 1979, Christian Norberg-Schulz baptized and romanticized the idea as Genius Loci.

To avoid the perennial othering on the one hand, and the exoticization of vernacular architecture as authentically, unlearnt, sensus communis of an locality or a people on the other hand, Dell Upton, one of the founding and active members of Vernacular Architecture Forum (VAF) argues in the opening segment of the journal for abandoning the term altogether. This is not to say that he wants to absolve us from the responsibility of studying common places, everyday life, or the monuments built by the African American community. He has made a career of researching the spatial imprints of powerful and subaltern groups alike in the United States. He proposes destabilizing the relationship between architecture and building whereby they constantly reverse roles. All built environment is a mashup of different bodies of knowledge. He therefore suggests making distinctions by taking stock of the “Circles of Knowledge,” in which ordinary and extraordinary, pedestal and work will change depending on the onlookers. With “the disparate contexts of knowledge, skills, beliefs, and sociability,” together with the diversity of the eyes of the beholders, Upton gifts us with new analytical categories that welcome historicity, contingency, and dynamism.

The instability of identity of the ordinary and extraordinary does not go unnoticed by the other contributors to the issue. But not everyone is willing to let go of the term “vernacular.” For André Bideau it does important revelatory work. It enables him to detect properties traditionally attributed to vernacular architecture as the basis of modern architecture. We should not forget that German Sachlichkeit aimed at removing all artifice and artistic expression in favor of functional forms in ways similar to what was attributed to Volks cabins. In the 1930s the most prominent functionalists in Zurich became the architects of the anonymous, repetitive, and monotonous infrastructure of subsidized housing. This is not an architecture without architects but with architects interested in the ordinary, modular, and standardized type-forms. In the 1990s, a new generation of architects became involved in updating the aging infrastructure. Bideau detects in their work, a vociferous critique of the profession’s propensity for spectacles. In the hands of reflective practitioners, these commissions demonstrated their power to expose the poverty of professional practice pandering to the imperatives of global capitalism, luxury, and the image-economy.

Benedikt Boucsein and Ole Fischer share Bideau’s attention to ordinary architecture with architects for the critical functions it performs. Boucsein invites us to take seriously the tactics employed by architects who have designed the omnipresent background of most modern cities after WWII. Looking at its examples in West Germany, he sees this “grey architecture” as a result of the conditions under which it is produced. Tight bylaws, lending restrictions, timelines, maximizing efficiency, and safety requirements levy serious restrictions on it. Such commissions impose a mode of practice involving a mixture of tradition and innovation, practicality, and quietness that is a mistake to overlook in favor of uncompromising idealism, romanticism, and noise. There are lessons here for those of us interested in social engagement. Social engagement, we are reminded, is necessarily an art of compromise and ordinarieness. Gray architecture awakens us to the intelligence of de Certeau-like tactics—the genius ways in which the weak make use of the systems of the strong—lending gray architecture, like everyday practice, a political dimension. It makes architects unromantic students of the critique of everyday practice.

Ole Fischer, as if responding to Boucsein’s call, looks at the 21st century socially engaged vernacular being created by architects working within gray conditions. Strolling through the alleys of Venice Biennale in 2016, he detects a growing interest in “grey matters.” Prob-
ably a fatigue with starchitects, he finds an exploration of contingency, building codes, micro scale interventions like patching a hole, and mass marketed industrial materials that have enveloped the globe in a banal homogeneity. Working within what Boucsein calls the “mode,” with limitations that confront every socially relevant practice, from Bombay to Chile to Flanders, Fischer is thrilled by a new generation of architects creating reflective responses with de Certeau-like tactics within the limits of the mode, not of the exhibition space, but one that demands compromise.

If mid-20th century United States has produced a vernacular, travel trailers and fall out shelters would quickly distinguish themselves. Their architecture was born of Formica and other plastics, different sorts of modern alloys, and joinery techniques, all initially developed by the military for the military. Shrinking family sizes, growing middle class prosperity and leisure time, variety of canned food and consolidation of the Parks System ensured their popularity. Alicia Chester’s article links this midcentury phenomena with the foundational American impulse for self-reliance and exploration, making travel trailers descendants of the quaint homestead and colonial bungalow seen in countless westerns and landscape paintings. Chester dissects the psychology of the times revealed in these cold war spaces. They maintain the American romance with arcadia, conserve gender roles, extend domestic comfort to the road, and ensure safety in wilderness. Chester’s reading provides a model for reading the dialectic of cultural fantasies and social realities through reading its latest vernacular architecture.

Aaron Tobey provides a brilliant elucidation of the impact of global capital on everyday spaces. The nexus of multinational IT companies and global financial institutions has realized the total globalization of capital. Penetrating every aspect of everyday life, GC has undermined our traditional concepts of vernacular architecture by decoupling spatiality from materiality and locality. It has “placed” us in mobile and inconsistent communities in which architecture cannot perform its traditional function of identity formation. It demands strip malls, Wal-Marts, hospitals, office spaces, mass housing, in fact the entire landscape to exhibit a kind of flexibility and neutrality that supports rather than resists the deployment of technology. The digital meditation of the spaces of everyday life limits everyday interventions, de Certeau-like tactics and reproduces status quo through a feedback loop. Tobey envisions the digital natives as the Achilles heel of the system, which alone recognizes the reconceptualization of vernacular architecture, locality, materiality, and spatiality by global capitalism. Disruption and opening up of the system has to come from within this new vernacular.

Danielle Willkens and Armaghan Ziaee send field reports on the role of vernacular precedent in two radically different contexts. Willkens is in underserved rural Alabama, Ziaee in a neoliberal global city. The first is looking at Hale County, one of the poorest counties in one of the poorest states in the United States. The second is describing Dubai, the richest and most business friendly city in the Emirates. Willkens finds at her location students and faculty of Rural Studio from the University of Alabama. They employ the same digital technology that has compelled others to perform audacious formal acrobatics, to preserve and innovate the humblest of rural architecture. The 3D laser documents not the picturesque but the harsh realities of underserved black agrarian communities. The result is a database of “digital vernacular” that should not be seen as faithful representation of something out there. Instead it is a body of knowledge for global consumption that holds in suspense the logics of traditional built environment and digital technologies. Willkens celebrates this work and the architectural interventions in the area informed by it as a reflective practice of citizen architects.

Carey Clouse who submits a report from Ladakh, a disputed area between Pakistan, India, and China in the remote high Himalayas argues that recent interventions of international design companies in the area should be seen as updating the Ladakh’s vernacular. The ‘do-good-design’ of firms like ARUP Associates should not be seen as cultural imperialism but as integrating Ladakh into the global economy.

Not such is the conclusion of Ziaee. When western architects are called to Dubai to create symbols of technological progress, while Arab architects are relegated to produce a self-orientalizing frame of smaller projects around these, it is clearly an apartheid state. She does not see the conservation and innovation of vernacular architecture in this
context as offering dignity and identity to the residents of Dubai’s “golden cage.” Rather it is the cynical calculation of a neoliberal municipality like in Ladakh that invents traditional vernacular in ways no different than the city’s iconic signatures—using advanced technology and borrowed vocabulary. Ziaee’s main objection to historic preservation or traditionalist pastiche in Dubai is not that it transforms the building envelope to a veneer or a replaceable cladding, but that it feigns earnestness. Ladakh’s case is different and probably over-optimistic, but when the same thing happens in Zurich (architects fabricating the image of prefabrication), Bideau reads it as nuance, not perversion. If the first is naïve, the second is knowing. How to make sense of the difference between Boucsein telling compromises, Fischer’s clever misuse of generic materials, Bideau’s mindful play with standardization, and Willkens’ socially engaged scanning, and Ziaee’s manipulation of architectural vocabulary? If Pierre Bourdieu were asked to account for the variance, he would attribute it to the variance in the command over Rules of Art of the different actors involved. It is these that mark the difference between clumsy and reflective, absurd and creative, lies and performance.

In conclusion, this issue raises a lot of dust in traversing through the figure of vernacular in, what turns out to be mainly, modern architectural imagination. It is a dusty terrain. The specter of Michel de Certeau’s insights in his book, The Practice of Everyday Life, looms large over the definition and interpretation of the term. The problems of local and global, spectacle and background are all aired and rearranged. Mobility and locality, architect and novice, social engagement and disengagement are implicated in one another. We cannot evoke these concepts without vigilance. For, as a sage once said, we are shaped by our thoughts. What we think, we become!
REFRAMING
VERNACULAR?
DELL UPTON

SELF-REGULATING VERNACULAR? RECENT SUBSIDIZED HOUSING IN ZURICH/
ANDRÉ BIDEAU

EMI Architekten, Avellana cooperative housing, Zurich-Schwamendingen, Switzerland, 2010-2012
photo by Roland Bernath
Dell Upton is professor of architectural history in the Department of Art History at the University of California, Los Angeles. He previously taught at the University of California, Berkeley, and at the University of Virginia. He is a historian of architecture, material culture, and cities. His focus is on the United States and within the global scene. He has published essays and books on topics as disparate as ancient Baalbek, Lebanon; colonial Virginia architecture, and Las Vegas. Currently, his work focuses on African-American landscapes in the U.S. South since the Civil War. Upton’s recent books include *What Can and Can’t Be Said: Race, Uplift and Monument Building in the Contemporary South* (2015), *Another City: Urban Life and Urban Spaces in the New American Republic* (2008) and *Architecture in the United States* (1998), a volume in the Oxford History of Art series. He is a Fellow of the Society of Architectural Historians and a recipient of the Henry Glassie Award for lifetime achievement in vernacular-architecture studies. He is currently the professor of architectural history in the Department of Art History at the University of California, Los Angeles. He previously taught at the University of California, Berkeley, and at the University of Virginia.

André Bideau is an architecture critic and theoretician based in Zurich. He is a contributor for the Swiss daily *Neue Zürcher Zeitung* and was editor-in-chief of the Swiss architecture periodical *Werk* from 1996-2002. Bideau received a Master of Architecture from ETH Zurich and subsequently a PhD in art history from Zurich University. Bideau was a research fellow at Internationales Zentrum für Kulturwissenschaften in Vienna. He teaches theory and history of architecture at Accademia di Architettura in Mendrisio and at Harvard GSD. *Architecture and Symbolic Capital*, the contextualization of Oswalt Mathias Ungers in West Berlin and Frankfurt, was published by Birkhäuser in 2011; it belongs to Bideau’s research on the relationship of architectural discourses and the postmodern urban condition after 1968. This ongoing project has led to numerous other publications and lectures that address the process of deindustrialization and the phenomenon of insularity, particularly in Zurich. Bideau is interested in the symptoms of identity politics in postmodern cities and in recent urban governance.
ABSTRACT

What do we mean when we categorize a building as vernacular architecture? The term is protean and slippery, but rarely examined. Over the past two centuries, the kinds of buildings denoted by the term vernacular and its surrogates have varied. But even as its denotations change, the word’s connotation remains constant: the vernacular is not this, whatever “this” might be at any particular moment.

Historically, those who study the architectural vernacular have sought similarity within difference. They understand the category as one in which commonalities are more significant than individual variations. In its search for similarities (or patterns), vernacular-architecture scholarship differs from the art-historical study of architecture, which emphasizes innovation within a received body of articulated principles. These principles give such innovative architecture a clear, traceable lineage or “pedigree,” to borrow the architect Bernard Rudofsky’s word. Architectural innovation is the product of an exceptional creator’s engagement with an articulated tradition—classical, modern, or another—and with his or her predecessors’ cumulative responses to that tradition. One understands certain structures—those produced by such exceptional people—as “architecture” while everything else is “building.” Although, we often associated that dichotomy with mid-twentieth-century architectural historian Nikolaus Pevsner, the idea has been around since the 19th century. According to Pevsner, Lincoln Cathedral is architecture while a bicycle shed is merely a building, or, more generously, vernacular or ordinary or common architecture. Bicycle sheds are ahistorical, while Lincoln Cathedral is timeless. So the art-historical strategy seeks difference—distinction—within apparent similarity.

Another disparity between these two ways of understanding architectural difference is that the concept of the vernacular usually assumes a relatively constricted spatial or cultural territory, while the concept of art in/as/of architecture is predicated on temporal variation within a more expansive geographical or cultural sphere.

As the archaeologist James A. Ford noted in a classic article, both strategies subsume multiple variables under unitary rubrics, whether those are called types, traditions, styles, or the vernacular. For that reason we need to ask what questions produce the answer “vernacular architecture.” The intellectual and social roots of such questions are deep and disparate. I want to single out several as a way of emphasizing the heterogeneity of the concept. These include humanistic interest in the varieties of human material culture, a search for national expression in architecture, democratic and populist political attempts to valorize the lives of ordinary people, and architects’ internal critiques of their profession. Despite their heterogeneity they are all linked by a common faith in the authenticity of the vernacular.

DIFFERENCE

Even before the label vernacular architecture came into use in the mid-20th century, an architectural “other” had shadowed pedigreed architecture for two centuries. It sprang from the early-modern European fascination with historical and cultural difference. In the late 17th century, European thinkers began to think about history in a new way. They relinquished the idea that all of human history could be judged in terms of an abstract, divinely ordained ideal. Instead, they began to understand each era as distinctive, to be judged by its
own values. They also sought direct empirical knowledge of the past, rather than relying on the accounts of secondary authorities. This was as true of architecture as of any other human practice. Field trips to measure and draw the ruins of antique buildings supplemented and corrected longstanding normative texts such as those of Palladio and Vitruvius with empirical understanding of the variety of antique architecture (Figure 1).\(^6\)

At the same time, historians and social theorists looked beyond Europe and acknowledged that cultural expression everywhere also varied spatially and temporally. Again, they suspended inherited belief in a universal standard of judgment and attempted to understand non-European architecture in its own terms, even when they knew very little about it. For example, Johann Fischer von Erlach’s 1721 history of architecture included images of East Asian, South Asian, and Middle Eastern buildings, some of which were based as much on the author’s imagination as on empirical data.\(^7\) The implication of the new understanding of cultural and historical relativity was that it became possible to see value in buildings other than those that could boast the pedigree of European high culture.

ARCHITECTURE AND THE NATION

At the end of the 18th century, architectural investigators turned their gaze back to Europe, toward the medieval buildings of their native lands. These investigations fed into, but were also spurred on by, a growing political and cultural nationalism. British, French, and German-speaking writers all found in Gothic architecture the expression of their particular national characters.\(^8\) John Buonarotti Papworth, an early advocate of the Gothic as an English style, described of it in a manner that foreshadowed the ways scholars of the vernacular later wrote: “By national style is meant, that character which architecture assumes, identifying itself with the country in which it originates; because of its peculiar suitableness to the place, its climate, its government, its religion, the manners of the people, the local circumstances of nature, and the materials for building which the country affords. Suitableness to all these is the foundation of a national style in architecture.”\(^9\)

Over the course of the century, this interest in the national turned toward the local, supplementing the study of cathedrals, castles, and great houses with that of the kinds of smaller houses and rural buildings that we might call vernacular. At the same time, ordinary buildings were subsumed into the larger nationalistic project of the 19th-century, which comprised efforts to find an architectural expression that was peculiar to, and characteristic of, one’s own society (or what one imagined one’s society to be). In virtually every case, in industrializing societies globally, the characteristic and the peculiarly national were discovered in the rural architecture of the preindustrial past, a time when one’s culture was truly itself. (Figure 2).\(^10\)

This looking back toward a golden age just beyond the last hill—just before the most recent socioeconomic changes—served a variety of purposes. Ordinary rural buildings seemed to embody the cultural values of small communities at a time when Europeans and Americans, distressed by the vast new industrial cities, romanticized rural life as a morally and aestheti-
cally superior way of being. They were “good to think” with, as Claude Levi-Strauss put it, a way to mull over the nature of modern society in a double-entry sort of way, calculating its costs and benefits. As signs of national authenticity, they also served to distinguish true [fill-in-the-blank] from pretenders. In Greece, for example, the vernacular offered a basis for a true Greek architecture unpolluted by the legacy of the Ottoman Empire. In the United States, preindustrial vernacular architecture was the property of real Americans, and distinguished them from later immigrants. As the curators of the American Wing of the Metropolitan Museum of Art noted in 1925, “The tremendous change in the character of our nation, and the influx of foreign ideas utterly at variance with those held by the men who gave us the Republic, threaten and, unless checked, may shake its foundations.” They hoped that their exhibits of the architecture and material culture of the past might be “invaluable in the Americanization of many of our people.” They were not the only ones who looked to the architecture of the early American past to acculturate newcomers: it was widely used by “Americanizers” of all stripes.

The assumption that the so-called vernacular represented an authentic national or cultural expression persisted into the 20th century. It underlay the American popular front’s effort in the 1930s to define a native source of proletarian politics in a land notably resistant to European models of socialism. Three decades later, historians and folklorists inspired by the black liberation struggle and by New Left politics made the same connection between the non-pedigreed and the authentic. Vernacular-architecture scholars of this bent, who laid the groundwork of much of the study of American vernacular architecture in the academy and in public history and historic preservation, believed that the ordinary landscape had an integrity of its own. The inclusion of the vernacular in architectural historical narratives was necessary to the writing of a truer
Figure 3: "Framing Details, Whitman House, Farmington," Connecticut. From Norman M. Isham and Albert F. Brown, Early Connecticut Houses (1900). This was the second study of Euro-American vernacular buildings published in the United States. The first was Isham and Brown's Early Rhode Island Houses (1895). Both were dedicated to the early craftsmen of their respective states. Photocredit: from Norman M. Isham and Albert F. Brown.
and more just history.\textsuperscript{15}

ARCHITECTS

The framing of non-pedigreed architecture as an authentic expression of place and culture underlay critiques of architectural practice beginning in the middle of the 19th century. At every juncture, the vernacular was reified as an Other whose nature was defined by the preoccupations of professional architects. It stood for qualities that, for good or ill, were not found in pedigreed architecture. Some architects looked to the indigenous qualities of the vernacular for visual models of a nationally distinctive pedigreed architecture, either by imitating it directly or by extracting aspects of a national sensibility that could distinguish one's nation's products from others in the global industrial marketplace.\textsuperscript{16} But many of the earliest vernacular-architecture studies were undertaken by architects involved in nineteenth-century debates over the role of industry in architectural design and production. These architects found in the work of preindustrial builders models of good workmanship, so they devoted much of their attention to details of structure and building fabric (Figure 3).

By the 1920s, traditional structural systems were less interesting to architects. The vernacular was now imagined in ways that served the evolving Modernist project. It was imagined as a kind of architecture that intuitively achieved the principles of volume and space that Modernist architects promoted, or, to loyal and not-so-loyal critics of Modernism, that illuminated the shortcomings of Modernist design. While some architects found those qualities in the engineer's vernacular of grain elevators and factories, many continued to look to the exotic and the ordinary, valorized since the 18th century, for a standpoint with which to criticize contemporary practice.\textsuperscript{17} Bernard Rudofsky's \textit{Architecture without Architects}, published in 1964 to accompany an exhibition at New York's Museum of Modern Art, is a notorious landmark.\textsuperscript{18} For Rudofsky as for his nineteenth-century predecessors, non-pedigreed architecture was rooted in local environmental conditions and inherited practices: it was "vernacular, anonymous, spontaneous, indigenous, rural, as the case may be," but lacking that commitment to an articulated tradition that David Carrier emphasized.\textsuperscript{19} To Sibyl Moholy-Nagy, the widow of a Bauhaus master vernacular architecture was the work of "untutored and intuitive architectural geniuses."\textsuperscript{20} Like the work of the pedigreed architect, it was "the pure undiluted response of a gifted individual to the challenges of a new environment with the resources of brauch ['the memory of the best past performance applied to new architectural demands'], tradition and intuitive talent."\textsuperscript{21} Moholy-Nagy published \textit{Native Genius in Anonymous Architecture}, a book that is now nearly forgotten, a few years before \textit{Architecture without Architects}. Where Rudofsky emphasized "exotic architecture" (the word exotic is here used in its original meaning, alien), Moholy-Nagy's eye fell on architecture of the pre-industrial and industrial eras in Europe and the Americas.\textsuperscript{22} Like Rudofsky, however, Moholy-Nagy searched for enduring architectural principles outside the realm of professional architecture as she understood it. These were "expression of site and climate, expression of form and function, [and] expression of materials and skills."\textsuperscript{23}

Moholy-Nagy and Rudofsky were interested primarily in the visual as an expression of the conditions of construction, rather than in sociospatial patterns. Rudofsky's book contains no plans. Moholy-Nagy's has two, compared to one another. Their attention to the social life of architecture was restricted to random, sometimes incorrectly surmised, comments about the uses of single spaces.\textsuperscript{24} Never did they confront the complex patterns of social life that might have shaped the buildings they admired as systems of spaces.

Other mid-century architectural writers, some of them connected with CIAM and later with Team 10, did what Rudofsky and Moholy-Nagy did not. Although they did not use the word vernacular, they scrutinized the social life of ordinary urban spaces in which they hoped to find human, but not formal, models for urban and architectural design.\textsuperscript{25} British architects Alison and Peter Smithson, among the most active of this cohort, undertook a project of "Urban Reidentification" that they cast as a critique of the strict functionalism of CIAM's Charter of Athens. "It became obvious that town building was beyond the scope of purely analytical thinking," which did not take account of the evolving social patterns of older urban landscapes, the "as found"… a new seeing of the ordinary, an openness as to how prosaic 'things' could re-energise our inventive
activity.” While these specific architectural forms and ways of life were necessarily disappearing, contemporary architects needed to realize “the feeling of safety and social bond which has much to do with the obviousness and simple order of the form of the street.”

Even as the Smithsons looked to (what they took to be) the enduring social patterns of the rapidly disappearing working-class British city, they were also part of the Independent Group of artists and architects who found the products of popular and commercial culture to be another source of ideas useful for architectural self-reflection. The connection between the two was that both stood outside the self-adopted pedigree of high culture and possessed a vitality and a democratic quality—an authenticity—that they thought high culture lacked: “The elite, accustomed to set aesthetic standards, has found that it no longer possesses the power to dominate all aspects of art.” Just as one looked to traditional urban patterns to absorb their lessons but not to reproduce them, so one looked to commercial culture to expand the territory of the fine arts, not to overthrow them. The ordinary and the commercial formed a frame, a parergon, around the fine-art tradition. Like the frame of a painting, they were not of pedigreed design, but they conditioned the way we saw it, and in that sense became part of it.

By the closing decades of the 20th century, a bewildering melange of the non-pedigreed, the ordinary and the commercial were drawn into discussions of the vernacular, lumped under the headings of “existing landscape” and “the everyday.” All that linked these varied conceptions of the vernacular was the conviction that they were not capital-A Architecture but they were “good to think” about, pedigreed architecture.

In short, the idea of the vernacular, no matter what kinds of buildings it encompassed, has always been grounded in categorical oppositions that grow directly out of the experience of modernity. In contrast to the perceived ephemerality and superficiality of contemporary design, the vernacular landscape was imagined as stable, solid, spontaneous, and natural. It was authentic, in the sense that it was grounded in cultural truths insulated from historical change. So Rudofsky tells us of Mojacar, a “model hill town,” that “it used to
be one of the more spectacular Spanish hill towns until last year when tourism caught up with it. The houses shown in the photographs were torn down, or are being torn down, to make space for parking lots, hotels, apartment houses, and villas designed in *bogus vernacular* (emphasis mine).22 “Until last year”: the vernacular was a tangible souvenir of Raymond Williams’ golden age. Even commercial culture, embedded in modernity, somehow engages it in a more authentic way than pedigreed architecture.

At the same time, the ways these lessons should be used were matters of personal taste. As the Smithsons observed, “The transformation from everyday object to fine art manifestation happens in many ways: the object can be discovered – objet trouvé or l’art brut – the object itself remaining the same; a literary or folk myth can arise, and again the object itself remains unchanged; or, the object can be used as a jumping-off point and is transformed.”33

CIRCLES OF ARCHITECTURE

The category of the vernacular arose from an effort to segregate the human-made environment into mutually exclusive categories. The pedigreed horse and the non-pedigreed donkey only mate when a knowing designer does so, and they usually produce architectural mules. This view of the landscape as an assemblage of closed systems obscures the historical processes that formed the built environment as we encounter it in our everyday lives. A look at a very familiar building — Thomas Jefferson’s Monticello in Charlottesville, Virginia — will demonstrate what I mean (Figure 4).

Since the early 20th-century, Monticello has been celebrated as one of the great monuments of pedigreed architecture in the United States, and much attention was given to tracing its aesthetic pedigree through the disparate sources of Jefferson’s design ideas, most of which could be found in European publications. Indeed, the self-proclaimed first professional architect in the United States, Benjamin H. Latrobe, ridiculed Jefferson’s ‘prejudice in favor of the old Frenchbooks, out of which he fishes everything.”34

There is no doubt that Jefferson understood himself as part of a high architectural tradition derived from ancient classical architecture and that he found support in architectural arbiters such as Andrea Palladio and the Anglo-Palladians, who also grounded their own work on ancient authority. Jefferson did, as Latrobe claimed, draw unsystematically on a wide variety of publications in putting together his house, which he worked and reworked constantly until he ran out of energy around 1809. The result is a very odd structure. Part of the plan is based on Anglo-Palladian country houses, which typically had a hall-saloon suite running through

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Figure 6: Monticello with French-style suites shaded Photocredit: Author, *Architecture in the United States*. 
the center of the house to accommodate the social patterns of the 18th-century English country gentry (Figure 5). Part reproduces the suite planning of French houses that Jefferson saw in Paris in the 1780s, and that accommodated a very different pattern of social interaction (Figure 6). That is, Monticello is a "mash-up" of two very different plan forms meant to be used in two very different ways. Actually, it comprises more than two planning ideas: the house also embodied the traditional, horizontal "up-down" axis of English late medieval and post-medieval houses, as well as the vertical up-down axis introduced in the early modern period (Figure 7).

Then there is the matter of Monticello's construction. Jefferson relied entirely on traditional Anglo-American craft practices adhered to by the workers who built the house, and on elite social preferences for building materials. In Virginia, those few builders who could afford it preferred brick. Brick laid in Flemish bond was the most luxurious variety according to elite Virginia tastes. This preference connected Jefferson to his colonial social peers. At the same time, other aspects of Monticello's structure—the ways the timber-framed portions were made, for example—were shared with much humbler buildings in the colony. If we look across the lawn at Mulberry Row, the living-and-working precinct that served the house, we would find rubble-stone and log construction that, again, were part of an architectural repertoire widely shared among Virginians of all ranks. Yet as a wealthy and cosmopolitan client, Jefferson also had access to imported building materials and architectural ornaments that set aside his house from those of his neighbors great and small.
The relationship between Jefferson’s and his family’s spaces and the spaces in which enslaved people lived and worked represented a personalized version of the organization of domestic space used by other slaveholders in late 18th century Virginia. Finally, there is Jefferson’s idiosyncratic effort to shape the house, which was the home and workplace of many people, in a way emphasized him alone. One half of the ground floor was his private space, cut off from the rest of the house, and the remainder of the ground floor was his personal space, with family, guests, and slaves relegated to the spaces above and below it. To emphasize the point, this three-story-plus-cellar house was disguised to appear as a one-story house (Figure 4).

Is Monticello a pedigreed house through its connections with European high culture or a vernacular house owing to its local attributes? A better strategy would be to see the house as a product of disparate realms of architectural and social knowledge. Any building or human-made landscape lies at the intersection of varying numbers of overlapping, but not congruent, circles of knowledge. If we were to imagine a vast Venn diagram, we might plot Monticello at the intersection of circles representing “traditional” Anglo-American carpentry and bricklaying, craft organization and practices; architectural resources available in Virginia and others obtainable from outside by someone of Jefferson’s wealth; Anglo-Palladian aesthetic ideas; English elite house-planning; French elite house-planning; long-established Anglo-American practices of domestic organization; Virginia elite social practices; conceptions of both the traditional patriarchal family and those of the newer affectionate family that were entering Anglo-American society in the late 18th century; and Jefferson’s self-conception (Figure 8). These circles of knowledge would be familiar, variously and in ways that were unevenly distributed, to Jefferson, his neighbors, his fam-
Figure 10: Watkinville Baptist Church. Photocredit: author.

Figure 11: Watkinville Baptist Church cornerstone. Photocredit: author.

Figure 12: Watkinville Baptist Church. Photocredit: author.
ily, the workers free and enslaved who built and operated the house, and the authors of the architectural books he studied. Virtually every other building in Virginia, from Native American houses to the grandest public buildings, would intersect with some of the many circles of knowledge that converged at Monticello, but none with all of them.

As a foil to Monticello, we might look at a “vernacular” example. Watkinville Baptist Church, housed an African-American congregation formed in rural Georgia just after the end of the Civil War (Figure 9). A rectangular brick building with twin towers and an added entrance porch, it is characteristic of large rural churches built by black congregations between the late 19th and the mid 20th centuries. Like Jefferson’s house, the building materials and structural techniques are conventional, but here they were commercially produced. They were products of the building-materials industry that grew up in the South after the mid 19th century. Like Jefferson’s house, the building materials and structural techniques are conventional, but here they were commercially produced. They were products of the building-materials industry that grew up in the South after the mid 19th century.

The Watkinville church is a brick-veneered wooden building. The widely shared hierarchy of building materials meant that even when a congregation did not tear down an old frame or concrete-block building, they often encased it in brick, which was another sign of continual progress, and the church was often treated as a new building.

Finally, the twin-towered, minimally Gothic structure was a form widely used for black churches and only rarely for white churches after the beginning of the 20th century, and it served to distinguish African-American congregations from white ones. As white congregations began increasingly to construct classical sanctuaries that alluded to early American Protestant churches, black congregations clung to the Gothic. Only after mid-century did African Americans build churches with classical elements like the ones their rural white neighbors built. And, like the building materials of the original Watkinville church, these neo-Georgian steeples and columned porticoes were often purchased ready-made from suppliers who catered to the ecclesiastical market.

My point is that the varied elements of Monticello and the Watkinville Baptist Church belong to disparate contexts of knowledge, belief, skill, and sociability – to disparate circles of knowledge. They cannot be understood from a single point of view. If we understand the working of circles of knowledge, we must relinquish both the idea of pedigreed architecture and that of vernacular architecture. As James Ford suggested, these labels lump together a variety of independent traits that have disparate origins. Architecture is fluid; nothing is fixed.

For that reason, I prefer to avoid the term vernacular architecture as an analytic category. What we call the vernacular is part of a historical process comprising the unfolding of simultaneous, intersecting, unbounded, and non-linear threads that produced buildings of every kind. A better way to think about the built environment might be to view it experientially, in terms of the ordinary and the extraordi-
The significance of any structure is determined comparatively, by its familiarity in its context. The ordinary demands familiar, even rote, interaction. The extraordinary makes us conscious of difference. This has nothing to do with pedigrees. In a small city during the Middle Ages, a cathedral might seem quite extraordinary (Figure 13). To the priests and canons who ran the cathedral, it would be somewhat less so. By the same token, to observers such as Bernard Rudofsky, Sibyl Moholy-Nagy, or the Smithsons—urban, modern people, who were also committed Modernists—the kinds of environments that were mundane to past generations of people and that still are to people living in remote areas seemed extraordinary (Figure 14). As much as any cathedral or Modernist masterpiece, they produced reactions of wonder, mystery, inspiration, and nostalgia for a lost world.

Figure 13: Cathedral of Laón (12th-13th centuries), Laón, France. View in urban context. Photocredit: author
NOTES

2. See, for example, the art historian David Carrier’s assertion that reference to “an aesthetic, an account of how successive artists understood what they were doing” is necessary to the writing of art histories (A World Art History and Its Objects [University Park, Penn.: Penn State University Press, 2008], pp. 77 [quote]-78).


24. For example, Rudofsky described the Inka agricultural terraces at "Muyu-uray" (Moray) as ritual amphitheaters (*Architecture without Architects*, fig. 8 caption).


ABSTRACT

There is a tradition of projecting an idealized urban vernacular in anonymous mass housing. In an attempt to recast a lost urbanity, architects bestow an aura upon everyday anonymity, mining repetition and monotony as design strategies. Such was the case when Postmodernism revisited both the perimeter block and the abstract purity of Neues Bauen. After the modernist tabula rasa, this approach led to a new relationship between housing and the urban environment. Theorized by researchers in Italy during the 1950s and 1960s, it enabled a conceptual bridge between capitalist urbanization processes and the inner history of architecture, as represented in the writings and designs of Aldo Rossi, an influential studio teacher at ETH in Zurich in the early and mid-1970s. A similar approach now informs subsidized housing here. Neither government bureaucracy nor the construction industry has stifled design with a regime of standards. This can be seen as a consequence of the economy of scale in Switzerland’s largest city and its unusual renaissance of public and cooperative housing over the past two decades. Competitions have led to the rise of a new generation of practitioners and granted them unusual leverage. As a “self-regulated” scene they use housing to conduct a conversation on materiality, typology, and morphology that often centers on the reinterpretation and expansion of 20th-century vernacular.

Switzerland is a country of renters. Public investment in housing is still legitimate, taking on a particular importance in Zurich. Architects and city government have rallied together to counter an overheated real estate market. The architecture scene in the country’s largest city has identified its key themes in producing affordable housing, transferring modernist traditions to the postindustrial present. Reading the history of housing, contemporary architects appropriate and reinterpret its legacy. Given that their projects tend to be the replacement of an obsolete predecessor, they work with distinct locations and contexts. This essay will argue that such a reinterpretation is premised on the perception of social housing as a vernacular element: not detrimental, but constitutive to the urban fabric. As recent designs will demonstrate, such a perception is conditioned both by institutional and economic terms as well as by the physical urban landscape that is colonized by social housing for the second time. Why, and to what extent, is the term vernacular relevant to assess the related architecture production? To demonstrate why it is specific to the milieu in which Zurich architects work, it is necessary to establish to whom the adopted “language” relates, beyond the immediate milieu of cultural producers.

AN ECONOMY OF SCALE

"Mass" housing was traditionally in the hands of an elite profession, of urban planners and municipal bureaucracies. In its functionalist interpretation, housing was beholden to scientific abstractions and based on growth, underplaying the semiotic dimension. Its morphology gave expression to a social, political, and technological context commonly identified with Fordism and Keynesianism. The issues at stake—and later discredited, along with the post-war welfare state—made mass housing the antithesis of an architecture of place and belonging. Rather, as a driving force of urban renewal, it was identified with the planned obsolescence and eventual decay of inner cities. Given this history of subsidized housing, vernacular architecture may appear as a contradiction. Today, conflating housing and the architectural vernacular would also seem like an oxymoron, oblivious to how market logics
oxymoron, oblivious to how market logics impact lifestyle, and to how contemporary consumption is driven by illusions of diversity. As a commodity, the "single family" home has gone through a process of mass customization with relative success. Here, the Anglo Saxon and Dutch contexts have led the way; public subsidies of mortgaging, loans, and infrastructure have long outmaneuvered direct public investment in the production of housing. The triumph of New Urbanism in the United States is less an effect of narratives established by architects than by government responses to market dynamics, particularly to the demise of the Keynesian welfare state. Clearly, such economic and cultural dynamics contributed to shutting down housing as a conceptually significant endeavor within architecture discourse.

Not only in the United States would it be anachronistic to associate vernacular with subsidized housing; direct government involvement is politically "dead" in most European countries as well, with de-commodified housing production surviving in very few cities. Regardless of socioeconomic emergencies, housing is a fixture of neither political nor architecture discourse. In the latter it occupies an activist and participationist niche at best, with protagonists like French architects Lacaton & Vassal effectively criticizing global signature architecture with low-budget projects. However, such a posture can itself become a successful brand, as their work has demonstrated. Highly mediatized, Lacaton & Vassal's material and typological experiments in subsidized housing thrive in exceptional, curated conditions; as a form of distinction this do-it-yourself vernacular resonates in the dismal socioeconomic reality of France.

Ethnically far less diverse, the urban periphery in Zurich can afford a different architectural commentary than the Parisian banlieue. In general, social housing has not been a site of traumatic segregation. Physical isolation is less challenging due to the moderate distances between center and periphery. A consequence of the economy of scale, monumental housing developments have not descended into hopeless dysfunction where changing demographics have plunged entire neighborhoods into ruin. It is all the more unique that, within the constraints of site, budget, and program, innovation through design remains an option. The definition of "social" has nevertheless changed, and paradoxically, this is also an effect of the creation and localization of massive wealth. With the service and retail sectors flourishing in an increasingly global Zurich, private investment has transformed countless brownfield sites. Rather than alleviating the cost of living in a city that usually ranks near the top of worldwide lists, these massive developments have heightened the cost of living and housing. It is this combination of pressure and privilege that needs to be taken into account when discussing the working conditions of architecture production here.

Zurich not only featured extensive industry, but also a vast stock of subsidized housing mainly dating from the 1930s to 1970s. Fordism left its urban footprint in the form of a belt of leafy residential neighborhoods such as Affoltern, Albisrieden, Altstetten, Leimbach, Schwamendingen, Seebach and Wollishofen. Before joining the municipality of Zurich in 1932 by popular vote, these former independent suburbs and small towns had sold extensive land to Zurich to build future housing. After their incorporation, city planners developed new neighborhoods, typically using garden city principles with four- to five-story housing. They opted for highrise construction only exceptionally. Developed both pre-war and post-war, these estates today represent the legacy of the welfare state, of an urban governance once geared toward the needs of society in an evolving industrial and service economy. Today this housing stock is afflicted with physical aging: the first 225 publicly funded units were approved by popular vote in 1907, when only men were entitled to vote. The other challenge that the subsidized housing stock faces is the demise of its traditional tenant structure. Dwindling industrial employment and immigration have long since shifted demographics. The blurring of traditional class definitions calls into question which public should be served by mass housing. Yet neither the Zurich housing authority nor the many housing cooperatives have adopted a privatization policy to offer tenants the possibility for unit buyouts, in contrast to the Netherlands and to Britain, where the Thatcher government initiated its "right to buy" program in 1980. This lack of action has essentially preserved the institutional framework of another era. And because housing remains unchallenged by market dynamics, its physical state is addressed in architectural terms.
Allowing design themes to be teased out project-by-project, this incremental strategy is at once a potential and a shortcoming.

A GUILD-LIKE SYSTEM

The question of what to do with aging estates first arose in the 1980s as a response to changing thermal requirements. Early renovations resulted in beefed-up facades with applied exterior insulation and bulky window frames. Further compromising the ungainly exterior, balcony extensions sought to improve residents' comfort. Interiors were brought up to date with new kitchens and sanitary equipment, or with the occasional modest floor plan modification. While the construction of new public housing had all but come to a standstill during the 1970s recession, Zurich's housing authorities and cooperatives saw raising the quality of everyday life as a task that was unrelated to architecture culture. Updating the local legacy of housing was hardly relevant for architects wishing to position themselves, and the fastidious renovation of pre-war modernist landmarks such as Siedlung Neubühl was an exception to the rule.

It would require a change in city politics to make housing significant in the field of cultural production. This became possible in the late 1990s when the scope of renewal campaigns suddenly broadened. Zurich's city planners convinced its housing authority, as well as private housing cooperatives, to envision more than higher energy efficiency and interior standards. Because the supply of developable land is practically exhausted in Zurich, the demolition of existing housing estates was established as a valid strategy. From then on, upgrading would envision comprehensive replacement; projects would be based on public competitions instead of commissions to in-house architects. For "redneck" housing cooperatives accustomed to working with their own specialist firms, the new strategy signified relinquished control, even with their participation in the competition jury assured. For them, the enticement lay in attractive models of project funding as well as in rezoning that granted higher construction density on their property.

The comprehensive approach to housing was a product of the changed political agenda in Zurich politics. In 1998 the newly elected Secretary of Planning and Construction announced a campaign to encourage construction of 10,000 apartment units within ten years, focusing on increased land utilization, streamlined approval processes, and incentives for housing cooperatives in modernizing housing stock. The Secretary's aim was mainly to reverse a trend of demographic and fiscal stagnation during Switzerland's last substantial recession. Officially, the intended construction boost did not target "affordable" housing; however, the Social Democratic-Green majority did address the shortage of cheap rental apartments, setting the stage for a new direction in subsidized housing. With 13,000 units produced by 2008, the goal set in 1998 was clearly surpassed. Almost a third (32%) of new units represented non-profit housing. Since then, the subsidies and perks that affordable housing enjoys have been again increased. In 2010 Zurich's voters accepted a popular initiative—a common instrument in Switzerland's direct democracy—with a long-term goal to deconstruct one-third of all housing.

The jump start in housing estate replacement soon bred a generation of Zurich firms specializing in housing. Typically, their founding partners were all students at ETH, graduating either shortly before or after 1990. Cohesion was increased by their first professional experiences, typically with Zurich-based firms. Equally relevant was the entry of certain members of the same generation into Zurich's city planning department. Here they began to identify themselves as agents for contemporary architecture, intensifying collaboration with housing cooperatives and architecture firms through a multitude of open competitions. Over the past fifteen years, architects, juries and the city bureaucracy have coalesced to an almost guild-like system: a self-regulating scene.

In the generally tightly regulated field of housing, a generation of practitioners has gained surprising leverage and the relative freedom to approach housing as a premise for a conversation on materiality, typology, and urban morphology. Implicitly, the resulting work establishes a concept of vernacular around 20th-century modernity in housing and the local legacies of functionalism. At the same time, the schemes participate in the fabric of the city, densifying the periphery that is traditionally shaped by the welfare state. Like the high-end tower condominiums that occupy former
industrial sites, subsidized housing in turn participates in the fundamental urban metamorphosis by gradually transforming the garden city neighborhoods. Yet in both cases, the ambition does not extend beyond property limits; pragmatic by definition, replacement housing is inserted into the fabric of a neighborhood, with the main goal being higher density and improved environmental standards. Neither cooperative nor city housing authority encourages a reflection of the urban and programmatic dimension, increasingly defining their role along the lines of private developers.³

Stemming from the inter-war and post-war periods, the sacrifice of the architectural value of an existing
ensemble is not always self-evident. Werdwies housing, completed in 2007 by Adrian Streich Architekten, was one of the first examples of a large scale municipal housing being demolished for a new project. The former buildings, a 1950s composition of slender slabs lining a large, oblong courtyard, were replaced with seven squat-towers rising over underground parking. Opting for a superblock on a site wedged between housing, manufacturing, and a freeway, the project asserts itself as its own neighborhood. Whereas the former housing had varied heights, Streich used a uniform height of eight stories—this being the maximum to which highrise construction code is not yet applicable. Given the unified “ceiling,” Streich then differentiates building types and shifting alignments to generate a more fluid and open space. The composition at once opens toward its context and tightens within, the walk from the beginning to the end being subjected to a rhythmic sequence. Regardless of their three typological categories, the same duality determines all the squat-towers: two elevations with loggias, two elevations with French doors. This matrix is implemented with a rotation of the buildings: facing either south or west, the glazed loggias and their appropriation by the tenants are the dynamic aspect of the project. Overall, massing and elevations underscore the degré zéro of architectural expression, indirectly relating its serial logic to the repetitive characteristics of the urban periphery.

In a project of yet larger scale, Im Stückler housing, currently under construction for the Halde cooperative, Streich works with a modified perimeter block. Formerly occupied by a 1950s incarnation of the garden city, the property is now framed by a semi-continuous ring of varying thickness. Interrupted three times, the irregularity of the ring accommodates a vast array of apartment configurations whose floor plans respond to

Figure 2: Avellana cooperative housing: living room. Photocredit: Roland Bernath
the buildings’ plasticity. Compared to Werdwies housing, where the simple L-shaped configurations generated a recurring type, Im Stückler presents an infill logic. Unit plans seem to be generated by a continuous morphology circumscribing the site. The footprint of the permeable perimeter block clearly delineates inside and outside. The massing frames the cooperative’s green courtyard, developing an internal spatial rhythm not unlike the tower sequence at Werdwies. Although avoiding sculptural objecthood, both projects assert a strong figural presence in their respective edge conditions.

FROM CRAFT TO PREFABRICATION

Recent years have seen a rise in projects avoiding stark (minimalist) reduction and displaying a tendency toward more picturesque and sculptural solutions. This is not due to a rise in contextualist sympathies, but rather to increased interest in compositional techniques that privilege the expressionist and the crystalline as ways to read a given context. An example here is the work of EMI architects (Ron Edelaar, Elli Mosayebi, Christian Indebitzin), whose recent housing has mined organicism more for its potential in floor plan organization and less for its inherent picturesque qualities. Completed in 2012, EMI’s Avellana (Figure 1 & 2) cooperative housing in Schwamendingen presents itself as an almost ludic ensemble, a low-slung building that weaves together heterogenous unit types. While taking design cues from the bucolic scale that once defined Zurich’s mid-20th century subsidized housing, EMI has also developed an interest in the picturesque as a conceptual strategy to organize the floor plan.†
eral kinks and apertures, as well as the wooden facade cladding, allow the massing to communicate with its immediate surroundings. Whereas Adrian Streich's fragmented Im Stückler housing adopted a relatively monumental scale to interact with its heterogeneous context, EMI deploys informal gestures reminiscent of Swedish organicism, a movement that influenced Swiss architecture from the 1930s through the post-war period. Although they do not pander formally, EMI invested the postwar garden city morphology with a pictorial quality that is sympathetic to the urban grain, with its almost semi-suburban vernacular.

Architects like EMI engage with craft in an almost Ruskinian manner. Their work demonstrates the freedoms that Zurich architects enjoy in plan, massing, and material. On the other hand, prefabrication, as revisited by other firms here, enjoys a comparable commitment to craft. Such an inversion characterized the recent rediscovery of exposed concrete prefab panel construction, a technology only moderately used in post-war Switzerland and practically disappearing following the 1970s energy crisis. The two-fold distance from this era—historic and economic—allows architects to reflect on prefabrication in iconographic terms. What is conveyed is less the reality than the image of industrialized construction. As a vernacular for subsidized housing, Von Ballmoos & Krucker appropriate the anonymous signature of late modernism. Serial monotony and differentiation, already present in Streich's Werdwies towers, serve to homogenize two further compositions, each at opposite ends of the city limits: Stöckenacker (2002) and Triemli (2011) cooperative housing. (Figure 3) Von Ballmoos & Krucker's use of prefabrication to achieve an austere tectonic expression would be unthinkable in Britain, France, or in any post-communist country. In Switzerland, however, the excesses of 1960s technocracy were relatively few.

Expanding the range of the vernacular of mass housing, Von Ballmoos & Krucker mine rationalization and standardization for their atmospheric and tectonic qualities. At Stöckenacker and Triemli housing, the panels are thermally and formally custom-tailored, in opposition to the repetitive logic of their forebears in their sophistication. The image of prefabrication is fabricated, similar to the late-modernist vernacular that is revisited. In her discussion of Von Ballmoos Krucker, Irina Davidovici sees the “calibration” of industrialized construction as boosting rather than undermining the architect's status in the building process. Davidovici points to contemporary art as a reference that enables the “redemption” of troubled housing through high culture. Yet in the privileged case of Zurich, such trauma should not be overestimated; the dystopia of welfare state technocracy was never painfully omnipresent. Rather, in referring to contemporary art, architects gain access to the cultural capital already circulating within Swiss Germany in architecture culture. In a model used by Herzog de Meuron, particularly during the first part of their career, the reference to contemporary art served to establish a critical distance from the contextualist and historicist panache of early 1980s postmodernism. This identification was underscored by a critic like Martin Steinmann, whose contemporary writings adopted interpretative tools ranging from references to the Swiss everyday and Minimal Art as well as to literary theory. Such a discursive setting—especially during Steinmann's tenure as editor of the journal Archithese from 1982-88—was influential for how architects in turn reflected their physical environments. Essentially, Steinmann's writings on Realism helped prepare the ground for the concept of vernacular that came to bear on 1980s Swiss German architecture. Its protagonists were often indebted to the lesser known legacies of 20th century architecture that characterize the urban periphery in Switzerland.

In her discussion of the work of Von Ballmoos Krucker, Irina Davidovici points to Swiss artists Peter Fischli and David Weiss. Their photographic essay “Siedlungen, Agglomerationen” (1993) offered a poignant perspective on middle class suburbs from the 1970s and 1980s in the Zurich area. Moreover, the artists' survey of everyday life proved influential in its aesthetic sensibility for prefabrication. By donning Fischli and Weiss's dead-pan gaze of hyperrealism, Von Ballmoos Krucker forgo double coding and irony that would have been characteristic of postmodernists. The narrative of everyday monotony and the interpretation of historic architecture produced by the welfare-state mainly speak to groups disposing of the necessary cultural capital: competition jury members, colleagues, and the professional audience at large.

To be involved with subsidized housing and neverthe-
less maintain disciplinary autonomy characterizes the identity of many Zurich firms. Although they work in “social” housing, their designs avoid an activist-constructivist aesthetic. Rather, a judiciously deployed vernacular and subtle references to architecture history ensure that the work is positioned in the field of cultural production. In this respect, expositions, publications, and photographic representation of built work serve as further assets. For their Triemli housing, Krucker Von Ballmoos hired Georg Aerni, himself a member of the contemporary art scene, granting access to further cultural capital. The aesthetic codes register differently for those who eventually occupy the projects than for the members of the architectural community. For the latter, Realism demonstrates designers’ affiliation with a milieu of cultural producers. But for architects not invested in the production of housing in Zurich, the local scene’s self-referentiality can be perceived as a closed system, unwelcoming to ideas from outside. The narrow horizon has been criticized by some as stifling and fundamentally antithetical to architectural innovation, even by Jacques Herzog himself. Accustomed to different forms of patronage and commissions in his native Basel, Herzog has claimed that a selection process based on competitions robs architecture of its potential for radicality, produces mediocrity, and favors historicist leanings. Annette Spiro, architect, and, like Herzog, a professor at ETH, has offered a different viewpoint. Referring to the apartments conceived by the Zurich firm Pool Architects, Spiro alludes to the “American Songbook.” She sees a culture of craft in the way firms have mastered the intricacies of the repetitive floorplan and managed to carve conceptual richness in subsidized housing. To Spiro, these architects are like talented performers who reinvest tradition with a steady stream of nuance, but who are averse to originality and invention for their own sake.

As both Spiro and Herzog notice, Zurich favors an attitude in design. Tied to this is a form of architectural practise conditioned by the institutional and economic context. Responding to external factors, architects have developed a form of operative self-referentiality that is also demonstrated by their research on floor-plan typology as the quintessential ingredient of housing. In spring 2015, the local architects’ venue Architekturforum Zurich presented “Aus dem Archiv der Grundrisse” (from the archive of plans). This exhibition by and about Pool Architekten presented the work produced mainly in subsidized housing over the past fifteen years. Like most Zurich firms, Pool owes its success almost entirely to competitions. Formed by eight partners in 1998, Pool Architekten has more than 70 employees today. Given its size, the emphasis on plans can be seen as reflecting the identity of a firm that is less invested in signature than, for example, Von Ballmoos Krucker with its two founding partners. The exhibition showcased Pool’s continuous stream of research with a non-iconic, unatmospheric, but collective quality. However, presenting an inventory of plans and details at different scales, the documents on display were themselves rendered iconic. The “archive” invited the viewer to grasp self-referentiality as a premise for the evolving geometries of housing plans. The exhibition publication again referenced Annette Spiro’s comparison of authorship in design with the American Songbook. Spiro sees Pool as versatile performers working within a tradition of bounded originality.

The open source nature of the plan was also pressed by the curators who understood Pool’s archive as a form of public knowledge. Implicitly, their presentation positioned the firm among another “local” legacy: the tradition of a typological reading of the city, harking back to the mid 1970s when Aldo Rossi taught at ETH Zurich. As are many of their peers, Pool Architekten are students of students once exposed to the methodology of Rossi’s studios. In their day, typology and plan launched a discourse that countered the corrupted functionalism of contemporary mass housing. Now, such an inquiry enables designers to revisit and translate modernist housing traditions, reframing them as a 20th century vernacular.

RECOLONIZING AND CENTRIFYING THE PERIPHERY

Even within the wider, privileged situation that architecture production generally enjoys in Switzerland, the niche occupied by recent Zurich housing is unique. Intense public scrutiny has not yet affected construction budgets where high construction standards endure. Because competition briefs are not overloaded with a plethora of social desiderata, the architect’s purchase on innovation through design is maintained. The same leverage is also a reason why, on the urban level, the
scope of many projects remains limited. Moreover, the transformation of Zurich’s housing periphery entails a fundamental paradox: sensitive designers such as EMI consume the very substance of modern housing that they have learned from. Poeticizing a given unspectacular site, the incremental approach to renewal destabilizes the balance of outdoor areas to building mass, undermining architects’ reading of the vernacular. Renewals tend to be based on a selective appropriation of a given location’s urbanistic traditions, but more often than not, the densities permitted by citywide and project-specific changes in zoning are at odds with the existing neighborhood, and uproot the garden city.

The almost aggressive tactic can be explained by its function as a key element of urban governance. The rejuvenation of housing serves as an effective counter-narrative to the global city identity that has come to characterize Zurich. After tumultuous decades of contested urban development and stagnation, coalition governments under social democratic mayors strategically integrated moderate conservatives. Since the 1990s, these left-of-center city governments have created the investor-friendly climate that includes the vigorous private redevelopment of former industrial sites mentioned above. With the city growing again, the shortage of affordable housing is increasingly felt. Tenant protection is minimal and rent stabilization non-existent in private real estate due to the presence of public and cooperative housing. The vigorous policy of renewal therefore comes as a buffer. Both geographically and socially, the majority of these projects operate in a liminal space: they recolonize the inner urban periphery between the city’s 19th-century gentrified neighborhoods and its genuine suburbs.

The social mix in Zurich’s housing cooperatives has undergone its own form of gentrification due to the demise of the traditional working class and of industrial labor. With only a slim chance of being admitted to a renewed cooperative, working poor and newly arrived immigrants typically leave the city altogether. With the economy of scale accelerating middle class occupancy, it is fair to say that Zurich’s housing policy has become somewhat a victim of its own success. Do fabricated vernacular and architectural craft serve as mere backdrop for gentrification? Just like post-Fordism and the governance intertwined with it, urbanization is beyond the range of the successful architectural project.

END NOTES

1. Initiated by the Werkbund of Switzerland, Siedlung Neubühl (1930-32) in Wollishofen is the most notorious example of the 1920s elite working in the field of cooperative housing. It was originally designed by the team Paul Artaria, Max Ernst Haefeli, Carl Hubacher, Werner Max Moser, Emil Roth, Hans Schmidt, Rudolf Steiger, and was renovated in 1983-86 by Arthur Ruegg and Ueli Marbach.
2. Elmar Ledergerber, a Blairist social democrat, replaced a more traditional social democrat politician in 1998, before serving as Zurich’s mayor from 2002-09.
3. This rule is confirmed regardless of spectacular exceptions such as Kalkbreite, Mehr als Wohnen und Kraftwerk, experimental cooperatives successfully promoting new modes of urban cooperatives. In part incorporating members of Zurich’s active squatter scene, the three cooperatives have since received assistance from city authorities and even private developers to realize sizable housing projects.
6. Founded within the architecture department in 1967, Institut gta (Institut für Geschichte und Theorie der Architektur – Institute for History and Theory of Architecture) was where Martin Steinmann conducted research before joining Architec as an editor. GTA was not only essential for its output in research on modern architecture in the German part of Switzerland, but also served as an incubator where several generations of architects immersed themselves in historical research before or during the beginning of their practical careers (monographical publications linked to the gta series ‘Dokumente der modernen Schweizer Architektur’ from the 1980s on and typically paired with exhibits at ETH: Hans Hofmann, 1985, Otto Rudolf Salvisberg, 1985, Hans Brechbühler, 1991, Hans Schmidt, 1993, Hans Leuzinger, 1994, Albert Heinrich Steiner, 2001, Haefeli Moser Steiger, 2007).
7. Ibid. p.184.
8. Here, Bruno Krucker has conducted research on Peter & Alison Smithson via gta, as has Eli Mosayeb with a dissertation on the domestic interiors of Milanese architect Luigi Caccia Dominioni.
11. Although located in a well-to-do area of town and attacked by the political right, 122 planned units of public housing received overwhelming voter support in 2015.
12. A transformation that must be emphasized regardless of the fact that, historically, many cooperatives were geared toward lower employees and craftspeople, therefore never truly “proletarian” by definition.
Ancestral Puebloans, Moon House Ruin, Blanding, San Juan County, Utah, 1225-1290 CE

photo by Shundana Yusaf
TACTICS

NEED FOR COMPROMISE, AND OTHER LESSONS FROM WESTERN GERMANY’S MODERN VERNACULAR/
BENEDIKT BOUCKEIN

GREY MATTER(S)?– ARCHITECTURE, SOCIETY AND THE EMERGENCE OF A NEW VERNACULAR. OBSERVATIONS FROM THE BIENNALE DI VENEZIA 2016/
OLE FISCHER

Alejandro Aravena, Biennale di Venezia 2016, Milford, Beaver County, Utah, 2016
photo by Michael Ole W. Fischer
Dr. Ole W. Fischer is an architect, theoretician, historian, and curator. Currently he serves as assistant professor for history and theory of architecture at the University of Utah. Previously he conducted research and taught at ETH Zurich, Harvard GSD, MIT, RISD, and TU Wien. He lectured and published internationally on contemporary questions of the history, theory, and criticism of architecture, amongst others in Archithese, Werk, Journal of Society of Architectural Historians JSAH, MIT Thresholds, Archplus, AnArchitektur, Graz Architecture Magazine GAM, Umeni/Art, Beyond, West 86th, Framework and Log. He contributed chapters to various books, such as The Humanities in Architectural Design (London: 2010) and The Handbook of Architectural Theory (London: 2012) and The Other Architect (Montreal: 2015). He co-edited Precisions – Architecture between Sciences and the Arts (Berlin: 2008), the Catalogue Sehnsucht – The Book of Architectural Longings (Vienna: 2010), and previous issues of Dialectic (since 2012). He is the author of Nietzsches Schatten (Berlin: 2012).

Benedikt Boucsein was born and raised near Düsseldorf in Western Germany and educated as an architect at RWTH Aachen and ETH Zurich. Living and working in Zurich since 2002, he conducted his Ph.D. at the ETHZ on the everyday architecture of post-war Western Germany, the “Grey Architecture.” The resulting book was published in 2010 with Walther König, Cologne. His interest in the everyday and alternative ways of communicating architecture has strongly influenced his work with the magazine Co menzind, which he co-founded in 2005, and the architectural firm BHSF, founded in 2007. Parallel to his practical work, Benedikt taught and researched architecture and urban design at the ETHZ. Since 2010, he teaches and conducts research at the chair of Kees Christiaanse, focusing on the effects of traffic infrastructures on everyday environments, especially around large airports. The results of this research will be published in 2017 under the title The Noise Landscape, with nai010 publishers, Rotterdam.
ABSTRACT

The everyday architecture of Western Germany produced between the end of WWII and the mid-1960s is best described as its “Grey Architecture.” Though it dominates many of Germany’s cityscapes, it is largely ignored in the discourse on the built environment primarily because it is usually viewed as a product of compromise and inferior design. When interpreted as a form of modern vernacular, however, it stands for the appropriation of the modernist architectural vocabulary by a broad circle of architects. In this light, it becomes evident that Grey Architecture was a specific mode of building, a response to strong, external, economic, temporal, societal, and legislative conditions. Such conditions of architecture remain dominant today, and continue to determine how our built environment is produced. Taken to its conclusion, the concept of mode as a “way of working” determined by external circumstances implies that all modalities of architecture should receive attention, in “high” as well as in “low” building tasks. The discussion of heteronomous modes, especially, could open up new ways of influencing the production of the built environment, of interpreting the vernacular in a way that is directly related to essential modern ideas.

GREY ARCHITECTURE: THE ARCHITECTURE OF PIECEMEAL RECONSTRUCTION

During the Second World War, many of Europe’s cities were severely destroyed by aerial bombing, sieges, and other acts of war. Germany, the aggressor, was strongly affected; between 1939 and 1945, almost every large German city was bombed. The “second destruction” of the post-war years added to this. Many still intact pre-war buildings were torn down, allegedly clearing cities for reconstruction. Andreas Tönnesmann described the reconstruction phase as “probably the greatest collective building effort of the 20th century.” Housing stock was severely depleted during the war, while the population of the country grew because of refugees from Eastern Europe.

The reconstruction of Germany’s cities between 1945 and the middle of the 1960s was conducted in a multitude of ways and styles, ranging from tabula rasa solutions over reconstructions of historical ensembles to solutions in which different approaches were mixed. Outside of the cities, buildings and building complexes were developed and planned on a larger scale, while existing city structures were usually reconstructed in a piecemeal way. Corresponding to the socialistic, centralistic governance system of the German Democratic Republic, Eastern Germany’s housing stock was mainly reconstructed in the former way. While large-scale reconstruction could be organized industrially and with large planning groups, there was little incentive for individual owners to begin reconstruction. In contrast, a large proportion of the reconstruction in the capitalist, market-oriented Federal Republic of Germany was undertaken incrementally, as it encouraged owners of individual parcels to reconstruct in expectation of financial gains. As a result, the fragmented, pre-war ownership structures were often redeveloped parcel by parcel by private investors, also supported through state loans and subsidies.

The differences in how these urban structures were produced are also mirrored in the architectural expression of the buildings. At first glance, many similarities can be observed, such as the façade materials—usually plaster or tiles—or standardized windows. While the larger building complexes more often accord to clear architectural principles, the piecemeal reconstruction is more often unclear in its architectural expression.

In these individually reconstructed buildings, an architectural mix referring to both the modernist and the neo-classicist vocabulary is employed. The windows
are usually arranged in a conventional way and combined with other elements such as shallow pitched roofs or projecting bays. Many of these buildings look as if separate ideas had been aggregated. Elements such as entry doors and shop windows are arranged in an additive fashion, and not in accordance with other elements or an overarching concept. Architectonically and urbanistically, this additive fashion characterizes today’s West German streetscapes. (z 1)

In the current discourse on post-war architecture, this production largely stays in the background. While exceptional examples are increasingly discussed, 4 and large-scale developments are gaining attention as well, 5 the incremental post-war building activity is regarded as unremarkable and architecturally uninteresting. A discussion of these buildings has only recently and reluctantly begun. 6 The main reason for this distaste seems to be their un-architecturalness; because these buildings were not designed according to principles that can be described by established architectural theories, they usually fall out of the roster of architectural criticism.

It is because of this difficulty of description and the indeterminacy in many aspects of their design that I chose to describe this form of building as “Grey Architecture.” 7 Stylistically, this architecture is located in a grey area between avant-garde modernism and an ornamentally reduced form of neo-classicism. It was explicitly meant to form the quiet, inconspicuous “grey” background of post-war West German cities. And finally, it has a clear tendency towards grey tones in its outer appearance.

Once noticed, it is hard to ignore it - Grey Architecture is omnipresent in West German cities. But these buildings are relevant not only because of their sheer mass and the present need for renovation; their formal expression and urban integration also promise to add to our understanding of how modernity entered everyday practice, and to hold useful conclusions for the present discussion.

Figure 1: A typical street in the city of Essen in Western Germany. Photocredit: Benedikt Redmann.
CASE STUDY VEIHOFER STRASSE 28

Because the development of West Germany’s Grey Architecture took place incrementally, the emergence of this form of building must be observed on the basis of singular case studies. In this section, one building—Viehofer Strasse No. 28 in Essen—will be presented as a case study. The building and the block surrounding it were chosen because of the variation they present in a comparably small stretch of urban fabric. Each building was developed by another architect for another client. By studying these buildings, patterns can be derived that are representative of the grey building production as a whole.

The city of Essen lies in the Ruhr area, which represents an apt environment for studying Grey Architecture. The area was severely destroyed during the war and then rebuilt very quickly, as the steel and coal mining industries were important for the so-called economic miracle of post-war Western Germany. With the structural decline of coal mining and the steel industry, economic development was basically halted in the 1960s, keeping much of the Grey Architecture intact. Also, the almost complete absence of a grown building culture in the Ruhr area gave it a predisposition for the development of a “pure” form of Grey Architecture.

The most striking observation on the building history of No. 28 is the constant adaptation that characterizes all stages of its development. Building experts played a more or less serving role. Aside from a lot of small changes made by the frequently changing shop owners, a façade renovation in 1990 actually made this building the “grey” building it is today (Figure 2). The original façade had been covered by tiles, a typical ar-
chitectural motif of that time (Figure 3). Building files show that this version was the final step in a series of iterations drawn by the architect Walter Ehrecke (1906-1964). While the first version is dominated by a modernistic strip window (Figure 4), this window is reduced in the following iteration (Figure 5) to finally make way for a symmetrical, more conservative version (Figure 6), which is very similar to the final version (Figure 7). These architectural decisions were probably based on economic necessity; the owner of the house, an innkeeper, first planned a radical expansion of his bar to four stories and a demolition of the existing building. (Figure 8) When he passed away and his widow took over the project, it became more modest. Much of the existing structure was used in the final design, making the building a transformation.

For Walter Ehrecke, his flexible role in the building process was probably not problematic. He was a typical representative of the architects who were responsible for much of the piecemeal reconstruction of the West German cities. Most were builders rather than academically educated architects. After an education in a specific craft, they usually went through a brief higher education as architects or engineers before starting to work. Due to the war and a high demand for architects in the reconstruction period, some even took on the task of self-taught reconstruction. An example of this is Hans Engels (1918-1980), who built a substantial part of Essen’s inner city. Engels entered the war when he was 21, and never had a higher education. He started his business in 1946, mainly building Grey Architecture in the first years. Later he went on to build for large insurance and petroleum companies all over Germany.

On the other side of these mainly pragmatic and often slightly anarchic builders were understaffed and overwhelmed building authorities. Planning documents had often been destroyed during the war and staff was diminished. In this situation, the number of building applications rose substantially as reconstruction took on speed. As a result, builders like Ehrecke and Engels were able to push ahead with their work quite undisturbed. Breaches of regulations or instructions were often not (or only softly) sanctioned.
A study of No. 28, its neighboring buildings in the Viehofer Strasse, and a number of other cases in Essen indicate that the builders of Grey Architecture employed three distinctive design methodologies, pragmatically adapted to the conditions at hand and derived from their specific education. The first method was direct contextuality, meaning that the builders, for instance, integrated the authority’s requirements such as eaves and forms (if they were enforced) almost directly into the design. The second method was referentiality, which involved an often very direct adoption of solutions from contemporary buildings in the same city or region, as well as from buildings published in widely distributed books of the time such as Hans Volkart’s Schweizer Architektur (1951). Especially the Swiss and Scandinavian modernism of the inter- and post-war period were taken up as references, as they came from neutral countries without any ideological ballast. The third method was addition, by which contradictory and disparate requirements were added to an overall picture without aiming towards an absolute integration. For instance, an analysis of the facades of Number 28 and its neighboring buildings shows how they were each designed in the commonly accepted degree of modernistic expression, the window formats gradually shifting from vertical to horizontal. The resulting street elevation clearly shows this additive method (Figure 9).

From what can be gathered by reconstructing the design process, and from talking to contemporary wit-
nesses, the builders worked according to a conscious choice. They followed an evolutionary, as opposed to revolutionary, understanding of what it meant to be modern as an architect. They viewed modern building technology as an enhancement, but not as a tool to change society. In this, they worked very much in accordance with their clients, but also with a general sentiment present in the large majority of society, which has been described as “no experiments” for the West German post-war period.

GREY ARCHITECTURE AS MODERN VERNACULAR

This close connection to society leads to the question of whether Grey Architecture is a form of vernacular architecture, as suggested by the term “Grey Architecture,” derived from a colloquial expression. As vernacular, architecture is only marginally treated in the German-speaking discourse because it was contaminated by the national socialist abuse of traditional architecture, so we have to turn to definitions from the Anglo-Saxon discourse. Here, Paul Oliver is one of the most prominent advocates of vernacular architecture. He describes it as “buildings of the people,” “built to meet specific needs, accommodating the values, economies and ways of living of the cultures that produce them.”

Grey Architecture accorded to what the majority of the people deemed appropriate for reconstruction at the time, favoring a reconstruction without major innovations. And although this did not apply to formal aspects—the Wilhelminian style of building was despised as a reminder of the pre-war era—the results were not supposed to be so revolutionary as to put everything in question that had been there before. It was the aim of Grey Architecture to communicate conventionality and prosaicness in a time of insecurity.

Other definitions point towards a positive answer as well. For instance, Neasa Hourigan states that vernacular architecture is “not built for import or to impress a cultural elite,” that “the design and construction in question has been undertaken on the basis of utility,” that it “does not rely on its original creator as a defining characteristic” and “is other than Architecture with a capital A.”

However, both Hourigan and Oliver mention the absence of the architect in the building process as a defining characteristic of the vernacular. Clearly, Grey Architecture was created by a division of labor between architects, structural engineers, and a number of craftsmen - and, unlike the vernacular architecture that is normally described as such, was not anonymous. However, the builders who were mainly responsible for Grey Architecture had a clear preference towards such notions as convention and tradition, while such issues as authorship were not important to them. Rather, they saw it as their main task to provide a form of background architecture that did not put itself into the foreground in any way.

Also, the people active in the building process were few, compared to later years. The builders were probably the last generalists of the German building culture. Like Walter Ehrecke, they had usually first been educated in a craft connected to the building industry and had then spent a few semesters at a technical college (the “Höhere Technische Lehranstalt,” HTL). Some of the younger builders, such as Hans Engels, were even autodidacts, as the war had interrupted their education. This clearly set them apart from the architects educated at universities, who were allowed to enter the BDA (the “Bund Deutscher Architekten” or German Association of Architects). The importance of this distinction between “high” and “low” architects was even mirrored in the telephone directories of the time.

By defining vernacular architecture as “related to their environmental contexts and available resources,” Paul Oliver also touches on the issue of context. Grey Architecture did relate directly to external factors, although they were mostly human-made, such as building laws, economic circumstances, interventions by authorities, norms, and time pressure. Grey Architecture is a direct expression of these laws. It is also this direct relation to external circumstances that provides a clue to how to frame Grey Architecture through theory, or any other form of modern vernacular or everyday architecture.

THE CONCEPT OF MODE

As it is based on non-academic, additive principles, it is hard to describe Grey Architecture through theoretical reflection. One of the possibilities to cover this gap is the concept of mode. Mode is sometimes implicitly
mentioned in the discourse, but definitions of the term are lacking. One of the few instances where mode is referred to in the discourse on planning is an article from 2007 by Kimmo Lapintie. In order to theorize urban space from a practical perspective, Lapintie turns to the philosophical field of modal logic, arriving at a viewpoint of planning as the design and planning of possibilities.17

Mode can also be used as a way to describe the activities of architects such as Walter Ehrecke and Hans Engels. Modal notions include possibility, necessity, knowledge, belief, and the obligatory and permitted,18 and it is clear that each of these notions is a strong influence in an architect’s practical work. Possibilities are as strong as any other notion, and in fact, even the possibilities differ from task to task.

In this line of thought, mode can be defined a way of working (modus operandi) that is determined by task, type, theme and, subject matter. From a practical perspective, it is clear that modes cannot be freely chosen by an architect. Instead, most tasks strongly limit the architecture that can be realized. This was clearly the case for Grey Architecture in Western Germany, which can be designated as a heteronomous mode, meaning that it was strongly influenced by external factors - although there were clearly also possibilities for variations, albeit in a comparatively limited frame.

In return, this means that there are also autonomous modes, where the architect is confronted with completely different conditions. The emergence of high architecture is as much dependent on favorable conditions as on the individual architect’s talent. Also, there is a large spectrum in between the two extremes of heteronomy and autonomy in which many building tasks are conducted.

In view of this, the question of mode becomes an essentially modern one, if modernity is seen as a social project and if it is differentiated from the architectural ideas that emerged as “modernism” at the beginning of the 20th century. Modernity as a historical epoch was at least as much a change of modalities as a matter of architectural design. And up to today, the question of how to deal with modal possibilities in the broad mass of building production exists only in a marginal way in a discourse that is strongly oriented on autonomous modes, which represent a small fraction of the built environment. In this discussion, the concept of mode could provide room for de-mystifications in a discourse that often ignores the fact that modal possibilities are a decisive force in how our built environment is produced.

MODERNITY SEEN THROUGH THE VERNACULAR LENS

Although it is usually not valued as such, Grey Architecture is a fundamental part of modernity. It was through Grey Architecture that modern ideals were gradually but surely introduced and made acceptable in German cities. Light and rationally designed buildings were now affordable for everyone, formerly narrow streets were widened, sanitation was implemented throughout the urban structure, and standardized building techniques took hold. Looking at this modernist, everyday architecture of average quality today, one could rightly ask whether it realized “the big dream of the architects of the 1920s,”19 although it reacted to different modal conditions than the “high” architecture of the time.

German cities were rebuilt in a modernist spirit, but in most cases not in the spirit of a revolutionary highbrow modernism that wanted to get rid of the existing cities and their aesthetic expression and replace them with aesthetic and functional city fabrics. Instead, the reconstruction was conducted in a spirit that prioritized solid craftsmanship and the relation to the existing city structure.

By the end of the 1950s, however, the line of thought and practice of Grey Architects was terminated in Western Germany. The moderate modernism that those builders followed was increasingly marginalized. The technical colleges that had educated architects such as Walter Ehrecke did not fit the increasingly specialized building discipline, and were closed down. In the discourse, modes other than the “high” ones were marginalized because they were not in accordance with categories of architectural criticism. Journals ceased to report on the tasks that most Grey Architects were working on.20 Also, a radical turn towards rational planning and the erasure of all traces of arbitrariness took place. The “high” architects could
adapt to this new direction, but it became fatal for the traditional builders who could not adapt their way of working. And later, with Postmodernism, it became ultimately impossible to continue building in a pragmatic modernist way.

These radical seizures still affect Germany's building culture today. The quiet way of building represented by Grey Architecture is almost nonexistent in Western Germany today. And although the processes that followed after the 1960s are complex, it can be assumed that the rise of pre-fabricated houses would perhaps not have had such a strong impact on the German building culture if the moderate modernism of the Grey Architects had been continued consistently, providing an alternative for clients who were not oriented towards “high” architecture.

But most importantly, in Western Germany as well as in most other western building cultures, while new approaches developed and dogmas changed, the proportion of “high” to “low” tasks and the difficulty of theoretically and practically addressing the latter remained the same. Although new theories were constantly formed in relation to the themes of the respective time, modal notions remained the most dominant force in architectural production. And although heteronomy did become an important theme in “high” architectural production starting with postmodernism, this heteronomy usually appears more or less as a quotation. While the postmodern use of traditional elements combines them in an intellectual, often-ironic manner, Grey Architecture takes this mix of elements seriously and treats them as a part of a tradition and a context.

This means that while a reception of Grey Architecture took and takes place through quotations, the production mechanisms and thus the core generating factors of the quoted architecture are often ignored, as is the knowledge about the architects factually dealing with heteronomy in a practical and everyday way. Modern vernacular production such as Grey Architecture was and is mainly used as a theme to transfer a certain practice's work into a field of art, using subversive techniques - but it is almost never acknowledged that these transformations can only take place in very few cases and do not carry any relevance for the bulk of the building production. Perhaps this step is also difficult to take because it would require “high” architecture to accept the influence of external factors and the limits of architectural design.

Seen in this light, if there is a “failure of modern architecture,” it seems not to have been a failure to devise “high” theories or solutions, nor to produce iconic works that symbolize them. Rather, it seems to have been a failure to be seriously interested in compromise, or more precisely, with the architecture that necessarily has to make compromises. Typically, Grey Architecture is described by attributes such as banality, compromise, and inconsequence, as a poor solution to challenges that could have been solved better. This perspective, however, overestimates the control architects have over their designs. Often, compromises can only be avoided at the cost of losing a project, which is not an option for those who depend on their contracts, and does not change what is being built in the end. The modal conditions are strongly determined by what is fostered by society, by which principles are put forward and which are not. It is an illusion to think that coherent design can fundamentally change this. Design works inside the systems of social conventions, professional disciplines, and the market, but it has minimal influence on the systems themselves.

Maybe those creators of Grey Architecture knew that the builders of post-war Germany disregarded the revolutionary avant-garde, and did not feel obliged to its values. They expressed this implicitly through the way they built, and in interviews, an explicit refusal can also be felt. In 1957, Rudolf Pfister, who led one of the most important architectural journals after the war, Der Baumeister, said that it was more important that “averagely gifted” architects built many “decent” buildings than that a few “highly gifted” architects built a few excellent buildings.

Looking at the emergence of Grey Architecture after the Second World War, it seems worthwhile to pursue the thought experiment that being socially engaged does not mean being uncompromising. This line of thinking is encouraged by the Brazilian case, one of the few building cultures where the vernacular took up modernism in a consistent and productive way. Although there is a rich history of the vernacular influencing “pedigree” modern architecture, the reverse process...
has not been analyzed as frequently. Though Grey Architecture shows how the pedigree modernism of the interwar years slowly became part of the everyday in West German cities, my research is the first step to an analysis of this process.

If we want to continue the modern project and stop our discipline from being marginalized, we must learn to incorporate and affirm other forms of building into our vision of architecture much more forcefully. We must talk about and teach how this can be done—how we can develop new architectural methodologies to broadly deal with the modern vernacular. We can look at how it was done by architects such as Walter Ehrecke and Hans Engels, without reservations, and speak to the actors producing “grey” architectures today (where one of the first steps would be to identify today’s grey architects). We will need to dedicate more resources to this, instead of mainly researching “high” modes, which often represent a dead end (respectively an end in themselves). Certain taboos in architectural theory and history have to be overcome.

The most important conclusion, however, seems to be that we have to engage in society to change modal conditions. notions such as possibility, necessity, knowledge, belief, the obligatory and permitted are given by society and form the field in which architecture takes place. Changing these notions can take place by changing the built environment within the limits of the modal possibilities given to us—which are flexible to a certain extent—and establishing new ways of building within these limits. But it may also be worthwhile to search for ways to influence these notions before the actual commissions are given, before the modal conditions take effect. In the end, this could also mean working in a more vernacular way, closer to society, and less oriented toward professional conventions and codes.

ENDNOTES

5. For a recent example, see Walter Nageli and Nilsoufar Kim Tajeri (Eds.), Kleine Eingriffe: Neues Wohnen im Bestand der Nachkriegsmoderne (Basel: Birkhäuser, 2016).
6. See for example Markus Krajewski and Christian Werner, Bauformen des Gewissens. Über Fassaden deutscher Nachkriegsarchitektur (Stuttgart: Alfred Kröner Verlag, 2016) and Boucsein, Graue Architektur.
7. I define it as such for the first time, but am taking up a colloquial expression. See Boucsein, Graue Architektur.
8. The sources of information on buildings and architects of the Grey Architecture are mainly building files from the city of Essen, interviews with descendants and contemporary witnesses, as well as the few documents left by the architects. Generally, information on the creators of Grey Architecture are hard to come by.
10. Exemplary for this is an article by Rudolf Pfister in the German magazine Bauhütte, in which he criticises the Weissenhof Estate from the viewpoint of ‘common sense’: Rudolf Pfister, “Stuttgarter Werkbundsiedlung. Die Wohnung”, Der Baumeister 2 (1928).
15. For instance, the directory of Essen from 1952 differentiated between two types of architects: “a) BDA” and “b) Sonstige”, which meant other architects. In 1953, the discrimination was softened by marking the BDA-Architects with an asterisk.
18. Lapintie, Modalities, 38.
19. X Of the example of post-war single family houses, Klaus-Jürgen Bauer writes that—given that they were cheap, industrially produced, affordable for everyone, typologically consistent, not especially individual and in a sense also classless—they can be viewed as a fulfillment of the big dreams of the architects of the 1920s. See Klaus-Jürgen Bauer, Miniäa Aesthetica. Banalität als strategische Subversion der...
20. In a systematic survey of the most widely read architectural journals of the time, Baumeister shows that from the middle of the 1950s on, the number of contextual tasks decreased rapidly to make room for projects that were not situated in complex urban situations. Store buildings, which had been an important theme at the beginning of reconstruction and are a typical everyday task, completely disappeared from the journals by the beginning of the 1960s. See Boucsein, Graue Architektur, 2010, 142.


23. Rudolf Pfister in Baumeister 10/1957, 732. Interestingly, Pfister renounced the star culture in architecture as early as the 1950s. His argument was part of a dispute between “modernists” and “traditionalists” that was flaring up in the post-war period; however, builders like Walter Ehrecke and Hans Engels were not interested in these disputes and viewed them as a thing of the past. See: Jeffry M. Diefendorf, In the wake of war: The reconstruction of German cities after World War II (New York: Oxford University Press, 1993), 60.


Figure 1: Studio Mumbai, “Immediate Landscapes”, handmade prototype, Biennale di Venezia 2016, Arsenale. Photocredit: Biennale di Venezia
ABSTRACT

Alejandro Aravena, co-founder of the “Do-Tank” Elemental and artistic director of the 15th Architecture Biennale in Venice 2016, invited his architectural colleagues from all over the world to “report from the front.” With this slightly martial language he asked an important question: how can architecture and urban design engage with pressing social problems and deliver change? While it might seem a hopeless overburdening of the discipline of architecture, or a potential fallback into (late) modernist ideologies of paternalism and social engineering, the call worked surprisingly well. The selected architects staged an ensemble of dense representations and atmospheric installations which did not shy away from the most urgent challenges for urban environments of the 21st century.

This paper will critically engage with select architectural projects and their representation at the Venice Biennale 2016, both from the main exhibition curated by Aravena and from national pavilions. These case studies will be scrutinized for their potential to serve as indices for the emergence of a new vernacular which seems underway at several parallel sites, and derives from the confrontation of global technologies and generic materials with specific local craft, technique and sensibility. The results of this almost alchemistic process are architectural interventions (both at the specific site or at the exhibition in Venice) that employ everyday, humble, and widespread materials (grey) and turn them into something precious (gold) accessible for larger parts of society than normally served by architecture with the help of well-thought and well-made design.

VERNACULAR, EVERYDAY, GENERIC?

“Vernacular,” literally a language or dialect native to a region or country rather than a literary, cultured, or foreign language, has been employed in architectural debates since the 1960s and 1970s as a term critical of the historical tradition of canonic master works, proper names, and Euro-centric perspectives. Analogous to the difference between the written language of the educated (the urban elites and the colonial powers expressed in the high-culture literature as much as in the normative language of administration, law and government) versus the everyday spoken dialect of the various groups, regions, and subjugated peoples, this polemic stance held that architects and architectural historians have been largely ignorant of anonymous edifices, traditional structures, and domestic builder craft of both remote areas of Western civilization as well as of non-Western origin. Since then, this criticism has helped to develop a more inclusive writing of history. It questioned master narratives and the notion of canon as much as the preconceived universality of Western civilization. In addition, the figure of the vernacular broadened the perspective of heritage and preservation to include non-monumental works. It asked for other contributors to the built environment beyond architects. On the flip side, it often embraced romantic ideas of authenticity, originality, and organic regional culture. It internalized an essentialist understanding of identity, history, place, and people. But we would do well to remember that the concept of vernacular has been borrowed from linguistics. This was an area of study fashionable at the post-modern turn which reminds one that language is a dialect with an army. Its plurality undermines essentialist differentiation between the written language of the elite and spoken dialects of the rest, illuminating its socio-political and cultural-historic constructedness.
Alternatively, the term "vernacular" has been put to use by Robert Venturi and Denise Scott Brown, equally polemically. In their case it is directed against the supposed elitist, paternalistic, and cultural arrogance of modern architects, especially among those of the post-war generation. Venturi and Scott Brown shed light on a popular commercial architecture of the everyday found en masse in suburbs, strip malls, and in the entertainment industry of casinos and theme parks overlooked (or despised) by "educated" architects. Here, "vernacular" addresses less (the loss of) authenticity of pre-modern cultures than it does the differentiation between the "high" and "low" cultural products of advanced societies, between "pop" and "serious," between ordinary, everyday, casual versus abstract, artistic, difficult, if not utopian (read: totalitarian). Here too, the redirection to the "commercial vernacular" of Main Street, etc. holds the merits of broadening the perspective of architecture (and its historians) to include the peripheral, suburban, and popular of the everyday built environment, to respect different taste and cultures, and to respond to the plurality of user groups in mass consumer society. Yet again, these qualities stand against the difficulties of uncritical affirmation of the status quo, if not ironic, sarcastic, where the "popular" degrades into populism and "realism" into realpolitik.

More recently, Rem Koolhaas delivered an updated assessment of the neglected areas of official architecture by mapping out "The Generic City." While his description does not formally employ the term vernacular, the concept shines through his entire argument, with yet a different twist. Koolhaas, writing a generation after the post-modernists, is interested in neither the supposed authenticity of dialect, nor in popular semiotics. With the notion of "generic"—meaning non-specific and not brand-named—he points to a wave of global modernization that overwrites any and all local, regional, and national specificity with a bricolage of postmodern-clothed, multi-use high-rises, traffic infrastructure, and green spaces. While "The Generic City" describes the death of (modernist) urbanism, its sister text "Junkspace" dives into the homogenous interiors. It focuses on the repetitive, placeless patterns of airports, shopping malls, office towers, chain hotels, theme parks, etc. These represent the depletion, if not entropy, of architecture as a highly rational and administered process. His inventory shows irrational (arbitrary) results in the built environment, with a frantic move towards global homogeneity. Unlike his predecessors, who direct the reader to anonymous vernacular and popular commercial structures in order to offer their lessons learned as alternatives to pedigree architecture, Koolhaas remains purely descriptive, although with exaggerations turned cynical. Laconically he reports on "modernization's fallout," aggregating in commercial, leisure, work, and transportation spaces of global sameness based on the technological props of disengaged structure (construction axes based on parking stalls), elevators and escalators, air-conditioning, artificial light, and flimsy markers of space (sheetrock), all dressed up superficially with decoration, signage, logos, and brands. The identifiable space of individual edifices, streetscapes, and entire cities in both Western and post-colonial contexts has transitioned into a continuous stream of screens, surfaces, and skins, rendering any attempt for originality, identity, and place hopelessly futile – even more so today under the media regime of ubiquitous computing and augmented reality. Koolhaas refrains from any architectural solution, but positions his deadpan description against architectural ideologies of both modernist fashion (CIAM urbanism and regional planning) as well as postmodern trends. It stands against the European city of Aldo Rossi, critical regionalism of Kenneth Frampton and Tzonis/Lefaivre, not to forget the phenomenologically inspired notions of tradition, identity, and place. Koolhaas does not fall into the traps that ensnared previous advocates of the vernacular: the sociological perspective of mixed-use walkable cities of Jane Jacobs, the preservation and cultural heritage movement, all the way to neo-traditionalism à la New Urbanism. Yet the rhetoric of inescapability and rendering these developments without alternative makes this text very problematic. His narrative is without historical agents - no word about the driving financial forces, development portfolios, neo-liberal politics, or interests of transnational companies. There is nothing about the collateral damage of "modernization's fallout" on humans and the environment. The cynical smile about Koolhaas' smart observations dies on the lips of the reader once confronted with the backgrounds and effects.

GENERIC AND VERNACULAR?
This text attempts an alternative reading of the conditions of globalized societies in general, and their construction industry in specific: the ubiquitous, generic building materials such as skeletal concrete or steel structures filled with dry walls and other non-load-carrying fittings (from CMU over plywood to drop-ceilings), aluminum-glass window screens and composite façade systems, as well as roof claddings of corrugated metal, plastics, or asphalt, held together with silicon, foam, and glue, etc. These might offer potentials for a new vernacular of the 21st century. In today's global architectural market—this term is used with purpose—the anonymous building materials and related construction techniques follow the pattern of standardized catalogue ware, global division of labor, and evenly global production and distribution through transnational companies where there are increasingly fewer competitors on the market, thanks to merger and acquisitions. The construction industry exhibits similar trends to other industries such as apparel or automobile manufacturers, where only a dozen international companies hold various national brands, engage in a highly modularized and globalized production process, and serve their increasingly diverse palette of products to very pluralistic market niches (for example, small standard cars for emerging markets, to luxury vehicles). In building industries, this phenomenon can be observed for complex components, such as elevators, façade systems, plumbing appliances, or HVAC systems, as well as for basic materials such as brick, cement or dry walls. The increasing homogenization resulting from the global production, distribution, and application of standardized building materials, components and technical systems has been repeatedly pointed out—very powerfully so by nobody else but by Rem Koolhaas himself at the 2014 Architecture Biennale in Venice. There he (acting as chief curator) and a group of sub-curators arranged and edited under the general theme "fundamentals" 15 volumes of elements "used by every architect, anywhere, anytime." With this truly encyclopedic undertaking, his group at the global theme "fundamentals" 15 volumes of elements "used by every architect, anywhere, anytime." With this truly encyclopedic undertaking, his group at

While there is a direct connection between *Elements* and Koolhaas' earlier observations on The Generic City and Junkspace, where he questions the role of architects in the process of global modernization, this text entertains an alternative perspective: that new forms of craft, including all its notions of specificity, locality, and human agency, might arise from the homogenized material base of a globalized Western industry. This change of perspective to a more dialectical view of the relationship between material culture and industrial base can take clues from similar research into mass customer society and popular culture, culture, exemplified in the seminal writings of Michel de Certeau and Henri Lefebvre. Both authors claim the critique of orthodox Marxism and French Structuralism is too narrow, since these critiques remain primarily focused on the relations of (paid) labor, (industrial) production, and (political) power, while rendering leisure time (or immaterial/unpaid labor), consumption, and the individual as entirely passive. The everyday, however, as the sphere of experience and action of everybody, cannot be reduced to prescribed behavior patterns without agency. On the contrary, as de Certeau argues in *The Practice of Everyday Life*, even if these ordinary patterns are repetitive and (partially) unconscious, they are not prescriptive or one-dimensional. Like the reader of a literary text who co-produces the work provided by an author, publisher, and media, the consumer of industrial products as much as the user of modern architecture and urban spaces are operating in ways that are not fully determined by the producers nor by the control of authorities. De Certeau argues that the creators of a work of art or text never know what their observers or readers will “make” out of the work. They may simply take it on, put themselves and their memories and experiences into it, and find that it resonates with their own life experiences and situations. But more often than not, the content gets transformed and appropriated in ways unthinkable for the originator. De Certeau makes the same application to architecture and urban space, which in the modern and contemporary world are designed predominantly in response to functional considerations. Yet that is only the perspective of the planner, while the actual use and appropriation of the built environment might differ drastically. One does not have to go as far as Bernard Tschumi, who proclaimed...
From the Venice Biennale 2016

THE SPECIFIC FROM THE GENERIC: OBSERVATIONS FROM THE VENICE BIENNALE 2016

Under Alejandro Aravena, the 15th Architecture Biennale of Venice 2016 set out to stage exemplary practices of socially engaged architecture. As he invited practitioners:

Our curatorial proposal is twofold: on the one hand, we would like to widen the range of issues to which architecture is expected to respond, adding explicitly to the cultural and artistic demeanors inside another person’s (or discipline’s) property and product, including transformations and (mis)use. Yet what are the alternatives for critical practices in architecture today, if any? There is first a self-proclaimed “Critical Architecture” as an interrogation of the axioms and dogma of the discipline, of its relationship to politics, capital, and subjectivization, both with the means of design as well as with critical writing (which I have elaborated on elsewhere). Entirely different is the second, an attempt for an architecture from below (outsider architecture as much as resistant architecture, that is, practices that avoid academic authors, capitalist financing, and approval from authorities), representing forms of practice that undermine these operative contexts altogether and hence exist only in niches and are often temporary, such as protest design, hacking, etc. In a different vein, there is a third way: architecture by/of the user, such as participatory design practices, DIY, “Pattern Language,” advocacy planning, public interest design, etc. And finally, a fourth – an architecture of the background, a sort of grey building, a technological or generic vernacular, where vernacular is not understood in the sense of a traditional building activity by anonymous laypeople without aesthetic intent, but rather as optimistic appropriation learned from subculture, from contemporary art, from make-do bricolage, etc. The hypothesis of this paper is that there exists an architectural practice that works with “as-found” conditions, with the generic, the real, and even with dirty realism, but that avoids ironically indulging the commercial culture (Venturi & Scott Brown). It instead takes the everyday at face value, as worthy of design improvement, emphasizing reform and performance over form-making, and develops critical solutions within the social given, within the limits, and within the regime of scarcity.
essions that already belong to our scope, those that are on the social, political, economical [sic] and environmental end of the spectrum. On the other hand, we would like to highlight the fact that architecture is called to respond to more than one dimension at the time, integrating a variety of fields instead of choosing one or another.\(^{14}\)

There was a surprising result: many of the installations and built works on all continents employed the most ordinary and everyday products of the global building industry, but carried them to different ends. The exhibit presented a new form of vernacular bridging and combining design and workmanship with materiality. Studio Mumbai, a collective architectural practice, designs not only buildings, but also materials, assemblies, and craft needed to execute these structures. They involve a learning process for the craftsmen to re-appropriate traditional techniques and update or mix them with contemporary technology. (Figure 1) This integrative approach has enabled Studio Mumbai to navigate between socially engaged housing and communal structures and high-end private residences or luxury resorts, which, according to the architects, legitimize the use of traditional as well as generic materials for all other strata of society. Their approach is far more relevant than just a revival of handwork or research into local and international materials and assemblies. It thinks through their work on making and assembly with other international tendencies, such as the revival of design build practices in the US and other Western countries. It connects it to the material research—both traditional and global contemporary and the mixing of both—of architect-researchers like Anupama Kundoo, who presented her expanded material palette “Building Knowledge” also in the Arsenale of the 2016 Biennale. (Figure 2) One can even see a connection to material-oriented architects such as Peter Zumthor, whose work shows a similar broad spectrum between housing, communal, and institutional structures all the way to luxury resorts, working with both traditional and global contemporary materials, assemblies, and concepts,\(^{15}\) yet always avoiding the showiness of form-based signature architecture so prevalent since the 1990s.

Maybe what we are witnessing today is a fatigue with the bold starchitecture of brand name firms, a critique of parametricism and other extravagant formalist tendencies in architecture that still seem to be haunted

Figure 2: Anupama Kundoo: “Building Knowledge: An inventory of strategies”, Biennale di Venezia 2016, Arsenale; with courtesy of the architect. Photocredit: Javier Callejas.
by the supposed autonomy of the discipline - which more often than not turned into a carte blanche for pure formal exploration. Maybe these are signs of a renewed interest in the contingency of architecture; into its specific conditions, limits, and problems; into its materials, processes, and assemblies; and into its contributors and users. And maybe we see, with this turn towards the reality of everyday, the rise of “architecture of the background,” to use the words of the Viennese architect Hermann Czech. With this phrase he harks back to the pastiche modernism of Josef Frank and his Akzidentismus (accidentism), which has been expanded (or exacerbated) by the Viennese Museum of Applied Arts (MAK) as “against design.” Maybe, and this is a hypothesis in search of falsification, there is a parallel to “normcore” fashion, which is a paradoxical word for the creation of “normal” and “hard-core” and refers to casual clothing that does not distinguish you from others, such as unisex t-shirts, hoodies, short-sleeved shirts, jeans, and chino pants, plus messenger bags, worn by men and women alike and distributed through H&M, Superdry, and similar chains.

At the 2016 Venice Biennale, there was within this trend of a return to material and craft (in the sense of design as well as execution) another underlying theme that went much further into the normal, everyday, and grey than the refined Arts & Crafts attitude of Studio Mumbai, Peter Zumthor, or other followers of similar practitioners of the 1960s, ’70s, and ’80s such as Louis Kahn, Carlo Scarpa, Karl Josef Schattner, etc. These practices did not focus on the singular well-made piece of joinery. Instead they addressed the normative effects of building codes and standardized materials in a tactical way - or at least what comes closest to it in architectural practice.

The exhibition “Bravoure Scarcity Beauty,” for example, shown in the Belgian Pavilion and curated by the Flanders Architecture Institute, consisted of 13 installations demonstrating craftsmanship and artfulness in the time of scarcity and austerity of the public sector after the financial crisis 2008/09. Twelve of these installations in Venice were references in 1:1 scale to architectural designs in Belgium during the last few

years, while the thirteenth example was the “update” of the falling-apart Belgian pavilion in the Giardini in Venice itself. Rather than being expensively restored into the state of white purity as had been done all the previous years, it was only touched up tactically here and there, while leaving visible the damage from winter storms and months of disuse in other areas. (Figure 3) One of the most significant projects of “Bravoure” from the perspective of a tactical use of a new vernacular was the renovation and extension of a 19th century classicist building at the Maarschalk Gerardstraat 5, Antwerp, by Eagles of Architecture in 2014. (Figure 4a & 4b) In order to comply with the building codes (fire-resistant wrapping of new piping), the architects decided to add a gypsum board column to the existing Ionic columns of the interior. This “new column order” received its details, moldings and entasis not from Vitruvian language or from stone carving, and not even from the 19th century industrial mass production of gypsum, terracotta, zinc, or cast iron classical catalogue ware, but rather from the material and assemblage of contemporary standard materials themselves. Metal studs (L-profiles and U-channels) and exposed pink gypsum board (pink indicates fire resistance for the hidden pipes) stay firmly within the realm of contemporary materials and craft, but also embrace the everyday, if not the banality of construction. Yet the decorative precision added by a repetitive grid of screw holes (pre-drilled into the plaster board with a matrix template) and an additional layer of polish (instead of the usual finish of spackle and a thin layer of plaster/paint) turn the everyday humble materials and global technical application into a reflective architectural statement. It is in dialogue with the specific local situation of an update for a 19th century bourgeois building.19

This and many other examples from “Bravoure” indi-
cate the potential to ennoble anonymous global assemblage systems and contemporary banal materials into the realms of architecture and craft, if not even engaging in the magical processes of alchemy to transform dust into gold. And also significant, these examples were not collected from the high-end commissions of luxurious villas, retail, or corporate representation (and with the exception of the Belgian Pavilion itself, not from the art world), but from renovation, alteration, or plain code-adaptation of existing structures and low-cost projects for public clients such as a school, an archive, or a refugee housing project. In short: from everyday make-do projects within very tight limits. The architects selected for “Bravoure” dealt with excess of the ordinary with a creative attitude. The work involved the unexpected, temporary, and the “pimped” while honoring scarcity and limitation. It had none of the stripped-down, the minimal, and the standardized. No wonder one of the commentators detected surreal and mannerist tendencies.

Even if the various works convened in the small exhibition stemmed from different young architectural offices and were carried out in different Belgian cities between 2010 and 2014, the curators chose to accompany the heterogeneous examples with a “Bravoure” manifesto (which is admittedly a retroactive move): “It is a call to consider the universal dimension of architecture as the art of thinking through making.” The projects sometimes seemed so ordinary and small in their scope that they could be taken for paraphernalia, yet the architect-curator Jan de Vylder made clear:

With this project we wanted to bring architecture back to its ordinary and banal necessities. In doing so, we were looking for that first, small step through which architecture distinguishes itself as architecture. It is almost a return to the primitive hut, but not quite. It’s about the next step, the first movement through which the primitive hut becomes architecture.

This is not a return to the essentialist claims of pre-historical, rustic, primitive huts of Vitruvius, Alberti, Abbe Laugier, Gottfried Semper, Martin Heidegger or Charles Moore - or, for that matter, Le Corbusier. For what else is the maison dom-ino if not the primitive hut of modernism? Rather, de Vylder champions a design...
attitude that starts from the reflection about the fundamentals of human need to create artificial spaces. He also incorporates the pre-architectural condition of materials and techniques in order to differentiate the instrumental logic of Enlightenment problem-solving from the creative radical potential of formal as well as material assemblages. As the co-curator Christoph Grafe clarifies in the same interview:

This is the same attitude that Adorno and Horkheimer expressed in their book *Dialectic of Enlightenment*. To them, the problem of modern society is the focus on the instrumentalisation of the world, which transforms the Enlightenment into a repressive apparatus. They consider this straightforward, functional relationship between a problem and its solution as being extremely suspicious.

In other words, “Bravoure” offers an alternative to the usual response to limited means (scarcity) with limited and limiting solutions. It is an alternative to an architecture stripped down to rational problem-solving and rationing of its services. These Belgian examples encourage a form of craftsmanship that tackles the banal and everyday of (post-)industrial society. Craft does not mean the handicraft dimension of the pre-industrial all-maker, but the creative know-how of appropriating, changing, and adapting to specific locales, uses, and consumers. This approach is prevalent in cultural practices of sampling, mixing, DIY, and tinkering, and can be found in fashion, contemporary art, and everyday practices and (re-)uses - of working tactically within the system that one does not own (proper). These examples transcend the simple solution, the means and ends of problem solving, of code, of BIM catalogues, but inspire to search for a new (surprising) form of beauty in the everyday, for added meaning through the care for material things.

This tactical use of architecture was not limited to “Bravoure” and the Belgian Pavilion. It extended to the artistic director Alejandro Aravena, whose group Elemental employed a similar move for the re-design of the two entry rooms at the Arsenale and the Biennale Pavilion at the Giardini. These introduce the visitor to the general concept of the exhibition of the 2016 Venice Biennale. Aravena analyzed the given situation—the debris and damages from the winter months, when the Biennale grounds fall out of use, as well as the leftovers from the previous Biennale in 2015 (the 56th Art Exhibition of Venice) - and instead of having everything cleaned out and returning the exhibition halls to their prior (pure) state, Aravena had the gypsum plates carefully disassembled and cut and broken to pieces of the same size. (Figure 5 & 6) These pieces were then piled up as wall decoration for both entry rooms. He referred to these on the opening day as “workman’s travertine,” a reference to the spongy limestone used by the Antique Roman and Baroque architects for their monumental works. The reclaimed metal studs of the same leftover dry wall systems were roughly cleaned and hung off a metal grid from the ceiling as light deflectors. Even the spotlights and small LED screens that were left behind from the last Fine Arts Biennale of 2015 were re-used. These received small interventions; he removed the covers and plastic bodies of the different models, product types, and screen sizes, and notepads in order to unify the variety of screening devices. The brand names disappeared and the devices exhibited the normally carefully hidden electronics inside. This gave them a very delicate, vulnerable impression, exposing them to several failures in the hot, humid climate of Venice in May.

INSTEAD OF A CONCLUSION: SIMILAR TENDENCIES

This body of work extends beyond the Venice Biennale 2016. The Venice Architecture Biennale has, since its inception in 1980, been known for starchitects and their pet projects. This new approach represents a shift. The work of the artistic director Alejandro Aravena and his group Elemental in Chile followed the path of a tac-
tical architecture with both its disaster relief projects as well as its affordable housing projects. This has not limited them from high-end institutional architecture for other clients. A growing number of other practices all over the world partake in tactical architecture; most prominent among these are Assemble Studio in Liverpool, UK; (Figure 6) the Baupiloten in Berlin; as well as the cooperative developer Zusammenarbeiter in Berlin, Germany. In Vienna, the practice AWG (Alles Wird Gut) transformed a church-owned, dull, 1960s retiree home into the trendy boutique Magdas Hotel, equipped with second-hand furniture and staffed by international refugees. (Figure 7) In France, the firm of Lacaton Vassal has been realizing public and affordable housing by expanding the strict codes for new structures (Cité manifeste Social housing, Mulhouse) (Figure 8a & 8b) as well as updates for 1960s and ‘70s satellite towns. Diébédo Francis Kéré updated old vernacular techniques of sun-dried bricks with a little cement and rebar steel. (Figure 9) He also founded his own non-profit in order to realize his diploma project. A school complex in Gando, Burkina Faso organized the support (as well as sweat equity) of the local community. This approach has become a role model for many other similar practices of public interest design. Then there is the Design Build Bluff program of the University of Utah. One might say it is hopelessly naïve to work with in the limits of the given system in creative ways not foreseen by power, capitalism, and the elites in order to deliver change and improve people’s quality of life. If so, wait for a revolution. Meanwhile engage the everyday. Act tactically. Because grey matter(s)…

END NOTES


5. Rem Koolhaas, “Junkspace”, in: October V. 100 (spring 2002): 175–190, here p. 175: “Junkspace seems an aberration, but it is the essence, the main thing … the product of an encounter between escalator and air-conditioning, conceived in an incubator of Sheetrock (all three missing from history books).”

Figure 8a & 8b: Lacaton & Vassal, Social Housing, Mulhouse, France, 2005; construction and finished project with off the shelf post-beam structure and polycarbonate paneling to offer more spacious floorplans beyond the strict regulatory. Photocredit: The architects.


20. Grafe seems to allude to this thought, when he differentiates a human scale of classical architecture (Humanism) from the new human scale of “material animism” of contemporary practices, see: Christoph Grafe, Jan De Vylder (eds.), *Bravoure* (Antwerp: Flanders Architecture Institute, 2016), p. 131–36, here pp. 133.


Figure 9: Diébédo Francis Kéré, Clay Brick Production for Gando Primary School, Gando, Burkina Faso, 2001. Photocredit: Kéré Architecture.
FROM MOBILE TO VIRTUAL

ARCADIA AND ANXIETY: TRAVEL TRAILERS AND FALLOUT SHELTERS IN MIDCENTURY AMERICA/
ALICIA CHESTER

NOSTALGIA FOR THE NON-EXISTANT NOW: VERNACULAR ARCHITECTURE AND WALMART IN THE AGE OF DIGITAL NATIVE/
AARON TOBEY

Schult Trailers advertisement printed in National Geographic, vol. 75, no. 5, May, 1939
Published by National Geographic
Mira (Mimi) Locher, FAIA, LEED AP
Mimi Locher is an educator, writer, and practicing architect working in the U.S. and Japan. She is the Chair of the School of Architecture at the University of Utah and a partner in Kajika Architecture. She is the author of three books, *Super Potato Design*, *Traditional Japanese Architecture*, and *Zen Gardens*.

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Aaron attended the Rhode Island School of Design on a graduate fellowship for his Master of Architecture, where he was awarded a 2015 Graduate Studies Grant to continue his thesis work through field research aboard the container ship, ZIM San Francisco, and the 2016 Alumni Travel Award to study the border between Israel and Palestine. Aaron obtained his Bachelor of Science in Architecture at the University of Cincinnati, during which time he also attended the École Spéciale d’Architecture in Paris. His academic work has explored the effects of utilizing global trade mechanisms, new media, and perception of architectural space as a tool to effect social change.
This paper presents a historical and material comparison between the travel trailer and private fallout shelter in midcentury America to consider the hold that these structures continue to exert upon our collective imagination. Sharing similarities in design and ideology, these spaces were intended as temporary shelters and employed highly designed means to change a single room into a multifunctional residence retaining the familiar comforts of a midcentury, middle-class home. Hybrid structures combining single-family-home architecture joined with automobile design, on the one hand, and military bunkers, on the other, they could be built with a do-it-yourself ethos or purchased as prefabricated units.

Travel trailers and fallout shelters were intimately tied to war, industry, and domesticity, and were made possible by materials and techniques created for the military and the development of an industrial middle class possessing discretionary income, property, and leisure time. Looking to Leo Marx’s concept of the middle landscape in *The Machine in the Garden: Technology and the Pastoral Ideal* and Beatriz Colomina’s work on postwar modern architecture in *Domesticity at War*, in conjunction with midcentury popular culture, mass media, advertisements, and government publications, I consider how the travel trailer and fallout shelter weave together “[a]rchitectural culture, military culture, and mass culture” to symbolize the shift of the battlefields of World War II from Europe and Japan to the privately owned homes of the American suburbs with the onset of the Cold War. Stocked with canned goods and camping equipment for survival, whether in a national park on holiday or at home in case of nuclear attack, these structures are materially and affectively connected, representing two faces of the same postwar anxiety: the Arcadian dreams and apocalyptic visions of the middle class in midcentury America.

Man has no mean; his mirrors distort;
His greenest arcades have ghosts too;
His utopias tempt to eternal youth
Or self-slaughter.

INTRODUCTION

What do a travel trailer and a fallout shelter have in common? This question is less humorous than it first appears. Travel trailers began as auto-campers in the early-20th century. Their popularity increased in the 1930s through 1960s, contemporary with fallout shelters built in the postwar period. Sharing similarities in design and ideology, these spaces were intended as temporary shelters and employed highly designed means to change a single room into a multifunctional residence retaining the familiar comforts of a midcentury, middle-class home. Hybrid structures combining single-family-home architecture with automobile design, on the one hand, and military bunkers, on the other, they could be built with a do-it-yourself ethos or purchased as prefabricated units.

Travel trailers and fallout shelters were tied intimately to war, industry, and domesticity. Beatriz Cololina writes that “[m]odern architecture is inseparable from war, not simply because it emerged and was developed in the years around World War I […] but in a much more intimate sense: modern architecture borrowed—or perhaps ‘recycled’ is a more accurate word—the techniques, materials, and ways of doing that were developed for the military.” Travel trailers and fallout shelters were made possible by the creation of modern building materials and techniques developed for the military, shrinking family sizes, and the growth of a middle class possessing discretionary income, prop-
erty, and leisure time. Stocked with canned goods and camping equipment for survival, whether located in a national park on holiday or underground for a nuclear attack, these structures are materially and affectively connected, representing two sides of the same coin: the Arcadian dreams and apocalyptic visions of the middle class in midcentury America. Weaving together architectural, military, and mass cultures, they symbolize the shift of the battlefields of World War II from Europe and Japan to the privately owned homes of the American suburbs with the onset of the Cold War. To return to Colomina: “This militarization of the house is consistent with [Buckminster] Fuller’s idea of the house as ‘shelter.’ [...] ‘SHELL<scyld (shield) TER<trum (firm): That which covers or shields from exposure or danger; a place of safety, refuge or retreat.’” Travel trailers and fallout shelters were just that - refuges from exposure, whether to natural elements or radiation (Figure 1 & 2).

Leo Marx’s classic work The Machine in the Garden: Technology and the Pastoral Ideal concerned the importance of the pastoral ideal in shaping American society: “to withdraw from the great world and begin a new life in a fresh, green landscape.” This Arcadian ideal was not to withdraw completely from society to an untouched wilderness, but instead to a cultivated “middle landscape” between wilderness and city. Rural farming areas fulfilled this ideal in the early years of the country, but the Industrial Revolution was already underway in Europe. Thomas Jefferson marveled at the mechanical mills and steam engines in England, although he did not endorse industrialization or urbanization taking root in America. He dreamed instead that the United States could incorporate these machines into the pastoral ideal, with the steam locomotive snaking through the countryside to connect rural regions: the machine in the garden. A modified form of Jefferson’s pastoral ideal has evolved into suburban existence.

Marx addresses a sentimental form of pastoralism that is “widely diffused in our culture,” exemplified by “the contemptuous attitude that many Americans adopt toward urban life (with the result that we neglect our cities and desert them for the suburbs)” and “in our devotion to camping, hunting, fishing, picnicking, gardening, and so on.” Sentimental pastoralism informed the creation of the travel trailer to convey middle-class...
Americans from the suburban middle landscape to the undiluted Arcadian ideal of national and state parks, where outdoor leisure activities could be enjoyed with safety and domestic comfort. The counterforce—"bring[ing] a world which is more 'real' into juxtaposition with an idyllic vision"—to the travel trailer for our suburbanites is the fallout shelter. This structure fulfills the same basic needs, including sustenance and protection, but its circumstances are as dire as the former are sylvan:

The radical change in the character of society and the sharp swing between two states of feeling, between an Arcadian vision and an anxious awareness of reality, are closely related: they illuminate each other. All of which is another way of accounting for the symbolic power of the motif: it brings the political and the psychic dissonance associated with the onset of industrialism into a single pattern of meaning. Once generated, of course, that dissonance demands to be resolved.

The dissonance generated by the juxtaposition of the travel trailer and the fallout shelter in midcentury America is emblematic of the political and psychic dissonance associated with the image of happy domestic life and the specter of nuclear war. The middle landscape of suburbia became ground zero for "the cold-war mentality," with travel trailers parked out back and fallout shelters buried below midcentury-modern homes.

THE MACHINE IN THE GARDEN: TRAVEL TRAILERS IN ARCADIA

Travel trailers and auto-campers containing vacationing couples and families dotted the landscapes of American national parks (for which some trailers were

named, like the 1955 Yellowstone) since the 1920s and gained popularity in subsequent decades. Traveling in an individually owned vehicle equated freedom and independence with mobility and property ownership. Travel trailers have their own literature, like *Travel Trailer Magazine*, and social clubs like Tin Can Tourists, which was established in 1919 and is still highly active. These metaphorical tin cans garnered their name as much from canned food as from the appearance of the structure. With domestic interiors and vehicular exteriors, these hybrid dwellings enabled families to take the comforts of home on the road. Initially most trailers were homemade, using parts from automobile manufacturers and do-it-yourself ingenuity, but with exponential growth in the automobile industry and increasing incomes following the Great Depression and World War II, commercially manufactured trailers boasting “conventional, house-like interiors” were the norm by the 1940s. This period also marked a more prominent split between travel trailers as vacation vehicles—an identity already established by the end of the 1930s—and house trailers inhabited for longer periods of time.

In Donald Cowgill’s sociological study on trailers and mobile homes published in 1941—among the only such contemporary studies—Cowgill admits “the impossibility of getting accurate statistics on the trailer population” due to the still-sizable numbers of homemade trailers and minimal state regulation. Cowgill observes that the majority of “trailerites” were well-educated, married, middle-aged, economically secure, and white, and families tended to be small. These findings bolster his opinion that the Great Depression “had little to do with the appearance of the trailer.” As opposed to the migratory workers and farmers fleeing the Dust Bowl in jalopies, or the Great Migration of African-Americans from the rural South, trailerites chose to be mobile for work or leisure, lived with modern comforts and amenities, often owned other property, and did not have the goal of permanent relocation.

With the production of increasingly affordable and powerful automobiles, and with labor unions demanding vacation time, even the lower middle class of the 1930s and 1940s found trailers to be an ideal means to travel—cheaper than hotels and restaurants, and easily towed by the family car.

Industrialization, leisure, and mobility accordingly go hand-in-hand in Cowgill’s 1941 study. Industrialization facilitated the mass production of automobiles and, subsequently, trailers, while the vacation time won by unions ended up benefitting manufacturers, whose workers possessed sufficient leisure time and discretionary income to purchase their products. Temporarily free from employment obligations, families could travel through the rural American landscape in the comfort of their own six-and-a-half-foot-wide homes, independent of railroad timetables or bus schedules. Homemade auto-campers gave way to factory-built trailers marketed as portable homes chock-full of inventive space-savers and miniaturized versions of the latest domestic technologies. The “machine in the garden” in midcentury America was not the steam locomotive but the modern trailer with a designer kitchenette and convertible beds for a family of two to four (Figure 4).
The design of trailers and related advertising and magazine articles reinforced domestic gender roles, with women tending the miniature house, children playing outside, and husbands relaxing in pastoral settings. Novelist and journalist Howard Vincent O'Brien's humorous memoir of 1936, *Folding Bedouins; or, Adrift in a Trailer*, chronicles his first vacation in a modern trailer, traveling south to Florida with his wife and daughter. He describes the arrangement as “not all play—especially for the women,” since “the labors of cooking, dishwashing, garbage disposal, laundering, bed-making and the care of clothes are considerably more arduous than they are at home. A trip in a trailer is only a partial vacation for the housewife.”

O'Brien peppers his text with mishaps and friendly disagreements between him and the women, but the overall tone is that of domestic happiness amidst the novelty of living in a travel trailer. He readily admits that despite certain difficulties arising from three people living in such a small space, his trailer contains more “modern conveniences” than most of the permanent dwellings they pass on the road and is more comfortable than a cheap hotel room. Only in these passing comments regarding decidedly non-modern, ramshackle residences does the Great Depression encroach on these trailerites. While his wife and daughter tend to domestic duties, O'Brien types away on the dinette table, writing his memoir as the trip occurs.

For a first-person description of the layout of a typical travel trailer—a floor plan which has not changed considerably—it is worth quoting O'Brien at length:

As we roll through the wintry landscape I have time to study the interior of our portable mansion. It is a triumph of ingenuity. To one side, in front, is a couch which can be expanded into a double bed. On the other side is a compartment for what are politely called “facilities.”

In this compartment is a pump, drawing water from a thirty-gallon tank. On the floor is a drain, permitting the use of a shower. For sissies who can’t take their baths cold, the recommended technique calls for a hot-water bottle, held over the head with one hand, while the soaping is done with the other. [...]

Amidships of our land-going yacht is a sink, also with a pump; underneath, a china cabinet and drawers for linen. Opposite are a coal stove for heat, and a gasoline range for cooking. [...]
Aft of the galley is a pair of Pullman seats, with a table between. When it comes time for bed-die-by, the combination becomes another double bed.

The trailer is fitted with a double lighting system, one set of lights being attached to the battery of the hauling car, the other being plugged into any outside circuit available. A long cable is supplied for this latter purpose. Electric light, heat and cooking are thus possible during halts.

Numerous windows and an aperture in the roof afford ventilation. All openings are provided with screens and curtains. And that reminds me that I forgot to mention the icebox which holds enough ice for three days.

There are countless drawers and cupboards, and a radio aerial. We haven’t yet reached any agreement as to the purpose of these receptacles, and one’s spirit is tried by such things as finding his pajamas in a drawer with the tire chains and what is left of a chocolate cake. But these, of course, are trifling vexations, due to inexperience.

This account highlights the influence of the Pullman railroad car, with seats converting into beds to maximize space, and it corresponds with Allan Wallis’s description of the compartmentalization of trailer interiors in Wheel Estate. The side door inherently divided the interior into “fore and aft” for “sleeping/dressing and kitchen/sitting areas.” Rather than every space being capable of transformation, as early auto-campers and smaller travel trailers required, the larger factory-built trailers could afford to allocate fixed functions to specific compartments, reflecting “the American preference for separating dwelling spaces by function.”

O’Brien’s reference to Pullman seats also serves to
identify the trailer as a technological object," associating its functional design with advanced transportation vehicles like railroad cars and yachts and embracing a machine aesthetic rather than the do-it-yourself aesthetic of homemade trailers. As evident from O’Brien’s choice of words, he conceives of his trailer as being an elaborately designed and well-allocated ship, harboring his family from harm as they voyage to sunnier shores in Florida. The goal was to be as self-reliant and independent of their natural surroundings as possible while appreciating the beauty and peace offered by pastoral environs. O’Brien’s narrative of vacationing in a travel trailer thus takes on a humorous rather than survivalist tone, with the protagonists surrounded by the comforts of modern domesticity and technology (Figure 5 & 6).

ANXIETY UNDERGROUND: Fallout Shelters

The cold-war debate over urban evacuation versus building underground fallout shelters to minimize casualties in case of nuclear attack took place from the end of World War II to the mid-1960s. The Soviets successfully detonated an atomic bomb in 1949 and launched the Sputnik satellite in 1957, and each Soviet success increased American anxiety over the possibility of nuclear war. Fallout shelter designs were based on British bomb shelters used during the Blitz of World War II, but the American versions could not (and were never intended to) withstand a direct nuclear hit. They did not provide blast protection and were simply intended to protect civilians with enough proximity from ground zero against nuclear fallout—the highly radioactive particles resulting from a nuclear explosion—hence the term “fallout shelter.”

Federal civil defense plans in the 1950s for public fallout shelters and urban evacuation failed due to expense and viability, so urban planning and government policy turned to two basic ideas: suburban dispersal and private fallout shelters. Construction of the Dwight D. Eisenhower National System of Interstate and Defense Highways was authorized by Congress in 1956 to connect military installations, industries, resources, and roads providing “defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war.”

Although its primary objective was military mobilization and emergency civilian evacuation, the Interstate Highway System made suburban dispersal (as well as cross-country travel in trailers) feasible. White, middle-class Americans steadily evacuated urban centers by moving to the decentralized suburbs and, in theory, built personal fallout shelters under their single-family homes. The newly formed Office of Civil and Defense Mobilization of 1958 designated a national shelter plan with “an emphasis on private shelter construction and government ‘stimulation’ and ‘guidance.” The result was a flurry of educational films, advertisements, and free civil defense booklets instructing citizens in “do-it-yourself” shelter construction and how to survive a nuclear attack (Figure 7).

The flashpoint in the fallout shelter debate came on July 25, 1961, when President Kennedy gave a speech concerning the Berlin crisis. In response to Soviet Premier Khrushchev’s assertion that he would negoti-
ate with East Germany to force the Western Allies to leave Berlin, and that any opposition would result in war, Kennedy responded: "Then there will be war, Mr. Chairman. It's going to be a very cold winter." 29 Kennedy requested an additional $3.24 billion for the military and $207 million for a civil defense initiative to "identify and mark space in existing structures—public and private—that could be used for fall-out shelters in case of attack." 30 Kennedy's shelter program was intended not only to save civilian lives but to be a demonstration of the determination and willingness of the American people to go to war, even nuclear war, and thus to deter the Soviets. 31 Notwithstanding the subsequently approved Community Fallout Shelter Program, the emphasis remained on encouraging individual families to build personal shelters. The September 15, 1961 issue of Life Magazine dedicated to this subject featured a letter from President Kennedy urging Americans to "consider seriously the contents of this issue of Life" in order to take measures to protect themselves, followed by a do-it-yourself primer on building a fallout shelter. 32 The Cold War nearly became hot in 1962 with the Cuban Missile Crisis, and the drive to build fallout shelters—public and private—reached its apex.

Building a personal fallout shelter had the prerequisites of property ownership and a discretionary income, both of which were found in affluent suburbs. In

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Figure 8: James Denny, Mrs. Ray Baker cooks while her daughters play cards in their bomb shelter. Grand Island, Nebraska. March 13, 1960. Photocredit: the Nebraska State Historical Society, RG1668.PH000W42-000017-01.
Fallout Shelter: Designing for Civil Defense in the Cold War, David Monteyne highlights "lurid narratives" of hypothetical atomic attacks on urban centers in which few people survive as providing support for "arguments for dispersal, and for the building of shelters in suburban communities that might be far enough 'out beyond the scar.'" In this model, city centers were largely left to the poor and nonwhites. Monteyne claims:

Architecture for civil defense “imagineered” spaces for an abstract citizen characterized as a white, male, patriarch—not surprisingly, an embodiment of the planners, researchers, and architects themselves. [...] In an imagination of urban disaster and suburban survival, the fear of the bomb and the fear of the racial other merged at ground zero.

Projected disaster scenarios and civil defense preparations were based upon the assumption that a city center would be targeted, even though potential industrial and manufacturing targets had also begun to disperse to the suburbs. “Imagineering” a scenario in which a suburban community was targeted as ground zero—or in which a missile went astray from an urban target—was simply unthinkable for the planners, researchers, and architects who lived there. For them, “the hypothetical bomb had to land downtown.”

Private citizens were encouraged to build fallout shelters by any means possible. A buried structure composed of thick, concrete walls with lead linings and equipped with ventilators and power generators was preferable. A basement shelter could be constructed with sand-filled concrete blocks, or an above-ground backyard shelter made with plywood and mounded over with earth. Prefabricated or custom-built shelters were available for a higher price. Whether homemade or manufactured, fallout shelters were to be stocked with two weeks’ worth of camping provisions: “seven gallons of water per person (half a gallon per day), nonperishable food, receptacles for human waste, a first-aid kit, a flashlight, and a battery-operated radio for news of the outside world,” along with board games, books, and magazines. Store-bought canned food and water were prominently displayed in publicity photographs, corresponding to the emphasis on purchasing the appropriate consumer goods for survival. The consumer-capitalist orientation of building and stocking a private fallout shelter “was essential right from the start” in order for families to remain linked to society while in isolation below ground (Figure 8).

Government publications like Fallout Protection: What to Know and Do About Nuclear Attack (1961) contained step-by-step illustrations depicting families building and inhabiting fallout shelters, calmly going about their tasks divided by gender and age: men were responsible for shelter construction, organization, and mechanical equipment; women were responsible for food, first aid, childcare, and housekeeping duties; and children played games and read books. Like families vacationing in travel trailers, the structure and gender roles of familial domesticity were expected to remain unchanged by the temporary change of residence during nuclear warfare. In the rosiest depictions, “time spent in the bunker can be quality family time.” The photographs produced by the Federal Civil Defense Administration romanticized the fallout shelter as the new American frontier. Families appeared calm, determined, and resilient. These new pioneers lived in a militarized America powerful enough to annihilate its enemies using nuclear weapons, yet vulnerable enough to succumb to the same fate.

In reality, fallout shelters inhabited the American cultural imagination as a symbol of cold-war mentality more than actually occupying any basement or backyard. The ethical dilemmas presented by private shelters have been posited as a possible reason that few were built, as dramatized in a 1961 episode of The Twilight Zone. If every family was responsible for its own safety, what were the ethics of locking out less fortunate or less prepared neighbors when an atomic bomb struck? Or perhaps the public realized that shelters would provide little blast protection and only questionable fallout protection, creating the sense of futility satirized in Stanley Kubrick’s 1964 movie, Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb. The rarity of private fallout shelters being built—statistics are unreliable, as they are for travel trailers—or still existing is more likely a result of limited resources. Even affluent Americans did not easily possess the means to build shelters, and many in ur-
ban areas did not own property. There may have been a lack of perceived “immediate danger,” making the cost and effort of building a shelter a low priority. 45 Like the 21st century’s War on Terror, the Cold War was an ongoing part of daily life, and nuclear war was a fear but not a certainty. This points to an official narrative created to control anxiety more than to actually plan for a post-nuclear reality. The scarcity of extant private fallout shelters, however, has not prevented them from becoming “a key icon of Cold War domesticity reflecting the vision of civilian life in the atomic age.” 46 The image of the fallout shelter far surpassed its reality and still exerts a hold on our collective imagination.

VERNACULAR DWELLING

The data is too insubstantial to definitively claim that travel trailers and fallout shelters coexisted on the same property, or belonged to the same owner. But it is probable that in the suburban middle landscape of midcentury America, there were middle-class families with a travel trailer parked outside, ready for the next family vacation to Arcadian acres, and a fallout shelter in the basement or buried in the yard, anxiously awaiting the CONELRAD announcement that would never come. These structures exemplify the concept of vernacular architecture in many respects: they were not designed or built by known architects, but rather by do-it-yourself-inclined owners, automobile companies, engineers, construction workers, and even swimming pool contractors. Using readily available industrial and construction materials, these spaces responded to the needs of their historical moment and functioned to safeguard domestic life by furnishing basic amenities within an enclosed shelter. But what does it mean to dwell within the vernacular space of a travel trailer or fallout shelter?

Architectural enclosure is central to Heidegger’s concept of dwelling: “To dwell, to be set at peace, means to remain at peace within the free, the preserve, the free sphere that safeguards each thing in its essence. The fundamental character of dwelling is this sparingness of means. It gains meaning from its complement. A typical single-family home is situated on the ground and rises toward the sky, creating a “structural similarity” between the boundaries of “floor, wall, and ceiling” found inside and those of “ground, horizon, and sky” found outside, fostering a relationship between human-made and natural spaces. 48 However, travel trailers and fallout shelters blur or omit these boundaries, unsettling the dualism of inside and outside and, thus, Heidegger’s concept of dwelling. Inside and outside become permeable in the mobility of a travel trailer, since it does not maintain a stable relationship to the surrounding landscape. As a structure without windows and natural light, buried in the ground to hide occupants from the contaminated air, a fallout shelter loses any phenomenological relation to the outside. Rather than fostering Heidegger’s ideal balance between humanity and nature through the concept of dwelling, the spatial extremes intrinsic to travel trailers and fallout shelters concretize the imaginative poles of the Arcadian dreams and apocalyptic visions of midcentury America.

END NOTES

2. Beatriz Colomina, Domesticity at War (Cambridge, MA: MIT Press, 2007), p. 12. She continues: “Postwar architecture was not simply the bright architecture that came after the darkness of the war. It was the aggressively happy architecture that came out of the war, a war that anyway was ongoing as the cold war.”
3. Ibid., p. 19.
4. Ibid., 73. Quoted from Buckminster Fuller, Nine Chains to the Moon (New York: J. B. Lippincott, 1938), p. 34.
6. Ibid., pp. 146–147.
7. Ibid., p. 5.
8. “Whether represented by the plight of a dispossessed herdsman or by the sound of a locomotive in the woods, this feature of the design brings a world which is more ‘real’ into juxtaposition with an idyllic vision. It may be called the counterforce.” Ibid., p. 25.
10. “It is as if the ideal American postwar suburb were a network of buried surrogate houses, bunkers beneath the lawn acting as the counterpart to the fragile pavilions above, row upon row of hidden concrete fortifications topped by transparent boxes.” Colomina, p. 139.
11. Allan D. Wallis, Wheel Estate: The Rise and Decline of Mobile Homes (New York: Oxford University Press, 1991), pp. 45, 47. This work is the most compre-
hensive overview of the architectural and cultural history of mobile homes to date. Also see Colomina, p. 204, quoting Alison Smithson in 1959: “Caravans are the nearest to an expendable architecture that the market has to offer. […] For against the standard solution of the permanent dwelling the caravan is neat, like a big piece of equipment; has a place for everything, like a well-run office, has miniature appliances in scale with the space, like a toy home; is as comfortable as this year’s space-heated car, and like the car, the caravan represents a new freedom.”

12. Ibid., p. 55. Also see p. 29. Wallis differentiates types of mobile home by period: travel trailers from the mid-1920s to 1939, house trailers from 1940 to 1953, mobile homes from the mid-1950s to the mid-1970s, and manufactured housing from the mid-1970s to the present. Also see John Fraser Hart, Michelle J. Rhodes, and John T. Morgan, with the cartographic collaboration of Mark B. Lindberg, The Unknown World of the Mobile Home (Baltimore and London: The Johns Hopkins University Press, 2002).

13. Ibid., p. 29, 81.


15. Ibid., p. 12.

16. Ibid., p. 9.

17. Ibid., p. 11.

18. Ibid., p. 33.

19. Somewhat differently from Cowgill’s assertion in 1941 that trailers tended to be factory-made rather than homemade, Wallis claims that “the typical trailer from the 1920s through the 1930s was homemade,” and that “[t]hroughout the 1930s about three out of four trailers” continued to be homemade. Wallis, pp. 38-39.


22. Ibid., pp. 6-8.


24. Ibid., p. 57, 59.

25. Ibid., p. 35, 55.

26. In 1957, a national public fallout shelter plan had been projected to cost anywhere from $20 to $40 billion - as well as conjuring disagreeable visions of communist living during the McCarthy era. On both counts, the plan never passed Congress. Urban evacuation proved equally unfeasible; even if civilians were warned with enough time to evacuate, there would be no guarantee of safety from fallout. A 1955 evacuation drill in Mobile, Alabama, resulted in traffic jams, failed radio communication, and social inequities being rendered apparent by those who were evacuated too late. See Kenneth D. Rose, One Nation Underground: The Fallout Shelter in American Culture (New York: New York University Press, 2001), pp. 27-29. Also see David Monteyne, Fallout Shelter: Designing for Civil Defense in the Cold War (Minneapolis: University of Minnesota Press, 2011), p. 13.


29. Ibid., p. 2.

30. Ibid., pp. 2, 37; Monteyne, p. 34.

31. “When he was questioned on Face the Nation […] Nelson Rockefeller reiterated the deterrent value of shelters, claiming that shelters could enhance ‘the will to resist on the part of the people’ and make the enemy hesitate before attacking.” Rose, p. 30.


33. Monteyne, p. 2.

34. Ibid.


40. “The FCDA sought to divide up shelter responsibilities by gender and age within the family structure, tasking men with shelter construction and organization, women with food and first aid, and children with studying nuclear effects (to keep their parents on track).” Ibid., p. 22.

41. Ibid., p. 21.

42. “Cold War planners explicitly merged nuclear fear with the ideology of American Exceptionalism. In doing this, they engineered a new kind of militarized society, in which America was depicted as both powerful and vulnerable.” Ibid., p. 16. Also see pp. 20, 25.

43. “The Shelter,” episode three, season three of The Twilight Zone, originally aired on September 29, 1961, just two weeks after the publication of President Kennedy’s letter in LIFE.

44. Kurin, p. 478.

45. “Rather than ethical qualms, apathy, or rational assessments of fallout shelter functionality, most individuals interviewed had not built private shelters because of cost, lack of space, lack of property ownership, or lack of immediate danger.” Monteyne, p. 41.


For Heidegger, not every building was a dwelling; taken simply, dwelling constitutes a toy home; is as comfortable as this year’s space-heated car, and like the car, the caravan represents a new freedom.”

43. Kurin, p. 478.

44. Kurin, p. 478.

45. Kurin, p. 478.


47. Kurin, p. 478.


usually coincides with lodging. Factories and bridges are not dwellings, but residential buildings may be, even if they do not "in themselves hold any guarantee that dwelling occurs in them." See pp. 347–348.

48. "The basic property of man-made places is [...] concentration and enclosure. They are "insides" in the full sense, which means that they "gather" what is known. To fulfill this function they have openings which relate to the outside. (Only an inside can in fact have openings). Buildings are furthermore related to their environment by resting on the grounds and rising towards the sky." Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (New York: Rizzoli International Publications, Inc., 1980 [1979]), p. 10. Also: "The boundaries of a built space are known as floor, wall and ceiling. The boundaries of a landscape are structurally similar, and consist of ground, horizon, and sky. This simple structural similarity is of basic importance for the relationship between natural and man-made places." Ibid., p. 13.
ABSTRACT

A generation of people is coming of age who have never known a world without pervasive information technology. These “digital natives” are the most adroit users of information technologies that support the interaction of people, places, and things across vast geographic, linguistic, and cultural differences in a common platform of operational protocols. Prefiguring techno-futurist fantasies of sensor-filled smart cities, protocols from WIFI connections to credit card chips have profoundly impacted the spaces of everyday life: the architecture of our grocery stores, gas stations, banks, bars, and restaurants, as well as the behaviors these digitally mediated spaces produce.

Corporations and other institutions of global capitalism that produce, sell, employ, and regulate information technologies leverage their relationship with architecture to expand their reach and ease their acceptance. With their online digital proxies, accessible from anywhere and requiring massive, dispersed, yet near-invisible network infrastructures of data storage, processing, and routing, these spaces of digitally mediated everyday life challenge conceptualizations of vernacular architecture as a cultural and location-based set of formal traditions and spatial typologies. Instead, their ambiguous localities and hybrid forms of presence, epitomized by the recording, sharing, and archiving activities of “digital natives,” suggest a reconceptualization of vernacular architecture as a dynamic, spatial, and behavioral repertoire of common practices, a kind of information technology.

This paper uses such a reconceptualization of vernacular architecture to reveal the unseen actors and motivations invested in the spaces of everyday life. By analyzing how and why certain spaces and behaviors are preserved or erased, this paper asks how the vernacular can serve as the site of innovative spatial practices, alternative power dynamics, and ways of being in space.

INTRODUCTION

A generation of people is coming of age that has never known a world without pervasive digital technology. These “digital natives” are the most adroit users of information technology, a global vernacular able to support interactions across geographic, linguistic, and cultural differences using common operational protocols. As this generation begins to impact society, it is crucial to understand how these information technologies are operated and used. This means understanding the ways corporations and other institutions of global capitalism that produce, sell, employ, and regulate information technologies leverage their relationship with architecture to expand their reach and ease their acceptance.

The information technologies involved in the globalization of capitalism are not just digital devices or softwares, but a complex of networked systems for recording, sharing, archiving, and retrieving information. This complex takes on many spatial forms, ranging from building material standards and patterns of real estate development to WIFI networks and virtual marketplaces. As Keller Easterling points out, the spatialization of information technologies is “doing something […] making] certain things possible and other things impossible […] dictating the rules of the game.” Addressed collectively, the network of transnational corporations, standards organizations, and infrastructures invested in the globalization of capitalism through complex financial mechanisms such as debt, real estate-futures, and currency migration, itself forms an information technology of value extraction and circulation that might be called Global Capital.
While the elements that compose this network operate in different ways, they share the common value of profit and growth. Established by these values, GC, like all information technologies, imagines the globe a certain way and reifies that imagination through its deployment. The spatialization of this imagination of GC through other information technologies can be understood as a kind of vernacular architecture, shaping the spaces of everyday life around the globe through emergent behavioral responses to those spaces’ direct and indirect engagement with GC. While dominant conceptions of vernacular architecture as a set of cultural and location-based formal traditions are valuable, their focus on cultural and geographic specificity limits their use in understanding structural patterns embedded within GC’s spatialization. Instead, reconceptualizing vernacular architecture as a dynamic, spatial, and behavioral repertoire of common practices by asking the questions “what is repeated, through what mechanisms is it repeated, and what, if anything, makes it meaningful?” has the potential to reveal structural patterns in the connections between what might appear as diverse formal responses to specific information technologies.

The patterns represented by the terms “digital natives” and “smart cities” are symptomatic of the cultural imagination of information technology produced by GC to obscure and naturalize itself. Thus freed, GC has used information technologies to package space itself as an information technology, extracting value from the spaces of everyday life through the modulation of material standards, distribution patterns, and behavioral protocols. These everyday spaces have also been used to support information technology in ways that perpetuate spatial organizations and behavioral patterns beneficial to GC by modulating the relationship between specific information technologies and...
architecture. Initiated by efforts to design flexibility into the built environment defined by technological and real estate speculation following World War II, these modulations encourage the adoption of technologies by limiting their architectural impact while ensuring their accessibility. (Figure 1)

Uncovered by this analysis of the vernacular architecture of GC, the stagnation in spatial innovation resulting from these modulations relative to the rapid development of information technology suggests the relationship between everyday spaces and information technology has latent potential to produce alternative spatialities and subjectivities.

TECHNO-FUTURIST IMAGINATIONS

GC requires the coordination of subjects, objects, and spaces within ever-tightening parameters of efficiency and return on investment. To organize the continual achievement of this goal, the entities that comprise GC have turned to information technologies to organize the continual achievement of this goal. These technologies internalize a structural control, a kind of power/knowledge, by which the coordination they support is recursively analyzed and augmented. To be effective in this capacity, information technologies rely on common protocols of communication and parameters for what constitutes information that can be reliably recorded, shared, and archived: in short, a vernacular. While specific protocols are developed and deployed by different corporations, the vernacular structure they all share is the numerical representation of spatial organizations and behavioral practices. The Global Positioning System (GPS) used by everyone from smartphone users to Walmart to the United States military, for example, assigns unique numeric codes to each device that connects the system and defines the location of the device as paired longitudinal and latitudinal (and sometimes altitudinal) coordinates. A specific location is determined by measuring the time it takes for a signal emitted by the GPS-enabled device to reach at least 3 of 27 GPS satellites orbiting the earth and mathematically trilaterating between them. Through their reliance on this numerical representation, information technologies like GPS enact an abstract spatiality in which objects, subjects, spaces, and their representations imperfectly map onto one another. These inherent discrepancies have been leveraged by GC to evade the authority of those who would regulate it, and dismiss the agency of those it subjugates. Doing so enables institutions of GC synonymous with digital information technology, such as Alphabet (née Google) and Amazon, to promote techno-futurist imaginations of emancipation from historic forms of disciplinary control with the impossible promise of universal access to knowledge and resources.

Embedded within the architecture and imaginaries of emerging global “smart cities” are forms of control which are enacted via power/knowledge as architecture naturalizes its imaginative origins so completely that it becomes the world we occupy. And in doing this it naturalizes the fictions that it contains. The explicit content that architecture carries, the signs and symbols that represent the power and wealth that engender it, become further fixed in the world, made solid fact by the inherent real-making quality of architecture as a medium. By striving to make information technologies invisible in this manner, selectively eliminating the real material, property, and energy costs of these technologies’ operation from their users’ collective consciousness, GC eliminates much of the possibility for external authority over these technologies, as well users’ agency, to modify them: “Indeed, the more ubiquitous code/text-based information devices become, the harder it is to see spatial technologies and networks that are independent of the digital.” Further, by promoting a sense of information technology’s ubiquity while simultaneously commodifying access to it, GC creates a feedback loop. This allows it to deny its authority and agency in, and therefore responsibility for, the unequal distribution of access to technology. Clearly this inequality favors those already empowered by GC, and spreads the exploitative forms of technological engagement (such as e-waste cities like Guiyu, in China). This entire arrangement is required for its imagination of the world to be realized.

Despite their material consequences, these architectures and imaginaries derive their power from the real ability of information technologies to reduce labor and environmental destruction while also producing/maintaining social connections. Individuals are pressed to
engage with information technologies in specific ways, on two levels. For GC, the pressure is to collapse the cycle of information consumption and production into feedback which is either internalized to inform its organization and operation, or externalized as a commodity. Socially, the pressure is to connect people and places and create networks of solidarity for sharing knowledge and resources. While these social benefits use information technology's abstract spatiality to empower people, the accompanying disjunctions of authority and agency allow these benefits to be interpolated by GC as a means for whitewashing its interests.

In Herbert Marcuse’s terms, the flattening out of the contrast (or conflict) between the given and the possible, between […] the so-called equalization of class distinctions […] indicates not the disappearance of class, but the extent to which the needs and satisfactions that serve the preservation of the Establishment are shared by the underlying population.24

SPATIAL SOFTWARES

Key to maintaining the abstract spatiality underlying GC’s use of information technologies is the way in which these technologies package space, hybridizing into what Keller Easterling has called “spatial softwares.”25

These protocols, whether generic or idiosyncratic are the dominant architectures of our culture of development - architectures privileging not formal, morphological attributes of building, but rather a repertoire of operations affected by time, patterns of connectivity, and changing populations of multiple components. These are the new inventions and gizmos - the management styles, the production sequences, or networking protocols - that make space in America and around the world.26

One spatial software, the stores and distribution centers (DCs) of Walmart, is paradigmatic of GC’s creation
of markets, protocols, and subjects across all scales and locales by addressing materials, buildings, and people as forms of information technology. Enabled by the growing prevalence of computing power and data storage after World War II, spatial softwares abstract subjects, objects, and spaces into information using standards defined by GC. Remarkably quotidian, they build off the material and supply chain standardization required by mass production, the spatial abstraction of distribution networks required by military logistics, and the subject formation of behavioral feedback structures required by human resource management.

Within these historical narratives, spatial softwares like Walmart are presented by GC as empowering technologies. However, they also reveal how GC uses the repetition of banal, spatialized, and standardized information technologies across a wide range of spatial typologies, from housing to international trade zones/container ports to perpetuate itself and expand its reach.

The standards of material dimensions and connections produced by institutions of GC like Walmart or the International Standards Organization (ISO), such as the four-by-eight-foot module used for most American construction materials, are perhaps the most basic, the “dumbest” (in the technological sense) of these information technologies. Despite their “dumbness,” they determine both the form and exchange value of the materials used to produce everyday spaces. The standards embodied in these materials’ shape and connections carry information about how these material are intended to interact with one another, be handled, and be used. These standards are enforced by building codes and incentivized by their promise of reductions in design, labor, and material costs achieved
with bulk purchasing of interchangeable building components (Figure 3).

Through their repetition, standardized materials encourage normative spatial organizations and behavioral practices in the factories where they are produced, the stores where they are sold, and the homes where they are used. For Walmart, material standardization ensures the functioning of its supply and distribution system for both the products it sells and the materials out of which its stores are constructed. By mapping standardized materials onto its six basic store typologies (Super Center, Discount Store, Neighborhood Market, Walmart Express, Sam’s Club, and Convenience Store), DCs, and even its headquarters, many of which share a large number of components, Walmart is able to bulk-order prefabricated building components which can be assembled quickly and with a minimum amount of skilled labor (Figure 4 & 5).

The cost savings this achieves makes slight design modifications to buildings demanded by local regulations and context relatively easy to accommodate. And, as Jesse LeCavalier puts it,

because the buildings’ looks are so frequently a target of community critique, the company has become adept at cosmetically modifying its prototypes, and can do so with minimal disruption. The unintended result is a tacit endorsement of Walmart’s larger operations.

By deploying standardized materials as abstract representational units of value, buildings become information technologies for comparing and refining the distribution of products and labor within Walmart’s distribution system. Through square-footage-based measurements, whole buildings are treated as a representational unit of real estate and investment value used by GC as a financial instrument for market speculation. Each building thus becomes a technology for increasing Walmart’s market saturation by influencing and gathering information on local retail markets. This allows Walmart to determine the location and square footage of buildings within its distribution system by comparing individual locations in terms of sales, distance from other Walmart locations, and the surrounding retail environment. Operating as a feedback loop, the construction, or often merely the proposal of a Walmart store, will temporarily raise the median property value within the surrounding area because of the increased employment prospects and buying power Walmart brings. Eventually wages in that area stagnate, leading to lower property values and thus lower rent/tax obligations for Walmart. This positions Walmart stores as an attractive short-term economic development opportunity for communities while shaping their spatial organizations and the behavioral patterns of individuals within them to ensure Walmart’s return on investment.

By influencing spatial organizations and behavioral patterns, Walmart’s distribution system operates as a technology of subject formation. Augmented by digital technologies such as credit card readers, each of Walmart’s locations allows it to gather information on the purchasing habits of customers that for Walmart’s purposes constitute their personal identities. Interchangeable, like the standardized materials out of which Walmart’s stores are built, these identities are aggregated into patterns of consumption. These behavioral patterns are fed back into Walmart’s distribution system, informing everything from the location of commodities within stores, to their distribution across the system, to which design trends suppliers follow, thereby influencing customers’ purchasing habits. Presented as the visual repetition of fully stocked aisles, Walmart’s distribution system encourages customers to identify with their choice to patronize Walmart and with their choices among a surplus of commodities in a cycle that collapses product consumption into information production and subject formation. This feedback loop extends beyond the walls of Walmart’s stores to inform the spatial organizations of communities in ways that favor Walmart and naturalize the behaviors it privileges and repeats as normative. The typical location of Walmart stores behind immense parking lots without sidewalks or transit connections, for example, all but requires customers to use private cars.

The size of customers’ cars, the distance between their homes and the store, and the storage spaces in their homes all inform and are informed by the size of commodities Walmart sells and its location within communities’ spatial organization of neighborhoods and
Figure 6: Interior of newly built Walmart distribution center, Elwood, IL. Photocredit: copyright by FCL Builders, February, 2009.

Figure 7: Sign advertising Walmart In-Store WIFI at Walmart store #3301, Providence, RI. Photocredit: author, December 1, 2016.

Figure 8: Walmart app location recognition in Walmart store #3301, Providence, RI. Photocredit: author, December 1, 2016.

Figure 9: Self-check-out and traditional check-out kiosks alongside each other in Walmart Store #3301, Providence, RI. Photocredit: Author, December 1, 2016.
services. By treating communities and individuals as information with the feedback loop of its distribution systems, Walmart conditions their behavior within and their expectations about the spaces of everyday life.

Within GC’s treatment of materials, spaces, and people, as information technologies there are people and places which it either excludes or which are included only to the extent that they are concealed by its operation. For some, this is a privileged position which allows them to influence the operations of GC by defining trends or by naturalizing their exclusion as the exception that proves the rule. Celebrities with product lines available at Walmart are the former, while Vermont’s attempt to keep Walmart from locating stores within the state is an example of the latter. For others, like small towns whose economies are destroyed by Walmart, or the uncounted workers in its supplier’s factories, this is a position of hyper-exploitation in which they are affected by but unable to influence GC’s spatialization of information technologies.

The packaging of space into information technologies via standardized materials, spatial abstraction, and behavioral feedback allows GC to decouple itself from cultural- and location-specific formal traditions and spatial typologies, minimizing the adaptation required to propagate itself. Rather, by structuring itself around the behaviors recorded, shared, archived, refined, and fed back by its spatial softwares, GC eases its acceptance and expands its reach while also creating the potential for subversive practices which use these softwares to reveal and remedy the exclusions required for GC’s operation.

DECOUPLING

In addition to abstracting material spaces by packaging them as spatial softwares, GC also modulates the relationship between everyday spaces and specific information technologies. In doing so, GC neutralizes challenges to its hegemony that these technologies might produce and preserves/intensifies spatial organizations that it benefits from. The relationships between individuals and specific information technologies engendered by these spatial organizations are naturalized through the behavioral feedback loop embedded in GC’s spatial softwares and influence the use of those same technologies in other spaces. Again, Walmart and its relationship to the technologies addressed here serves as a paradigmatic example, indicative of broader strategies of relating existing spaces to changing technologies.

To varying degrees, all of these strategies involve the decoupling of information technologies from the physical structure of buildings. Instead, buildings serve as a support apparatus for the deployment of technologies likely to be replaced multiple times during their lifespan. By using standardized, modular power and data infrastructures in their buildings, institutions of GC incorporate changing information technologies into their existing spatial organizations without incurring major renovation costs or disrupting behavioral patterns. While this decoupling allows new configurations of space such as the flexible office, it also limits the impact of these configurations on the buildings and organizations of labor in which they are situated. The barcodes and voice-directed picking systems now used at Walmart DCs, for example, operate as an information technology of product sorting that is decoupled from physical architecture and instead placed on products and workers. By not dedicating locations within the DC to specific products or labor, this decoupling intensifies and mobilizes labor even as Walmart increases its overall number of distribution centers and staffing levels to accommodate its growing e-commerce business. Combined, these factors allow for increased architectural standardization and for the interior of the DC to be reconfigured to quickly suit changes in supply, demand, other company performance metrics, and both seasonal/long term hiring practices (Figure 6).

Beyond the DC, this decoupling has behavioral implications on workers’ relationships to information technologies as,

the feedback in this case is not a matter of reciprocal calibration but a unilateral and ceaseless stream of numbers posed as questions and correctives. If the wearable scanners help to see like a computer, voice-directed picking helps to operate like one.

The wireless local area networks WiFi that support the decoupled picking technologies at Walmart’s DCs cre-
ate an abstract spatiality that is also decoupled from the buildings that support them. Whether extending beyond the walls of buildings or limited to areas inside them, WiFi networks create zones of connection to the information networks of GC that are not necessarily contiguous with the spaces of its institutions. While each WiFi network is spatialized differently, they all rely on a standard protocol of information transmission to connect subject, objects, and spaces across geographic, linguistic, and cultural differences. The qualities of each network configuration, such as connection speed, signal strength, and data routing protocols, measure the alignment of the abstract space of connectivity to physical space and modulate the interaction of individuals, buildings, and GC. This modulation is used by institutions of GC like Walmart both to analyze and influence the behavior of individuals within its spaces. Walmart's free in-store WiFi networks, billed as a customer service and often available outside the store itself, collect information on the location and online behaviors of individuals who choose to connect to them, as well as those whose devices are within range of the network, and share certain information as part of lower-level WiFi protocols that predicate full connection (Figure 7).

Walmart stores, analyzes, and combines this information with that fed back into its distribution system, extending its behavioral influence by modulating product distribution patterns relative to customer's online behaviors and regulating the behavior of those connected to its WiFi networks. Walmart's smartphone app, which runs on its WiFi networks, epitomizes this modulation. By allowing customers to access a digital proxy of the store they are in and order items not in the store, Walmart's app connects the purchasing decisions of customers to its distribution network precisely to the extent that the information technology that enables this connection decouples the store from its physical architecture (Figure 8).

Despite the increasing prevalence of information-based payment technologies in the form of credit cards and smart phones, the spatial organization of retail spaces has remained relatively unchanged. Instead of organizing entire stores around frequently changing payment technologies, retailers like Walmart have limited the implementation of these technologies to store's checkout areas. Designed as kiosks decoupled from the structure of the store, these areas allow Walmart to incorporate the latest technologies with minimal renovation costs or changes to its stores' spatial organization. This also encourages customer acceptance of these technologies by integrating them into existing spatial behavioral patterns. While the use of specific payment technologies changes, the overall customer experience of moving through the store and paying in a designated location is unchanged. Further, by acclimating customers to new technologies within familiar spatial organizations Walmart normalizes the deskillling of labor and information collection associated with them. Walmart's introduction of automated self-checkout systems follows this pattern. The self-checkout system is located in the space previously occupied by staffed checkout lanes, and the design of the system is both a visual and operational skeuomorph of those lanes (Figure 9).

By displacing labor from Walmart's employees onto customers, self-checkout systems allow Walmart to reallocate and re-skill its workforce as it shifts its focus to an improved, expedited, "seamless" customer experience and e-commerce while the system's receipts attempt to normalize this displacement by billing it as "Fast! Easy! Fun!". This reallocated and re-skilled workforce is pushed to the threshold of both the building and superficial human interaction. Standing in for the less-visible stocking associates and the unseen DC workers, Walmart's "greeters" and rotating "department managing associates" symbolically put a human face on Walmart and the curt, authoritative commands of the self-checkout systems, not coincidentally reminiscent of the voice-directed picking systems of Walmart's DCs.

As a consequence of the social, spatial, and material decoupling of information technologies from the architecture that supports them, many of the people and places involved in GC's day-to-day operation are pushed to the threshold of its consciousness. Both Walmart's workers and customers are asked to see and operate like information technologies, screening out the noise of the structurally unemployed worker replaced by the combination of friendly "greeters" and self-checkout systems, and the massive environmental impact of the data centers storing and analyzing...
customer information.\textsuperscript{65} This foregrounds the fast, fun, and easy connection of subjects, objects, and spaces enabled by information technologies and the image of the individual consumer empowered by the seamless flow of capital decoupled materially and socially from these "other" people and places.\textsuperscript{62}

However, the decoupling of information technologies from specific built forms also has the potential to challenge GC by bringing diverse subjects, objects, and spaces together in networks of solidarity that are not predicated on GC's entrenched spatial organizations. These networks leverage the ability of information technologies to relate the local and the global without privileging either, and give voice to those who are otherwise pushed to the threshold of social consciousness.\textsuperscript{63} Because the information technologies that support these networks use shared protocols, they engage a wide range of spatial organizations and behavioral practices.\textsuperscript{64} As GC decouples information technologies from architecture it also lowers the cost of engaging with architecture and technologies, further opening both to shaping by the multitude in ways that could spur new and subversive behavioral patterns and spatial organizations.\textsuperscript{65}

INNOVATION AND SOLIDARITY

Still, GC has used the disjunctions between abstract and material space, the creation of spatial softwares, and the decoupling of specific information technologies from architecture to perpetuate and expand its dominance. Through its feedback loops, GC has created an ever-refining system of technological efficiency that has lead to the stagnation of spatial innovation in the face of technological change.\textsuperscript{66} The ultimate disquieting result of this is that,

as they accumulate and repeat, the concrete practices through which [GC] networks are configured help to shape nothing less than cognition itself, by differentiating what is thinkable from what is unthinkable and therefore remains unthought […] structural transformation of the status quo becomes increasingly unthinkable, and not merely unrealistic.\textsuperscript{67}

The inability to imagine beyond the horizon of GC not only forecloses the possibility of empowerment but also excludes those people and places who cannot meet or access the status quo. The cultural imaginations, like the term "digital native," that are produced and circulated by GC's feedback loops further work to maintain this status quo by flattening the real and diverse everyday ways people and places interact with information technologies into a single dominant narrative.\textsuperscript{68}

Despite all of this, the degree of agency and influence on technological development suggested by the term "digital native" is necessary to take advantage of the openings for subversion within GC. Such agency has the power to turn the term "digital native" into the watchword of a community of solidarity and shared values that support and inform diverse practices. Trans-spatial in nature, such a community could share knowledge and resources about behavioral practices and spatial organizations that counter GC and therefore have the potential to produce new cultural imaginations as they are adapted and particularized within local contexts. The reification of these imaginations would operate as a spatial software, ensuring the transmission and evolution of the community's values by recording, sharing, archiving, and testing their material impact on all people and places, regardless of their relationship to information technology. This would spur new spatial innovation by creating a pool of conceptual resources and constraints to inform the design of information technologies, architectures, and relationships between the two that ensure empowerment.\textsuperscript{69}

The possibility of this empowerment is predicated on understanding the social implications of the relationship between information technologies and architecture as it is leveraged by GC. The hybrid abstract/material spaces, spatial softwares, and decouplings it creates are reified through massive, yet near invisible infrastructures. Screened out by terms like "digital native," these everyday spaces challenge traditional conceptualizations of vernacular architecture. Their ambiguous localities and hybrid forms of presence suggest that an applied reconceptualization of vernacular architecture as a dynamic, spatial and behavioral repertoire of common practices can reveal the opera-
tions of GC. Understood in this manner, as a kind of information technology, contemporary vernacular architecture is a tool, not just for GC but also for those seeking empowerment, to record, share, archive, and retrieve information about the world and imagine its future. The struggle for control of this imagination is occurring every day in homes, schools, offices, restaurants, and grocery stores. Whether it is diverse or dominant behavioral protocols and spatial organizations that these spaces enact and communicate, what is essential is the acknowledgement that they are enacting and communicating something, and the refusal to accept the generational monikers and definitions of the status quo that suggest otherwise.

ENDNOTES

1. The term “digital native” was first used in 2001 by Marc Prensky to describe a generation of school children who “think and process information fundamentally different from their predecessors” because they “have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age.” Marc Prensky, “Digital Natives, Digital Immigrants,” On the Horizon 9 vol. 5 (2001): pp. 1-6. The seeming contradiction in term of global vernacular is indicative of the information technology-based responses to the feedback structures of global capitalism proposed later in this paper.


4. While GC participates in both the “Organizational Complex” (Martin) and “Extrastatecraft” (Easterling), its operations are best encapsulated as Hardt and Negri call Empire. Michael Hardt and Antonio Negri, Preface to Empire, (Cambridge: Harvard University Press, 2000), p. xii.


6. Nezar AlSayyad calls for a similar reconceptualization saying, “[i]n the twenty-first century, as culture and tradition are becoming less place-rooted and more information-based, these particular attributes of the vernacular have to be recrafted to reflect these changes.” Nezar AlSayyad, forward to Vernacular Architecture in the Twenty-First Century: Theory, Education, and Practice, ed. Lindsay Asquith and Marcel Velligna (New York: Taylor and Francis, 2006), p. xvii.


8. The term “smart city” is used to designate many specific forms of urbanization which share the characteristics of being designed around the systemic integration of information technologies in their buildings, spaces, and governmental structure. Mark Deakin, and Husam Al Waer, “From Intelligent to Smart Cities,” Journal of Intelligent Buildings International 3 (2011), accessed July 19, 2016, doi:10.1080/17508975.2011.586671.

9. I use this term to engage with Lefebvre’s concept of everyday that “is simply ‘real life,’ the ‘here and now’ […] material life - but with a dramatic attitude and a lyrical tone” and while controlled by technocratic rationalism and capitalism, is outside of them; and therefore “embodies at once the most dire experiences of oppression and the strongest potentials for transformation.” Mary McLeod, “Henri Lefebvre’s Critique of Everyday Life: An Introduction,” in Architecture of the Everyday, ed. Steven Harris and Deborah Burke (New York: Princeton Architectural Press, 1997), pp. 13-14.

10. Joan Ockman notes Gordon Hodson’s suggestion that “what the government sought from its professional elites during the period after World War II was ‘a maximum of technical ingenuity with a minimum of dissent’” Joan Ockman, “Toward a Theory of Normative Architecture,” p. 128.

11. Techno-futurism has been described as a quasi-religious movement predicated on narratives of technologically enabled social/material progress, evolution, and superhumanity which is influencing the agenda of a wide range of disciplines, particularly as they faithfully/rem-critically adopt digital technologies to address analog realities. James Herrick, “The Narrative Foundations of Techno-Religion” (paper presented at the Christian Scholars Conference, Pepperdine University, Malibu, California, June 15-18, 2011).

12. Jonah Peretti, who it must be noted has founded Huffington Post and Buzzfeed, which are arguably part of the apparatus of producing GC’s imagination, has argued, citing Jameson, that because of capitalism’s coordination, “it is difficult to isolate a particular ideology from the image-repertoire of late capitalism. What is noticeable is not the content of the images but the efficiency and rapidity with which they are circulated and consumed.” Jonah Peretti, “Capitalism and Schizophrenia: Contemporary Visual Culture and the Acceleration of Identity Formation/Dissolution,” Negotiations 1 (1996), accessed August 12, 2016, http://www.datawranglers.com/negotiations/issues/96w/96w_peretti.html.


14. The remaginization of the world as numerically representable digital information is examined in a special report by The Economist, which it must be noted was sponsored by the data analysis corporation, SAP. “Data Data Everywhere,” The Economist, February 25, 2010, accessed July 9, 2016, http://www.economist.com/node/15557443.

15. William Rankin, After the Map: Cartography, Navigation, and the Transformation

16. Referencing Walter Benjamin and Foucault, Reinhold Martin describes this operation as a “shift in the organization of power and knowledge into increasingly horizontal, pattern-based networks of control characterized by a systems-based organismism, rather than by the denaturalization and disenchantment implied by the loss of aura through reduction to reproducible image […]” The organization complex is an outright biopolitical machine […] within the organizational complex media such as architecture, as well as the signs and images circulating through them, become in effect technologies of organization. Martin, Utopia’s Ghost, 37-38.

17. Ibid., 142-143.

18. Both companies’ names allude to the totalizing, if western and orientalizing, structure of their operational aspirations; to be so ubiquitous that they are synonymous with the field of what is knowable or knowable.


26. Ibid.

27. Ibid; Martin, The Organizational Complex; Martin, Utopia’s Ghost.

28. For an overview of these historical relationships see Organization Space (Easterling) or The Organizational Complex (Martin).


30. For a history and broader theorization of spatial/organizational standards and the organizations like the ISO that enforce them, see the chapter “Quality” Easterling, Extrastatecraft, 171-211.

31. Ibid., 18-19.


33. Ibid.

34. As Sam Jacob notes, “buildings are a record of the process by which they came into the world, a precipitation into material form of the circumstances of their commissioning, of their financial and social ambition, of the politics of occupation that their briefs embody,” allowing us to “think of architecture, then, as a concentration of information assembled into built form.” Jacob, “The Communicative Mode of Architecture.”


36. LeCavalier, “All Those Numbers.”


38. “Wal-Mart, a retail giant, handles more than 1m customer transactions every hour, feeding databases estimated at more than 2.5 petabytes.” “Data Data Everywhere,” The Economist.

39. Opposed to social/cultural constructs that carry a different relation to capital “masification has been scaled down to the level of the ‘person.’ But this person is no longer understood in classically humanist terms as a bounded individual in possession of a unique and unassailable soul […] A person, now, is a techno-economic figure composed of numbers inside and out” Martin, Utopia’s Ghost, 142.

40. Because of the scale of its orders, Walmart can easily influence its suppliers’ behaviors (LeCavalier, “All Those Numbers”) in a way similar to the relationship between early tract housing developers and fixture manufacturers (Easterling, Organization Space, 188). Also, Shannon Mattern critically asks of this behavioral feedback, “What about human activities that cannot be observed? What about all those potential behaviors that are never enacted, and thus never measured, because the physical space or its regulation prohibits them — or because one’s subjectivity preserves a repertoire of possible behaviors? What about other modes of action, other means by which people perform their urban citizenship? How will the new methods of measurement and planning inform what it means to be a citizen in a quantitative community?” Mattern, “Instrumental City.”

41. LeCavalier, “All Those Numbers.” Also, I use the term presented here to denote, as Marcuse has observed, that “free choice among a wide variety of goods and services does not signify freedom if the goods and services sustain social controls over a life of toil and fear - that is, if they sustain alienation.” Marcuse, “The New Forms of Control.”


43. LeCavalier, “All Those Numbers.”


45. Reinhold Martin summarizes GC’s connection between spatialized information technology and subjectivity thusly: “At one level, the subjective by-product of the cybernetic revolution is not a faceless, digital automaton, but a hyper-individuated, spectacularized quasi-singularity, composed of ever finer (and potentially incommeasurable) data sets that profile personal taste, personal habits, personal opinion, and so on. While at another level, a complementary by-product of informatization is ultimately the heterogeneous subject of ‘bare life’ whose death is not counted and therefore does not count […] has become internalized or rather incorporated as a norm.” Martin, Utopia’s Ghost, 143.

The integration of technology within existing spatial organization and behavioral patterns within Walmart stores fulfills the criteria shown to increase acceptance of technologies, particularly "perceived ubiquity" and "perceived reachability." Gary Garrison and Sanghyun Kim, "Investigating mobile wireless technology adoption: An extension of the technology acceptance model," Information Systems Frontiers 11.3 (2009), pp. 323-333, DOI: 10.1007/s10796-008-9073-8.


61. The relationship between signal and noise in contemporary information technologies, a feedback loop that insures the technologies operate as intended, has been projected onto the subjectivity engendered by GC's relationship of these technologies to space and labor. Tiziana Terranova, Network Culture (London: Pluto Press, 2004), 10-17. Also, while the Department of Labor does not officially use the designation, many of its experts define structural unemployment as "long term unemployment because of changes in tastes and technology." Gladys Roth Kremen, "MDTA: The Origins of the Manpower Development Training Act of 1962," United States Department of Labor, accessed August 4, 2016, https://www.dol.gov/opa/about-dol/history/mono-ndatext.htm. See also Burrington, "The Environmental Toll of a Netflix Binge."


64. Ibid.


66. Reinhold Martin insists that "for architecture, this would mean that there would be nothing authentically 'new' under the sun, only slightly modified repetitions of existing archetypes." Martin, Utopia's Ghost, p. 80.


68. It is even employed by the World Economic Forum to describe opportunities for worldwide industrial development: "As technology becomes ubiquitous and accessible to the wider population, it is having a profound impact on how customers behave and the expectations they have... Further, as newer generations are raised as 'digital natives,' they are not only harder to surprise, but can also imagine for themselves how technology can be used to improve their lives." World Economic Forum, Digital Transformation of Industries: Demystifying Digital and Securing $100 Trillion for Society and Industry by 2025 (Geneva: Accenture, 2016), 7, accessed July 23, 2016, http://reports.weforum.org/digital-transformation-of-industries/wp-content/blogs.dir/94/mp/files/pages/files/wef1601-digitaltransformation-200116.pdf. Additionally, in the chapter "Nostalgia for the Present" from which this essay's title is derived, Jameson suggests that "the collective reality of the multitudinous lives encompassed by such terms is nonthinnable (or nontotalizable, to use a current expression) and can never be described, characterized, labeled, or conceptualized." Frederic Jameson, Postmodernism, or, The Cultural Logic of Late Capitalism (Durham: Duke University Press, 1997), p. 281.

69. Examples of this can be found in the operation of what Andrew Feenberg refers to as "the technical code" by which design of architecture and technology mediates and is mediated by social change. Andrew Feenberg, "Democratic Rationalization: Technology, Power, and Freedom" in Readings in the Philosophy of Technology, ed. David M. Kaplan (Lanham: Rowman and Littlefield Publishers, 2009), pp. 148-149.
OBLIGATION TO THE OTHER
OF TIME AND PLACE [AND TECHNOLOGY]: DOCUMENTING HALE COUNTY/
DANIELLE S. WILLKENS

FOREIGN INTERVENTIONS, NATIVE LANDS: EXPLORING THE NEW
VERNACULAR OF THE HIGH HIMALAYAN REGION/
CAREY CLOUSE

FORGED VERNACULAR IDENTITY: CULTURAL APPROPRIATION
AND THE CASE OF CONTEMPORARY DUBAI ARCHITECTURE/
ARMAGHAN ZIAEE

The Himalayan mountain region of Ladakh, Jammu and Kashmir, India, 2016
photo by Carey Clouse
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OF TIME AND PLACE [AND TECHNOLOGY]: DOCUMENTING HALE COUNTY

DANIELLE S. WILLKENS

ABSTRACT

In 1936, Walker Evans first photographed Depression-era Hale County, Alabama. He revisited the area in 1973, for his studies of sharecroppers, structures, and the patina of the rural South. Tim Hursley has continued Evans’s tradition through the practice of habitual site documentation that has captured change in the region alongside the pioneering work of the Rural Studio at the University of Albany. Amid trends in architectural practice that are obsessed with parametric operations and digital fabrication, systems that impede maintenance and local innovation in rural areas, the Rural Studio’s work represents a revival of craft and form derived from regional, vernacular precedent. The Studio’s work has been explored in countless publications; however, this article will delve into an alternative and emerging project at the Rural Studio that makes a case for introducing advanced technology for documenting and studying rural sites and vernacular design. With more than 180 built projects and 1,058 associated alumni, the Rural Studio serves underprivileged populations and brings thoughtful, integrated design practice to remote areas of the state. Nonetheless, the isolated location of works by the Studio means that many of those who wish to explore and learn from the projects can do so only through the captured photographs and text featured on the Studio’s website and associated publications. In order to add to the documentary record and potential analysis of the Rural Studio’s 21st century approach to vernacular, the Capture + Cloud project is using 3D scanning and other forms of digital documentation to map select areas of Hale County. The research and graphics presented here champion the use of digital technology outside of prized and protected sites, while facilitating new studies in environmental modeling, structural performance, and weathering.

In the summer of 1936, Walker Evans (1903-1975) first photographed Depression-era Hale County, Alabama, capturing the people, structures, and patina of the rural South with a large format camera. He made the trip alongside his journalist-collaborator James Rufus Agee (1909-1955) under the premise that the three weeks they spent discovering and documenting the lives of three “hardbitten” sharecropper families would by published in Fortune. Their work, however, was relegated to a private publication in 1941 called Let Us Now Praise Famous Men that sold only 600 copies (Figures 1 & 2). After Agee’s death, Evans released a reprint of the book in 1960. Due to its wide acclaim, a new generation was introduced to the faces and facades of one of the poorest counties in the nation, a title that Hale County has yet to shed (Figure 3). When Evans returned to the area in 1973 to travel with fellow photographer and Hale County native William Christianberry (b.1936), he approached familiar sites through a new lens: a Polaroid SX-70 that he called a toy camera.2 For the last two decades, architectural photographer Tim Hursley (b.1955) has continued Evans’s tradition of documenting the area and Hursley’s practice of habitual site documentation has captured the most substantial catalyst for progress in the region: the projects of Auburn University’s Rural Studio. Like Evans, the work of Hursley and the Rural Studio continue to provide both visibility and voice to a previously overlooked facet of the American population. Additionally, since few of the built and natural landscapes of Hale County have changed since the initial visit of Walker Evans, his establishment of photographic record for this region of the rural South provided a platform for, graphically, studying the passage of time and experimenting with new photographic technology.
Figure 1 (left-hand side): Page from the original photographic album of nitrate negatives featuring Allie Mae Burroughs, three of her children, and their home in Moundville, Hale County, Alabama in the summer of 1936. Volume 1 of the Walker Evans album "Pictures of the house and family of an Alabama cotton sharecropper" Photocredit: Library of Congress Prints and Photography Division, Washington, D.C. (LC-USZC4-950)

Figure 2 (right-hand side): Page from the original photographic album of nitrate negatives featuring barns and an outbuilding of the Burroughs' residence in Moundville, Hale County, Alabama in the summer of 1936. Volume 1 of the Walker Evans album "Pictures of the house and family of an Alabama cotton sharecropper" Photocredit: Library of Congress Prints and Photography Division, Washington, D.C. (LC-USZC4-9504)

Figure 3: An agricultural building in Hale County, Alabama, 2014. Photocredit: author.
When Evans and Agee traveled to Hale County in 1936, they had two instruments of record: the camera and the pen. These simple tools provided a compact and portable way of capturing Hale County’s inhabitants, architecture, and landscapes. As Agee described in the preface of *Let Us Now Praise Famous Men*, the pair had little interest in the de rigueur of photojournalism and they approached their respective aspects of the project with equal weight: “the photographs are not illustrative. They, and the text, are coequal, mutually independent, and fully collaborative.” The three weeks that Agee and Evans spent with three families had been an intimate, task that occupied every waking hour of the day as well as nighttime hours, illuminated by oil lamps and candles. Thus, their resulting book was meant to be an immersive experience: in the preface, Agee encouraged his audience to read aloud and continuously “as music is listened to or a film watched.” In their quest for “honest journalism,” no aspect of the region escaped their documentation; not only were the families placed at the heart of the visual and textual record, but they also captured their impressions of the clothing, trees, roads, insects, and architecture of Hale County.

When Evans returned to the area in 1973, his attention was no less diverse but he replaced the meditative practice of working with a large format camera, an 8x10 Deardorff, with the mobility and speed of a handheld camera. Evans had purchased his Polaroid SX-70 in Atlanta a year earlier, intrigued by a device that offered photographers the first instant film, but he had rarely used the camera until his time in Hale County. In terms of the architecture and working conditions, little had changed in Hale County in the four decades since Evans first visited the area, but the technology through which he chose to capture the rural South had evolved. The camera’s integrated chemical processing gave Evans the opportunity to explore rural Alabama in color, and since the resulting Polaroid images required no dark room for image processing, he was able to share the products of his “unfinished visual curiosity” instantaneously.

Evans’s images of Hale County constitute arguably some of his most recognizable and widely reproduced work. Additionally, the images captured in the region were featured in his most prominent exhibits and publications, ranging from MoMa’s first exhibit dedicated to a single photographer, *Walker Evans: American Photographs* (1938), the 1962 reprisal of the 100-work show, and the *Let Us Now Praise Famous Men* project and exhibit at the University of Texas in 1974. Highlighting aspects of functionalism and utilitarianism, with rich tonal values and repetitive textures, his photographs emphasized the “modernity” of camera as tool: the camera captured details and patterns that could be redefined by a painter, and through his use of depth-of-field, he gave equal, focal priority to the faces of the sharecroppers and the worn weatherboard of their homes. Evans’s work also provided a new platform for creative work in the region that discouraged the aestheticism of poverty. He inaugurated an “anti-graphic,” documentary style for capturing the American vernacular. Bringing to light the conditions and stagnations of the rural South, Evans’ work brought the idealized and picturesque view of America’s agrarian society into harsh reality; while much of the nation benefitted from the conveniences, luxuries, and clinical health standards of the 20th century, portions of the South were trapped in cyclic tenant farming structures from the 19th century.

THE MISSING VERNACULAR ROAD

The documentary record captured by Evans in the 1930s and 1970s helped identify Hale Country as an archetypal site for both the photographic lens and a place in need of citizen architects. The Rural Studio has ameliorated aspects of Hale County through the fabrication of new residential and community projects, but there are burgeoning opportunities for the program to document the county’s distinctive, yet deteriorating, historic vernacular architecture. These works serve as critical precedents for Rural Studio’s contemporary projects and through the introduction of a new methodology for documenting extant sites and evolving construction technology, it will be possible for the Rural Studio to both expand reflective practice and address a national shortcoming in the digital documentation of vernacular architecture.

With more than 180 built projects and 1,058 associated alumni, the Rural Studio serves underprivileged populations and brings thoughtful, integrated design practice to remote areas of Alabama. Initiated in 1992 with a project led by Samuel Mockbee (1944-2001) and twelve architecture students, the program was official-
ly founded in 1993 as a way for students to contribute to a grossly underserved community by contributing labor, materials, and innovation to the built environment while literally acting as the “architects of their own education.” As an ongoing endeavor in its twenty-third year of operation, the work of the Studio represents a revival of craft and form derived from regional, vernacular precedent. Much like Agee and Evans in the summer of 1936, the students of the Rural Studio find themselves entirely immersed in their environment. With the main campus about 150 miles away, no formal dorms, conventional shops and entertainments about forty minutes away, and patchy cellular service, the students experience an alternative manifestation of a study abroad experience. For the students of the Rural Studio and the residents of Hale County, the experience of living in the region has been described as “cultural hibernation” (Figure 4). This isolation also extends to architectural documentation and dissemination.

Although it is now well recognized that Evans and Agee established a legacy of documenting and disseminating the Black Belt, providing both visibility and voice to a previously overlooked facet of the American population, it took decades for the work to reach a larger audience. Additionally, although the work of Rural Studio is well documented in photographs and text featured on the Studio’s website and in its associated publications, there is little material provided about the true precedents for the Studio’s projects: the vernacular of Hale County. If Plessy v. Ferguson (1896) were applied to architectural history, one would quickly discover that despite the formal and grass roots preservation initiatives implemented since the 1990s that champion the vernacular and cultural diversity, there is no such thing as separate but equal in terms of architectural documentation. The documentation and analysis of architecture “proper”—broadly defined as an aesthetically appealing object with European stylistic roots—far outweighs that of vernacular structures. This is clearly evidenced by publications, the record of federally funded restoration and preservation projects, and the content of online databases such as the Historic American Buildings Survey, Getty images, or even the Society of Architectural Historians’ digital archive SAHARA. Vernacular architecture, especially structures in poor, rural, and predominantly African American communities, was, boldly stated by historian and preservationist Antoinette J. Lee. But it was frequently overlooked or underestimated by the “professional elite.” This was the norm until the work of figures such as Evans and Agee, the foundation of organizations such as the Vernacular Architecture Forum, and the adapted appropriation of vernacular forms by regional design build initiatives such as the Rural Studio.

A real-time experiment is currently underway that aims to address the shortcoming in the record of vernacular architecture and to add to the documentary record and potential analysis of the Rural Studio’s 21st century approach to vernacular, through a series of phased, 3D point clouds as well as aerial and panoramic photographs that map a concentration of the Rural Studio’s projects and adjacent sites in Newbern, Alabama. Working with co-principal investigator Associate Professor Junshan Liu of Auburn University’s McWhorter School of Building Science, and funded by Auburn University’s College of Architecture, Design and
Construction Seed Grant and a Center for Construction Innovation and Collaboration Grant, this ongoing project leverages several unique aspects of Auburn’s University’s academic profile: ownership of several pieces of essential equipment for digital documentation, the pioneering and ongoing work of the twenty-three-year-old Rural Studio program, and the university’s designation as a public, land grant institution with an established mission of community outreach and scholarship in underserved areas. Since the project captures the selected work of the Rural Studio alongside established structures in Hale County, ranging from barns to churches, the Capture + Cloud project also illustrates how new technology can be used to record and study structures that typically escape the digital lens: the vernacular.

3D LASER SCANNING IN A RURAL SETTING

As noted by Mockbee, the politically and socially “taboo landscape” of Hale County, paired with the architectural ghosts of the agrarian past, make the landscape of this region of rural Alabama incongruously beautiful. The three-quarters of a mile stretch of Route 61 between the Rural Studio campus at the Morrisette House, an 1890s Victorian style farmhouse that was gifted by Newbern native William Morrisette (1913-2014), and has been home to the program since the mid-1990s (Figure 5), and central Newbern in Hale County provided the ideal microcosm for the digital documentation of southern culture, economy, and architecture. Along this two-lane road, there are three small and lovingly maintained churches, industrial ruins, active agrarian plots, forest, and residences, ranging from 19th century farmhouses to 21st century trailers. Cen-
Figure 6: The Newbern Mercantile, adjacent to the Rural Studio's workspace in Hale County, Alabama, 2016. Photocredit: author

Figure 7: Associate Professor and co-principal investigator Junshan Liu working on the Capture + Cloud project outside of the Newbern Volunteer Fire Department (2004) designed and built by the Rural Studio, 2016. Photocredit: author
sus data from 2014 listed Newbern with a population of 180 residents, predominantly African American, subsisting on an annual income that is nearly half of the state’s already-low average. Until the work of the Rural Studio, the “downtown” consisted only of a small mercantile, a post office, and a defunct bank (Figure 6). In recent years, thanks to the Rural Studio, the town welcomed a new Volunteer Fire Department (2004), a Town Hall (2011), and the bank has been converted into a regional library (2013). The Morrisette campus, too, has undergone several changes: the Great Hall (2003) is a multi-use platform for everything from meetings to meals to construction, the western edge of the campus hosts an ever-changing array of mockups, and a series of projects consisting of a greenhouse, storehouse, and garden are underway in hopes of making the campus largely self-sufficient. The Studio has outgrown the Supershed (1997) so a large Fabrication Pavilion is under construction, with plans for a new series of workshops to follow.

With so many changes in the concentrated area between the Morrisette Campus and Newbern, the region was selected for the first phase of the Capture + Cloud
project, a multi-stage initiative to provide linked, 3D documentation at a scale and scope of detail well beyond the capabilities of traditional photography or conventional methods of architectural representation. During the course of several site visits in late 2015 through the summer of 2016, more than sixty scan stations were captured using a Leica C-10 High Definition Scanner (Figure 7). The scanner captured point cloud data and RAW photographs to record the site’s geospatial and color data. With such a large scanning region—approximately three-quarters of a mile long and more than 500 feet wide in some sections—a Leica GS 14 RTK GPS unit was also used to accurately geo-register the point cloud. Processed scenes from forty-five of the stations were then used to generate one large point cloud and this was uploaded to Leica TruView, a browser-based site map that links scanner sites with collected information, thereby allowing users to explore and measure captured data. This interface, accessed through an active Internet connection, overcomes the typical challenge of sharing High Density Survey (HDS) point clouds. As evidenced by the data presented online, the range of the scans allowed the documentation of not only work by the Rural Studio, but also significant vernacular sites along the road that have never been formally documented for public record through measured drawings: Hobson Bethel Methodist Church (c.1883), the Greek Revival Newbern Baptist Church (1849), the Newbern fire bell from 1868, the Newbern Presbyterian Church (c. 1848), and Chantilly (1832), a plantation home that was donated to the Rural Studio by Morrisette and relocated to Newbern in 1996 (Figures 8 and 9). Paired with aerial drone footage and planned photogrammetry exercises, the phased 3D scans from the Capture + Cloud project also digitally documented architecture in progress: the construction of the Fabrication Pavilion at the Morrisette Campus, a large scale undertaking that will dramatically change the landscape, circulation patterns, and areas of available shade on the site (Figure 10).

Unlike the Hale County time capsule presented by Agee and Evans, problematically distilled into detached photographs hanging on the white walls of a MoMa exhibition room, the immediate products of the Capture + Cloud project are available online, visualizing the vernacular and contemporary architecture of the region in a meaningful and exploratory way that does not use Hale County as a canvas for romanticizing ruins, but instead, as a region well-suited for critical explorations in the capabilities and potentials of laser scanning technology. For example, with minimal traffic, scans of the area are not encumbered the interference of cars or pedestrians. Unlike an urban environment or recognized heritage site, no special permissions are needed to run the scanning experiments since there are no protected structures or sensitive areas. Scanning Hale County also allows for the recording of a rarely captured, fourth dimension of architectural documentation: time. For a medium-high resolution scan, the hardware completes a rotational cycle of approximately twenty-five minutes. As a number of scans were captured along Newbern’s main street during the course of several days and in different times of the year, the collected data was spliced together, digitally, to create a layered database of changing shadows, lighting conditions, and seasonal colors in the landscapes.
A NEW CASE FOR THE DIGITAL VERNACULAR

The digital documentation project of select Rural Studio works and their vernacular neighbors in Newbern adjacencies raises questions about the existence and definition of digital vernacular. Based on their work in the studios of Lawrence Technical University, architect-educators James Stevens and Ralph Nelson defined the digital vernacular as the tension between the use of principles from the past with the digital technology of the present to achieve goals of accessibility and innovation in a global design context. Alternatively, one could assert that the digital vernacular can be seen in the ubiquitous “home design” software found in big box stores offering novices the opportunity to craft with CAD. At the Rural Studio, the definition is slightly different: a conscious rejection of select CAD-CAM methodologies and fabrication techniques in favor of the inclusion of local knowledge, materials, and building practices. Although AutoCAD was founded in the early 1980s, it was not largely integrated in university-level architectural education until the 21st century. Mockbee did not live in a world where digital technology was prevalent at the academy level, but it is conceivable that the Studio’s founder would have been reluctant to adopt practices that would have divorced students from integral relationships with their clients and community partners. As noted by Brian Bell in his discussion of the Rural Studio in Good Deeds, Good Design, the main purpose of the Studio has always been to challenge architectural practice through a deeper, democratic purpose of inclusion; perpetual student inhabitation of computer labs or CAD-CAM fabrication workshops, foreign to the region, would be in direct opposition to this ethos. Although the existing practices of Lawrence Technical University and the Rural studio are compelling applications of digital vernacular, the Capture + Cloud project offers another, extended application of the digital vernacular beyond the context of a studio: the use of digital technology to record vernacular structures that typically escape the attention of architectural documentation projects due to cost, location, or their underappreciated design or material merit. As a rapid way to capture large quantities of highly accurate data, 3D laser scanning offers designers and historians a new way to record the previously overlooked environments.

Scanned visualizations using x-rays and lasers have existed since the 1960s; however, these innovative means of representation have not been widely used within the study of the built environment. With practical roots in medicine, such as computerized tomography (CT) scans, meteorology, and aeronautics, 3D visualization was eventually adopted by geographers, archaeologists, visual artists, and the gaming industry. The fields of heritage and preservation were some of the first within the study of material culture and the built environment to use 3D scanning. However, their applications of scanning technology in the 1990s and early 2000s have been largely relegated to object-based studies, such as artifacts or ruins, rather than spatial investigations that fully explore extant architectural projects in three dimensions or mediate otherwise un-navigable terrains. For example, in 2004 the Smithsonian Institution’s Museum Conservation Institute began a comprehensive 3D digitization initiative alongside AutoDesk, and the Smithsonian’s online X3D project was launched in November 2013. Their website, complete with an interactive viewer, allows curious virtual visitors to explore and even 3D print 10% of the objects from the Smithsonian’s extensive 137 million-object collection. Although object-based, the X3D project offers a key lesson for architects and historians with respect to their studies of the built environment through digital documentation: it is essential to provide an easily accessible platform for public interface that negates specialized software or pre-existing technical knowledge.

Following the Smithsonian’s lead, other museums, preservation organizations, and public history interpretation endeavors have embraced new means of digital documentation and dissemination. For example, the “Men of the Mary Rose: 3D” project, a collaborative endeavor between Swansea University and the University of Oxford, recorded and digitally reconstructed a Tudor-era shipwreck. The US Department of the Interior’s National Park Service also has a number of digital documentation projects underway and recently released videos related to the Historic American Landscapes Survey’s (HALS) 3D scans of the World War I Meuse-Argonne American Cemetery and Memorial in Romagne-sous-Montfaucon, France. Despite the growing number of 3D scanning projects underway internationally, the primary commonality between the vast
The majority of these digital documentation and dissemination projects is that they record recognized, and often protected, objects and sites. Only a handful of projects in the last decade have challenged the once-perceived restrictions of digital documentation, but through the cost reduction of both hardware and software, as well as the increased portability of the technology, photogrammetry, and scanning, experiments are occurring at new sites. For example, scanning technology has been used for geological applications in vernacular sites in Africa, and across remote parts of Europe, archaeologists and medievalists use digital documentation to accurately capture irregular geometries and complex topographies. As the most accessible interface, Autodesk’s photogrammetry freeware for tablets and smartphones, called 123D Catch and launched in 2009, offers digital documentation to an entirely new series of users. Without specialized hardware or previous experience, users can capture small-scale objects and generate digital meshes for virtual exploration or even 3D printing. As evidenced by Autodesk’s available online gallery, users’ captured content ranges from iconic sculptures, such as the Lincoln Memorial, to archaeological data to elements of the quotidian such as grocery store aisles, pets, and sport equipment.

The Capture + Cloud project aims to add another subject type to the experimental world of 3D scanning. In addition to capturing historical and contemporary examples of rural, southern vernacular, the scanner’s integration of color data with geospatial point mapping facilitates an accurate record of material patina and changes in the seasonal landscape. With the ability to capture scans during different times of the year, the project can essentially layer elements of time within the amalgamated point cloud to show growth and decay in the built and natural environments. By properly locating the scanning sites at key locations and creating an organized system of identifiable target points for linking the scans together, both in the field and in the model space, it is possible to achieve previously impossible views of structures and sites. One can seamlessly transition between perspectival views and orthogonal projections or move between interior and exterior views, thereby allowing researchers to study structural integrity, weathering, and underlying spatial relationships. Additionally, the inherently ghostlike quality of the point cloud complements the ephemeral nature of many vernacular buildings: a well-planned, executed, and digitally organized scan can capture an entire site in peril in far greater detail and in a fraction of the time needed for the execution of traditional surveys or measured drawings.

THE CASE FOR A NEW DIGITAL FEEDBACK LOOP

Within the last decade, the students and products of the Rural Studio have become more conversant with digital technology since they use various CAD programs for design development, laser cutters for expedited production of study models, and the occasional use of CNC for projects. Nonetheless, the balance between manual and digital practice is heavily weighted toward studies and fabrication techniques that can occur without complex computing power or specialized tools. This, however, raises the question of how craft and technology can exist simultaneously and symbiotically within a remote context. With a steadily declining population and an unemployment rate of nearly 10%, Hale County unfortunately serves as a representative, albeit exasperated, example of conditions in the rural South. In a 2015 study by the Economic Innovation Group, a Washington DC-based think tank, areas of Hale County were identified as some of the “most economically distressed” in not just the state but in the nation, based on factors such as high school graduation rates, the percentage of the population living below the poverty line, and business license numbers. Separated from industry and opportunity, the county has struggled to adjust in the increasingly digitized and globalized world, meaning that few of the successful graduates of Hale County schools return to the region for work, and although many of the students of the Rural Studios are forever impacted by their time in the region, only a handful returned to pursue careers or entrepreneurial endeavors.

Building upon the documentary style of Walker Evans, the Capture + Cloud project offers a digital experiment that shows how a remote area such as Hale County can be an ideal setting for technological studies: within the framework of the Rural Studio, it could be used as a training center for cultivating a new generation of designers and historians who know how to use the latest tools to document and evaluate all aspects of the built environment. Hale County School District, in partner-
ship with established local organizations such as the Boys and Girls Clubs, 4-H, and the Centennial Youth Initiative, could work with scanning and digitization projects to record the region, providing useful on-site training opportunities and proving to the youth of Hale County that low density does not have to mean low access to technology or cultural record. Already, the Capture + Cloud project is working outside the established canon of architecture record, and, thereby, affords historians several new, measured as-built drawings that are complete with color and material data. The working methods, original research, and resulting graphics of the ongoing Capture + Cloud project not only present ways of using sophisticated technology for recording aspects of the rural South’s historic and contemporary architectural fabric, but the project also aspires to facilitate new, post-occupancy studies. Through environmental modeling and the digital study of structural performance and weathering, the Capture + Cloud project can offer a new, productive way for the Rural Studio to interface with computation in architectural practice.

END NOTES

4. Ibid. Agee and Walker documented three families but assigned pseudonyms, identified in brackets, to protect their privacy: Burroughs (Gudger), Fields (Woods), and Tengle (Ricketts).
6. Ibid., p. vi.
8. The Development Office within Auburn University’s School of Architecture, Planning and Landscape Architecture provided these statistics and they are currently tabulating the number of paper projects undertaken by the Rural Studio.
10. Dr. William H. Sledge, chair of the Yale-New Haven Psychiatric Hos-
FOREIGN INTERVENTIONS, NATIVE LANDS: EXPLORING THE NEW VERNACULAR OF THE HIGH HIMALAYAN REGION

INTRODUCTION

Foreign-sponsored architecture, especially conceived as a form of international service, has recently moved to the forefront of the design discipline's consciousness. This mode of design engagement has a nascent history in India, defined in its early stages by the foreign architects who came to help shape the form and structure of this post-colonial nation. When the high-Himalayan region of Ladakh officially opened to foreigners in 1974, India's emergent architectural advocacy also entered into this new territory (Figures 1 and 2). Ladakh's high-altitude mountain region is now well represented by the many dozens of NGOs and pro bono building efforts that have been brought in from abroad. This paper acknowledges the difficulty of capturing an authentic vernacular building language with outsourced design services in Ladakh, north India. However, it also posits that these design interventions could be considered the forerunners of Ladakh's new vernacular: today, several dozen passive solar community buildings have been constructed whose aesthetic and environmental attitudes reflect an opportunistic attachment to place. This paper focuses on just one of these buildings, the Druk Padma Karpo school complex in Shey, Ladakh. Designed by ARUP Associates in the late 1990s, and still under construction, the project highlights many of the challenges and opportunities intrinsic to foreign-sponsored aid projects. The school has been built in phases, with indoor and outdoor spaces that support teaching, a dining hall and kitchen, computer and science labs, art studios, a medical clinic, bathroom blocks, dormitories for teachers and students, a playground, and sports areas. This complex project challenges both traditional building norms and more contemporary impulses; it has effectively catalyzed conversation around a foreign-sponsored new vernacular building approach in Ladakh.

BACKGROUND

In the Himalayan mountain landscapes of north India, foreign-sponsored design and construction projects present exciting opportunities to enhance, improve, and modernize traditional village life. From an architectural and planning perspective, these projects can serve as the critical first wave of development in a remote area, providing village communities with much-needed schools, clinics, or libraries. This altruistic architecture ostensibly serves as a token of cross-cultural exchange and goodwill, and volunteer design teams often cite the gratification that comes from working for a “good cause.”

On the other hand, scholar Lewis Hyde cautions that even the most well-intentioned gift-giving can have a dark underbelly: these “bonds” of gift exchange may limit a person or group’s sense of freedom, mobility, and autonomy. Gifts in the form of built constructs can be especially fraught; physical space inherently
impacts social norms and behaviors, and are fraught with challenges of re-gifting, removing, and returning. Addressing this concern, and situated within a broader critique of the post-colonial forces that have shaped many aid projects in India, this paper identifies the ways in which foreign-sponsored design has both advantages and disadvantages.

For the architect working abroad, public-interest design projects can provide a meaningful outlet for professional skills beyond market-oriented practice. The translation of this expertise to foreign aid contexts, however, requires a professional grounding that goes beyond importing techniques, technologies, and tools into a new environment. When designers undertake a building commission in their home countries, the client-expert relationship is well understood. However, when architects offer pro bono services abroad, the work can easily become obfuscated by the additional factors that characterize aid in foreign countries, including considerations such as underlying intentions, levels of investment, power dynamics, and communication challenges. To manage this contextual dissonance, designers who aspire to participate in international service work need to cultivate additional competencies, not formally taught in typical architecture programs. As a rule, skillful international aid work demands sensitive cross-cultural collaboration and a willingness to work within a host country's existing social, environmental, economic, and political frameworks.
As "do-good-design" becomes increasingly understood as complicated, or worse, associated with "architectural imperialism," it is doubly important to disentangle and interpret the manifold layers of this form of practice. Meanwhile, in Ladakh, many of the public-interest design projects sponsored by foreigners have begun to establish a highly visible new vernacular architecture. This paper addresses the inherent challenges of design advocacy abroad, and specifically ties this work to the development of an imported new vernacular architectural trend in Ladakh, as seen through the lens of one case study project.

LADAKH

The mountainous region of Ladakh is located in the rainshadow of India’s trans-Himalayan range. It is a sparsely populated, rugged, and remote high-altitude environment. The desert-arctic climate defines this landscape: water is a scarce natural resource, the ground is rocky and dry, and winter temperatures can plummet below -30 C. Made up of predominately Buddhist villages, the region shares contested borders with Tibet and Pakistan, harbors thousands of Tibetan refugees, and is occasionally referred to by foreigners as a “Little Tibet.”

The rich cultural and social traditions exhibited in this area draw upon many centuries of lived experience. Ladakhis have developed sophisticated techniques to sustainably support themselves at altitudes above 11,000 feet. In subsistence agricultural practices, medicine, education, social welfare, religious life, and of course vernacular building techniques, the Ladakhi people have built a society that is independent, radically communitarian, and overwhelmingly sustainable. The region’s geospatial isolation has until recently ensured that villages remain relatively self-sufficient, and as a result, the Ladakhi people have developed elaborate place-based farming practices and buildings that support this lifestyle. While the majority of the land in this area is too high, too dry, or too steep to farm, most Ladakhi villages have been opportunistically sited in the folds of mountains where they capture glacial meltwater as it flows downstream. By redirecting this water into channels and reservoirs, they irrigate fields, build soil fertility, and grow high-altitude crops of barley, peas, and wheat. Villages across Ladakh tend to practice the same integrated system of subsistence agriculture, with surprisingly high yields that support widespread prosperity and social cohesion.

VERNACULAR ARCHITECTURE IN LADAKH

Traditionally, Ladakhi houses and settlements have responded to the region’s environmental constraints through their physical design and construction. This response defines the Ladakhi vernacular. The limited supply of water present in the rain shadow of the Great Himalayan Mountain Range has led to sophisticated irrigation management strategies for sharing and storing this precious resource. Long, cold winters and a scarcity of heating fuel have historically dictated the compact form of Ladakh’s masonry structures, featuring both multi-story living and cohabitation arrangements for livestock. Many buildings, and indeed entire settlements, have been designed to take advantage of the sun through passive solar orientation, by orienting to the south whenever possible. Finally, the region’s tenuous road connection and high cost of transportation is reflected in the widespread use of local materials and building techniques.

Figure 2: The Himalayan mountain region of Ladakh. Photo credit: Author.
The limited number of design responses that have been possible with these building techniques have, in the case of Ladakh, resulted in a clear and visible vernacular form. Without ubiquitous trees in the region, ceiling spans, hearths and window frames adopted specific formal features. Because steel, glass, and concrete were also difficult to source, buildings incorporated local rock and mud and were built by hand. These and many more design outcomes share a sort of common DNA, which when combined reveals a recognizable Ladakhi building.

While this uniform vernacular village fabric remains dominant in most places, the onset of a new global network threatens to erode many centuries of social, cultural, and environmental stability in Ladakh. The region has witnessed unprecedented change over the past four decades through the rise of tourism, a burgeoning national defense program, and an increase in new forms of government employment. Scholars note that this growth has also accompanied a concomitant deterioration in the practice of ancient farming techniques and agricultural self-reliance in Ladakh—a reminder that this transformation brings with it both positive and negative undercurrents. While “planetary urbanization” may open up new opportunities in terms of forms of employment, education, and entrepreneurs global trend, combined with increased interaction with foreigners since 1974, has resulted in a new stock of imported building types, as well as the development of a new vernacular approach.

While Ladakh is noted for its racking environmental conditions and limited year-round accessibility, it hardly fits into the “narratives of misery” that visitors might superficially construe. Indeed, although the “forbidding climate, remoteness and inaccessibility kept Ladakh isolated, except for traders, for centuries,” today the villages in Ladakh are by no means cut off from the rest of the world. According to scholars John Crook and Henry Ostmason, movement has always been a defining feature of the region’s economic framework, where “[c]aravan routes both within Ladakh itself and between Ladakh, Kashmir, Central Asia and Tibet have carried a vital if often slow moving trade.” Today the region is becoming more connected than ever before, with a growing network of roads, widespread cellular and television access, and direct
daily flights from Delhi. As the Ladakhi people explore formal and informal routes for contact with the increasingly globalized world, the region’s physical buildings and infrastructure will also necessarily undergo change and transformation.

LADAKH’S NEW VERNACULAR MOVEMENT

It is in this context of change, then, that foreign architects and builders must operate. As the new community buildings sponsored primarily by foreign individuals or firms spring up across the region, traditional vernacular construction methods have given way to an equally legible new vernacular approach. This design response rejects the idea of replicating traditional buildings per se, but also refuses to appropriate the contemporary concrete and steel architecture that has become ubiquitous in much of the region’s newer development.

This new vernacular cannot be characterized so much in terms of form or style, but is instead due to each building’s intentional connection to landscape, reliance on locally-sourced materials and construction techniques, and emulation of functions found in many historic buildings. These traditional impulses are then joined with contemporary global standards for energy efficiency, seismic safety, available technology, and thermal comfort. Thus Ladakh’s new vernacular echoes the ideals expressed by Kenneth Frampton’s “Prospects for Critical Regionalism,” sharing some of the same physical approaches that appear in traditional buildings, such as similar responses to landscape, climate, and tectonic form. Moreover, much of this work moves beyond Frampton’s call for a physical response to critical regionalism by also incorporating design thinking that acknowledges the region’s distinct social, cultural, and political backdrop.

FOREIGN-SPONSORED ARCHITECTURAL AID IN LADAKH

In addition to the growing number of mainstream communication outlets available to Ladakhis, the region is now exposed to ever more architectural input, both

Figure 4: An example of one of the many non-profit organizations in Leh. Photocredit: Author
Figure 5: The dry desert landscape of Shy frames the Druk Padma Karpo campus, which was designed by ARUP Associates and built with funding from multiple NGO groups. Photocredit: author.

Figure 6: An interior path at Druk Padma Karpo reveals the intentional, if minimal, planting scheme. Photocredit: author.
Figure 7: A dormitory at Druk Padma Karpo. Photocredit: author.

Figure 8: The sports areas at Druk Padma Karpo are well-used by students during the school day. Photocredit: author.
from popular culture venues (through newspaper, film, the Internet, and television) as well as from visiting architects and designers. The new ideas, values, and standards that have been absorbed by the Ladakhi people in recent years are a testament to the diversity, open-mindedness, and fluidity of a culture that will not be fixed in time or space. Ladakh is a region in transition, and its evolution reflects a hybridity of architectural values, needs, and aspirations.

While Ladakh has benefitted from visiting design guidance since the mid-1970s, architectural aid projects are still sparsely scattered across the entire region. Foreign work here has been constrained, due in part to the late opening of the region to tourism, and in part because the remote and rugged landscape limits access. It could be argued that this relative isolation redoubles the need for architectural assistance from the state, NGOs, and private individuals. Many of the villages are well behind other parts of India in terms of access to goods and services: some villages don’t have electricity, roads, or plumbed water, and across the board schools and clinics tend to be underfunded. As a result, the region has cultivated a relationship with donors for educational sponsorship for decades, and that foreign aid has, along the way, extended beyond tuition support to influence the built environment as well. Many villages have one or two public buildings that have been sponsored by foreign individuals, NGOs, or other aid groups, such as schools, community centers, or health clinics (Figures 3 and 4).

Rather than relying upon the time-tested building techniques that represent Ladakh’s vernacular architecture, the dozens of public-service projects built through foreign design engagement in the region suggest the beginnings of a new “vernacular” trend. Each of these projects offers robust programming for public use and set new and hopeful directions for the future of this region. The projects offer community-oriented buildings, investigating new systems to support, bolster, and sustain traditional Ladakhi culture. However, this programming often reflects foreign interests and agendas. For instance, many of the structures house new types of programs not represented by historic buildings; these are Ladakh’s new museums, health and dental clinics, and schools.

Sustainability, too, has come to characterize the new vernacular building language of Ladakh. Many foreign-sponsored buildings interrogate the notion of sustainable development not in a general sense, but with regard to the specific environmental factors of the re-
region. Whereas Ladakh’s traditional buildings typically oriented to the south and reflected a massing to reduce heat loss, the foreign-sponsored new vernacular architecture showcases many more sustainable design goals such as insulation, trombe walls, large expanses of south-facing glass, and seismic framing, all of which were uncommon in early vernacular structures.

**DRUK PADMA KARPO**

One of Ladakh’s most notable examples of this new vernacular trend can be seen in the Druk Padma Karpo school. Located in the tiny village of Shey, Ladakh, the school complex represents a multi-year building project with a large number of donors, Buddhist allies, and project contributors. ARUP Associates has spearheaded this construction effort since 1997, collaboratively working with a variety of international consultants, visiting volunteers, local stakeholders, and even university-based design/build groups. In addition to providing significant fundraising, public relations, design, and engineering services, ARUP Associates also sends engineers to assist on-site every year.

The school opened to students in 2001, although additional phases of construction and landscape planting have been continuously underway since then. Today the school accommodates 650 students with a teaching vision that blends contemporary and traditional Ladakhi pedagogy. In both the curriculum and the campus design, it has always been a central goal of the school to maintain, encourage, and preserve Ladakhi culture. This intention was reflected by ARUP Associates during the design process as well, whose stated design goal was “to create a structure that would celebrate and enhance local values, while at the same time making the most of cutting-edge technology and construction methods from the West.”

Sustainability serves a key design frame for every part of the campus environment. While many of the sustainable design and engineering techniques, ideas, or standards may be new to Ladakhi building practice, ARUP Associates translated this work into readable and replicable strategies that are uniquely responsive to the climate and context of Ladakh. For instance, in the dry desert climate of Shey, water scarcity presents a major challenge to Western-style development. The design of the Druk Padma Karpo campus employs efficient water management at every scale of the project, from stewardship of the site’s minimal water reserves with signage and low-flow taps, to waterless toilet blocks, water recapturing devices, and xeriscaping (Figures 5-10). Thermal comfort is also a major challenge throughout Ladakh’s long, cold winter months. To manage heating needs, the design team employed passive solar strategies from the composting toilets to the classrooms. These techniques capitalize on the region’s ubiquitous (320+ days a year) sunshine to heat and illuminate the school. More advanced techniques, such as energy harvesting through photovoltaic panels, thermal banking with trombe walls, and natural ventilation strategies were also deployed across the campus.

In addition to these sustainability goals, high safety standards have been incorporated into the school. The village of Shey is located in a high-risk seismic...
area and nestled into a low mountain valley, which is therefore also prone to mudslides. In addition to steel-reinforced exterior masonry walls, the timber frames and steel cross-bracing employed in the school bolster structural strength and resilience. The viability of this construction technique has already been tested: in 2010, a cloudburst and its associated mudslides caused significant damage to the landscape surrounding Druk Padma Karpo, but the campus buildings remained both intact and functional.

The ARUP design team is particularly proud of the social and cultural learning that has taken place over the course of this project. While their design scheme introduces new construction and sustainability standards to the region, ARUP Associates has equally benefited from the lessons shared by contributing masons, craftspeople, and consultants. To a lesser extent, local stakeholders, including the parents of students, have been included in the design and building phases of this work. The project is extraordinarily collaborative beyond the local community as well; many volunteers, including student groups from design programs in the UK and US, have come to work on this project. Finally, the campus has won a number of international design awards, and despite being unfinished, it remains one of the top tourist destinations in the region (Figure 11).

DISCUSSION

Few can complain about the provision of a new, state-of-the-art educational facility for the village of Shey. This is perhaps a central drawback of architectural aid products; in diminishing the client-architect relationship, opportunities for honest feedback and critique also fall away. However, a number of small issues have been brought to light over the years. While much stakeholder engagement has occurred on the site since the school’s inception, there was limited community participation and outreach during the project’s design phases. The use of timber as a structural system is questionable, in part because the unconventional construction details challenged local building norms and in part because large trees are scarce resources in the region of Ladakh. The timber beams carrying roof loads extend beyond the classrooms in an effort to reinforce architectonic expression, but in the process unnecessarily expose the structure and connections to the harsh weather conditions (Figure 12). The project also exhibits a host of construction or communication errors; for instance, post connections to the ground have, in many cases, been replaced because wood timbers were embedded directly into the earth, where they began to rot (Figure 13).

Despite these difficulties, Druk Padma Karpo could be considered a banner project for foreign-sponsored new vernacular work in Ladakh. The design highlights local materials, craftspeople, and many traditional building techniques in an effort to situate the project squarely within the sociocultural framework of Ladakh. According to author Paul Brislin, ARUP believes “that it is essential for architects and engineers to work in ways that prioritize individuals, promoting a sense of local identity; a response to the entire human experience, including the senses and memory. The aim is a process of whole life sustainability that puts people first; and that nurtures individual cultures – rather than creating universal models that expect people, cities and places around the world to behave identically. “

ARUP Associates has carried out this vision at Druk Padma Karpo, while simultaneously importing high global standards for safety, building precision and craft, sustainability, and the inclusion of new technologies.

The design of Druk Padma Karpo reflects an awareness of power relationships and social fabric, environmental conditions and resource scarcity, building wisdom and material use, as well as the aspirations and needs of village people. In this complex project, the foreign design team recognized these vital shaping forces while simultaneously embracing new forms and ideas, technologies, safety standards, and programmatic elements. This ability to draw upon ancient design drivers without re-creating a traditional building suggests that the project moves beyond rigid vernacular conformity. Contextually-appropriate development, after all, recognizes the importance of finding the right fit, rather than expressing an allegiance to the relics of the past.

CONCLUSION

Although the relatively small number of foreign-sponsored projects undertaken in Ladakh can only begin to portray the character of architectural advocacy work abroad, they do reveal some of the challenges and op-
portunities designers face when working outside of their home environments. The region’s new vernacular projects depict designers grappling with questions about technology and sustainability, making decisions about fabrication standards and material use, struggling to find opportunities for community engagement and stakeholder involvement, and asserting new formal ideas while also incorporating principles drawn from traditional buildings. In so doing, visiting designers may unwittingly inspire the character and shape of Ladakh’s villages, both in the public buildings that they commission and in other types of buildings where the new design language might be emulated.

While it is tempting for historians to mourn the loss of old ways of building in a region that remains fairly isolated from global trade, the new vernacular shape of Ladakhi villages represents a host of opportunities to improve quality of life factors. Indeed, visiting designers tend to import the architectural standards from their home countries; they integrate best practices for energy efficiency, thermal comfort, environmental stewardship, and building craft. They have literally brought in precision tools and high-tech building monitoring systems, new safety standards, and factory-fabricated building materials. As a result, these projects have helped to train a new cadre of local builders, capable of blending old and new.

The old vernacular buildings of Ladakh were born out of centuries of trial and error, and thus they reflect time-tested solutions that respond to the challenging environmental constraints of the region. They are also socially, culturally, and economically suited to the region. But perceptions about buildings are changing, as new ideas are disseminated by visiting foreigners, or through television, film, and the travels of Ladakhi people. In this sense it is perhaps worth noting that vernacular construction techniques are not fixed in time; they evolve and change as the social, environmental, and economic pressures shift. The foreign-sponsored buildings brought by visiting designers and engineers may bypass this more organic and transformative process and call into question the ownership of a new vernacular form. After all, this new vernacular thinking has been brought in by outsiders; it is a gift that challenges both the character and ownership of Ladakhi space.

Regardless of motivation, in integrating practices from abroad with contextually-appropriate design moves from the past, these new architectural works have effectively set the tone for a new vernacular design approach in Ladakh. Through new building techniques, materials, and forms, visiting designers have already seeded local architectural appropriation. This formal borrowing is entirely expected, and arguably it is part and parcel of building a more connected globe. As demonstrated by Druk Padma Karpo school in Shey, the local, traditional knowledge that has defined historic construction in Ladakh has begun to shift.

END NOTES

5. Ibid.
25. For example, many of these new projects employ a functional space appropriation strategy of buffer zones, which create a thermal envelope for the building. While these spaces vary in terms of their design approach, aesthetics and program, they share the historic function of insulation through the use of the “thermal onion” concept.
ABSTRACT

Dubai is a prime example of extensive and rapid architectural construction, as noted in its efforts to transform its sandy plains into an international tourist destination and a major financial hub. Several scholars have researched the iconic, sculptural, and kitschy architecture of Dubai. Their studies have characterized Dubai mainly as building its reputation by borrowing the spectacular architectural styles that have proven to attract vast numbers of global tourists and investors elsewhere around the world. In its first quest for an identifiable image on local and global scales, Dubai tried to construct modern, iconic, and superlative buildings. These constructions failed to satisfy both residents and tourists, resulting in the criticism that these monuments turned Dubai into an anonymous landscape, a “city without identity.”

In response to the latter criticism of Dubai by local as well as international critics, for the last few decades Dubai’s policymakers have encouraged architectural proposals that highlight Dubai’s unique cultural heritage and utilize traditional, local Emirati (vernacular) design elements. While tourists (spectators) and residents (users) are the audiences for this vernacular and traditional architecture, it is crucial to ask how the spectators’ and users’ perceptions and memories of these constructions helped Dubai represent and reproduce its identity locally and globally. Since these new architectural policies were based on traditional and vernacular architecture, it is also relevant to ask the question: what are the original and authentic architectural elements in Dubai’s traditional architecture trend?

To answer these questions, this study looks into the nexus of the three vertices of Dubai architecture’s policy triad: the notion or concept of vernacular architecture, its iconic landmarks, and its constructed identity. For its first vertex, this research uses well-determined definitions of vernacular architecture by Paul Oliver. His works define vernacular through the assistance of language studies—vernaculus, meaning indigenous, native, and domestic. The second vertex refers to Dubai’s grandiose designs of iconic buildings that dominate its cityscape through their size and extravagance such as Burj Al Arab or Burj Khalifa. Finally, the last vertex represents Dubai’s method of creating an identity.

For the purpose of this paper, the phenomenological approach by the architectural theorist Christian Norberg-Schulz, and his interpretation of identification, is employed to examine identity. According to Chris Abel, the experience of identification was described by Norberg-Schulz as constructing a relationship between humans and their space. Of special assistance to this study is Norberg-Schulz’s main argument that in order to protect a place, the inhabitants must be open to its identity. Moreover, Norberg-Schulz describes an environmental crisis in the way the relationship between humans and place identity has been lost. In addition, Abel notes that Norberg-Schulz also refers to identification as a “means to become ‘friends’ with a particular environment.”

By assisting the connection between these three vertices, and by studying the two governmental-commissioned case studies—The Madinat Jumeirah Hotel adjacent to the Burj Al Arab, and the Souk Al Bahar next to the Burj Khalifa—the aforementioned questions can be answered. The conceptual framework of this paper first describes Dubai’s history, as well as the environmental, socio-cultural, and economic factors that impact its traditional architecture and identity. The next
section provides a brief description of the two case studies and their nearby iconic landmarks. Then, the paper will address, analyze, and critique Dubai's attitudes toward the conceptual iconic landmarks and their nearby traditional architecture. This third section will demonstrate whether Dubai's vernacular construction method was successful in providing the country with its unique, lost identity.

DUBAI'S HISTORY

The origin of the global city of Dubai is rooted in its geo-political location, governmental ideology, and sub-region dynamism. Dubai has experienced different phases of development since its indigenous Bedouin camps. The Bedouins had a seasonal, migration cycle. Their structures were mobile and dismountable: tents, which were mostly made from goat and sheep hair. A Bedouin group eventually settled on the Gulf shore as the initial population of Dubai. Since the Bedouins inhabited Dubai, the majority have lived as extended families in Barasti houses, dwellings which were mainly constructed from palm trunks and fronds (Figure 1). The houses were well-ventilated in summer due to their unique structure. Barasti houses can be considered the vernacular architecture of Dubai that evolved in response to its hot climate.

The birth of today's international city of Dubai began with a series of considerable tribal migrations in the 18th and 19th centuries. These waves of migration were mostly from the Qawasim of Persia (Iran) and the Bani Yas of Saudi Arabia. Dubai's market filled mainly with Iranian (Persian) and Indian merchandise, as well as Arab and Baluchi worker immigrants. Thus, the intertwining cultures of the local residents and foreign migrants determined Dubai's architecture of the time.

For example, in the late nineteenth century, due to tax increases and social reforms ordered by Iranian King Nasser Al-Din Shah Qajar (1831-1896), most “Ajami Arabian-Persian” merchants living along the Persian coast migrated to Dubai. Dubai's ruler, Sheikh Saeed Al Maktoum, gave these mer-

Figure 1: A model of extended Barasti houses near the Bastakiya area in Dubai. Photocredit: author.
chants a piece of land to build their houses. Since the majority was from Bastak, which is part of the Fars province of Iran, they built their Bastakiya neighborhood. Persians with reasonable incomes built their courtyard houses with wind-towers (Badgir in Persian, Barjeel in Arabic). The building materials for Bastakiya houses were mainly coral stone, mud, and wood (Figure 2).

Dubai’s departure from the vernacular architecture began in the 1920s and 1930s, due to increased commerce with east Africa and India and the resulting increase in the migrant population. The concoction of these cultures impacted Dubai’s construction material by replacing the imported gypsum and coral stones with cement and concrete, through foreign traders. However, the gradual turning point in the transformation of Dubai traditional architecture style, as well as in the construction methods and materials, followed the discovery of oil in 1966, when Dubai’s policy makers (the ruler and his associates) welcomed proposals focusing on the city’s modernization and globalization. Further, as Deeba Haider describes, “they import international designers from North America and Europe to large design projects such as high-rises, hotels, hospitals, and airports, that they believe are too complex for local architects. Mid-rise buildings however, are awarded to local Arab designers, as they were deemed capable of handling such projects.” Therefore, these proposals implemented Western modern architecture through design decision makers, building styles, functions, and construction technology and materials.

In the post-oil era, when Dubai became a more established city, its government’s premier strategy determined the city’s vision by diversifying its activities and economy from oil income to tourism, real estate, hotels, shopping malls, and leisure activities. Dubai became a brand city through the construction of superlatives such as the seven-star hotel, the Burj Al-Arab; the world’s tallest building, the Burj Khalifa; the biggest shopping mall, the Dubai Mall; the human-made island, The Palm; among many others. The branding of Dubai not only attracted a vast number of investors and tourists, but it also aimed to introduce and distinguish the city as a new and different model in the Middle East.

Although the construction of modern, superlative, and iconic architectures with their symbols and metaphors
have assisted Dubai in attracting a number of global audiences—mainly investors and tourists—they failed to tie Dubai’s residents to the city’s traditional urbanity.\textsuperscript{18} Local Arabs make up less than twenty percent of the entire population of Dubai, and there is an international foreign workforce from 120 different countries. Many local Arabs were concerned that “their age-old tribal society”\textsuperscript{19} was altered by the rapid influx of foreign influences and new technology.

The dissatisfaction with Dubai architecture was two-fold. On one hand, the spectacular projects could not create real impressions for residents’ day-to-day lives. On the other hand, tourists were not impressed by the common-copied, Western architecture in a foreign context. Dubai was criticized in articles, journals, and even in popular magazines that its architecture was strange to the city’s inhabitants and culture. Haider remarked that “by the late 1980s, after a couple of decades of intense development, a greater awareness, appreciation and respect for local culture was burgeoning.”\textsuperscript{20} Even Dubai’s municipality planners asserted that:

\begin{quote}
the haste of development has not allowed the time for meaningful reflections on the place of cultural identity in the urban environment […] the contemporary tastes of the West are slowly obliterating what exists of the conservative indigenous culture […] it almost seems that the local Arabs have become tourists in their own city. Yet this would completely overlook the resilient nature of local cultural identity.\textsuperscript{21}
\end{quote}

Therefore, to make Dubai more intimate and familiar to its people and tourists, the government’s architectural policies in the late 20th century focused on creating structures that resemble the city’s national identity, cultural heritage, and vernacular architecture. In the first stage, the “Committee for the Preservation of Architectural Heritage” was created on 1994.\textsuperscript{22} They had two main aims: historic preservation\textsuperscript{23} and “to ‘restore’ the past by rebuilding ‘historic buildings,’ renovating suqs to look more authentic, and recreating images from the past—of Bedouins, pearl divers, and traders on their dhows.”\textsuperscript{24} The historic preservation provides evidence of the government’s efforts: “the story of the Bastakiy’ya [which] is interesting in the sense that it illustrates a shift in attitude towards the preservation of this district. What was initially regarded as a decaying, perhaps even foreign (Persian, non-Arab), presence in the mindset of a modernizing city suddenly became a symbol and a site of heritage that needed to be preserved.”\textsuperscript{25} In other words, Dubai’s policy makers attempted to, as Elsheshtawy demonstrates, “revive the past and recast it in more palatable ways.”\textsuperscript{26}

Dubai’s municipality has played an active role in the traditional design policies. In 1996, the municipality of Dubai published a guidebook known as the Elements of Traditional Architecture of Dubai Reference Book and outlined regulations for designers to follow. The design strategies mainly noted that building styles should be in line with local and traditional architecture, and a special committee was established to review building façade proposals.\textsuperscript{27}

The trend of revitalizing cultural identity had been continued for decades, even to the point that Dubai’s policymakers discussed the city’s identity dilemma very openly. As Elsheshtawy points out, the head of the Department of Historic Preservation of Dubai, Rashad Bukhash, confirmed the government’s intentions when he stated: “[i]dentity is something that is, unfortunately, lacking in Dubai […] the worst type of feeling is that you are a stranger in your own country. We need to create an identity for Dubai that is related to Arabic heritage.”\textsuperscript{28} Similarly, during the National Day speech on December 2, the United Arab Emirates President Sheikh Khalifa declared 2008 as the Year of National Identity. He emphasized that “one who has no identity has no present, and will have no future.”\textsuperscript{29} The orientation and process of developments from modern buildings to “vernacular” are evident in the acceptance of the new proposals. As Jessie Hewitson states, “One of the criticisms of the UAE is that it has forgotten its roots, and now the development is addressing that concern.”\textsuperscript{30} In this regard, the following section addresses two of those tradition-oriented projects, the Madinat Jumeirah Hotel (a hotel complex) and the Souk Al Bahar (a market) to see how Dubai is working to regain its traditional identity.

CONTEMPORARY VERNACULAR ARCHITECTURE CASE STUDIES

The Burj Al Arab, built on an artificial island, is a seven-
star hotel that opened in 1999. The hotel has become an icon of international architecture. The Burj Al Arab metaphor or symbolism is the sail of a dhow, which is a traditional boat. Adjacent to it is the Madinat Jumeirah Hotel and its commercial complex, which visually resembles the old heritage of Dubai. The concept behind the construction of the Madinat Jumeirah is based on themes found in the older Bastakiya districts, but in a modern context. Various traditional architecture forms and elements applied to the project give it a historical look. According to Project Operator Gerald Lawless:

H.H. Sheikh Mohammed bin Rashid Al Maktoum and H.H. Sheikh Ahmed had a vision for the project. What we wanted, based on that vision, was to do something for the guests that would not be high-rise, which would be more connected to the culture and heritage of Dubai.

As Lawless clarifies, the city’s rulers knew tourists would want to visit and experience Dubai’s oriental culture and history, so building styles and themes similar to Bastakiya districts were considered as the desirable theme for the new construction in the city.

Accordingly, the Madinat Jumeirah was designed to mimic the Persian traditional courtyard houses. The noticeable architecture element in this project is the resemblance to the Persian wind-towers (Figure 3). The building height and its proportions sought to echo the Bastakiya district. In addition, the texture and color of finishing plasters on the hotel’s façade resembled Persian characteristics. Even details on the doors, windows, arches, corbels, and fixtures were imitations of the old Bastakiya district (Figure 4A and 4B). A representative from the developer’s company even said in an interview, “the hotel was very much based on Bastakiya, but of course, Madinat Jumeirah is on a much larger scale.”

Further architecture features like the traditional Egyptian Mashrabiyya, a projecting oriel window surrounded with carved wood latticework, were integrated as additional oriental elements in the design of the Madinat Jumeirah. While Mashrabiyya does add some Arab traditions to the hotel, it was not functional as its traditional architecture elements were adopted and ma...
THE SOUK AL BAHAR, NEXT TO THE BURJ KHALIFA

The Burj Khalifa, the world’s tallest skyscraper, began its construction in 2004 and opened in 2010. The famous building is the symbol of Dubai’s power and prosperity. The concept behind its design is an abstract version of the local, desert flower, Hymenocallis. The flower is not unique to Dubai and is cultivated in India as well as the Gulf region; however, it was justified in the approval stages and had an initial influence on the design of the project. Next to the Burj Khalifa is the Souk Al Bahar, which opened mid-2008: an Arabesque landmark and point of attraction for Dubai’s tourists and residents.

The souk, or souq, is a traditional marketplace or commercial quarter of Arab cities. The Souk Al Bahar was designed in the traditional Arabian style to recreate the feeling of the old souks (Figure 5). It functions as a shopping, entertainment, and dining destination. The restaurants, mostly located along the souk’s extensive waterfront promenade, overlook the Dubai Fountain and the iconic landmark, the Burj Khalifa. Although the Souk Al Bahar project is located in a modern zone of the city, its architectural style transports people back to an archetypal, Arabic community. The creators of the Souk Al Bahar aimed to bring back an important aspect of old Dubai’s society and culture through its style and function, while borrowing many foreign architecture elements. For example, the Egyptian Mashrabiyya is one of the important, traditional elements in the project’s design. Moorish arches are another feature found on the exterior façade of the buildings. While both of these elements add traditional Arabian character to the appearance of the souk, they were added without their original functions.

Similar to the Madinat Jumeirah complex, the Persian wind-towers were appropriated in the design of the Souk Al Bahar. The wind-tower is used as an icon at the entrance of the souk building (Figure 6). Moreover, small openings, solid walls, and gypsum helped bring out the traditional, Arabian-style features of the Souk Al Bahar through replication, while none of these ele-

Figure 5: In the right, the iconic landmark of the Burj Khalifa, world’s tallest skyscraper. In the left, the Souk Al Bahar. Photocredit by author

Figure 6: The wind tower has been used as an icon in the entrance of the Souk Al Bahar. Photocredit by author

nipulated in an advanced technological façade.
ments kept their traditional functions (Figure 7).

ANALYSIS OF THE CASE STUDIES

The terms vernacular or traditional were used to define the methods and styles of design and construction through the integration of the local, historical, and cultural resources of Dubai, although they have major differences in their principles. The vernacular architecture of a location constitutes the common dwellings, references, and symbols that have been developed over time; these are characteristics, which give a unique identity to a specific people and place.39 Migration, colonialization, and globalization founded on mass media, transnational trade, and tourism have made today’s search for the roots of vernacular architecture a futile effort.

In Oliver’s discussion, vernacular architecture is not a creation that represents a regional character and one place. Oliver notes:

the vernacular architecture comprises the dwellings and all other buildings of the people. Related to their environmental contexts and available resources, they are customarily owner or community built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of living of the cultures that produced them.40

He also clarified that vernacular architecture modifies the social relations of a culture, where knowledge and construction methods are handed down from one generation to the next.

Due to the different and enormous waves of migration, Dubai’s traditional architecture contains elements and materials of immigrated architecture, which have enhanced the city’s vernacular architecture. Many of those traditional elements—such as the Persian wind-towers, the Moorish arches, the Egyptian Mashrabiyya - as well as modern construction materials like concrete and cement were imported and used for appropriated architectural features. However, based on Oliver’s definition, these traditional architectural elements can be considered vernacular, if the adopted
vernacular features could operate functionally.

Projects like the Souk Al Bahar and the Madinat Jumeira, from their general theme and style to their construction materials, attempted to follow the principles of traditional design. Nevertheless, these traditional architectural methods cannot be identified as vernacular endeavors. These projects are not only the result of a mixture of traditional elements of other nations, but they also misuse the traditional architectural components in modest appearances while stripping them of their actual functions. In old traditional districts like Bastakiya, the placement of the wind-towers and openings enabled ventilation through the dwellings. In Madinat Jumeirah, on the other hand, air conditioners moderate the temperature despite the presence of numerous wind-towers on the buildings. Similarly, the Souk Al Bahar has the symbolic wind-tower at its entrance, but it still uses an active, cooling system.

The placement of these contemporary vernacular projects next to the iconic landmarks, the Burj Khalifa and the Burj Al Arab, has an effect on memory; while the iconic landmarks give Dubai’s inhabitants (local citizens and residents) a sense of pride and belonging, tourists’ memories of the city’s iconic landmarks and the projects adjacent to them can construct a unique picture and identity for Dubai.

The identity of a place emerges out of its architectural context, out of the aspects that give a place its “character.” Identification should also have “attributes which distinguish each place from any other and lend to its unique ‘presence’ or ‘genius loci.’” Dubai aimed to establish a connection between its modern international identity (superlative icons) and its traditional local identity (borrowed vernacular). The Madinat Jumeirah and the Souk Al Bahar represent attempts at recreating a memorable character and identity for the city. Through these projects, the government tried to reconstruct Dubai’s identity by imitating the cultural architecture of the city’s old districts and souks; however, instead of simply returning to Dubai’s conservative indigenous identity (tribal society), the new structures recreated a new local-traditional character mixed with global-modern identity.

CONCLUSION

An answer to the questions raised in the introduction should first note that as Dubai faced the dilemma of articulating a clearly definable cultural identity, it initiated governmental projects that could link Dubai to its roots, history, and culture. It either enlisted local icons, such as the sail of the dhow or the Hymenocallis desert flower, in the design of the iconic landmarks or formed traditional-looking places like the Madinat Jumeirah and the Souk Al Bahar. Therefore, one can conclude that Dubai’s adopted identity was “forged,” fabricated both historically and functionally.

Second, the placement of traditional-looking projects played a pivotal role in locating vernacular architecture and modern, iconic landmarks in one picture or experience-packaged memory for locals, tourists, and the world. Through these place makings, Dubai obtained a national tradition and international modern images simultaneously. The Madinat Jumeirah and the Souk Al Bahar projects are national and local in the sense that everyday users and residents can tie their experience to their traditions, and international and global as they are constructed adjacent to particular globally known iconic landmarks, the superlatives, through which Dubai introduced itself to the global audience. Accordingly, people visiting these places will remember Dubai as a modern city with a robust culture and history.

The construction of these traditional-looking buildings may promote the visual implications of the primary (iconic landmarks) and secondary (traditional architecture) symbols in forming the perceptions of residents, tourists, and even Dubai’s future residents through evoking “a sense of history and heritage.” However, this revival of traditional and historical references as a part of the new architectural trend in Dubai is only a simulated shell. The use of regional iconic signs and symbols such as wind-towers or Mashrabiyya from Persia and other Arab countries, along with modern technologies from the west, are all borrowed design elements without being original or authentic to Dubai’s architecture and identity.

One can argue that through people’s migration and their cultural assimilation, the architectural elements like wind-towers or Mashrabiyya had become part of Dubai’s architecture, therefore they are original to Dubai architecture; however, they would only be con-
considered authentic if they were functionally used like their precedents. Dubai’s representations of these borrowed vernacular components are veneer concepts and removable coverings and skins that only express the Middle Eastern tradition and history within a forged context. They are not traditional elements and symbols from the Bedouin tribal culture.

The impetus for the disappointment of these projects that sought to tie together Dubai’s architecture and identity, this research suggests, is the method policy makers used to create these structures. Dubai’s policy makers played the role of a budget provider whose inspiration came from Western and foreign architectural firms—whose designers toured the historical places in Dubai, captured traditional looking sites, and combined them together in order to attract Dubai’s policy makers’ attention and funding.

Allocating large scale iconic projects to foreign firms, and rejecting local architects as incapable of handling distinctive and substantial developments, leads to the misuse or mere surface applications of traditional elements, leaving them devoid of any original significance or function. A recent trend in Dubai’s architecture is “simply evoking an illusive ‘Arab’ identity,” or appropriating other cultures’ vernacular architecture elements, which is a bizarre trend - especially for a city seeking its authentic identity. This study suggests that Dubai’s identity loss could be better rectified if its policymakers paid more attention to historic preservation and integrated local architects as advisors to foreign firms.

A global, international city like Dubai cannot simply point to traditional architecture as a form of representation in order to capture cultural identity. While Dubai’s locals represent about twenty percent of the city’s population, Dubai would benefit more from the participation, assimilation, and consideration of that “other” eighty percent as part of either its history or future identity. In any case, the dependency of Dubai’s cultural identity on the nostalgic mask of traditional elements needs to be reevaluated in light of what is vernacular, appropriate, functional, and meaningful for Dubai’s contemporary architecture and also for the identity that Dubai still seeks to claim.

ENDNOTES


4. In this research article, policy makers mean Dubai’s ruler. Before 1985, Dubai was ruled by Saeed bin Maktoum Al Maktoum. After his death, his son, Sheikh Mohammad Rashid bin Saeed Al Maktoum became Ruler. Sheikh Mohammad Rashid currently serves as Vice-President and Prime Minister of Dubai and he is regarded as the driving force behind Dubai’s expansion.


7. In the chapter “Redrawing Boundaries: Dubai, the Emergence of a Global City” in Planning the Middle East City: An Urban Kaleidoscope in a Globalizing World, Yasser Elsheshtawy (2004), indicates that the city underwent four fundamental phases of urban expansion: the first phase 1900-1955; the second 1955-1970; the third 1970-1990s; and the fourth or last one 1993 to present.


9. There are still examples of Barasti houses in the Heritage Village in Dubai.


11. Arab immigrants from places like Bahrain, Iraq, and Baluchis from the Indian subcontinent (now Pakistan) joined Dubai as pearl divers, accountants, clerks, and porters. See Ibid, Michael Pacione, “City Profile: Dubai” Cities 22, no. 3 (2005), p. 260, and Aqil Kazim, The United Arab Emirates A.D. 600 to


18. Ibid. As the modernized buildings and the messages employed in the architecture of modern iconic landmarks, specifically for Middle Eastern cities, may not be relevant to the people or the region.


20. Ibid., p. 1066.


22. Ibid., p. 1068. Haider mentions “This organization is made up of a collection of individuals from the Public Work Agency and the Planning and Maintenance Agency. Their mission is to identify historic areas that represent local architectural heritage and mark them out for preservation or reconstruction.”


26. Ibid.


32. H.H. stands for His Highness.


35. Ibid.


37. Yasser Elsheshtawy, Dubai: Behind an Urban Spectacle (New York: Routledge, 2010), p. 159. For more information, also see page 158, which illustrates that the concept was not part of the initiative of the project.

38. The name that had been chosen for this commercial case means the ‘market of the sailor’.


40. Ibid., p.xxiv.


43. Ibid., p. 97.

44. Dubai’s government is not giving permanent residency or citizenship to any one from other nations. Everyone is a temporary resident in Dubai. For more information, see Neha Vora, Impossible Citizens, Dubai’s Indian Diaspora. (Durham and London: Duke University Press, 2013). Vora explains the UAE’s Kafala system by which visas are issued on a 2 year long basis and the restrictions on citizenship and the impossibility for an immigrant to obtain citizenship. City in the Islamic World, edited by Salma K. Jayyusi (General Editor); Renata Holod, Attilio Petruccioli, and Andre Raymond (Special Editors). 2 vols. (Leiden, Boston: Brill, 2008), p. 1067-42. Yasser Elsheshtawy, Dubai: Behind an Urban Spectacle (New York: Routledge, 2010), p. 81.
Cramer Tolboe is a photographer, designer and entrepreneur. He co-founded Highland, a contemporary men's fashion brand. Prior to that he worked for the Amsterdam based brand G-Star Raw. While there, he worked in merchandising, wholesale, production and public relations. Afterwards, he moved to New York City to create his own line. Highland was founded in 2009 and retailed at independent retailers in the United States, Europe and Asia. Highland trained him in the delicate balance between design and commerce. A native Utahan, he has returned to the University of Utah to pursue a graduate degree in Architecture.

Salt Lake City has huge city blocks; 660' x 660' (200m x 200m). The blocks between West Temple and 300 West, at the intersection of 800 and 900 South are traversed by Jefferson and Washington Streets. These are predominantly residential alleys with leafy cottonwoods and maples and an intimate pedestrian scale that is not the case with surrounding high-speed roads. They break up the original 1.25 acres lots into smaller, affordable bits with the neighboring houses standing much the sidewalk. The original motivation of self-sufficiency that led to the plat of Zion on which the city grid is based, vegetable gardens and fruit trees, are no where to be found. Instead, these streets are surrounded by monotonous large box structures, used as distribution centers, commercial businesses, and warehouses on the poorer west side of the city. The residential alleys are occupied by early 20th century Victorian inspired single-family homes with formulaic differences. No two houses are alike. Each is executed in a different style available a developers catalog. This gives the streets the feel of curio cabinets—used to display different styles. I have visited these two streets many times. I have met the residents involved in their day-to-day lives. I photographed the people and structures from many different angles. I found the most effective way to present each type was with man's eye view, framing and centering one dwelling at a time. This showcases the formal view and gesture towards the public. Each frame reveals the dynamic of transformation/preservation/reinvention that each example has experienced. The birds eye view and caption legend provides context and proximity. You will see everything from abandonment, to examples of the new signature architecture clearly informed by the vernacular footprint. Observation of this common urban block, revealed the life of the 20th century vernacular in the 21st century. Salt Lake City is one of the most robust cities in one of the most economically prosperous state in the Union. A blue city in a very red state has not made it immune to gentrification. The younger creative class is moving both into the warehouses for business and the residential streets for living. Their restorations and new constructions aestheticize the original petite bourgeois spaces without their lifestyle. As new owners move in, some of the original single-family dwellings have been improved and outwardly preserved. Others are built anew, but with view to maintaining the scale, and the character of the street intact. It shows the dynamism of streetscape. It is subject to collective aspirations and priorities. The gentrification however creates a dichotomy in this case. On the one hand it puts pressure on existing conditions and neighbors that inhabits the old homes while. At the same time it shines a light on ordinary, everyday, forgotten architecture.
Frisco Charcoal Kilns, Milford, Beaver County, Utah, 1877

Figure 1: 820 Jefferson St

Figure 2: 831 Jefferson St
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DIALECTIC VI: CRAFT
– THE ART OF MAKING ARCHITECTURE

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Abstract (350 words)
Short CV

The crafts, according to standard narration, have been in decline in Western societies since the decline of guilds, the freedom of trade guaranteed by the French and American Revolution, and the rollout of industrialization during the 19th century. The list of casualties caused by free market, mechanical mass production, and anonymized distribution is long. Local food production, processing of material by weavers, tailors, and shoemakers, and the making of everyday household tools, goods, furniture, and buildings have all taken a hit. Conversely, its endangered position in industrialized urban capitalism has transformed craft also into a site of resistance. From Luddites to the Arts & Crafts movement to DIY and hacker cultures of today, one can draw a continuous line of critique against mechanized drudgery. These movements instead emphasize creativity, individuality, and personal expression. The joy of the craftsman materialized in the human trace (and imperfection) highlighted by John Ruskin does not only insist on a different set of values which elevates the crafted object into the realm of the artwork. It also carries a distinct vernacular connotation. The Red House by William Morris and Philip Webb, for example, was conceived as polemic rural counter model to urbanization spurred by industrialization. It carried high hopes for not only crafting different type of objects, but also alternative communities, communal life styles, and utopian classless societies that would be a long distance from alienating work.

Architects, in order to participate in the aristocratic liberal arts and sciences, sustained a difficult relationship with craft. This is clearly true at least since the Italian Renaissance. As Mario Carpo has argued, Alberti’s notion of the building as a mere copy of a preconceived design contributed to the disengagement of concept from material practice. Such detachment still haunts the profession. There are exceptions, such as Gottfried Semper. His insistence on origins of architecture in crafts was developed in reaction to a twofold challenge: a) industrial prefabrication of standardized elements of Crystal Palace, b) the encounter with “primitive” material cultures of colonized peoples in Crystal Palace. Once the working classes took control of means of production, Karl Marx tried to sketch out the future of labor as liberating self-expression. Yet as firm believer in progress, he considered the crafts as something of the past. Despite his claims for a materialist dialectic, Marx did not entirely escape the long tradition of Western philosophers who privileged mind over body, repose over labor, and thought over craft. Martin Heidegger took an alternative trail. He reasoned about craft and the nature of a thing. His pupil Hannah Arendt was critical of this stance and put (political) action above both (philosophical) contemplation, (sustaining) labor and (producing) work. This in turn sparked a reaction in her student Richard Sennett to write The Craftsman. While Arendt remained skeptical against the instrumentality of productive work, Sennett highlights the strength of tradition, skill, and refinement embedded in practice. Yet he muddies the notion of “craft” with his praxological inclusion of every human repetitive activity.
Given this state of discourse in the second decade of the 21st century, the editors of Dialectic ask for a re-assessment of craft in architecture. Contributors are invited to consider the critical potential of a discussion (re-introduction?) of the concept of craft into the maelstrom of contemporary spatial practice and current architectural thinking, beyond pure nostalgia for the lost quality of handmade objects. Should we think of the craft at the level of detail and joinery like Mies van der Rohe? What about the death of detailing incurred at the hands of diagrams, images, glue, and clamping, as Rem Koolhaas argues? What is the role of craft—normally related to the human body, tools and responsive material—in the immaterial society and virtual economy? Where is the potential (and danger) of “digital craft,” as proposed by Bernard Cache and others? And even if we stay a moment with more traditional concept of craft: what kind of bodies bring forth these repetitive practices? Does craft have a gender? Where are the masterpieces of architecture? And is there—hidden in the routine and (bodily) memory of practice—a resistance to innovation, to change? Shall one think about the tradition and convention of practice as the anti-avant-garde of architecture? Does it possess an anti-avant-gardist mannerist turn, as alluded by T.S. Eliot and Robert Venturi? Most of all, what is actually the “craft of architecture”? Shall we search for it in the modes of drawing, of model making, of organizing and directing the building process, or writing? What does design craft mean today with regard to photoshop, parametrics and scripting, BIM, digital fabrication, and construction robots respectively 3D-printing?

Dialectic VI invites articles, reports, documentation, and photo essays on the craft of architecture and the architecture of crafts(wo)manship. Following the thematic issues of Dialectic II on architecture and economy, Dialectic III on design-build, Dialectic IV on architecture at service, Dialectic V on the figure of the vernacular, the sixth issue of our peer-review journal will explore the topic of craft: the art of making architecture, how, for whom, by whom, employing which techniques, to what ends?

The editors value critical statements and alternative practices. We hope to include instructive case studies and exciting models for professional practice. Possible contributions may also include mapping of ongoing debates across the world, and reviews of books, journals, exhibitions, and new media. Please send abstracts of 350 words and short CVs to Ole W. Fischer fischer@arch.utah.edu and Shundana Yusaf shundana@arch.utah.edu by June 1st, 2017.

Accepted authors will be notified by June 15th. Photo essays with 6-8 images and full papers of 2500-3500 words must be submitted by August 15, 2017, (including visual material, endnotes, and permissions for illustrations) to undergo an external peer-review process. This issue of Dialectic is expected to be out in print by Fall 2018.

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THE FIGURE OF VERNAL

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