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**Call for Papers: Dialectic IV**

**Acknowledgements**
In Spring 2013, the School of Architecture at the University of Utah regarded its association with the Design Build studio in Bluff, Utah as a great accomplishment. Bluff is part of the emergent wave of design build studios in the United States tied to the critically acclaimed Auburn University Rural Studio established by Samuel Mockbee in 1999. Alternatively praised for promoting socially responsible architecture and criticized for aestheticizing poverty, these studios have attracted almost universal interest from faculty and students of architecture programs. In the past decade and a half, 100 out of 123 NAAB accredited architecture schools participated in some variety of the studio, and one out of every six students passed through design build education during their tenure in architecture schools.

The third issue of Dialectic focuses on the history, theory and practice of design build studio and non-profit design industry. Surely, these studios work on the margins. They are realized in geographies and neighborhoods off the cultural grid. They take students away from the grounding certainties of home and school. They transport participants to a world incompatible with the accepted norms of their educational institutions. They confront them with the limitations of high tech spectacles born of tourist economy for the vast majority of the world that lie at the heart of disciplinary imagination. They force participants to investigate the ordinary, the understated, and the invisible, born of necessity. Most of these programs invent projects paid for with soft funds and produce clients. They do so in communities too poor to be of interest to the real estate industry and too voiceless to be heard by their councilors. They teach design’s reliance on skilled labor. In an article on the power of Rural Studio, Jeremy Till and Sarah Wigglesworth note that it is only from this spatial, material, social, constructional, economi- cal, and pedagogical marginality that one can clearly see the center and recognize its closures, blindness, and restrictions.

At the same time, the body-centric pedagogy of design build studios is susceptible to incredible shortsightedness. It is in danger of reproducing power relations within the society: among the educated and the uneducated, the enfranchised and the subjugated, the resourceful and their reverse. Dialectic 3 calls for papers to explore this two edged sword and think through the strengths and challenges to the resurfacing of construction as part of architectural pedagogy. At a sublime scale, what does it tell us about the direction the discipline is headed?

We invite abstracts on the history and prehistory of these design build studios. Contributors are encouraged to evaluate both its powerful and toothless practices, and reflect on the value of this enterprise. Suggestions for photo essays are welcome as well as time lines that list the history of design build movement in any part of the world. It is not without significance that this wave of interest in the concrete, hands on, collabora- tive, site specific, low tech, time- and money-bound approach to architectural education has risen in concurrence with growing commitment to the abstract, automated, independent, screen-specific, high tech, and computation-led (rather than served), screen-centric approach to architectural education. Are these models two sides of the same architectural currency? Can they inform each other and create a dialectically related new definition of architecture and architect’s responsibilities in the 21st century? Does this marginal practice have the strength to hold up a mirror to the center? Or will it be subsumed under the homogenizing tendencies of normative architectural practice? How does design build education and not-for-profit building construction define and refine the social responsibilities of the profession? Do we have examples where high-tech solutions have created humane environments for culturally (also read economically, politically, and educationally) marginal communities? Finally, since these practices create a market for their goods in defiance to the logic of the mainstream marketplace, they impose very trying demands on the time, finances, and logistics of the schools, faculty and organizations committed to them. Are there strategies and tactics that can ensure their sustainability and secure their future? Contributors are welcome to suggest other pertinent issues tied to the non-profit architecture and design build education.
It gives me great pleasure to introduce *Dialectic III*, the third volume of the journal of the School of Architecture at the University of Utah. As Prescott Muir stated in his introduction to the first issue of *Dialectic*, the role of the journal is “a call for persuasive dialogue, engaging conflicting issues not as a means of negating the ‘other’ but as a means of releasing opportunity imbedded in apparent conflict and seeming insurmountable complexity.” The introductory volume, *Dialectic I* served to situate us, building on issues rooted within the intellectual life of the School and our geographic and cultural place in the American West. *Dialectic II* moved the discussion further outside our walls, engaging the idea of economic boom and bust – a theme often connected to the American West but equally relevant to the practice and teaching of architecture. Who is truly served in an economic boom, and how do we respond appropriately in our teaching and practice? Is it from this type of questioning that the topic for *Dialectic III* emerged.

Design-build is the theme of *Dialectic III*. The topic is closely bound to our curriculum and has seen a quick rise in popularity in architecture schools and beyond. The credit goes to Auburn University’s Rural Studio beginning with its leadership under the leadership of Samuel Mockbee. Our program, Design Build Bluff, was founded fifteen years ago by Adjunct Professor Hank Louis. It is currently directed by Assistant Professor José Galarza. The program partners with the Navajo Nation in southeastern Utah. Design Build Bluff presents students with a program engaging a range of issues related to designing in an area with an underserved population, a difficult natural environment, a limited budget, and hands-on construction, to note a few of the attendant factors.

“Just when you believe in your own sense of place, plan on getting lost.” Terry Tempest Williams’ description of traveling through the southern Utah desert seems apt advice for a design-build project. Navigating the design-build process and its associated “potenti-alties” and “dangers,” as characterized by editor Assistant Professor Shundana Yusaf in her editorial, can induce a similar feeling of losing one’s sense of place. We therefore must ask: what is the role of architectural design? And for whom are we designing and building anyway?

The answer, as the essays contained in this volume illustrate, is multifarious and complex. Design-build is political, rife with conflicting social agendas and often the clearly different worldviews of the privileged and those perceived as powerless or in need. Design-build can move along within status quo capitalist processes, or it can forge new paths and promote progressive stances. Design-build can be in service of others, but it also can be in service of research, academic exploration, environmental and cultural stewardship. It can sway intentionally or unintentionally toward cultural colonization. Or it can be totally removed from the messy and unpredictable yet infinitely inspiring cultural context and created under controlled laboratory conditions. *Dialectic III* unravels the complex relationships inherent in design-build. In doing so, it adds new perspectives to the ongoing dialogue and reminds us to “plan on getting lost” as a means of finding our way by discovering the unexpected.

*Dialectic* serves an important and growing role in the School of Architecture. It showcases research by our own faculty and students, along with others in academia. Each volume builds on the concepts in the previous issue and teases out the nuances of ideas and programs that are important to our School and to architectural education in general. As *Dialectic* matures, we envision the potential of utilizing its annual themes to structure a framework of academic inquiry that year. With *Dialectic* as a platform for research and written analysis, the theme will be incorporated into lectures, symposia, and design studios integrated with associated courses. Based on this volume’s theme, Peter Gluck and Dan Rockhill, two of the most prominent names in the area, presented their own design-build work and discussed their processes and goals. The distance between their approaches is a testament to the richness of the topic. We look forward to expanding such collaborations in the future and invite our readers to contribute to *Dialectic IV*.

*Architecture at Service* is the theme for the fourth volume. It expands on the ideas of service-oriented architecture discussed in this issue. The aim is to explore how architecture serves various populations and purposes; from mega-wealthy clients to the “other 98%,” and from purely academic endeavors to grassroots activism. How does architecture respond to competing hopes and interests—and how do architects translate societal expectations?
Design-build programs, which teach architecture students to build a collectively proposed studio project, are bridging systems. They connect abstract thinking (encouraged by the blank space of the drawing page, drafting board, and computer screen) with concrete thinking (imposed by the contingencies of site, budget, materials, tools, and project delivery). Their final products are not just drawings or models, but works of architecture made possible by free design and free labor, donated materials, and academic salaries. This circumvention of the exigencies of the marketplace gives these programs another strategic bridging advantage: it allows them to span the distance between design thinking and social activism in ways not easily achievable within the codified structure of current professional practice as accommodated to the capitalist economy.

The contributions of Dialectic III interrogate design-build pedagogy and practice as a tool for overcoming the obstacles that keep architecture from falling on the right side of the challenges of globalization, climate change, poverty, informal settlements, access to the city, and spatial politics in the twenty-first century. The golden cage in which the discipline of architecture finds itself trapped has inculcated an unwarranted respect for top-down design, puritan views of originality and creativity, spectacles, starchitects, and most recently, parametric stunts. As eager as we are to make good design pertinent to the burning concerns of the burning planet, success stories of flight from the cage are few and far between.

The essays in this issue confirm the hypothesis put forward in the call for papers: an indispensable tool of architectural education and practice, design-build is a double-edged sword. It is as ripe with potentialities as it is ridden with dangers. It can constitute as powerful a critique as an affirmation of the closures and shackles of modern architectural education and practice. Here a distinction between theory and practice is critical. In theory, its proximity to public interest design can provide strategies for weaning our undue attachment to glossy images, technocratic project delivery systems, and alignment of modern monumentality with the imperatives of the age of branding. In practice, however, the pages ahead show us that, for the most part, design-build programs extend business as usual to places previously sheltered from architectural business. The history and theory of design-build, then, can be simply a history and theory of opportunities missed and availed. Design-build programs offer a fantastic chance to pull designers out of computer labs and pin up spaces and put them into disadvantaged communities with impoverished infrastructure and limited access to formal resources.

First, be they communities of growing urban slums, dying rural settlements, or anything in between, design-build programs give students an occasion to equip themselves with a new skillset and a new mindset to envision their interventions not as standalone works of art, but as spaces and infrastructure that are designed for change. Thinking while making, or rather thinking in the agora, as Hannah Arendt would call it, encourages us to give up the thought of architecture as finished works and entertain them instead like open source software—that is, architecture open to modification by other social agents (labor, primary users, future architects, municipality, community etc.). This is a vision of architecture that can stay in step with the changing aspirations and needs of those for whom it is created. This is architecture with longevity. This, to me, is the most viable definition for sustainable architecture.

In other words, architects should create not objects, but systems. Create not closed systems, but open
The essays in the segment titled Belonging explore the sticky issue of extending architectural expertise to Native American reservations. Projects that may be seen as an exercise in socially conscious architecture and engineering, when exercised on a Navajo reservation acquire the odor of a 19th century civilizing mission by the white man. My essay coauthored with Jose Galarza, as well as David Hamby’s essay, second authored by me, note that whether it is design-build programs or HUD projects, these cultural interactions often become cultural domination. The problem is that they draw their intellectual sustenance from the development practices of the 1950s and 1960s, long debunked by post-colonial critique. Architectural practitioners who are willing to stick their necks out into these culturally sensitive areas have their work cut out for them. They have much to do in terms of getting up to speed with the closures of modernity and post-colonial practices of development.

The last section of Dialectic III comprises two photo essays and two write-ups on projects put together by the students of Design-Build Bluff on Navajo Nation. The first photo essay is by Matthew Miller, an architect who teaches a high school design-build curriculum in Colorado. Miller makes a case for extending these programs into high school curricula for reasons entirely different from, if not contrary to, the ones eulogized by other contributors in this issue. When read side by side with others, if Miller draws our attention to anything it is the nimbleness of this pedagogic model and its chameleon nature.

Zahra Hassanipour, a brilliant graduate student at the School of Architecture at Utah, has put together a photo album of Design-Build Bluff projects, some by students at the University of Utah and some by students at the University of Colorado, together with my and Galarza’s assessments of two of these projects.

In the final analysis, Dialectic III brings together different voices, different ways of thinking, and thinking about different aspects about the topic in ways that are larger than the sum of its parts. We hope the issue will invigorate the current thinking on the topic and make some wake-up calls regarding its value and threats, and its place in expanding the scope of architecture.
Anna Goodman is a Ph.D. Candidate in the Department of Architecture at the University of California Berkeley. She is currently a Charlotte Newcombe Fellow, an award granted for work that offers significant potential for advancing academic scholarship related to ethics and/or religion. Her dissertation, “Citizen Architects: Ethics, Education and the Construction of a Profession, 1933-2013,” considers how architects’ ethical and political identities are shaped by hands-on and outreach education through three historical case studies in the twentieth-century United States. Since graduating with a B.Arch from Rice University in 2006, Anna has pursued her interest in the ways in which architectural practice is embedded in larger social and economic systems. Her most recent projects locate architects’ representations of race and interest in low-cost housing within a political history of craftmanship in America.

CRITICAL INTERVENTIONS ON THE POLITICS OF PRACTICE IN COMMUNITY DESIGN-BUILD

ANNA GOODMAN

ABSTRACT

In light of the problem of evaluating design-build programs’ material and social contributions, this short reflection offers an alternative set of critical frameworks. Drawing from research on social welfare in America, critical theory, and the insights of feminist-inspired poverty research, it argues that scholars must work to understand why programs emerge in specific moments and geographies instead of simply asking if programs “work.” While considering difficult questions around the imbalance of power often seen between designers and those for whom they build, the essay forefronts how architects practice difference on the ground. Following poststructuralist thinkers, it argues that when engaged in community design-build, program leaders and design students are enacting technologies of the self. Instead of demarcating who does and does not have the right to practice in certain spaces, it asks, “what types of self are architects performing, and to what ends?” Using the work of feminist scholars involved in critical poverty research, the essay describes how encounters with poor others may provide moments of re-imagining of the self and society, such that participants come to better understand their own privilege and responsibility in the maintenance of unequal systems. These new framings loosen the criteria by which architects’ social projects are typically judged, leading to more complex understandings of socially motivated designers and those for whom they build.

FROM “DOES IT WORK?” TO “HOW IT WORKS”: CRITICAL REFLECTIONS ON COMMUNITY DESIGN-BUILD

In a recent Journal of Architectural Education essay, Kenny Cupers asks designers and scholars to train a critical eye on the many difficult questions that surround so-called activist practices. He writes, “An analysis of the social project of architecture today can no longer remain within the realms of intent, form, or representation but needs to tie these to consequence and effect.” He entreats scholars to consider architecture’s social project by analyzing technical experiments and their social and political ramifications. Following Cupers’ prompt, this essay focuses on “community design-build,” a practice central to contemporary American architects’ social project. Community design-build is an umbrella term for programs in which architectural educators lead students into disadvantaged areas to physically construct designs for community use. Most writing on community design-build focuses on either the positive educational outcomes of programs or on their contributions to the lives of individuals or communities. Many architectural educators argue that in this “win-win” scenario, students master building techniques while aiding a neglected population. Some program leaders feel design-build is a legitimate venue for social and technical research. Others see it as a practical and productive form of humanitarianism. To-day, members of the Association of Collegiate Schools of Architecture design build Exchange (dbX) are attempting to network existing programs and promote the inclusion of design-build curricula in architecture schools across the country. Their discussions focus on sharing “best practices” and understanding the institutional configurations necessary to sustain design-build programs.

Though typically praised for promoting socially re-
ENDNOTES

9. Robert Putnam distinguished between “tangling versus bonding capital.” Bonding capital is encouraged when an informal group forms tight links of support and social life. Tangling capital, on the other hand, creates connections between networks that have not previously interacted. See Robert D. Putnam, Bowling Alone: The Collapse and Revival of American Community (New York: Simon & Schuster, 2000). Geographers and social scientists have concluded that, over time, bonding capital is more effective in spurring economic development and group identity than the bonding capital, which tends to reinforce existing structures and relations. See Social Capital in the City: Community and Civic Life in Chicago (Philadelphia: PA, Temple University Press, 2000).
13. David Hinson (professor and Head of the School of Architecture at Auburn University) to President Muse, “Agenda, Meeting with President Muse.” (N.D. 2001-2004), RGN 533, 04-029, Box 10, Folder 14-15 (Architectures 2001-05).
20. Joseph R. Bjerke and Robert J. Miron, eds., Housing in Rural America: Racial Atti...
modernidad apropiada

19. *appropriate modernism* was debated in Aires: CEDODAL, 2003), 87-90.

20. ‘Ramón Gutiérrez, “Presentación,” in Méndez (ed.), and argued that there was not one univocal “authentic modernity,” as that would coin the term, and Marina Waisman (Argentina), among others. In a position that


22. For a detailed presentation of the school see: Jose Luis Utrera Ortiz and Andrea Grisbono, TALCA: Una Cuestión de Educación (Mexico DF: Arquine, 2013).


30. *Jean-Luc Nancy,* *Politics and Ontology (London: Continuum, 2001).*

31. *Liberation theology was an influential progressive movement within the Catholic Church that appeared in South America in the 1950s. It emerged as a theo-

32. *Leonardo Boff (Brazil), two of its key figures.*

Whitney Moon is an architect, educator, curator and writer. An Assistant Professor of Architecture at University of Wisconsin Milwaukee, Moon’s research interests reside in 20th and 21st century art and architecture, with an emphasis on theatricality, performance, and ephemeral works. Her forthcoming dissertation examines the early objects, installations, and performances created by architects Elizabeth Diller and Ricardo Scofidio. Moon previously taught architectural history and theory, as well as design studios, at the University of San Diego and California Polytechnic State University, San Luis Obispo. A registered architect, her professional experience includes residential, commercial, and institutional work.

Sinéad Mac Namara is a structural engineer and Associate Professor at the School of Architecture and the College of Engineering at Syracuse University. She studied structural engineering at Trinity College Dublin and Princeton University. Her research is concerned with alternate paradigms for interdisciplinary education and investigations to foster creativity and innovation in engineering curricula. Her teaching has been recognized with awards from Princeton University, Syracuse University and the American Society for Engineering Education. Mac Namara recently co-authored a book Collaboration in Architecture and Engineering published by Routledge in July 2014. She engages in design and design-build projects as a collaborator with her architecture students and colleagues. These projects have widely published and received design awards from the AJA, the ACSA, the AASL, and the City of New York.

Larry Bowne is an architect and Associate Professor at Syracuse University. He has designed projects, including in New York City; Austin, TX; Zurich, Switzerland; and Buenos Aires, Argentina. He and his work have been featured, published, or exhibited in multiple venues, including appearances on the HGTV program “Small Space, Big Style,” exhibitions at the Marianne Boesky Gallery in New York City; the University of Kansas and K-State; and articles in Interiors, Dwell and the Village Voice. As a professor of architecture, Bowne has collaborated with colleagues and students on several design-build projects, including work in Syracuse, NY; New Orleans, LA; Washington, D.C.; and Greensburg, KS. These projects have been featured in popular media and exhibited at the Venice Biennale, the Cooper-Hewitt National Design Museum, and the Ontario College of Art and Design, and documented in articles in Dora, Architectural Record, Popular Science, and design blogs such as ArchDaily.


12. “There is a distinct desire for continuous change, a desire to keep altering one’s surroundings... These trends imply either a mobile architecture or an architecture with a much shorter lifespan than at present, perhaps even a throw-away architecture planned for obsolescence after a specific time.” Dent, 226.

13. “It is often claimed that there is no theoretical limit to the space which a low-pressure pneumatic form can enclose, and in certain circumstances this claim can be substantiated. Certainly it is now (and has been for several years) a practical proposition to enclose vast many square miles in extent by using a technique which is unique in that its cost rate falls as the span increases. Now is it that this matches the technique has so far failed to revolutionize architecture.” Quarmby, Plastics and Architecture, 98.

14. Quarmby, 8.


PLAY PERCH + PLAY BERG: A TALE OF TWO PROJECTS
SINEAD C. MAC NAMARA & LARRY BROWNE

This paper describes and assesses a pair of award-winning, university-based community engagement projects: Play Perch, an outdoor learning environment for a preschool that serves children with traditional and special needs, and The Berg, conversion and expansion of a defunct Field House into a recreational facility and community center suitable as an urban park in an impoverished Syracuse neighborhood. VIEWed together, the two projects chart a curricular transition from student-led ad-hoc initiatives to studio-based projects that foster collaboration among allied design disciplines, particularly architecture and engineering.

The authors, a structural engineer and licensed architect who served as advisors on both projects, assert that community-service design-build has the potential to ignite debate about design both outside and inside the professions. Who is entitled to good design? Do underserved constituencies, such as physically disabled children and lower income citizens, need good design? Does design for the socially and economically challenged need merely to meet minimum legal standards? What does design for such non-profit clienteles look like? What role do the values of so-called high architecture play in such community-engagement designs?

Play Perch and The Berg were realized in three courses: an independent study elective, a comprehensive design studio, and a professional elective shared equally by architecture and engineering students. Both projects featured the participation of graduate and undergraduate students in architecture, art, engineering and industrial design and afforded an opportunity for students and faculty alike to consider the issues outlined above and present their own responses. The teaching, evaluation and assessment of the courses represent an opportunity for educators to think about the role of both design-build and service learning in architecture education. Play Perch and The Berg compelled students to integrate technology and structure in the design process, and as such can be seen as experiments in advancing design pedagogy.
SOL ROSE 2014
Making Architecture Accessable

SUSTAINABILITY
DESIGNING AND BUILDING FOR POLICY CHANGE
MATTHEW LUTZ, MICHAEL PUDDICOMBE & EDWIN SCHMECKPEPER
HARVEST/DESIGN/BUILD AS A SUSTAINABLE DESIGN PEDAGOGY
TRAVIS BELL
COLLEGE OF ARCHITECTURE + PLANNING, UNIVERSITY OF UTAH
ABSTRACT

The Solar Decathlon competition, begun in 2002 by the U.S. Department of Energy (USDOE) and administered by the U.S. National Resource Energy Laboratory (NREL), is a global venue for design-build experiences in higher education, and at the current forefront of performance-driven residential design. The internationally sponsored solar-powered house competition has produced more than 200 prototype houses, included 208 collegiate teams, involved more than 32,000 students worldwide, and has an earned-media circulation audience in the hundreds of millions. With competition events held bi-annually in North America, South America, Europe, and China, multidisciplinary collegiate teams explore the challenges, potentials, and meaning of making strictly measured performance-driven architecture.

In recent competition events there has been a movement by some North American Solar Decathlon collegiate teams to design, build, and demonstrate that high performance solar-powered houses can be architecturally compelling, as well as more widely accessible to an economically diverse audience. As a testament to the concern that high-performance solar-powered housing is too often presented as something reserved for vacation homes for the wealthy, Norwich University chose to take a noteworthy approach by producing a modular, solar-powered, factory-produced prototype house with an affordability benchmark low enough to be purchased by households earning twenty percent less than the national household median income.

The Norwich University Solar Decathlon 2013 Delta-T90 House serves as undeniable evidence, to the public and Solar Decathlon administrators and competitors alike, that conservation-based design can generate evocative, performance-driven architecture and positively influence public policy.

DEsIGNIng AnD bUILDIng for poLICY CHAnGE

Matthew Lutz is an architect in the State of Vermont and a Certified Passive House Consultant. He is also Associate Professor in the School of Architecture and Art at Norwich University. He teaches design-build courses, upper-level design studios, and Introduction to Passive Design. Mr. Lutz’s research interests include studies in mobile, solar-powered buildings, and research related to low-income housing alternatives. He was most recently the Primary Investigator and Faculty Advisor for Norwich University’s award-winning entry in the U.S. Department of Energy’s 2013 Solar Decathlon Competition.

Edwin Schmeckpeper, P.E., Ph.D., is chair of the Department of Civil, Construction, and Environmental Engineering at Norwich University, the first private school in the United States to offer engineering courses. In addition, Norwich University was the model used by Senator Justin Morrill for the land-grant colleges created by the 1862 Morrill Land Grant Act. Prior to joining the faculty at Norwich University, Dr. Schmeckpeper taught at the University of Idaho, a land-grant college, and worked as an engineer in design offices and at construction sites. Dr. Schmeckpeper’s research focuses on engineering education and sustainable infrastructure.

Travis Bell is Assistant Professor in Sustainable Design at Portland State University’s School of Architecture, teaching lecture courses, design studios, and design-build courses. Travis’s primary interest lies in making architecture that is in closer alignment with the natural patterns of our environment. This interest grounds a research, teaching and design agenda focused on appropriate material choice, the prioritization of authentic craftsmanship, passive systems design, adapted historical technologies, Critical Regionalism, and temporary architectural solutions.
ABSTRACT

As the perception that sustainable design should become the overarching focus of architectural education continues to grow, schools of architecture would do well to ask if they are advancing sustainable design thinking in architectural terms, or relying upon the territory of other disciplines to direct solutions? For example, is the content and result of architectural thought on issues of sustainability uniquely different from that of engineering? This is a pointed question, for in many places sustainable design is essentially a euphemism for high-performance design, which is strongly weighted towards engineering solutions. The critique of high performance design, and of industrialized sustainable design in general, is that each tends to turn a blind eye to issues of local ecology and cultural health, instead making merry use of the industrial and financial methods and tools that have been at the heart of so many of our human problems—climate change being the most recent and enveloping. There is mounting literature suggesting that the appropriate human response to maintaining healthy, diversified local ecosystems is developing healthy, diversified local economies. These diversified economies are not so much efficient as they are comprehensive. The making of buildings carries repercussions on the local ecology and the local economy and demands solutions that can only be addressed through comprehensive thinking about what it means to build in this place, at this time. This is a question of architecture envisioned as a process of making.

The design-build pedagogy asks students to imagine architecture as a comprehensive activity, one that must, out of material necessity, include local economies and communities. This engagement with the details of making within a particular place gives design-build pedagogy a unique opportunity to offer architecture students an authentic education in sustainable design, and one that is framed in architectural terms.
Shundana Yusaf is an Assistant Professor of Architectural History at the University of Utah. She has studied architecture at National College of Arts, Lahore, and architectural history at Harvard, MIT, and Princeton University. Her research juxtaposes colonial/postcolonial history with media studies, framing each as a force of globalization. She is the author of Broadcasting Buildings: Architectures on the Wireless, 1927-1945 (Cambridge: MIT Press, 2014). Her second book-length project for the Society of Architectural Historians, entitled Archipedia Utah, is a collection of historical information and critical analysis of the hundred most representative buildings in Utah. These sites cover everything from the architecture of oral societies to that of the digital world. Her next book, Sufi Shrines in the Age of Hyperconnectivity, 2017-2018, will study the overlap between the history of religious space and the history of technology. Yusaf is the primary editor of Dialectic III and second editor of Dialectic II.

Professor Galarza was appointed as the director of DesignBuildBLUFF at the University of Utah in the summer of 2013. He took over for program founder Hank Louis. An architectural designer, builder, and educator, his main interest is to produce work that seeks to reveal the primordial, enduring, and essential character of human shelter. He enjoys using advanced computer modeling coupled with a rigor towards craft. When at all possible he tries to apply systems-based thinking at the intersections of regenerative design, fine art, and equal opportunity. His role is to guide students through the process of designing the built works, in addition to increasing the executive administrative duties of the program. He is invested in empowering students through hands-on experiences, while at the same time empowering the agency of indigenous peoples to develop for themselves built environments that reflect their own contemporary identities and values.

David Hamby operates a small design practice alongside materials research. His “House of Jell-O” conceptual work centers on remote-control gels—a form of programmable matter, or 3D printing without a printer. Under a grant from Sandia National Laboratories he is developing a prototype with wireless actuators for controlled morphogenesis. This combines phase transition chemistry (N-isopropylacrylamide) with radio signals and modeling software. After working in the construction trades, David received a Bachelor of Science degree in art and design from the Massachusetts Institute of Technology, and a certificate in landscape and topography from Italy sponsored by the Aga Khan Program in Islamic Architecture at MIT. A current exhibit at the Blue Hole Lake features his seven-foot sculpture of underwater caverns, conceived with an electrolysins accretion model from dissolved lake minerals. Architecture projects on his boards include single-family homes in New Mexico and Hawaii.

ABSTRACT

The School of Architecture at the University of Utah has hosted a design-build program in Bluff, Utah for ten years. The emergence of the program at the same time as the consolidation of digital technologies in architectural schools is no coincidence. Favoring the conceptual rather than the practical, modeling software and digital fabrication have introduced notions of space, materiality, and locality that take little notice of the capacity of the building industry to realize them. They have drawn a wedge between the high and low design opportunities available in the marketplace, and have created graduates alienated from the dominant conditions of the material production of the built environment.

Design-Build Bluff, in contrast, is conceptualized around the desire to immerse students into the realities and exigencies of the construction industry. It encourages a more lateral relationship between ideas on paper and “nuts and bolts” on site. Every spring a number of graduate students move more than 300 miles away from the school of architecture and form a tightknit commune to build a small single family home for a beneficiary on the Navajo reservation near Bluff.

This paper presents the successes and failures of the pedagogy of learning-by-doing as practiced at Bluff by taking a closer look at the three most interesting houses built by the students of Utah in the past ten years. It thinks through Rosie Joe (2004), the house that put the program on the map, Sweet Caroline (2006) a playful exploration of the geometry of a Hogan, and Rabbit Ear (2013), the last completed expression of its teaching philosophy. Taking the pulse of the school’s decade-long involvement with the reservation, the paper argues that moving into its second decade, the critically acclaimed program needs to transcend the object-centric architectural education, for it leads to an impossibly narrow, technocratic, and ironically, market-driven pedagogy and understanding of the role of the future architect.
ABSTRACT

Cutting edge architecture has been popping up on Indian reservations. University students have been designing and building custom single-family homes on Native American lands over the past decade. This growing movement has been critiqued as an import of well-crafted buildings that fail to improve the lives of those living in them. While the delivery of high design residences to these communities may be new, the transporting of outside architecture here is not. Suburban-style tract home designs were built all over reservations in previous decades through programs sponsored not by schools, but by government agencies. Have the design schools applied the lessons learned from previous forays?

What were the unintended consequences of these government programs? What areas of ignorance on the part of these efforts came to light? How could the creation of new homes by outsiders better aid the real needs of the lives being lived in these family spaces? I discuss these questions with people who understand Native American experiences in general, and who possess particular insight into reservation dwellings and the measure of “giftiness” when homes are gifted. How does the gifter learn what best to share with the giftee? How does the designer learn to assemble the most beneficial building for the inhabitant? Chris Eyre, a film maker working with themes of contemporary Native American life, is a facilitator in the process.

Complementing personal discussions on these questions I look at results of past government initiatives to clone small suburban homes on reservations. I consider the parallels between state and university home building efforts with a focus on intentions and missed signals. Have state endeavors treated the house as an object, or as a part of a larger universe? Are universi-
Mitigating The Sun
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Matthew Miller is currently teaching a high school design-build curriculum known as (CO)studio. An accomplished designer and fabricator, he has worked for several leading social design practices including Project H Design and Architecture for Humanity. Matt holds degrees in architecture from the University of Tennessee and Cranbrook Academy of Art, and has taught architecture and design at RISD, the College of Creative Studies, and UC Berkeley, among others. Matt is dedicated to the craft of design-build with a range of projects extending from the blighted streets of Detroit to the agrarian slopes of southwestern Uganda.

Prior to founding (CO)studio in the Roaring Fork Valley of Colorado, Matt co-founded and led instruction for Studio H, an award-winning and widely published high school design-build curriculum. The first year of Studio H, in Bertie County, North Carolina, is the subject of the documentary film, If You Build It.

A paradox exists today in secondary public education: we mandate that all students be prepared to attend college and succeed in an evolving jobs market that demands adaptability, yet we continue to adopt federal standards and high stakes testing that stymie students’ individuality, creativity, and critical thinking. To date, 44 states and the District of Columbia have adopted the Common Core State Standards. To ensure students are “ready for college,” school districts have increasingly privileged traditional academic classes over the arts.

Vocational education (wood/metal shop, drafting, auto tech, etc.) has rapidly declined since the mid-1980s. The traditional shop class has fallen in popularity due to many factors: the rise of a globalized workforce and the subsequent dismantling of American manufacturing; the stigma of vocational tracking for children of color and/or low-income families; and the reduction of high school course offerings due to state budget cuts.

For the past four years, I have committed my career to teaching a high school design-build curriculum. My first attempt, Studio H, began in 2010 in Bertie County, North Carolina. This past fall, I founded (CO)studio in Glenwood Springs, Colorado.

Through instructing students in both the creative rigor of design and the hands-on skills to confidently manipulate their environment, I have concluded that the high school design-build studio provides what neither vocational education nor Common Core curricula can offer alone: opportunities for authentic collaboration and material consequence.

In this paper, I reflect on and critique my teaching of design-build to high school students as an antidote to the current trends in public education. To engage my teenage students without diluting the rigorous expectations of a good design-build studio, I have had to drastically redesign my curriculum each year. Despite the challenges of working within the existing paradigm, I maintain that a design-build experience can provide students with a wide range of creative and critical thinking skills, the ability to communicate their ideas visually and verbally, and the confidence to actively engage the world beyond the walls of any classroom.