

Common Ground High School, New Haven, Connecticut, USA
Gray Organschi Architecture
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When the Common Ground High School, Urban Farm, and Environmental Education Center in New Haven, Connecticut issued a request-for-proposals for a new building, it was the culmination of nearly thirty years of grassroots work to develop a place for urban families to engage with the natural environment. Starting with a few teachers, environmentalists, concerned citizens, and philanthropists in the late 1980s, Common Ground grew steadily to include a public high school with 200 students, a farm producing thousands of pounds of sustainably-grown food per year, and a roster of summer camps, afterschool programs, and community events that draws nearly 15,000 people a year.

New Haven is in many ways a typical New England city, characterized by fast growth in the late-nineteenth and early-twentieth centuries, followed by economic decline in the second half of the twentieth century as industry left and suburbs grew. Left behind were an economically and culturally diverse population and a sagging built environment. Two things distinguish New Haven from other New England cities, however: the presence of Yale University, which occupies about half of the central city, and East Rock and West Rock, a pair of 700-foot-tall traprock promontories that form a surprising geological backdrop to the city.

In 1990, the city granted Common Ground 20 acres of woodland at the base of West Rock—a bucolic site, but just a few hundred yards from rundown and partially vacant public housing projects. Despite its early success, Common Ground subsisted on a limited budget of public grants, school funding, camp tuition, and philanthropy. The buildings they were able to erect over the next decade were ad hoc and utilitarian: an existing farmhouse adapted for use as an educational building, an inexpensive classroom building, and a smattering of other structures surrounding the gardens that students and volunteers eked out of the woods by felling trees and removing several tons of illegally dumped refuse. The campus's architectural quality was not a priority; students and campers spent most of their time outdoors cultivating the land, hiking up West Rock, and caring for chickens, pigs, and goats.

Into this cultural, historical, and physical context came Gray Organschi Architecture, a New Haven-based practice led by Lisa Gray and Alan Organschi. Responding to a public call for architects, they found themselves in competition with a series of well-meaning but conventional proposals for the new school building, which was to house a gymnasium, science and art classrooms, and staff offices.

In a limited way, the competitors' schemes' lack of vision was reasonable. Common Ground had a modest budget, and the American construction market rewards conformity. The most inexpensive building would be a simple steel frame finished with widely-available materials and standard details. Green elements could be applied to the surface and be only skin deep—an approach to sustainable design sometimes derisively called “green-dressing.”

Gray Organschi thought differently. Much of the energy used by a building is embodied in its materials and spent during construction. Sustainability is not just a matter of reducing energy used by the building once it's built, it is also about what goes into producing and transporting the building's materials. With a thoughtful approach to massing and form, the building could passively help to light, heat, and cool itself. Why not take a broader view of green building with this project, they asked? And why not create a building that expresses the visionary—yet local and sustainable—mission of Common Ground?

Over the last few decades, Gray Organschi Architecture has developed an impressive portfolio of projects, much of which has been published, and the work shows the presence of a clear and consistent hand. While Common Ground is among the firm's largest buildings and is its first public commission, it fits well with the rest of the work, showing that the firm's approach to design can succeed at multiple scales. Gray Organschi started as a design/build practice, and they still maintain a full woodshop and produce some of the finish carpentry and furniture for their buildings, including Common Ground. This attention to craft is clear in their buildings' sophisticated resolution of material and formal junctions. According to Gray, however, it is the firm's capacity to work with difficult sites that really distinguishes it. While Common Ground was asking for a building, it became clear to Gray Organschi that they needed a campus, and the siting, form, and function of the new building could be leveraged to create one.

The existing campus's main circulation path led from the gravel parking lot to the old classroom building up the hill. In the new building, Gray Organschi absorbed this path into their design and shaped it, and this is palpable in the architecture. From the parking lot, visitors pass under a low eave into an airy gymnasium. They are then drawn across the space, up an open stair, turned, and led across an outdoor bridge to the old classroom building, whose entrance was adapted to address the new pathway. In this way, the architecture has a spatial infrastructure: the materials and program are organized by the path that flows up and through the building and across the bridge. The building draws its surroundings into itself, in a fashion reminiscent of Martin Heidegger's writing about the bridge over the River Neckar in Heidelberg: "...the place comes into existence only by virtue of the bridge." Gray Organschi's building has the same sort of impact on Common Ground's campus—it defines and organizes it.

While the circulation pathway is the building's spatial structure, access to light and air give it volume and form. From the street, the building has the saw-tooth forms common to nineteenth-century industrial buildings: three angled skylights open to the north, providing northern light, shade from the hot southern sun, and optimized surfaces for photovoltaic panels. The skylights have operable windows that allow the warm air that rises through the building to escape, reducing the heating load in the cooling season. Facing the parking area and the campus, the massing becomes more complex and human-scaled. Exterior walkways pass under low eaves, and the upper story projects out to meet the new bridge. The projection is held aloft by clusters of angled "pencil columns" reminiscent of Aalto's Villa Mairea, and it is topped by an expressive chimney concealing ductwork for the chemistry classrooms.

Gray Organschi collaborated with the timber-framing company Bensonwood and Quebec-based Nordic Structures to make Common Ground a "mass timber/tall wood" building. The structure consists of sustainably produced glue-laminated and cross-laminated timber, in lieu of steel, and the walls and roof are SIPs—pre-fabricated structural insulated panels. After an exacting design process, the walls and structure were delivered like a kit-of-parts and erected in just a few weeks (although the wiring, plumbing, and finishing continued for the standard length of time). The Common Ground community watched in surprise as the long-awaited building rose suddenly from its foundation.

The components of mass timber construction give the building much of its material character. Many of the walls double as structural members—vertical panels of cross-laminated timber that serve both as shear walls and partitions. Their surfaces, made up of sanded and bleached spruce boards, are very refined, belying their structural nature. Where their edges are visible, the laminations of structural boards are left exposed, revealing the wall's dual purposes. In a similar spirit, the building's details are clean and minimal. Floors, walls, and ceilings meet without trim. Vertical corner joints are mitered, and wall materials extend over the edges of floors and ceilings, leaving them unexpressed on the elevations.

The result is to privilege mass and volume over a more conventional architecture of planes, columns, and punched openings.

As Gray and Organschi started out in the 1980s and 1990s, Kenneth Frampton's framing of postmodern criticality as something autochthonous, grounded, and tectonic was in the air. At the Yale School of Architecture, where they both studied, there was a commitment to hands-on learning, especially in the Yale Building Project, a program in which first-year students design and build a project in New Haven. This approach to teaching architecture produced many graduates interested in working in small design/build practices rather than larger, more corporate firms. Gray and Organschi are also natives of New England, the oldest region of the United States. It is a place filled with wood buildings, and one that maintains a commitment to craft unique in America, especially woodworking. (The popular television series *This Old House*, which focuses on renovating nineteenth-century houses, is based in New England. In fact, they once devoted an episode to the Yale Building Project, which Organschi led for several years.)

But while they are products of their immediate surroundings, their success and worldview have led them to connect with like-minded practices around the world. They have become close to the renowned Australian architect Glenn Murcutt, whose work, like theirs, is grounded locally but resonant internationally. Other touchstones for Gray Organschi are Peter Zumthor, Alvaro Siza, and, perhaps most of all, Alvar Aalto. Here again, Frampton's perspectives are resonant, specifically his essay *Towards a Critical Regionalism: Six Points for an Architecture of Resistance*. To resist the undertow of what he calls "universal civilization"—the homogenizing forces of global development that inveigh against authentic expression—architects must engage with the "particular peculiarities of [their] place" without resorting to an empty imitation of vernacular styles. What emerges is a series of local modernisms that are distinct from one another but similar in their aspirations, and therefore resonant with one another and as a group.

For Gray Organschi and others, sustainable design is central to their vision of critical practice. Organschi speaks poetically of the deep ways in which Common Ground engages with its environment. "There are two solar energy systems at work at Common Ground. The first is photovoltaic—the solar electric energy generation system that is part of the package of renewable energy technology that is essential to the building's efficient operation. The second system is less commonly considered as manufacturing energy but is as old as life on earth. Photosynthesis, the biochemical process in which plants absorb CO₂ and water to produce carbohydrates (plant cells) and oxygen produces the plants [in Common Ground's gardens]. It also generated the kinds of biogenic structural material that forms the building. [This realizes] the premise that the built environment...might become a critical means of mitigating climate change." Common Ground's students and faculty certainly agree. Since opening, the building has become an object of study for the school's sustainability class—a laboratory for learning green design.

It is suddenly hard not to see a building like Common Ground in light of America's recent discouraging political transformations. The project was finished before the 2016 election and the new administration's withdrawal from the Paris Agreement, so it was not conceived in response to these sorts of events. It feels unfair to link, even rhetorically, a hopeful institution like Common Ground with Washington's ugly and fraught discourse. But Common Ground, which grew from the persistent work of a few local citizens in one small American city, shows that when people care to exercise it, political and cultural power still resides with them. It is surely a hopeful sign that Common Ground sees visionary architecture as a meaningful way to embody their values.