

# **Designed for Habitat**

Collaborations with Habitat for  
Humanity

**David Hinson and Justin Miller**

# DESIGNED

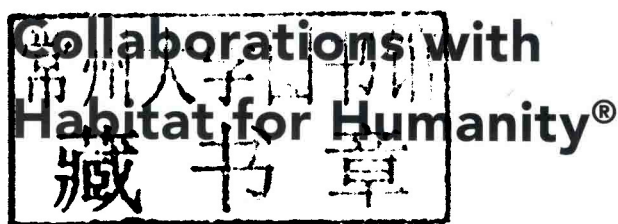
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# **DESIGNED FOR HABITAT**

If you're looking for ways to give back to your community, then this book, the first to profile thirteen projects designed and built by architects and Habitat for Humanity®, will help. Detailed plans, sections, and photographs show you how these projects came about, the strategies used by each team to approach the design and construction process, and the obstacles they overcame to realize a successful outcome. The lessons and insights, presented here will aid you, whether you're an architect, architecture student, Habitat affiliate leader, or an affordable housing advocate.

Located all across the United States, these projects represent the full spectrum of Habitat for Humanity affiliates, from large urban affiliates to small rural programs. These cases illustrate a broad range of innovative approaches to energy performance, alternative construction strategies, and responses to site context. And each house demonstrates that design quality need not fall victim to the rigorous imperatives of cost, delivery, and financing.

**David Hinson** is the head of the School of Architecture at Auburn University.

**Justin Miller** is an assistant professor at Auburn University's School of Architecture.

## **DEDICATION**

To our students, our Habitat partners, our families,  
and to the families touched by these amazing projects.

# **FOREWORD**

Robert Ivey

Executive vice president/chief executive officer of the American Institute of Architects.

From 1996 to 2010 he was vice president of McGraw-Hill Construction and editor in chief of *Architectural Record*. He is a native of Columbus, Mississippi, and currently resides in Washington, DC.

The name Habitat for Humanity® has gained international recognition, yet only relatively recently with the significant participation of the nation's architects. Today, however, architects are making a difference for the program, as this important book records and analyzes. *Designed for Habitat* also illuminates a trend in our profession. Many members in the current generation of architects want to design housing for low-income residents and are disposed to invest their time and talents in learning how to do it best.

A couple of markers in this trend can be found in New Orleans where, in the aftermath of Hurricane Katrina, architects joined efforts to build low-cost housing. On a completely cleared site in the flood-ravaged Lower Ninth Ward, the Brad Pitt-backed Make It Right Foundation and other non-profits are sponsoring construction of twenty-one houses. Talented architects from around the world, many with high name recognition, have based their designs on New Orleans house typologies and are producing striking individual results.

Meanwhile, across the Industrial Canal, Habitat for Humanity, with the involvement of New Orleans native musicians Branford Marsalis and Harry Connick Jr., and a workforce numbering an astonishing 70,000 volunteers, built Musicians Rainbow Village Row—seventy-two frame houses of identical design painted rainbow colors, plus ten elder-friendly apartments. Habitat's Rainbow Village is marked by simple construction of straightforward houses with front porches where musicians can sit outside and play. The project is coherent, harmonious, built, and occupied.

The distinctions between these two efforts are evident. One is turning out individual houses that are singular in design, while the Habitat project, less dependent on innovation, has clicked into place. But viewed together they reinforce the point that there is room for creative architecture and responsiveness to local culture when designing and building low-income houses.

It isn't hyperbole to say that one historic city's epic tragedy followed by a deep and long-lasting national economic recession redirected the priorities of many Americans, including designers. In the rarified world of international architecture, the biomorphic cultural icons, the acrophobic skyscrapers, the exuberant private Xanadus—design marvels that defined an era—began to seem more than a little beside the point. Leading the way, future architects lodged in design studios across the country had already reacted to indulgence.

Many were outside the traditional centers of fashion. Located in southeast Alabama, the School of Architecture, Planning, and Landscape Architecture at Auburn University has earned a reputation of excellence. In 2011, for instance, the architecture program was ranked the most admired in a poll of deans of architecture schools across the country. The Rural Studio, established in 1993, is a big part of that recognition. Each year architecture undergraduates build houses or community buildings in Black Belt communities in southwest Alabama. And so it should come as no surprise that Auburn is where the authors of this book reside and teach: David Hinson heads the school and Justin Miller is an assistant professor of architecture.

### **Habitat for Humanity International**

As an architectural writer and editor (and a native Southerner) I've observed with interest and chronicled some of the accomplishments of Auburn students, as well as Habitat for Humanity International, the Americus, Georgia-based non-profit trailblazer in low-cost housing. Habitat was conceived at Koinonia Farm, a small, interracial Christian community near Americus, where in 1968 Millard Fuller and his wife Linda, along with volunteers and prospective homeowners, constructed a community of forty-two simple, concrete-block houses centered around four recreational acres. Fuller had made a small fortune in real estate in Montgomery, Alabama, and he and Linda became intent upon building "simple, decent houses" for low-income people. In 1973 they took the Koinonia model to Zaire and three years later founded Habitat. To date, Habitat has built more than 400,000 houses, according to its website, that shelter an estimated two million people worldwide.

Fuller, whom I had the opportunity to interview for an article and met on several other occasions (he died in 2009), had specific ideas about Habitat houses, that they should be simple enough and straightforward enough for volunteers to hammer together. At the time of one memorable Habitat experience for me twenty-one years ago—observing fourteen basic houses under construction during three brutally hot days in Miami—he seemed convinced that architectural nicety could, and probably would, usurp utilitarian necessity. By then, in 1990, the Habitat building process had become so well honed that the frames on the Miami houses went up in a day and a half and the synthetic stucco exterior walls were all



in place by the end of the third day. I observed Jimmy and Rosalynn Carter, toiling in the heat on successive days alongside volunteer workers who, by Fuller's plan, included future occupants of those houses. All were enthusiastic members of a smoothly running construction crew.

Fuller's overriding preoccupation with simple construction, plus his wariness of architects, limited their involvement in Habitat's early years. Later, however, architects were brought into the organization and given an active role to play.

The Make It Right houses in New Orleans may imply to some people that architects are more interested in designing showplaces than in becoming engaged in the design of replicable and affordable prototype designs. This book suggests otherwise. It demonstrates to the lay leaders of Habitat for Humanity affiliates and other non-profits that capable and creative architects want to participate in the collaborative processes of solving problems in affordable housing.

### **Designed for Habitat**

David Hinson's preface, "Seeking Common Ground," is an informed, concise, and plainspoken summary of our profession's sometimes misguided efforts in low-cost housing, but it's a well-grounded view of the future as well. And I especially commend David's and Justin Miller's final chapter, "Lessons from the Field: Keys to Making Collaborations Work." A central thesis there is that architects would best approach the Habitat process with an open mind.

There is much to learn. The hard truth, as David explains in the preface, is that today's architects have "very little current experience" designing for this market. In the field, architects are asked to work through their differences with clients, overcome such ingrained professional biases as devaluing standard design templates, and avoid common pitfalls when teaching students on the job. The rewards are manifestly abundant, including the pride in humanitarian accomplishment that the architects of the projects profiled on these pages can take. All thirteen excel as individual examples and collectively portend a bright future—for architects, for innovative Habitat projects, and for America's low-income residents.

# **PREFACE**

# Seeking Common Ground

David Hinson

In the summer of 2001, as I was planning my first design–build collaboration with Habitat for Humanity®, I discussed the impending project with Samuel Mockbee, my Auburn colleague and founder of Auburn’s acclaimed Rural Studio.<sup>1</sup> Mockbee listened carefully to my plans and offered encouragement and advice, and a note of caution. He said, “Millard Fuller called me one day and tried to convince me that the Rural Studio should be designing homes for Habitat. I told him we would be happy to, provided he would commit to building a truly *decent* house.”

Mockbee believed that homes designed for low-income families should do more than just provide shelter, that they should express the dignity and pride of these families and uplift their spirit, or as he described it, “provide shelter for the soul.” Although he wished us well in our project he was skeptical that the values he believed in, values we shared, could ever find traction with a client such as Habitat for Humanity.

A few weeks later, during a field trip to the headquarters of Habitat for Humanity International (HFHI) in Americus, Georgia, Millard Fuller, Habitat’s founder and visionary leader, seemed to confirm Mockbee’s skepticism when he told me and my students that he equated the involvement of architects in Habitat projects with pressure to add unnecessary expense to home construction costs. “Every time you spend 10 percent more on a home, one out of ten families doesn’t get a house,” he told our group, adding, “This is Habitat for Humanity, not a Lottery for Humanity.” Fuller seemed to equate “design” with extravagance, and he viewed any effort to bring up the issues we were concerned with as conflicting with Habitat’s standard of “simple and decent” homes, and incompatible with Habitat’s mission to “eradicate poverty housing.”<sup>2</sup> Despite Fuller’s inspiring passion for his organization and its mission, it was a sobering conversation for me and my students.

How could this gulf in perception about the role of design in affordable housing be bridged? Both Mockbee and Fuller made helping poor families a centerpiece of their life’s work, yet their view for the role of design and designers in the process of creating affordable housing could not have been farther apart.

It was clear we would have to find more common ground than sharing a desire to help poor families in need of affordable housing. There would have to be a broader set of shared goals and understandings to make our partnership with Habitat succeed.

Architects and affordable-housing advocates have had a tumultuous relationship over the twentieth century. At times this partnership has been vital and fruitful, and at times misguided and destructive. There have been decades when architects have been at the forefront of the effort to respond to the affordable-housing challenge, and there have been decades when design was discredited and exiled from the toolbox of policies and strategies used by affordable-housing advocates.<sup>3</sup>

The projects profiled in *Designed for Habitat*, completed largely within the first decade of the twenty-first century, represent a fresh round of collaborations between professional designers and the affordable-housing advocacy community. Both the successes of these projects and their shortcomings provide valuable insight into the motivations and goals of these two groups and the challenges that they faced to realize these remarkable homes. The strategies that were employed in these projects provide a roadmap for how the affordable-housing advocacy community and the design community can channel their common desire to help needy families into successful collaborations.

Though there are many factors that influence the success or failure of affordable-housing initiatives, one key element is the collaboration between project partners and their ability both to understand the challenge they face and to find common ground with regard to solutions. Understanding these challenges requires a look inside the culture of both groups.

## **Habitat's History and Culture**

The history of the affordable-housing advocacy movement in the United States has reflected the tensions between our culture's commitment to provide for the common good and our enshrinement of self-reliance and self-help: between a desire to provide well-designed and durable homes and the long-held belief that housing built with any form of assistance should not "look too good, or cost too much."<sup>4</sup> Habitat for Humanity, like other non-profit groups that stepped into the

void created when the federal government stepped back from support for affordable housing in the mid-1970s, exemplifies these tensions.

Habitat for Humanity was founded by Millard Fuller, a successful entrepreneur, and Clarence Jordan, a Georgia farmer and biblical scholar. Jordan led a Christian community called Koinonia Farm near Americus, Georgia, that was known for its commitment to social justice, racial integration, and communal support. Fuller came to Koinonia in the mid-1960s seeking a new direction and purpose for his life. After building homes with Jordan in Georgia, and as a Christian missionary in Africa, Fuller started Habitat for Humanity in 1976, based on the idea of “partnership housing” he and Jordan had developed at Koinonia.<sup>5</sup> The partnership housing model was simple and compelling: “Building homes with the unpaid labor of the new homeowners and concerned volunteers, selling them at no profit and no interest, [and] recycling monthly house payments into a Fund for Humanity used to finance new construction . . . .”<sup>6</sup> Fuller’s optimism, his faith, and his prodigious talent for convincing others to join his new housing ministry, helped to make Habitat for Humanity one of the largest and most successful non-profit housing development programs in the world.

Though established as a Christian housing ministry, Habitat has managed to define itself first and foremost as an organization committed to “eliminating poverty housing from the world.”<sup>7</sup> As Jerome Baggett notes in *Habitat for Humanity: Building Private Homes, Building Public Religion*, Habitat has crafted a “minimalist, inclusive theology” that has allowed it to be very successful at attracting volunteers and significant corporate support from across the spectrum of modern society.<sup>8</sup>

Fuller also developed a highly effective organizational model that featured local affiliates led by community-based volunteers, and supported and guided by a central headquarters group, HFHI, based in Americus, Georgia. In the thirty-five years since its founding, HFHI has grown to include more than 1,700 affiliates, active in all fifty states in the United States. The organization also has 550 international affiliates, active in more than ninety countries. As of 2010, Habitat has built more than 350,000 houses around the world.<sup>9</sup>

Habitat’s record of accomplishment (and its success at communications) makes the organization a natural magnet for a broad spectrum of would-be collaborators wishing to lend their time and talents to helping the organization, including

architects. As illustrated by the Mockbee/Fuller exchange above, making these collaborations a success requires more than a common interest in addressing the need for good affordable housing. It also requires an understanding of how Habitat approaches design and the values and issues that shape that process.

## **Habitat's Approach to Home Design**

Habitat affiliates are led by a volunteer board of directors, which typically has a sub-committee dedicated to the task of coordinating and overseeing the construction process of each affiliate, and to facilitating the matching of selected families with one of the affiliate's standard home design configurations. These building committees are frequently populated with volunteers from the local construction community and, occasionally, local architects.

The primary means by which Habitat maintains a home design standard is through the resources that HFHI provides to affiliates. These resources encompass a collection of affiliate manuals that include a portfolio of standard design configurations, along with associated construction details and guidelines for construction materials, construction process checklists, and so on. These templates include home designs developed by HFHI staff and designs developed by local affiliates. The HFHI headquarters staff includes a construction department that produces the design templates and construction manuals, and is dedicated to promoting a culture of building durable homes and to providing technical support, advice, and training to affiliate volunteers.

The design templates promulgated by HFHI are the most tangible representation of what "simple and decent" means to the organization. The designs emphasize efficiency over any other goal, accommodating the standard components of the program—living, eating, cooking, bathing, and sleeping—into a geometry that requires the least possible exterior surface area. HFHI's design guidelines include area limits (that is 1,050 square feet for a three-bedroom home), limits on the number of bathrooms, prohibitions against garages, requirements for a covered front entrance, and so on.

The HFHI design templates also reflect the reality that the homes will be built by unskilled volunteers. Though affiliates typically have someone experienced in construction acting as coordinator on each site, their labor force most



commonly brings no prior experience to the job site. Consequently, the construction details tend towards those most simple to execute. For example, Habitat's preferred exterior cladding material is a volunteer-friendly vinyl siding, and roof slopes stay low to more safely accommodate first-time roofers. The standard designs are most typically detailed as single-family detached homes, single-story, with slab-on-grade foundations. The homes are most commonly wood-frame and clad with vinyl siding. The designs reflect a strong emphasis on maximizing material efficiency and eschew frills (such as dishwashers).

Though affiliates are free to develop their own designs, HFHI maintains a significant degree of influence on design decisions of affiliates. This is done both through direct means (such as linking access to national funding and corporate partnership programs to conformance to its standards), and through indirect means (Habitat affiliates most commonly have no other source of design advice or support). Though some affiliates have developed a high degree of sophistication in their approach to both design and construction, most are consumed with other pressures. Within the spectrum of challenges facing affiliates—organizing volunteers, raising money and soliciting donations of materials and services, screening and selecting homeowner families, and so on—developing custom design and construction solutions is beyond the reach of most affiliates.

### **Defining "Simple and Decent"**

The design standards promoted by Habitat's headquarters group also reflect the organization's struggle to balance building the maximum possible quantity of houses with the recognized desire to build at a reasonable standard of quality ("simple and decent"). This sets up a series of tensions within the organization that translate directly to the role of design within Habitat. Chief among these are: What voice are homeowner families allowed to have with regard to defining the meaning of "simple and decent"? How should the standard of "simple and decent" change in relation to the community context of the homes? How should the goal of building homes at the lowest first cost be balanced against the long-term "occupancy cost" interests of the homeowners?

Habitat places a great deal of emphasis on the partnership established between the local volunteers who lead Habitat affiliates and serve as volunteers

on construction sites, and the homeowner families the affiliate serves. Though the partnership ideal is central to the values and the theology of the organization and is no doubt sincere, these partnerships are inevitably asymmetrical. As Jerome Baggett observes, "the need for volunteers and the comparative neediness of homeowners creates a power differential between them based on social class." Habitat's espoused values are designed to guard against this imbalance. Nevertheless, as Baggett notes, "an appreciable strand of paternalism winds through the organization."<sup>10</sup>

In addition to an asymmetry of power, there is an asymmetry of motivation. The goal of "eliminating poverty housing" is the rallying cry for the largely middle-class volunteers who lead the affiliates and populate Habitat construction sites. Volunteering their time, resources, and energy to Habitat gives volunteers an empowering sense that they are contributing to their communities and helping to address what most see as an intractable problem. This motivation translates to a heavy emphasis on maximizing the quantity of homes built, and to a culture within affiliates where the volunteers and staff can "get caught up in the desire to build more and more houses."<sup>11</sup> In this context, any initiative seen as making homes more complicated to build (such as adapting to neighborhood context or using more durable materials) comes under fire—remember Fuller's "lottery for humanity" comment noted earlier.

Though Habitat's requirement that homeowners contribute time to building homes for other families serves to kindle a sense of community responsibility in homeowners, obtaining the best home possible is, first and foremost, their primary goal and the primary source of their empowerment in the "partnership."

These disparities in power and motivation can be manifest at many stages of the process, from family screening and selection to the choice of home location and home design. As Baggett notes, homeowners report feeling pressured to "move boldly into neighborhoods that are often located in reputedly dangerous (and thus relatively inexpensive) urban areas and transform them, simply by behaving as empowered and law-abiding citizens."<sup>12</sup> In most affiliates, homeowner families have a relatively narrow range of involvement in the key committees, including those that set design and construction standards for the affiliate. Prospective homeowners also have limited latitude in revising the design of the home templates



offered them by the affiliate beyond tailoring the number of bedrooms and making minor interior changes.<sup>13</sup>

As several of the case studies illustrate, this relegation of the homeowner to the sidelines of the design-shaping process is a common source of conflict for architects, who are trained to tailor designs as closely as possible to end user needs.

### **Responding to Community Context**

Another problem that Habitat has wrestled with is the tension created when it encounters resistance from communities and neighborhoods to the construction of homes that run counter to local home values and design character.

This tension activates two powerful tenets of Habitat's core values: the position that the organization should stand in resistance to the creeping affluence of modern society and build homes that express a "critical perspective towards the market," and the belief that Habitat's goal to build meaningful and sustainable partnerships within the wider communities where they work renders concessions to local standards justifiable.<sup>14</sup> This latter position also echoes the prevailing wisdom within the larger affordable-housing advocacy community, gained from the painful experience of failed projects of the 1950s and 1960s, that "above all, affordable housing should not look different from market-rate housing."<sup>15</sup>

As several of the projects analyzed in this book illustrate, there is evidence that the "community partnership" perspective is gaining traction within Habitat, and that the effort to reconcile the modest budgets of Habitat homes with designs that accommodate neighborhood context is one of the key factors that motivate Habitat affiliates to partner with professional designers.

### **Production versus Performance**

Habitat has also experienced a significant transition in its understanding of the relationship between the benefits of minimizing construction cost (in order to optimize productivity and lower purchase cost) and the often negative impact of these choices on long-term occupancy costs for Habitat homeowners. Unlike the model used by commercial home builders, Habitat's financing model and its organizational values establish relatively long-term relationships between homeowners