

ARCHITECTURE

WOMEN'S OPPORTUNITY CENTER

Sharon Davis Design takes on a life-changing project in Rwanda.

Affiliation ▶ Women for Women

Location ▶ Kayonza, Rwanda

Main picture, courtesy Sharon Davis Design; opposite page, courtesy Bruce Engel

by
**John
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GAME CHANGERS 2013

Nearly a decade after walking away from a successful banking career, Sharon Davis found herself in Africa, a world away from the hubs of finance. It was the rainy season in Kayonza, a district in the eastern province of Rwanda, located roughly an hour from the capital city of Kigali. The New York City-based designer and her team had arrived in April 2009 to survey a rugged site for a first-of-its-kind women's opportunity center in a region scarred by years of civil war and the country's devastating genocide.

"It was the first trip we took there to look at the land, but all I could see were these women walking up and down, up and down the hilly countryside, carrying these big, heavy, yellow fuel canisters," Davis recalls. Each was filled with a muddy fluid that few in the developed world would call water, but far too many in Kayonza did. It was in that moment when Davis became determined to make clean water—something she had taken for granted her whole life—the centerpiece of the women's center she had signed on to design.

Aside from a gut instinct that no center could provide the kind of opportunity the women deserved if this routine remained their daily reality, Davis barely knew the first thing about local water issues. So Davis did what it's unmistakably clear she does best: she set about surrounding herself with people who could help her figure it out. Already close at hand were design firm colleague Bruce Engel and environmental engineer Eric Rothstein.



The central courtyard at the Women's Opportunity Center in Kayonza, Rwanda. Designed by Sharon Davis Design, the center is sponsored by Women for Women, a nongovernmental organization that supports women survivors of war and other conflicts with job training and education. Above: A graduation ceremony at the center.

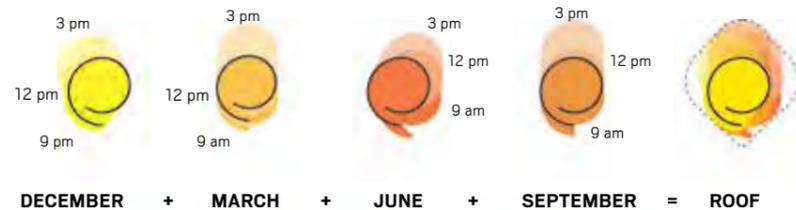


Above: The first of the center's seven classrooms under construction. The building's steel canopy serves as a rain collector. The perforated bricks walls allow for passive cooling and shading while providing a sense of privacy.
Below: A series of solar studies for the roofs.

The pair began methodically interviewing local community members and groups, searching for successful, local approaches to clean water. What they learned in the process revealed a grim reality: The average life expectancy for women in the region hovers around 49 years of age, due in large part to waterborne diseases.

Cut to three and a half years later: a sun-bathed conference room, four floors above Perry Street in New York City's Greenwich Village, where the employees of Sharon Davis Design were assembled for their Monday morning staff meeting. Davis sat at the head of the table, bearing a striking resemblance to another Davis—the actress Geena Davis in her role on the TV show *Commander in Chief*. The team stared with a mix of nervousness and excitement at a speakerphone near the center of the table as it crackled with the voice of Engel, many time zones ahead in Kayonza, where he lives and works on-site, embedded in the design and construction process.

Amidst a dozen projects—among them a stunningly modern playhouse and a historic restaurant, both in Garrison, New York, a housing project in Rwinkwavu, Rwanda, as well as several in-house and associated ventures—the women's center fuels Davis and her firm. Like that of their New York-based collaborators—Rothstein, landscape architect Julie Farris, and structural engineer Arun Rimal—Davis's firm took on the project pro bono. Without the donation of their talent and time, easily estimated in the thousands of hours collectively, this project never would have happened.



2.5 M CLASSROOM HEIGHT

ANNUAL SOLAR COVERAGE

RESULTANT ROOF

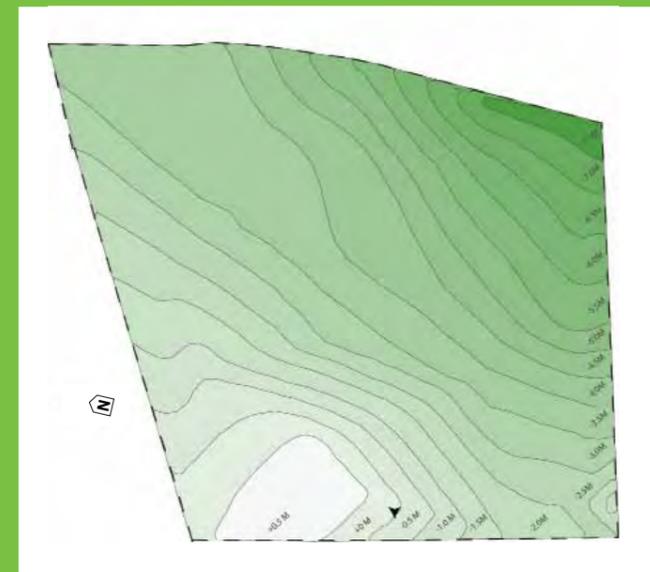
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PERCENT OF THE WOMEN IN RWANDA ARE IMPOVERISHED WIDOWS.

Top, courtesy Bruce Engel; diagram courtesy Sharon Davis Design



- 1. Peace Center
- 2. Classroom Cluster
- 3. Demonstration Farm
- 4. Guard House
- 5. Staff Lodging
- 6. Dorm
- 7. Marketplace
- 8. Rentable Marketplace
- 9. Guest Lodging
- 10. Kitchen
- 11. Administration
- 12. Partner Rooms
- 13. Gathering Space



The site for the center is located at a busy crossroads, above a fertile valley. One hour from the Rwandan capital, Kayonza is like much of this strife-torn nation: a place of few means but great promise.



Classroom Cluster
 The teaching pavilions are dimensioned to foster intimacy among groups of 20 women. With raised, airy roofs, the circular structures recall traditional Rwandan meeting spaces.



Demonstration Farm
 The center's commercial integrated farming initiative teaches women to make income from the land utilizing organic techniques geared toward income-generating production.



Marketplace
 The marketplace is easily reached by motorists and public transit. The women sell food, textiles, baskets, and other products produced on site, as well as potable water harvested by the center's rooftops.



Kitchen
 A centrally located kitchen and canteen creates a communal gathering space. The women prepare meals from food grown and raised at the center.



Partner Rooms
 These spaces are designed for the center's collaborators, such as Gahaya Links, a local handicraft company that teaches women traditional weaving techniques.



Gathering Space
 This civic space is the social heart of the campus, where traditional Rwandan dance and music is performed, as well as graduation ceremonies celebrating the women's experiences at the center.

Brickmaking Process



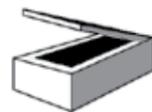
RAW SITE



DIG CLAY



MIX CLAY



MOLD CLAY



DRY BRICKS



ASSEMBLE KILN



BUILDING BRICKS



1. DIGGING

During the first part of the process, the women dig for clay, the brick's raw material.



2. MIXING CLAY

The women mix the clay, after first softening it with water collected on site and stored in in-ground tanks.



3. MOLDING

The clay is shaped using simple tools and sand-lined molds.



4. RELEASE

The women release each brick, and stack them for drying and firing. They will produce all the 450,000 bricks needed on the site.



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The demonstration farm provides flexible spaces for food, animal feed, and tool storage, along with a veterinary office and food-processing machines. The buildings will be covered with green roofs.

Although she's a reluctant subject, there is one thing about the 52-year-old Davis that is entirely clear: she is the proud mother of four children—ages 13 to 25—making her transition into architecture following a career in finance even more impressive. Inspired by her artist mother, Davis grew up dreaming of studying art at the Rhode Island School of Design, though compromised with her parents (who felt that a full liberal arts education would be more beneficial) on Trinity College. Moving to New York City after studying art history in college, Davis was determined to make a life as an artist, yet she quickly became concerned with how to support herself; working in galleries wasn't cutting it. Her businessman father convinced her to go into banking, thus beginning a career in finance.

Davis focused on that work, but never lost her interest in art. She also volunteered with and served as a board member for several prominent advocacy organizations focused on issues like education, poverty, and the environment, all while raising her kids. After more than a decade and a half of work in finance and two years at home raising her youngest daughter, Davis found herself wanting,

searching. “I set about talking with lots of people, brainstorming, dreaming again,” she says.

In 2000, a career counselor recommended by her brother offered Davis a battery of tests, of the Myers-Briggs variety, with the caveat of, “I don't believe in any one of these, unless we see a trend.” Again and again, signs pointed to architecture. Already armed with an MBA from NYU and a wealth of experience in banking, a defiant Davis told the counselor and herself, “I'm 40 years old; I'm not going back to school.”

Soon after, though, Davis enrolled in an undergraduate introduction to architecture course, loved it—and was hooked. Once admitted to the Masters of Architecture program at Columbia University, “I saw my family very little, so I felt like I had to prioritize them when I graduated. Rather than going to work for a firm that would dictate when and where I needed to be, I started a practice,” Davis says. “At the time, I didn't know how much I didn't know.”

With a pair of younger partners who have since moved on, Davis set up shop in 2006 and embarked on a series of projects. When the opportunity to **continued on page 84**



50 PERCENT OF RWANDA'S POPULATION IS UNEMPLOYED.

Diagrams, courtesy Sharon Davis Design; others courtesy Bruce Engel

Courtesy Bruce Engel

work with Women for Women came along, via a colleague in public relations from her former life, she says, “It was an ah-ha moment.” The group is an international NGO that provides women survivors of war and other conflicts with the resources to “move from crisis and poverty into stability and self-sufficiency.” The end goal isn’t self-sufficiency for women; it’s civil society for all. The opportunity seemed to finally bridge Davis’s multiple lives and careers as a businesswoman, mother, environmentalist, philanthropist; and now, designer.

“Sharon has this amazing way of bringing people together who might not have found each other otherwise,” says the landscape architect Julie Farris.

The first project was a women’s center in Kosovo, completed in 2010. The three-story building was one of Davis’s first, and her firm’s role was largely limited to design, as opposed to oversight of the construction. It’s thus her second, and substantially larger project with Women for Women in Rwanda that keeps Davis up at night and gets her out of bed in the morning. “When I started looking at design in Rwanda, the only thing on the Internet was a blog that some Harvard students put together when they had first gone over there.” (Those students were none other than the co-founders of MASS Design Group, themselves recognized by *Metropolis* as Game Changers in 2011.)

The up-and-coming Women for Women project in Rwanda is defined, at first glance, by a large, fan-like roof system, resembling the petals of a plant. The dual-purpose structures—including over a dozen small spaces that total 20,000 square feet of covered space—serve as sun-shading devices as well as rainwater collectors. The corrugated metal roof material was chosen because it’s the cleanest material for gathering rainwater. The team also painstakingly sought out high-quality, durable cisterns for holding the rainwater, as the traditional concrete cisterns are well known to crack, leak, and fail.

The principal building materials, however, are roughly a half-million clay bricks, each one handcrafted by the women who will benefit from the center upon its completion. Traditional Rwandan stone walls, with their signature thick grout, are present throughout the site, but the clay bricks, often spaced apart to welcome daylight, make up most of the curved

interior walls. The site also includes a demonstration farm that helps women produce and market their own goods, a communal kitchen, lodging, classrooms, and numerous other amenities.

Every two weeks, Karen Sherman, a 25-year veteran of international aid, currently the interim Africa regional director of Women for Women, travels from Kigali to the site that Davis and her team have sculpted. “We have over 12,000 graduates of our program in Rwanda, so for hundreds of those women to be able to come back each year, utilize the center as their own space, access support services, and be together, is just extraordinary,” Sherman says. “For too long, they’ve felt isolation and shame as war survivors.”

“What I love about our Rwanda project is helping women gain control over their lives and destinies,” Davis says. That passion has also attracted numerous collaborators to join her. “Hearing her story was a catalyst for me to realize I could do more,” explains the landscape architect Julie Farris of Brooklyn-based XS Space. “Sharon has this amazing way of bringing people together who might not have found each other otherwise. She generously welcomes and recognizes collaborators as true partners.”

But perhaps the highest praise comes from one of the authors of that blog post Davis first stumbled across. “Sharon has brought an incredibly sensitive and thoughtful project to Rwanda, not only developing a true center for women, but using the process of construction as an engine for development and capacity-building,” says Michael Murphy, co-founder of MASS Design Group.

When you meet Davis, it’s no wonder that the mission of Women for Women inspires her and by extension her team of collaborators to the degree that it does. She expects more than inspiration, however: “I would love it if everyone I work with and meet comes away knowing how relevant design is to environmental and social issues, and how intertwined. You can’t ever achieve the full success of one without the other.”

Looking ahead, Davis, Farris, Rothstein, and Rimal have joined forces to launch a nonprofit entity, Big Future Group, inspired by their collective pro bono work with Women for Women in Rwanda. Their goal: to employ what they call a “human-centered and need-centered design approach” to improve the “mental, physical, and moral wellbeing” of communities in the developing world. The Women for Women center in Rwanda, scheduled for completion in June, is a brave, convincing first step. ■