Counterculture Materialized: Work and the "Outlaw Builder"

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Synopsis

The lazy hippie, one of the most durable counterculture stereotypes, misrepresents the movement's energetic subversion of the modern construct of work. Industrial societies valorize work as an income distribution mechanism, a threshold of adulthood, a yardstick of status, and a foundation of individual identity. Counterculture ideology rejected such instrumental uses of labor as not only coercive but also unnecessary, given the excess productive capacity of an economy predicated upon planned obsolescence and competitive consumption. This essay examines how hippies, in their guise as outlaw builders, radically redefined work. Mobilizing two inherited middle-class legacies—the ideal of work as a vehicle of self-fulfillment and postwar enthusiasm for do-it-yourself pastimes and guidebooks—counterculture builders violated the cultural conventions and legal protocols of construction labor. Hippies redefined the practice of self-building as a transformative experience open to anyone: the unskilled, the cash-strapped, women and children, lesbians and gay men. Outlaw builders devised a work culture that fostered collective identity and individual self-confidence in the process of constructing their back-to-the-land shelters across a rural archipelago of "liberated territories."

Hippies have long been defined by their problematic relationship to labor. Laziness is hard-wired into the Dutch epithet *langharig werkschuw tuig* (in English, "longhair slacker scum"). Absence of a Puritan work ethic also ranked high on the list of hippie shortcomings for American conservatives, as demonstrated by a 1968 letter to the editor of the *Portland Oregonian*:

> Why condone this rot and filth that is "hippie" in this beautiful city of ours? Those who desecrate our flag, refuse to work, flaunt their sexual freedom, spread their filthy diseases and their garbage in public parks are due no charitable consideration.[1]

Academics have parsed hippie laziness in more conceptual terms. Architectural historian and theorist Felicity Scott invoked "The Right to Be Lazy," an 1883 treatise penned by Karl Marx's brother-in-law, Paul LaFargue, to explain a "new form of apathy or ennui" characteristic of the counterculture.[2] An empirical study of "freak culture" conducted by University of California sociologists in the early-1970s found that its value system renounced "adult roles" that entailed "obligations not only to produce but also to consume," and that shedding an occupational identity was "a critical and novel discovery for middle-class males."[3] The white, bourgeois origins of counterculture rebels contaminated their liberation struggle, according to American historian Grace Elizabeth Hale. "Freedom meant not working. It meant having lots of sex. It meant taking drugs . . . [T]hey remade their own privilege by asserting their innocence."[4] Given the longevity of the trope of hippie indolence, a phalanx of recent studies advances what seems like heresy: evidence that a "productive wing of the counterculture" distinguished by outlandish creativity forged industrious communities of "thing-makers, tool freaks, and prototypers."[5] What turned the tide of scholarship? A shift in analysis that traded inferred generalizations for focused examination of hippie ventures in solar energy and septic systems, car repair and van conversion, midwifery and organic food production, and the "groovy sciences" of environmental restoration and artisanal

1. Letter to the Editor, *Portland Oregonian,* 31 July 1968: 22; quoted in John Robert Howard, "The Flowering of the Hippie Movement," *The Annals of the American Academy of Political and Social Science,* Vol. 382 (March 1969): 53.
2. Felicity Scott, "Episodes in the Refusal of Work," *Archis,* Vo. 24 (2010): 35.
3. D. Lawrence Wieder and Don H. Zimmerman, "Generational Experience and the Development of Freak Culture," *Journal of Social Issues* Vol. 30, No. 2 (1974): 155, 137.
4. Grace Elizabeth Hale, *A Nation of Outsiders* (New York: Oxford University Press, 2011), 228; quoted in David Farber, "Self-invention in the Realm of Production: Craft, Beauty, and Community in the American Counterculture, 1964 to 1978," *Pacific Historical Review,* Vol. 85, No. 3 (2016): 412.
5. The terms come from Farber, "Self-invention in the Realm of Production," 416, and Andrew G. Kirk, *Counterculture Green: The Whole Earth Catalog and American Environmentalism* (Lawrence: University of Kansas, 2007), 43-73.

cheese-making.[6] Counterculture "outlaw builders," the subjects of this essay, exhibited a similar productive mastery, pursuing skills and technical know-how to craft new lives consistent with ecological and communitarian values.[7]

For members of the hippie "creative class," the alternative to work was not simply a binary opposite—idleness—but an approach to production that subverted how work operates in contemporary societies. Modern lives center on work as a benchmark of adulthood, a primary social collective, and an index of who we think we are and how we rank ourselves among others. As a mechanism to distribute income, work establishes hierarchies of consumption and differing realms of material comfort, which in turn frame status hierarchies. Work transforms time into a commodity, defining its value and tempo. The political left attempts to reform work in ways that make its experiences and outcomes more egalitarian. In contrast, the counterculture rejected much of modern work's socially constructed order as not only coercive but also anachronistic, given the profligacy of a postwar American economy ruled by planned obsolescence and disposable commodities. In 1967, Louis Gottlieb, one of the founders of Morningstar, the first Bay Area back-to-the-land commune, proclaimed it a "pilot study" for life in a dawning age of mass unemployment triggered by the application of computers to industrial production, a notion that must have seemed droll when unveiled fifty years ago:

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6. On eco-freak design, see: Giovanna Borasi and Mirko Zardini, *Sorry, Out of Gas: Architecture's Response to the 1973 Oil Crisis* (Montreal; Canadian Centre for Architecture, 2007); Greg Castillo, "Counterculture Terroir: California's Hippie Enterprise Zone," in Andrew Blauvelt, ed., *Hippie Modernism: The Struggle for Utopia* (Minneapolis: Walker Art Center, 2015); Greg Castillo, "Hippie Modernism: How Bay Area Design Radicals Tried to Save the Planet," *Places Journal*, October 2015, https://placesjournal.org/article/hippie-modernism/ (accessed 28 December 2017); Kirk, *Counterculture Green*; Caroline Maniaque-Benton, *French Encounters with the American Counterculture, 1960-1980* (Farnham: Ashgate, 2011), 27-71; and Simon Sadler, "An Architecture of the Whole," *Journal of Architectural Education,* Vol. 61, No. 4 (2008), 108-29. On hippie automotives see: Farber, "Self-invention in the Realm of Production," 429-436. On counterculture midwifery see: Gretchen Lemke-Santiago, *Daughters of Aquarius: Women of the Sixties Counterculture* (Lawrence: University of Kansas, 2009) and Wendy Kline, "The Little Manual that Started a Revolution: How Hippie Midwifery Became Mainstream," in Robert J. Kett and Anna Kryczka, *Learning by Doing at The Farm: Craft, Science, and Counterculture in Modern California* (Chicago: Soberscove Press, 2014), and David Kaiser and W. Patrick McCray, eds., *Groovy Science: Knowledge, Innovation, and American Counterculture* (Chicago: University of Chicago Press, 2016), 172-204. On organic food production, see: Ryan H. Edgington, "'Be Receptive to the Good Earth': Health, Nature, and Labor in Countercultural Back-to-the-Land Settlements," *Agricultural History* Vol. 82, No. 3 (Summer 2008): 270-308; Robert J. Kett and Anna Kryczka, *Learning by Doing at The Farm: Craft, Science, and Counterculture in Modern California* (Chicago: Soberscove Press, 2014), and Kaiser and McCray, eds., *Groovy Science.*

7. David Farber, "Building the Counterculture, Creating Right Livelihoods," *The Sixties: A Journal of History, Politics, and Culture,* Vol. 6, No. 1 (May 2013): 1-24. Following the lead of Farber and other counterculture studies scholars, I am not concerned with baleful "crash and burn" life trajectories in this essay, which deliberately breaks with histories that portray hippie culture through its lowest common denominators. As in other art and architectural histories, this assessment of hippie D.I.Y. building focuses on exemplary achievement rather than a baseline of mediocre production.

> Very shortly, all the goods and services that our society requires will be produced at a fraction of the man-hours currently required to produce them. And so we're going to have massive compulsory leisure. We already see it in the so-called hippies who are the first wave of people produced by cybernated industry. I mean they are technologically unemployable. What does "technologically unemployable" mean? That means you got a job and during the performance of your duties a little voice came to you and said: "this job could be better done by a machine." That's [the] prelude; that's the psychological preparation to dropping out.[8]

How might such drop-outs evade the employer/consumer contract providing life's material necessities? Not through downward mobility, with its implicit acceptance of norms based on postwar affluence, but through the lateral mobility theorized by Morningstar co-founder Ramon Sender Barayón as "voluntary primitivism."[9] If America's productive overcapacity caused cosmetically impaired produce, out-of-fashion clothing, and leftover construction materials to be treated as trash, it could also serve as the supply chain for an Eden of permissive austerity. Consciously abandoning a culture of competitive consumption for practices of scavenging and craft production, back-to-the-land *émigrés* made "a separate peace with both capitalism and the pleasures of material comfort," in the words of historian David Farber.[10]

D.I.Y. Revolutionaries

The Morningstar experiment ended before communards could establish the practices and ethos of productive voluntarism needed by a sustainable community. As the Summer of Love's flood of new recruits, runaway teens, drug dealers, and sexual predators overwhelmed San Francisco's Haight-Ashbury district, the tents, lean-tos, and cabins of urban refugees sprouted across hillsides at Morningstar. Rural neighbors, disgusted by noise, nakedness, and licentious behavior, appealed to local health and building inspectors to shut the carnival down. When a Sonoma County District Attorney mandated demolition of all non-code compliant structures and the

8. Lou Gottleib's disquisition on technological unemployment was recorded by Jack O'Connell in his 1967 documentary film *Revolution*. https://www.youtube.com/watch?v=Z9Y6d_FX2CY (accessed 29 December 2017).
9. Ramon Sender Barayón, "Open Land - A Manifesto" (1969), reproduced in Ramon Sender Barayón, ed., *Morning Star and Wheeler's Open Land Communes*, (San Francisco: Calm Unity Press, 2016), 18.
10. David Farber, "Self-invention in the Realm of Production," 411.

departure of their inhabitants, Sender and a band of stalwarts decamped for Wheeler's Ranch, another Open Land settlement on a more isolated site ten miles away.[11] Bill Wheeler's commune, nearly as anarchic as Morningstar, served as a finishing school for back-to-the-land acolytes adapting to the new conditions of their exodus. One of its rites of passage was making one's own shelter. Its learning curve began with pitching an improvised tent or lean-to and, as time and skills progressed, might conclude with the construction of a cabin. According to Wheeler:

> The importance of building your own nest was central to the Open Land philosophy. Those who did it—both men and women—found it one of the most exhilarating experiences of their lives. Good, solid homes, tight and fit, have been built on the Ridge with used lumber, second-hand nails and old roofing.[12] (Figure 1)

Handmade homes, scrounged from scrap and assembled in flagrant disregard of building and zoning regulations, championed ecological consciousness over consumer affluence; tribal clans over insular families; and circadian rhythms over clock-based lifestyles. As Felicity Scott observes: "For the communards, these structures were a principle means of disseminating prospects for… alternative modes of life; they were strategic vehicles in their attempts to withdraw from the state's regulation of environmental controls."[13] Their challenge to the established order launched a series of counteroffensives in Sonoma County's ongoing "Code Wars." Sheriffs, building inspectors, public health officials, and FBI officers descended upon Wheeler's Ranch, sometimes trailed by bulldozers, their weapon of choice.[14] (Figure 2)

Dropping out to pursue a new life on an open land settlement demanded production skills that few new converts possessed. At the "Houseboat Summit," convened in February 1967 by a Haight-Ashbury underground newspaper, *The Oracle*, to ponder counterculture futures, poet Gary Snyder confronted LSD guru Timothy Leary with the dilemma of his call to "tune in, turn on, drop out:"

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11. On Morningstar and Wheeler Ranch (a.k.a. Sheep Ridge Ranch and Ahimsa) see Ramón Sender Barayón, *Morning Star and Wheeler's Open Land Communes: A Brief Run-Through of Their Histories and Manifesto I and Manifesto II* (San Francisco: Calm Unity Press, 2016) and "Communes U.S.A." *The Modern Utopian,* Vol. 5, Nos. 1,2,3 (1971): 121-29.
12. Bill Wheeler, quoted in Ramon Sender Barayón, Gwen Leeds, Near Morningstar, and Bill Wheeler, *Home Free Home: A History of Two Open-Door California, Communes: Morning Star Ranch and Wheeler's (Ahimsa) Ranch,* 1986, Chapter 11 http://www.diggers.org/homefree/hfh_11.html (accessed 29 December 2017).
13. The campaign by public officials to eradicate Wheeler's Ranch is detailed in Felicity Scott, "Bulldozers in Utopia: Open Land, Outlaw Territories, and the Code Wars," in Iain Boal, Janferie Stone, Michael Watts, and Cal Winslow, eds., *West of Eden: Communes and Utopia in Northern California* (Oakland: PM Press, 2012), 57-71.
14. Sender Barayón, *Morning Star and Wheeler's Open Land Communes,* 11.

Figure 1. Joann, David, and their infant, Covelo Vishnu, in 1969 at The Chapel, their Wheeler's Ranch home built from salvaged lumber and windows, with trunks of redwoods that had been burned in an earlier wildfire serving as pilotis. *Bob Fitch photography archive, © Stanford University Libraries*

Figure 2. A Sonoma County sheriff's posse with local building inspector Ralph Amaroli inspecting a cabin at Wheeler's Ranch for code violations. *Bob Fitch photography archive, © Stanford University Libraries*

> Your drop-out line is fine for all those other people out there, you know, that's what you've got to say to them. But, I want to hear what you're building. What are you making? […] What is very important here is, besides taking acid, is that people learn the techniques which have been forgotten. That they learn new structures, and new techniques. Like, you just can't go out and grow vegetables, man. You've got to learn HOW to do it.[15]

At Wheeler's Ranch, communard Alicia Bay Laurel set out to remedy the problem with a pen and a sheaf of blank typing paper. To help orient newcomers to life on the 320-acre site, Bay Laurel compiled *Living on the Earth,* a two hundred-page, handwritten guide for self-reinvention addressed to "people who would rather chop wood than work behind a desk so they can pay [household utilities]." Stripped of chapter headings, it leads readers through an "unmapped land" of discovery and learning "from traveling the wilds to the first fence, simple housing, furnishing houses, crafts, agriculture, food preparation, medicine, not unlike the development of our ancient ancestors."[16] (Figure 3) The handbook's narrative of architectural evolution begins with tent making and progresses to wooden shelters, as informed by commune building experience: "Cheap lumber: buy from a wrecker or work as a wrecker yourself, lumber mill-ends, lumber seconds." Building tips that seem like hippie fantasies—"If you live on land that has been raped ('logged') you may find stumps that work as foundations for your house. Sometimes a large redwood is cut down but the little ones around it are left, forming a little pavilion"—accurately describe construction experiments conducted at Wheeler's Ranch.[17] Published in 1970 by Bookpeople, a small independent collective based in Berkeley, *Living on the Earth* quickly sold out of its initial run of 10,000 copies thanks to a glowing review in the *Whole Earth Catalog.* The wide-eyed innocence of Bay Laurel's freehand text and line drawings also entranced acquisition editors at Random House, a publishing giant based in Manhattan, which acquired distribution rights to her book (along with the *Whole Earth Catalog*) in its California gold rush to monetize alternative press offerings. *Living on the Earth,* still

OPPOSITE: Figure 3. A page from Alicia Bay Laurel, Living on the Earth (1970) with sheltering tips and illustrations inspired by the construction methods used at Wheeler's Ranch. Illustration courtesy of Alicia Bay Laurel.

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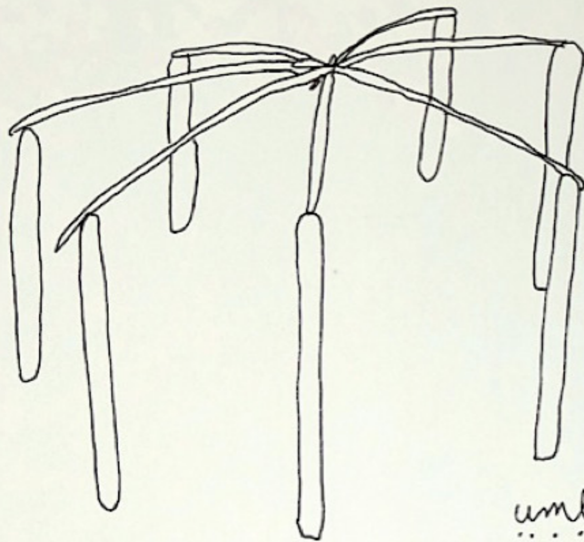
15. Gary Snynder, quoted in "The Houseboat Summit," *The Oracle* 7 (February 1967). The debate transcript can be found online at http://project.unicorn.holtof.com/watts/the_houseboat_summit1.htm (accessed 31 December 2017).
16. Alicia Bay Laurel, *Living on the Earth: Celebrations, Storm Warnings, Formulas, Recipes, Rumors, and Country Dances* (New York: Random House, 1971), unpaginated introduction.
17. Ibid, 18-19.

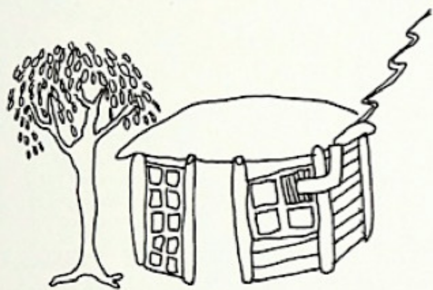


umbrella dome

put posts in to the ground several feet deep in the shape you want your dome. attach long strong slightly curving branches to the top of each post and lash them together in the center.

You may build a floor platform a few feet above the ground or just dig a ditch around your dome and have an earth floor or a gravel floor. Or cut thin sections of a tree trunk for a flagstone floor.

Between each two posts nail in old windows, shelves, doors, canvas (even old paintings), boards, latices with vines, bamboo, screens, etc.



The waterproof canvas roof is held down with a hook at each post so that you can fold it back when the sun is shining.

the stove pipe comes out through an empty window pane (surround it with sheet metal) - and have sheet metal between stove & wall as well.

in print nearly fifty years later in an updated edition as well as Spanish, Japanese, and Korean translations, earned Bay Laurel the 1971 "Woman of the Year" award from *Mademoiselle,* a fashion merchandizing journal: proof that mass-marketing had successfully camouflaged the anarchism of her handmade call-to-arms.[18]

However radical the notion of *Living on the Earth* by starting from scratch—including learning to dig "a proper shit hole" (page 11) and how "a metal bread box can be used as an oven" (page 31)—counterculture self-production reflected two middlebrow legacies: belief in work as a vehicle for self-fulfillment and enthusiasm for do-it-yourself (D.I.Y.) projects and handbooks. Wheeler's assertion that hippie homebuilders "found it one of the most exhilarating experiences of their lives" echoes an understanding that, ideally, work should be personally satisfying: a middle-class notion passed along generationally, no matter how often its promise failed to materialize. Nor was there anything especially revolutionary about claims for D.I.Y. carpentry as a path to bliss, a pitch commonly used to sell the home improvement tools and products advertised in postwar handyman magazines. The bourgeois acquisition of artisanal skills as pastimes traces its origins to the late-19th century, according to historian Steven M. Gelber, as the ideology of modern work "infiltrated the home in the form of productive leisure."[19] Handicrafts reinforced workplace values and simultaneously compensated for the dissatisfaction of rote, impersonal labor. The consumer D.I.Y. craze that swept the U.S. in the 1950s coincided with the mass-marketing of hand-held power-tools and a boom in white homeownership made possible by Federally insured and subsidized low-cost mortgages. Crucial to the new availability of amateur-friendly power-tools was an accompanying flood of "how-to" publications. Manuals, pamphlets, and magazine articles provided easy-to-follow instructions that promised do-it-yourselfers low-cost, professional results in return for sweat equity.[20] For design historians studying postwar D.I.Y. activity, this advice literature—the mediating interface between purveyors of expertise and everyday builders—constitutes the primary source of evidence for a culture of making whose artifacts have often disappeared, either hauled off as trash or ripped out in subsequent remodeling efforts.[21] Research on counterculture D.I.Y. production faces a similar challenge. Even presuming a successful evasion of red-tagging and demolition—the procedure used by building inspectors to rid rural

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18. A biography of Alicia Bay Laurel (née Kaufman) can be found at https://aliciabaylaurel.com/bio/ (accessed 21 November 2017).
19. Steven M. Gelber, *Hobbies: Leisure and the Culture of Work in America* (New York: Columbia University Press, 1999), 2.
20. On the D.I.Y. craze in postwar America, see: Carolyn M. Goldstein, *Do It Yourself: Home Improvement in 20th-Century America* (Washington DC: National Building Museum, 1998).
21. Paul Atkinson, "Do It Yourself: Democracy and Design," *Journal of Design History,* Vol. 19, No. 1 (Spring 2006): 1.

localities of hippie infestation—the code-violating output of outlaw builders defied commodification as real estate, negating the investment value of maintenance and repair expenses. Counterculture alternatives to the cultural and economic order of modern work, as expressed in a generation of handmade structures now mostly gone, can be reconstructed from a novel genre of hippie D.I.Y. literature, however.

Living on the Earth was one of a torrent of D.I.Y. manifestos to emerge with the flowering of Bay Area alternative publishing: a phenomenon usually equated with its "greatest hit," Steward Brand's *Whole Earth Catalog*, but in fact far broader in both output and impact. Decades before digital desktop publishing, hippies pioneered its anlog ancestor using newly-available, user-friendly equipment like the IBM Selectric composer and Polariod MP-3 halftone camera to generate justified copy, shoot halftone images, and create camera-ready paste-ups (with Bay Laurel's hand-drawn manuscript establishing a minimalist bottom line for alternative print culture that was widely admired and emulated).[22] The new crop of publications typically featured cut-and-paste illustrations and a patchwork of typefaces leavened by calligraphy and hand lettering: a visual style that boasted counterculture cred by adopting semaphores of urgent, skinflint production found in political leaflets and underground newspapers.[23] Hippie self-publishing modeled not only an alternative graphic arts aesthetic but also a distinctive counterculture work ethic, described by David Farber as "a communitarian ethos in which knowledge and authority were shared and… [which] often trumped individual advancement and material gain."[24] For example, the garage workshop that produced the *Whole Earth Catalog* also served as a free academy for grassroots publishing ingénues who wanted to learn the basics: a skills transaction typical of the hippie gift economy.[25] The final step in the publication process, a trip to the printer, was easy in the Bay Area, which boasted the greatest concentration of small, independent, politically progressive press shops anywhere in the world.[26] Hippie "how to" literature diverged from its middle-class predecessor not only in its proudly unprofessional look, but also its intended product.

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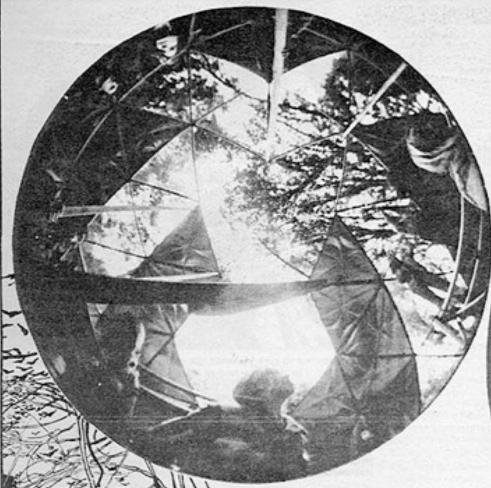
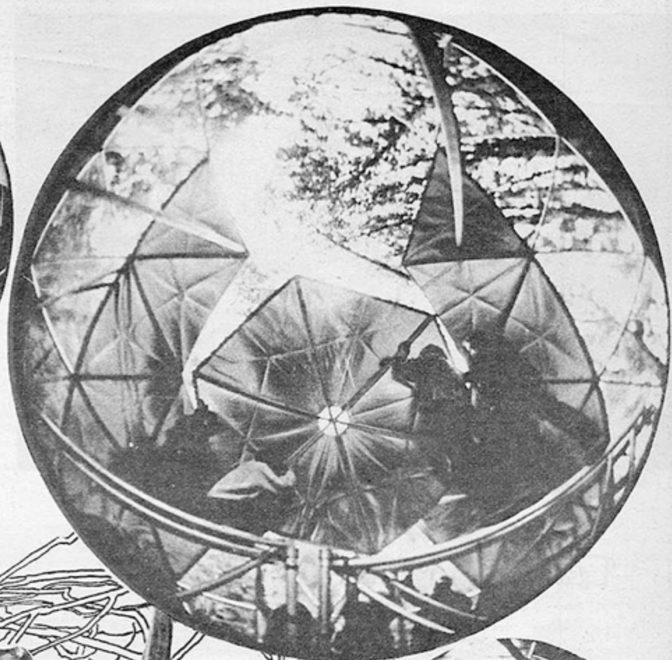
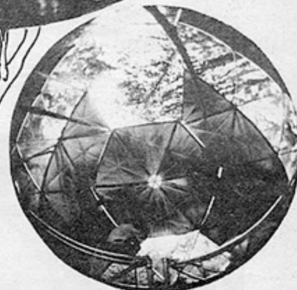
22. The many graphic design exercises inspired by *Living on the Earth* include *Farallones Scrapbook* (1971) collectively produced by Farallones Design, and *The Moosewood Cookbook* (1977) and *The Enchanted Broccoli Forest* (1982), both by Mollie Katzen.
23. On 1970s lifestyle print culture and its West Coast origins, see Sam Binkley, *Getting Loose: Lifestyle Consumption in the 1970s* (Durham NC: Duke University Press, 2007), 101-128.
24. David Farber, "Self-invention in the Realm of Production," 411.
25. Among those who benefitted from training at Brand's Rancho Diablo garage workshop were Salli Rasberry (*The Rasberry Exercises: How to Start Your Own School (and Make a Book!)*, 1970), Lloyd Kahn (*Domebook*, 1970), and Samuel Yanes (*Big Rock Candy Mountain*, 1970-71).
26. Lincoln Cushing, "Red All Over: Political and Countercultural Printshops of the SF Bay Area," lecture at San Francisco Public Library, 13 April 2014: https://www.youtube.com/watch?v=tU9CsU0aZfQ&feature=youtu.be, accessed 1 January 2018.





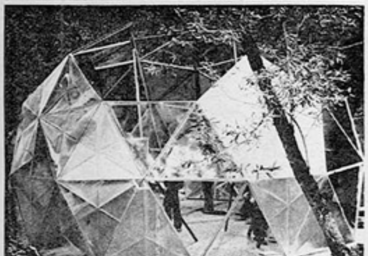
A group of about six people spent the first day putting on the neoprene and assembling hexagons, pentagons and half-hexes. Triangles were aligned and clamped together with several vice-grips. The center hole was drilled first and a bolt inserted before the end holes were drilled. We drilled as close to the corners and as close to the skin as possible without having the bolts angle too much. The bolts were just long enough to fit through the two thicknesses of wood and aluminum, so that even a small amount of angling resulted in having to re-drill the hole. Using slightly longer bolts would have made things easier.



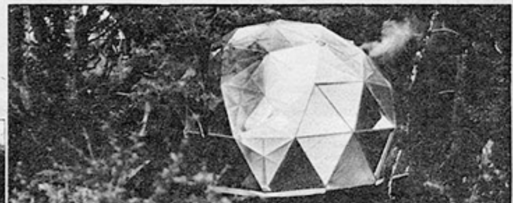
The second day we put the dome up. We began with the three panels and the lower hexes, working around until we had completed this lower ring. Next we inserted the five pents, propping them with people and poles as we went. The next row of hexes was even more floppy, and not until we put in the last hex did the dome begin to get rigid. The top pent miraculously fit in with a minimum of prying. We had had some trouble with aligning the triangles since we had not pre-drilled and since some of the hexes and pents had not been put together too carefully the day before. Consequently we were somewhat fearful as we approached the end. I guess we were lucky.

With the dome up, it took a couple of hours to caulk the hubs (centers of the hexes and pents should have been caulked before the erection), and about three hours to cut and pop-in pelafoam insulation triangles.

If the dome does develop some leakage we plan to caulk all seams with silicone sealant, first rubbing with an abrasive pad as described in the Aluminum Triacon dome, then priming with silicone primer before applying sealant.



These problems could have been avoided by pre-drilling. Our bolts varied anywhere from ½" to 1½" from the skin. Pre-drilling would allow you to place the bolts at a uniform 3/8" from the skin. The dome would be stronger and easier to put up. Putting the bolts closer to the edge will also give you a better seal. Depth of frames was 1¾", depth of flanges was 1-3/8". The width of the neoprene is the only 1" so we positioned it as close to the outside edge as possible without it sticking out when squeezed between the panels.



Looking from the outside, the aluminum is outlined by the thin black line of neoprene in the seams. The cross-braking gives decagons around the centers of the pents and 12agons around the hexes. The great circle windows are framed in wood. The only unforeseen problem is that it is under a fairly prolific oak tree. Acorns hitting the dome sound like gunshots and leave small dimples in the aluminum....but then there are only acorns a couple of months a year.

Through the course of the '60s, the growth market in mainstream D.I.Y. increasingly involved the assembly and finishing of standardized parts cut from a supplied pattern or purchased in kits.[27] While equally materialist, counterculture D.I.Y. opted instead for radical indeterminacy. Rather than providing instructions on how to make and personalize familiar household objects, handbooks like *Living on the Earth* and *The Whole Earth Catalog* operated at a meta-level of self-production, suggesting how familiar objects could be deployed as tools to rupture the suffocating confines of postwar progress, catapulting hippie do-it-yourselfers into uncanny futures of their own making.

A Cure for Dome Fever

Brand's garage workshop served as the incubator for guidebooks that came to define the self-build practices of hippie architecture. Lloyd Kahn, a dropout San Francisco insurance broker turned D.I.Y. builder, served as editor of the Shelter section of the *Whole Earth Catalog* based on his work at Pacific High School, a live-in learning community south of San Francisco in the Santa Cruz Mountains. Between 1969 and 1971, students under Kahn's tutelage constructed seventeen domes as experimental residences. (Figure 4) Buckminster Fuller had spread the geodesic dome craze a few years earlier through his lecture circuit among American college campuses. A 1965 talk at the University of Colorado captivated Clark Richert and a group of fellow artists who called themselves "Droppers." Inspired by Fuller's visionary geometries and the notion that, as glossed by design historian Simon Sadler, "square thinking came from square buildings; the expanded mind would bloom in a space without corners," the Droppers built Drop City, an artists' retreat cobbled together from scavenged material, including lumber scraps, factory-reject plywood, tarpaper, chicken wire, and junkyard car roofs.[28] Their geodesic shantytown along with the domes at Pacific High served as case studies in Kahn's D.I.Y guides, *Domebook One* (1970) and *2* (1971), produced with co-author Bob Easton. Distributed nationally by Random House, they provided royalties that Kahn used to build

OPPOSITE: Figure 4. The 1970 construction of a "3-frequency geodesic, 5/8 sphere, icosa-alternate breakdown, vertex zenith" dome at Pacific High featured in Lloyd Kahn and Bob Easton's Domebook 2 (1971).

27. Atkinson, "Do It Yourself": 5.

28. Simon Sadler, "The Dome and the Shack: The Dialectics of Hippie Enlightenment," in Iain Boal, Janferie Stone, Michael Watts, and Cal Winslow, eds., *West of Eden: Communes and Utopia in Northern California* (Oakland: PM Press, 2012); Erin Elder, "How to Build a Commune: Drop City's Influence on the Southwestern Commune Movement," in Elissa Auther and Adam Lerner, eds., *West of Center: Art and the Counterculture Experiment in America, 1965-1977* (Minneapolis: University of Minnesota Press, 2012), 2-20.

a geodesic home for himself just as he was coming to realize its disadvantages. Fuller's pristine geometries were a poor match for hippie ad-hoc construction. They demanded close tolerances achievable only with expensive kiln-dried lumber, generated waste in materials manufactured in rectangular sheets, were difficult to insulate and nearly impossible to weatherproof, and defied building additions or expansions. A hallucinogenic epiphany endorsed Kahn's discontent. Hiking on mescaline in Marin County, he was stopped in his tracks by an apparition. Tucked in a pristine forest meadow, a spectral geodesic dome seemed to race through time, defiling its surroundings with warped plywood panels and yellowed plexiglass windows. Alarmed by the damage being done to his Karma by popularizing such structures, Kahn instructed an equally horrified editor at Random House to recall all unsold copies of *Domebook 2* from bookstore shelves at the height of sales.[29] It had made Fuller's tensegrity structures "look too easy, too much like a breakthrough solution, too exciting."[30] Riffing on the lyrics of a popular country western tune, Kahn closed the book on his geodesic adventure with the lament "Mamas, don't let your mathematicians grow up to be-come builders."[31]

"Smart But Not Wise," an essay in *Domebook 2,* in fact had foreshadowed Kahn's search for a vernacular better suited to building with junk and scrap, the "fallout" of industrial society. At a conference sponsored by MIT's Architecture Machine Group, founded in 1967 by Nicholas Negroponte and Leon Grossier, Kahn was shown a prototype interface for digitally designed plastic buildings manufactured by robotic equipment on site. He found himself "particularly disturbed by the vision of the architect sitting at the cathode tube, drawing his design into the computer, the computer causing the foam truck to build the house." Here was another iteration of the mistake that also had popularized domes: "making plastics and a totally weird shelter outlook appear seductively appealing." The experience prompted Kahn to inventory what he had learned about building, starting with the principle that the "use of human hands is essential [...]used lumber looks better than new lumber, but you've got to pull nails, clean it, work with its irregularities."[32] An aesthetic rooted in handcraft and locally-sourced recycled materials demanded time investment strategies incompatible with modern work's

29. Interview with Lloyd Kahn, Bolinas, 12 November 2016.
30. Lloyd Kahn and Bob Easton, "Introduction to Domebook 3," *Shelter* (Bolinas, CA: Shelter Publications, 1973), 109.
31. Lloyd Kahn, *Refried Domes* (Bolinas, CA: Shelter Publications, 1989), frontispiece.
32. Lloyd Kahn, "Smart But Not Wise: Further Thoughts on Domebook 2, Plastics, and Whiteman Technology," in Lloyd Kahn and Bob Easton, eds., *Domebook 2* (Bolinas: Shelter Publications, 1971), 86-89.

fundamentals: standardization, efficiency, and their payoff in cost-saving temporal compression. An alternative approach to D.I.Y. building was needed, and Kahn's co-editor, Bob Easton, knew where to find it.

Easton asserted that geodesic domes were not architecture at all, but rather industrial design inventions: a distinction Kahn understood all too well, having paid a hefty licensing fee to publish Fuller's patented diagrams in *Domebook One*. The argument had far-reaching implications. It repudiated an entire vector of modernist development dating back to the early 1920s, when Walter Gropius guided the Bauhaus away from Expressionist handcraft and instead toward mass production, machine culture, and the cult of the engineer. Easton was captivated by the self-build paradigm celebrated in *Architecture Without Architects: An Introduction to Nonpedigreed Architecture,* the catalog of Bernard Rudofsky's 1964 exhibition at the New York Museum of Modern Art, which made the rounds of student drafting tables at Berkeley while Easton was there working on his Master's degree in architecture.[33] As they wrestled with their geodesic demons, a quotation from the catalog essay—Pietro Belluschi's definition of architecture as "a communal art, not produced by a few intellectuals but by the spontaneous and continuous activity of a whole people with a common heritage, acting under a community of experience"—must have resonated with Kahn and Easton.[34] *Shelter,* the successor to the *Domebook* series, envisioned just such a collective architectural practice and proposed building it largely from scrap.

Recognition that "the only growing resource is trash" led Kahn and Easton to profile masters of "Demolition as a Lifestyle, as a Way, as a Path" in *Shelter* using biographic conventions conventionally reserved for architects and master builders. Captain Bill, an 82-year-old wrecker, merited an extended profile. Mo van Nostrand, who abandoned a career in architecture to found Basho Demolition, shared his basic laws of salvage. Ed Miller, of Ed's Bottle Depot in Vancouver, was praised for "an eye that can spot a brass coupling in a heap of rubble the way a biologist spots rare mushrooms."[35] The assertion that "wrecking is a way of thinking" reconnected Kahn and Easton to the genesis of hippie geodesics, however inadvertently.[36] In a 1967 manifesto, Drop City communard Albin Wagner proclaimed: "We have discovered a new artform: creative

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33. Interview with Robert Easton, Berkeley, 6 May 2016.
34. Pietro Belluschi quoted in Bernard Rudofsky, *Architecture Without Architects: A Short Introduction to Non-Pedigreed Architecture* (New York: Museum of Modern Art, 1965), unpaginated.
35. Martin Bartlett, "Basho Demolition"; Lloyd Kahn and Bob Easton, "Captain Bill," in Lloyd Kahn and Bob Easton, *Shelter* (Bolinas, CA: Shelter Publications, 1973), 82-84.
36. Eric Park, "Demolition Addict," in Lloyd Kahn and Bob Easton, *Shelter* (Bolinas, CA: Shelter Publications, 1973), 82.

scrounging. We dismantle abandoned bridges by moonlight. We are sort of advanced junkmen taking advantage of advanced obsolescence."[37] More than just providing free building materials, he asserted, scrounging produced a new subjectivity. "Trapped inside a waste-economy, man finds an identity as a consumer," but in learning to "tear down abandoned buildings, use the unusable," an alternative self emerged. In retrospect, the radically countercultural aspect of Drop City's domes appears to have been their means of production: the building process rather than the built form.[38] The enthusiasm for themes and variations on the hand-built shed which Kahn and Easton ultimately popularized bore an ironic relationship to Fuller's evolution as a designer. In a 1966 *New Yorker* interview, the inventor recalled purchasing a hammer and nails with birthday money received as a child in order to build "experimental houses," his term for the handmade shanties littering the forest floor around the Fuller family summer home.[39] Shelving the crystalline geometries of tensegrity structures in favor of funk and junk bricolage, Kahn and Easton threw Fuller's architectural ontogeny into reverse on the pages of *Shelter,* their post-geodesic gospel. (Figure 5)

Building Outlaw Builders

Strike teams composed of county and federal officials armed with guns and bulldozers countered the threat of longhaired builders wielding saws and hammers: a retaliatory asymmetry that suggests regulatory standards involving much more than just construction, as Felicity Scott has noted.[40] Examples are needed to convey the level of state-sanctioned violence directed at hippies but unknown to more straight-laced building code scofflaws. An inspection raid on the hillside cabins of Canyon, California in February 1969 included an armed escort of a dozen sheriff deputies, three narcotics agents, and a dogcatcher toting a tranquilizer gun.[41] During a 1973 pre-dawn raid on Wheeler's Ranch, communards torched their own homes to prevent demolition equipment from plowing through a forest recovering from earlier wildfire damage.[42] In Sausalito's "Houseboat Wars," bulldozer operators began demolishing structures at dawn while inhabitants

37. Albin Wagner (pseud. Peter Rabbit), *Boston Avatar,* 4-18 August 1967: 7. Quoted in Erin Elder, "How to Build a Commune," 10.
38. Albin Wagner (pseud. Bill Voyd), "Funk Architecture," in Paul Oliver, ed., *Shelter and Society* (New York: Praeger, 1969), 164.
39. Calvin Tomkins, "In the Outlaw Area," *New Yorker,* 8 January 1966: 82.
40. Felicity Scott, "Bulldozers in Utopia," 58.
41. Annie [Westling], "Annie," in Annabelle Williams et. al., eds., *Handmade Lives: A Collective Memoir* (San Francisco, Firefall, 2002), 14.
42. Sender Barayón, *Morning Star and Wheeler's Open Land Communes,* 11.

Figure 5. Two stanzas from Richard Brautigan's poem "Let's Voyage Into the New American House" from the collection *All Watched Over by Machines of Loving Grace* (1967) accompany images of a beach canyon home built from driftwood and scavenged windows and doors in Lloyd Kahn and Bob Easton's *Shelter* (1973).

slept inside.[43] Outlaw building demarcated "liberated territory," as it was known in counterculture parlance.[44] Authorities targeted its illegal construction sites less as heath and safety hazards than as materialized outposts of a parallel reality in which establishment precepts regarding titled property, sexual propriety, familial affiliation, drug use, and gender norms all had been rendered inoperative. Hippie makers empowered themselves to craft not only fanciful dwellings but, more significantly, enclaves dedicated to self-reinvention: habitable zones in which to test and transact non-conforming epistemologies, values, relationships, emotional regimes, and spiritual practices while embedded within a supportive community. Counterculture D.I.Y. advanced self-building in both the literal and figurative senses. Its practices—open to the unskilled, the cash-strapped, women and children, and lesbians and gay men—simultaneously produced the sites, shelters, and subjectivities that heralded an Aquarian cultural revolution.

Canyon, a community of First World *favelados* nestled in a redwood forest high above Oakland, California, mounted years of organized resistance to demolition offensives intended to expand a municipal watershed district.[45] D.I.Y. construction forged a craft fraternity that orbited around Dave Lynn (later Deva Rajan), who marveled: "Canyon is loaded with carpenters. That and Indian musicians."[46] While working on a graduate degree in arts practice at Berkeley in the mid-'60s, Lynn freelanced as a carpenter to put himself through school. Purchasing a condemned home in Canyon, he fought building department threats to bulldoze it by promising local television coverage of the forced removal of his pregnant wife: a tactical use of media to which his neighbors would return repeatedly in the years to come.

In 1966, Lynn founded Canyon Construction, a contracting firm that employed the community's craftsmen at top wages. By limiting contract work to six months out of the year, Lynn made his "separate peace" with capitalism without fully endorsing its culture of commodified time. A lecture by Walter Horn, a Berkeley art history professor and scholar of medieval architecture, exposed Lynn to European traditions of timber barn construction: a legacy reflected in his work thanks to inexpensive supplies of

43. Jonah Owen Lamb, "Held Fast: How Renegade "Squatters" Won Sausalito's Houseboat Wars, *SF Weekly* (16 September 2015), https://archives.sfweekly.com/sanfrancisco/news-san-francisco-sausalito-bay-area-marin-county-housing-rent-houseboats-art-artists-squatters-squatting-real-estate-developmen/Content?oid=4064859&storyPage=3. (Accessed 2 December 2017).
44. On liberated territory as a counterculture geographic imaginary, see: Anthony Ashbolt, *A Cultural History of the Radical Sixties in the San Francisco Bay Area* (London: Pickering and Chatto, 2013), 115-133; 155-170.
45. The story is told in: John van der Zee, *Canyon: The Story of the Last Rustic Community in Metropolitan America* (New York: Harcourt Brace Jorvanovich, 1971).
46. Ibid, 27. Van der Zee does not name Rajan in the interview, but his unique biography leaves no doubt as to the identity of its subject.

heavy timber from razed local buildings.[47] Structures created by Russian ship-builders at Fort Ross, 100 miles to the north, also proved inspirational.[48] Both influences are apparent in the self-built home of Canyon Construction associate Michael Westling and his wife Annie. (Figures 6 and 7) Their A-frame home, featured in the outlaw builder pictorial *Handmade Houses: A Guide to the Woodbutcher's Art,* recalled an inverted wooden ship's hull cantilevered over a forest slope. They recycled old growth redwood doors and beautifully crafted windows from "old Berkeley houses that were being replaced by parking lots."[49] "We work like mules all day," Annie recalled, "scavenging materials and hauling them up a steep trail to our nest, tapping into a spring and piping it into a claw-legged lavender bathtub perched in the crook of a tree, cooking in a fire pit before our ornate old wood stove is hoisted up, falling onto a mattress at night, exhausted from use."[50] In 1975 Michael Westling started his own contracting firm, Good Earth Construction Company, while continuing to help build cabins for recent transplants.[51] "Sometimes it was hard to be around the work ethic in Canyon, it was so overwhelming," confessed a newcomer from Detroit. "Michael and Dave were real focused, into a carpentry groove."[52] The term was apt. A "groove" is characterized by the absence of coercion, especially as experienced through time-compressed labor. Construction in Canyon may have been "slow going," according to Annie Westling, "but what we have is time, the greatest of all luxuries." "The greatest impact of Canyon was having the time… to slow down and live in a place day-to-day, minute-to-minute, without wearing a watch," testified another resident. "This affected my awareness of nature and the earth… I was able to 'go with the flow' as I never had before."[53] Along with tribal communality and craft autonomy, self-building at Canyon offered immersion into a zone of slow time displaced elsewhere by the staccato tempo of time-is-money ideology.[54]

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47. Dave [Rajan], "Dave," in Annabelle Williams et. al., eds., *Handmade Lives: A Collective Memoir* (San Francisco, Firefall, 2002), 53-4. Horn, a German expatriate scholar, also served as a "Monuments Man" in the Monuments, Fine Arts, and Archives (MFAA) section of the Office of Military Government, US Zone (OMGUS) in Germany after the war, tracking down the looted artifacts of Nazi-occupied Europe.
48. Rajan's site visits to sketch joinery details, which he would then apply to his own designs, ultimately informed his winning bid on a state contract for the historical restoration of the complex after a 1971 arson fire. *Handmade Lives,* 53-4.
49. Michael [Westling], "Michael W," in Annabelle Williams et. al., eds., *Handmade Lives,* 18.
50. Annie [Westling], "Annie," in Annabelle Williams et. al., eds., *Handmade Lives,* 12.
51. Michael [Westling], "Michael W," in Annabelle Williams et. al., eds., *Handmade Lives,* 19.
52. "Rick," in Annabelle Williams et. al., eds., *Handmade Lives,* 88.
53. "Betty," in Annabelle Williams et. al., eds., *Handmade Lives,* 82.
54. Discovering ways to resist the tyranny of an ever-accelerating modern temporality was a recurring counterculture theme and one of its lasting cultural achievements. In *Living on the Earth,* Alicia Bay Laurel launched tips on gardening, orchard tending, animal husbandry, and D.I.Y. marijuana cultivation with a poetic manifesto on "How to Slow Down." Injected into mainstream contemporary culture through "New Age" practices like mindfulness meditation and yoga, hippie strategies to slow time are now medically endorsed as core "wellness" practices.

Cobbling together a "nest" of one's own marked the passage from boyhood to manhood in those outlaw builder settlements that conformed to heteronormative divisions of gendered labor. In Canyon, where women supported self-build projects but did not lead them, carpentry and woodworking skills forged a fraternal bond also extended to boys. Kevin, a fourteen-year-old who camped beside his father's cabin, received advice and salvaged materials when he decided to build his own shack "with a tin roof and lots of windows." Community craftsmen warned him against a site in a forest cleft, but did not stop him from building there. The trial-and-error lesson of seeing water rise over the floor during a winter storm, like learning to build post-and-beam structures, nurtured the self-reliance needed "to live in a way that most people would not imagine trying."[55] At the Starhill Academy for Anything, a commune on the site of a derelict redwood sawmill in the Santa Cruz Mountains, twelve-year-old Cass Calder Smith applied the tutelage of hippie craftsmen towards the creation of his own sleeping cabin. From a fleet of defunct vehicles, he chose a VW bus missing its engine, rear seats, and several windows as a "blank slate." At the mill's former shop, he cut windows from scrap plexiglass, built a sleeping deck, and fashioned a small heater from a discarded 5-gallon fuel can. Adding a hatch for firewood, flattening the top to make a cooking surface, and welding a 4-inch pipe on as an exhaust vent—skills he learned from helping communards build wood stoves—he was able to heat his bedtime Ovaltine in a capsule dwelling that he occupied for the next two years. The building skills shared by Starhill men and secured through D.I.Y. learning allowed Smith to construct his own shelter "like a little man," and ultimately led to a Master of Architecture degree from Berkeley and a career as the principal of CCA Architecture, a high-profile firm with offices in New York and San Francisco.[56]

Counterculture women and gay men blazed their own trail to acquire and exchange self-build skills. Rather than the apprenticeships that nurtured new outlaw builders at Canyon and Starhill, D.I.Y. literature conveyed know-how and encouragement to those traditionally excluded from carpentry as a trade or alienated by its gender conventions. Two self-published journals took the lead. *Country Women,*

OPPOSITE, ABOVE: Figure 6. The "illegal" home built by John and Annie Westling in Canyon, California, 1968-69, as featured in Handmade Houses: A Guide to the Woodbutcher's Art (1973). The heavy timber A-frame takes the form of an inverted ship's hull. Photo: Barry Shapiro archive, Bancroft Library, UC Berkeley.

OPPOSITE, BELOW: Figure 7. Outlaw Builder Annie Westling at home, portrayed a November 1969 article in Ramparts magazine on the Canyon community resistance movement. Photo by John H.B. Perdén.

55. "Kevin," in Annabelle Williams et. al., eds., *Handmade Lives*, 79.
56. Cass Calder Smith, autobiographical notes (dated 2013) shared with the author.

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a mimeographed review started in 1973, mixed rural skill sharing with consciousness-raising missives by back-to-the-land feminists grappling with gender-based oppression. Its founders, Carmen Goodyear and Jeanne Tetrault, had met in Berkeley during the Summer of Love and moved to the "Albion Nation," an area of Humboldt County known for its counterculture milieu.[57] Inspired by *Country Women,* Carl Wittman, a gay activist in Grinnell, Iowa, created *RFD,* a "rural fairy digest," in 1974.[58] Accounts shared by first-time builders revealed their hesitation to ask advice from more accomplished craftsmen. "How do we learn?" mused a contributor to *Country Women*:

> By practice, by reading books, by being taught a skill from one who knows it. I've learned to do elementary carpentry from my mate, but really in some ways that's the hardest road to follow. He is too often watching over me, and I am too often begging help I don't really need.[59]

Another subscriber concurred. "We didn't look for advice or ask for it," explained a woman wanting to build a cabin with her same-sex partner, "because all the men around would be pretty equally authoritative about their opinion."[60] Crowd-sourced articles in both journals provided an alternative path to knowledge while demonstrating how departures from heterosexist craft norms could yield novel understandings of self-build practice.

Aquarian women and gay men brought distinctive D.I.Y. analogies to the task of homebuilding. "Recipe for a Small Cabin," published in *RFD* by three founders of Butterworth Farm, a New England commune founded by gay men in 1973, assured novice carpenters that "you are as likely to succeed with building this cabin as a beginner is likely to succeed with baking a cake—if the directions are followed, it's pretty hard to go wrong."[61] Spoofing McCarthy-era testimonials before the Un-American Activities Committee, an article in *Country Women,* began: "I am not now, nor have I ever been a carpenter." Demoralized by watch-

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57. Carmen Goodyear, "We met in Berkeley… that heady summer of love," in Iain Boal, Janferie Stone, Michael Watts, and Cal Winslow, eds., West of Eden: Communes and Utopia in Northern California (Oakland: PM Press, 2012), 170-172. Goodyear tells the story of her role in the back-to-the-land movement in the documentary film Women on the Land: Creating Conscious Community (2013). https://www.womenontheland.com/index.html (accessed 4 January 2018).
58. Scott Herring, "Out of the Closets, Into the Woods: *RFD*, *Country Women*, and the Post-Stonewall Emergence of Queer Anti-urbanism," *American Quarterly,* Vol. 59, No. 2 (2007): 341-372.
59. Catherine Yronwode, "Women's Life at the Garden of Joy Blues," *Country Women,* No 5. (March 1973): 18.
60. Stephanie, "Letter," *Country Women,* No 9. (January 1974): 8.
61. Bob [Gravley], Steve [McCarty] and Allen [Young], "Recipe for a Small Cabin," *RFD* 7 (Spring 1976): 30-31.

ing men build while thinking "I could not (or I assumed I couldn't) drive a nail in straight, measure correctly or build anything that would stand," the author confronted her insecurities and resolved to give it a try. The experience, shared in detail for those who might want to follow, was transformative. "It is the pure joy, ecstasy unbound, that I have felt from working on this building that encourages me to write this article to encourage you [...] It was much like sewing, only the materials were different. You measure, cut and join, no darts. Architecturally, the concept for a simple building is less complicated than a Vogue suit pattern."[62] For another *Country Women* contributor, homebuilding echoed a more elemental D.I.Y. pursuit: human reproduction. "This house grew from the inside out. I didn't design it as it is now at all!" She advised other novice builders: "You can do it! Throw away your plans."

> It designed itself—it really had a life of its own. It said "I want this!" And I was just a servant. It had its own notions of what it was going to be. [...] All you have to do is start. And then the house does it. It grows. And you serve its growth.[63]

Postwar domestic advice literature, with its helpful hints on making everything from baked goods to babies, provided comforting metaphors for would-be counterculture homebuilders who lacked carpentry skills or had been denied access to them due to the conventional gendering of artisanal construction.

Contributors to *Country Women* and *RFD* were equally inventive in demystifying wood framing as both building structure and process. One approach was to "practice first on something of a more modest nature," like a chicken coop, before starting a home.[64] Dismantling an unwanted house for its lumber presented another set of teaching opportunities:

> You can learn a lot about construction by tearing down a building, so examine the house carefully before you start... Generally get a picture in your mind of how the house is put together. Sometimes you learn what *not* to do in construction and carpentry, so as you go along, poke around the substructure, the framing, etc., and consider how well construction has served.[65]

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62. Anonymous, "The Post and Beam House as I know it," *Country Women,* Vol 1, No. 8 (October 1973): 60-63.
63. Feather, "Build Your House To Suit You," *Country Women,* No 9. (January 1974): 2-3.
64. Elana, "Adobe House," *Country Women,* No 9. (January 1974): 4.
65. Marnie Purple, "Tearing Down Buildings," *Country Women,* No 9. (January 1974): 14.

Members of the Butterworth Farm collective suggested building a balsa wood model of the home's timber frame as an aide to visualizing interior space, seeing how much lumber was needed and how it fit together, and understanding structural rigidity: "if the model wiggles, your house is going to wiggle, and if you can build a good model, you're well on your way to building a good house." Graduating from the model to an actual dwelling, they recommended hand tools rather than power tools. The goal of self-building was experiential as well as productive. "If tools are sharp and true, they give pleasure when used."[66] As expressed by Butterworth Farm builder Bob Gravley:

> As far as woodworking and building the house itself, I want to do it all with just my own power because there's such a feeling about being in a house and… see[ing] that everything here came from the energy that passed through your body, and not through machines. […] The rhythm and beauty of that feeling just really gets me off.[67]

Redefining the process of building to evoke baking, sewing, or childbirth; building without plans; building for the embodied bliss of handwork—all were prerogatives of counterculture D.I.Y. and its celebration of amateurism. As Canyon's Annie Westling affirmed, "it's ok, commendable to be a beginner."[68] Those grounded in the conventions of professional expertise struggled to attain the ease of an unapologetic novice. In his forward to *Handmade Houses,* Sim Van der Ryn, a Berkeley professor of architecture, related the challenge of mastering D.I.Y. craft as a way of mending divisions "nurtured by the machine metaphor, by the separation of one's work from one's identity."

> In fourteen years of architectural practice I never designed a mortise and tenon joint because it was too much handwork and at carpenter's wages, far too expensive. Now I am learning to make them myself. It is taking me a long time to get over the guilt of spending days hard at work learning to do the things I wasn't trained to do. It is taking a long time to accept the simple satisfaction of doing what I am doing, living in the present.[69]

Van der Ryn's exploration of counterculture D.I.Y. building was personal and implicitly political. With an attempted intervention into architecture school studio culture, it became pedagogical as well.

66. Bob [Gravley], Steve [McCarty] and Allen [Young], "Recipe for a Small Cabin": 31.
67. Bobbie [Bob Gravley], quoted in Allen [Young], "As the Butter Churns," *RFD* 7 (Spring 1976): 18.
68. Annie [Westling], "Annie," in Annabelle Williams et. al., eds., *Handmade Lives,* 12.
69. Sim Van der Ryn, "Preface," Art Boericke and Barry Shapiro, *Handmade Houses: A Guide to the Woodbutcher's Art* (San Francisco: Scrimshaw Press, 1973), unpaginated.

Professional Subversion

The architectural profession, by identifying itself as licensed vocation, relies on the distance between its own design practices and those of self-schooled builders to maintain its occupational identity and social status. Professionalization, as Gerry Beegan and Paul Atkinson point out, "acts as a system of exclusion by setting up criteria that, intentionally or unintentionally, bar individuals and groups on the basis of money, class, ethnicity and gender."[70] Architecture training programs and their mandated course content, licensing examinations, and legal regulation serve to limit entry to the profession and reinforce accepted norms and values. The system's inherent inertia keeps change manageable. During the 1971-2 academic year at Berkeley's College of Environmental Design, a studio offering listed in the course catalog under the soporific title *Arch 102ABC: Integrated Synthesis of the Design Determinants of Architecture* succeeded in circumventing those regulatory mechanisms. Its instructors, Sim Van der Ryn and Jim Campe, recruited architecture students for a full academic year of research and construction on a forested hillside site adjacent to the Point Reyes National Seashore in Marin County. *Arch 102ABC* was a Trojan Horse. Its "on-site experience in the theory and practice of basic building design, land use, and village technology," injected the methods, ideals, and building tasks of the hippie back-to-the-land movement into a professional degree program: a counterculture agenda revealed in two names by which the course was more commonly known—Making a Place in the Country and the Outlaw Builder Studio.[71]

Van der Ryn and Campe possessed ideal credentials to stage a fifth-column subversion of professional design pedagogy. Hearing Buckminster Fuller lecture at the University of Michigan was an "epiphany" that energized Van der Ryn despite his "disgruntlement with architecture school."[72] In the mid-1960s, around the time he accepted a teaching position at Berkeley, Van der Ryn's participation in a clinical study gauging the impact of LSD upon "creatives"—a category that included scientists, engineers and designers—unlocked the doors of perception.[73] When Berkeley students and hippies appropriated a block of vacant University-owned land in 1969 for the D.I.Y. public landscape they called People's Park, Van der Ryn was fascinated with its "spontaneous participatory design process," then horrified at Governor

70. Gerry Beegan and Paul Atkinson, "Professionalism, Amateurism and the Boundaries of Design," *Journal of Design History*, Vol. 21, No. 4 (Winter 2008): 305.
71. Sim Van der Ryn and Jim Campe, "Course Description" for Architecture 102ABC, Fall 1971, 1-2.
72. Sim Van der Ryn, *Design for Life: The Architecture of Sim Van der Ryn* (Salt Lake City: Gibbs Smith, 2005), 16-17.
73. Van der Ryn interviews with author, 2012-2014. The LSD testing program at the International Institute for Advanced Studies in Menlo Park is discussed in John Markoff, *What the Dormouse Said: How the 60s Counterculture Shaped the Personal Computer Industry* (New York: Viking Penguin, 2005), 58-65.

Ronald Reagan's martial response. Civilian gunshot injuries, the death of a bystander, and the spectacle of a military helicopter spraying the campus with a form of tear gas devised for use in Vietnam "shook me awake," as he later recalled.[74] His teaching and design efforts suddenly reflected counterculture values. In 1970 he participated in two epochal design conclaves: "Freestone," an outdoor festival of hippie makers that he convened "to learn to design new social forms, new building forms, that are in harmony with life," and the International Design Conference at Aspen, which he disrupted accompanied by a band of eco-freaks bussed to the site using redirected university research funds.[75] Joining forces with Jim Campe, an environmentalist and "free school" reform movement activist, Van der Ryn launched a graduate design studio and co-authored a D.I.Y. publication, the 1971 *Farallones Scrapbook*, both dedicated to applying the lessons of hippie self-build methods to schoolroom environments and childhood pedagogy.[76] Together, Van der Ryn and Campe had assembled the skills and experiences needed to mount a counterculture assault on establishment design training—conducted, remarkably enough, from within an academic program certified by the National Architectural Accrediting Board, an organization created to regulate and reproduce the profession's standardized competencies.

In recruiting participants for the novel studio, Van der Ryn aimed for a 50-50 balance of male and female students, a commitment to gender equity made difficult by the male-skewed enrollment of architecture programs at the time. (Figure 8) Pedagogically, Making a Place in the Country fused new modes of ecological analysis with craft building methods and ethics of land custodianship. Morning workshops conducted on site imparted the know-how needed to establish a rural foothold, including "adapting to the natural environment," site mapping, shelter design, tool use, carpentry and wood frame construction, and "energy and waste systems." Fundamental skills were supplemented in afternoon and evening seminars conducted by visitors "expert in areas of knowledge

74. Van der Ryn, *Design for Life*, 32-33.
75. Freestone participants report on the conference in "Advertisements for a Counter Culture," *Progressive Architecture* 51, No. 6 (June, 1970): 71-93; the event is analyzed in Greg Castillo, "Counterculture *Terroir*: California's Hippie Enterprise Zone," in Andrew Blauvelt, ed., *Hippie Modernism: The Struggle for Utopia* (Minneapolis: Walker Art Center, 2015), 87-101. Berkeley's eco-freak raid on the 1970 International Design Conference at Aspen is detailed in Greg Castillo, "Establishment Modernism and its Discontents: The IDCA in the 'Long 'Sixties," in Wim de Wit (ed.), *Design for the Corporate World: Creativity on the Line, 1950-1975* (London: Lund Humphreys, 2017), 41-59.
76. Farallones Design, *Farallones Scrapbook: Making places, changing spaces, in schools, at home, and within ourselves* (Farallones Design: Pt. Reyes Station, CA, 1971); Random House added the book to its growing list of "California lifestyle" publications and distributed subsequent printings. The Van der Ryn and Campe partnership to transform elementary school environments and pedagogy is described in Greg Castillo, "Salvage Salvation: Counterculture Trash as a Cultural Resource," Farhan Karim and Farahana Ferdous, eds., *Routledge Handbook of Architecture and Social Engagement* (Abingdon: Routledge, forthcoming).

or technique relevant to our interests." The course syllabus lists on-site talks on "Mobile Life Styles" by members of the Ant Farm art commune; graphic documentation by Gordon Ashby, an alumnus of the Eames design office and a special issue editor of the *Whole Earth Catalog*; material properties of wood by the sculptor J.B. Blunk; regional ecology by Gordon Onslow Ford, a former Paris surrealist and a disciple of the San Francisco Zen master Hodo Tobase; ecopsychology from wilderness-therapy advocate Robert Greenway; and "scrounging" by Doug Hall, a member of the San Francisco T.R. Uthco artists' collective.[77] The variety of guests and breadth of their lectures convey the expanded field of counterculture design and its heady mix of empirical, spiritual, and aesthetic enlightenment. Acquiring building materials through scrounging rather than a cash transaction also proved transformative, imparting a new skill set that internalized abstract understandings of environmental sustainability. In *Shelter,* Kahn and Easton promoted demolition as "a totally different approach to building than working with new materials," advising: "If you find a condemned or abandoned building you can often arrange with the owner to tear it down and clean the site in exchange for salvaged materials."[78] To make their "place in the country," Berkeley architecture students scavenged old-growth redwood planks from chicken coops abandoned by the Petaluma poultry industry in its switch to factory farming. (Figure 9) By dismantling ramshackle sheds, scraping chicken shit from salvaged wood, and trucking the hard-won gleanings back to camp, each student earned a new *nom de guerre*—"Chickencoop Charlie" being one example—that were celebrated with certificates entitling holders "to be known to all as an outlaw builder, with all the rights and privileges attached thereto."[79] In one sense, the "outlaw" moniker was no joke: nothing that the students built conformed to code requirements or had been granted a building permit. Salvaged wooden doors, windows, and siding made the backwoods settlement a case study in funky hippie bricolage.

Students constructed what amounted to a D.I.Y. village. It coalesced around "the Ark," a building workshop and drafting studio that also served as a communal dining room and lounge. (Figure 10) Surrounding it, personal sleeping cabins and treehouse roosts, a sauna, a cookhouse, an outdoor oven, collective shower facilities, a composting outhouse, and a self-composting chicken coop sprang up over the course of the academic year. Building progress conformed to the stages of embodied knowledge acquisition outlined in *Shelter.* "There is wisdom, especially for a new builder, in starting small, simply, and heeding local advice," Kahn counseled. "You

77. Van der Ryn and Campe, "Course Description," 5.
78. Kahn and Easton, eds., *Shelter*, 80; Kahn and Easton, eds., *Domebook 2*, 65.
79. Sim Van der Ryn, *Design for Life: The Architecture of Sim Van der Ryn* (Salt Lake City: Gibbs Smith, 2005), 40.

Figure 8. A Berkeley architecture student lashing together the frame for an individual sleeping cabin on the forested site of Arch 102ABC, the "Outlaw Builder Studio," staged in Marin County during the 1971-72 academic year. Photo: Jim Campe, Jim Campe document collection, Environmental Design Archives, University of California, Berkeley.

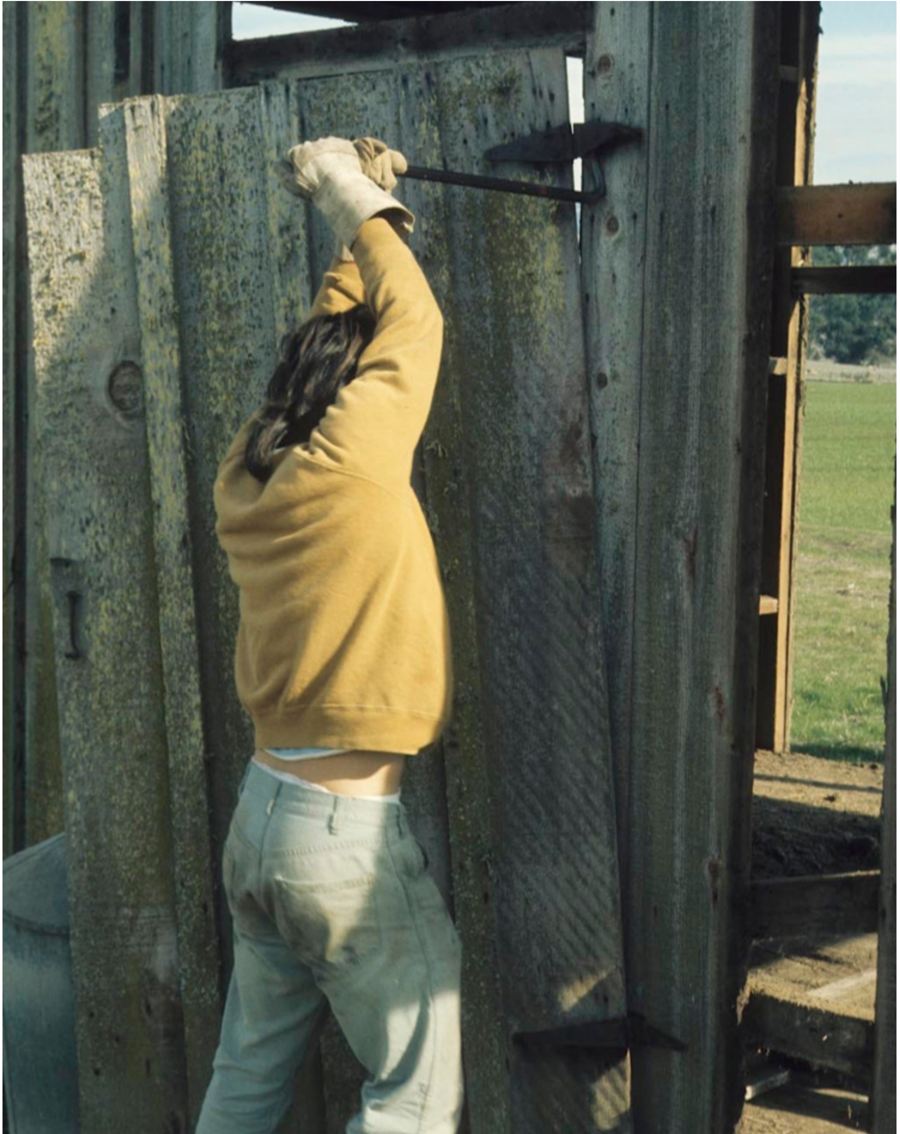

Figure 9. Dismantling unused chicken sheds in Petaluma for their old-growth redwood lumber, from which Berkeley “outlaw builders” would construct their design studio’s backwoods settlement. Photo: Jim Campe, Jim Campe document collection, Environmental Design Archives, University of California, Berkeley.

can watch the rising and setting of the sun and moon, study outlook and orientation, learn about seasonal temperatures and wind direction, rainfall: the many considerations that should help you decide what kind of house will suit your needs and fit the site.... *You* will change during the building process."[80] Arch 102ABC students produced a joint-authored final report on the experimental studio in the form of an underground publication, *Outlaw Building News,* that sold out as fast as it could be printed. Assessing her hippie apprenticeship, a participant wrote: "This... was the first in 13 years of school where community and environment were not contradicted but constructed."[81] It was a "life architecture class," reflected another; an opportunity to "build a house in which my physical self could exist and... a consciousness in which my spiritual self could exist."[82] The studio's idyllic setting and principles struck some as escapist: "My social conscience tells me that I'm playing elitist games," commented another outlaw builder.[83] "We share some belief in what we are doing as a way to learn about ourselves and about building," Van der Ryn reflected. "We shared few explicit esthetics except perhaps a common regard for the land, and a desire to use as many salvaged and native materials as possible."[84] Mixing formal instruction in scrounging, D.I.Y building, hippie nomadics, and eco-metaphysics with a blithe disregard for zoning regulations and building codes, Making a Place in the Country epitomized the kind of "disturbance of the sensible" associated with the concept of dissensus developed by philosopher Jacques Rancière.[85]

The rural studio organized by Van der Ryn and Campe advanced a foundational critique of work practices within the design and building professions. Although it remained untheorized in the text of *Outlaw Building News,* the proposal for an alternative ethos of architectural labor appeared on the front cover of the student publication. It features an historical photograph commemorating a barnraising, with women and children seen clustered at the base of the heavy timber frame and proud craftsmen waving hats and tools while balanced precariously above. (Figure

80. Kahn and Easton, eds., *Shelter*, 37.
81. Terri Martin, quoted in Sim Van der Ryn et. al., "Inventory," *Outlaw Building News* (1972), n.p.
82. Anonymous, quoted in Sim Van der Ryn et. al., "Inventory," *Outlaw Building News* (1972), n.p.
83. Gail Morrison, quoted in Sim Van der Ryn et. al., "Inventory," *Outlaw Building News* (1972), n.p.
84. Sim Van der Ryn, quoted in Sim Van der Ryn et. al., "Inventory," *Outlaw Building News* (1972), n.p
85. In *The Ignorant Schoolmaster*, published a generation after the free school movement swept American counterculture, Rancière argued for educators to abandon any notion that children suffer from a knowledge deficit and instead approaching the classroom as a collective of equals pursuing intellectual self-fulfillment in virtually unlimited directions. Jaques Rancière, *The Ignorant Schoolmaster: Five Lessons in Intellectual Emancipation* (Stanford: Stanford University Press, 1991). His theory of dissensus is elaborated in Jaques Rancière, *Dissensus: On Politics and Aesthetics* (New York: Continuum, 2010).

Figure 10. Outlaw builders constructing "The Ark," a combination drafting room, dining hall, and commons area named after Berkeley's original Architecture School building, North Gate Hall, by John Galen Howard. Photo: Jim Campe, Jim Campe document collection, Environmental Design Archives, University of California, Berkeley.

11) A voluntaristic building tradition now practiced primarily by Old Mennonite Amish communities (and even there with ever-decreasing frequency) communal barnraising was widespread in 19th century agrarian America when many hands were necessary and skilled tradesmen largely unavailable. The most experienced neighbors led the crew, with others following their lead, learning to build in the process. Labor was rewarded not in cash, but through reciprocity: participants knew that when they in turn needed to build, locals would rally to their aid. As a mode of communitarian work separate from the wage labor economy, barnraising also offered the pleasures of a social gathering. The Amish call this kind of work, which serves both sociable and practical ends, a "frolic"—as apt a term as any for counterculture self-building pursuits. The outlaw builders' invocation of an Amish tradition can be dismissed, of course, as cultural misappropriation: a defamatory trope as common and as misleading as that of the "lazy hippie." Alternatively, retrieving a visual document of a self-build legacy that spurned commodified labor and proprietary skills can be seen in another way—as an attempt to identify a "usable past," the term coined by the American literary critic Van Wyck Brooks to distinguish antecedent efforts capable of informing radical thought and action in the here and now.[86] In their quest to define the communities of a sustainable society and their modes of "right livelihood," Aquarian self-builders ranged across time, evaluating ancestral pasts and pharmacological futures for their utility as tools of resistance. D.I.Y. ideology and documents of the counterculture's handmade lives are similarly available to us today, should we ever need them for our own contemporary projects of self-invention.

86. The literary critic Van Wyck Brooks envisioned a "usable past" as an incubator for creative innovation: see Van Wyck Brooks, "On Creating a Usable Past," *The Dial* (11 April 1918): 337-41. His disciple, Lewis Mumford, applied the concept to devise a New World genealogy for architectural modernism: Alan Trachtenberg, "Mumford in the Twenties: The Historian as Artist," *Salmagundi* 49 (Summer 1980): 29-42.

Figure 11. The cover of Outlaw Building News, the final report generated by the students of Arch 102ABC, "Making a Place in the Country," featuring an historical photo of a barn-raising "frolic." Jim Campe document collection, Environmental Design Archives, University of California, Berkeley.