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HEAVY METAL

Klopper Martin resurrects the Steel Yard

STANFORD BUILDS ON OLMSTED

With Hargreaves, Leader, Barton & Walker

JJR

Nice save on the Lake Michigan shoreline

SWEET DANISH

1:1 landskab's Copenhagen courtyard

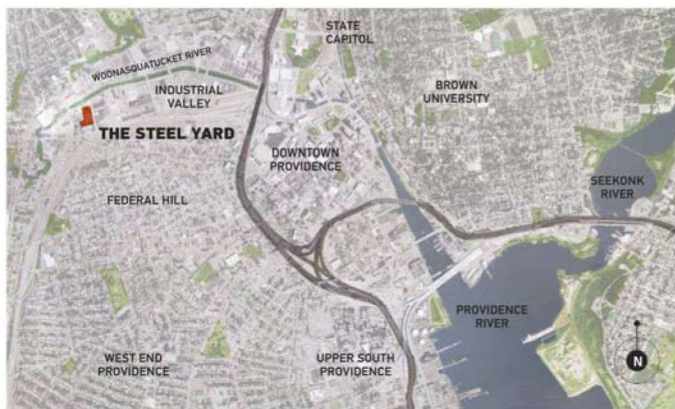
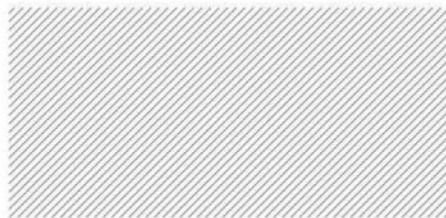
STILL

AN ABANDONED STEEL MILL ON A TOXIC SITE IS TRANSFORMED INTO A HOME FOR A RICH VARIETY OF ARTS AND CRAFTS—INCLUDING, ONCE AGAIN, STEELMAKING.

BY ROBERT CAMPBELL



ABOVE
The Providence, Rhode Island, site was occupied by a miscellany of overhead cranes and buildings of different eras.



When people who aren't landscape architects—in other words, people like this writer—think of landscapes, we usually think of gardens and rivers, of lakes and forests and mountains. We don't normally think of abandoned factories, polluted harbors, or toxic waste dumps.

But the profession of landscape architecture, as readers of *LAM* know, is changing. Landscape architects are moving into fields once dominated by architects, civil engineers, and city planners. The whole world, built and unbuilt, is being thought of—for the first time in human history—as one continuous landscape. It's a powerful way of reconceiving the environment.

A development called the Steel Yard in Providence, Rhode Island, is an apt illustration of the trend. As a juror in the 2011 ASLA Professional Awards program, I was blown away by this project, which won a unanimous award. The landscape architects Mark Klopfer, ASLA, and Kaki Martin, ASLA, who are partners in the firm Klopfer Martin Design Group in



Cambridge, Massachusetts, led a team that transformed an abandoned steel fabricating plant into, well, a new steel fabricating plant. They and their clients reimagined the wreckage of America's industrial past as a living landscape. A site littered with the rusting detritus of failed industry, and sick with the waste products of forgotten technologies, emerged into a new kind of urban beauty. It is not the beauty of a monument or relic. It's that of a working art campus.

To accomplish that, the designers came up with inventive solutions to such problems as rainwater retention and containment of toxic lead. What's most striking about the Steel Yard, though, is the way every technical move doubles as a social move. Each contributes to a sense of identity, a sense that this is a place, that it is the home of a community.

First a little history. The three-and-a-half-acre property occupies a site in an area of Providence known as the Industrial Valley, a place where five neighborhoods converge and where failed industry is the local norm. For exactly a century, the property was home to a company called Providence Steel and Iron. It was a small outfit, buying steel in standard shapes from larger mills and reconfiguring it into custom details for structural

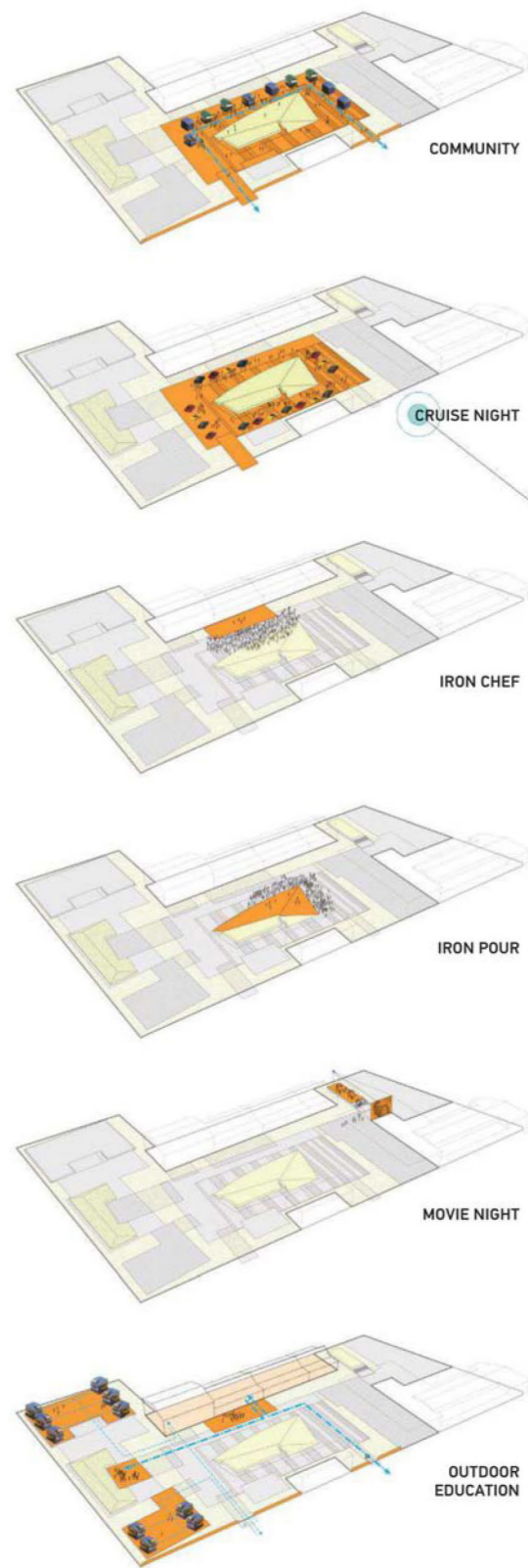
connections or architectural ornament, things like gussets, fasteners, fences. American steel production collapsed at the end of the past century, unable to compete with cheaper products from abroad. Providence Steel and Iron went out of business in 2002. The site was abandoned.

Left standing was a mixed collection of buildings of different eras, clothed in brick or metal siding. Many of them were stained or rusted in ways that looked decrepit but all the same radiated a rich visual interest. Grass grew wild to knee height, obscuring a rail spur that bisected the site. Rabbits and birds were the inhabitants. Gantry cranes, which once traveled overhead across the whole site, both indoors and out, extending even over public sidewalks, were as motionless as sculptures in a museum.

Then came two investors, both in their early twenties. Nick Bauta and Clay Rockefeller were graduates respectively of the Rhode Island School of Design and Brown University, both of which are in Providence. Both are artists working mostly in sculpture. They shared a love of industrial sites. They bought the factory for \$1.2 million in 2003, got it listed as eligible for the National Register of Historic Places, and hired Klopfer and Martin to redesign it.

SITE PLAN

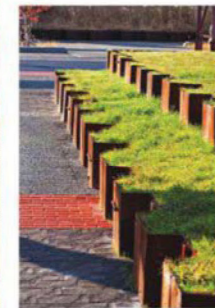
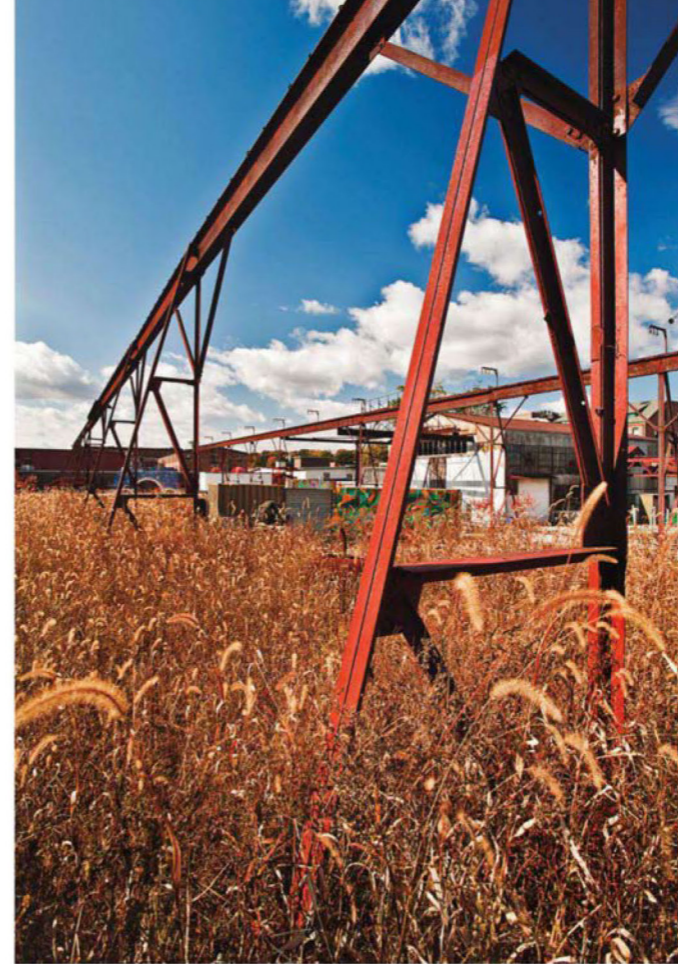
- 1 "MOAT" STORMWATER BIOSWALE
- 2 OUTDOOR WORK SPACE
- 3 PARKING
- 4 CENTRAL LANDFORM
- 5 MODULAR STUDIO PLATFORM
- 6 OUTDOOR FOUNDRY
- 7 "THE CARPET"
- 8 "THE MOVIE ROOM"
- 9 PEDESTRIAN ENTRANCE
- 10 VEHICULAR ENTRANCE



Armed with \$600,000 in state and federal grants, including a large federal brownfield grant, Klopfer and Martin set to work. They faced two kinds of problems. The first was remediation: how to clean up a brownfield site and reposition it to serve the era of sustainability. The second was placemaking: how to transform a clutter of shapeless outdoor spaces and forgettable buildings into a memorable place, a place that could be a center of gravity for the community.

Start with remediation. The soil was deeply polluted with lead, the result of the decades when the factory was painting its products outdoors. Martin and Klopfer wanted to retain this toxic soil on the site, rather than strip it and dump it in someone else's backyard. They also wanted to retain and filter as much stormwater as possible, rather than let it run uselessly off into storm sewers. How to keep both rain and lead on the same site without having each interfere with the other was the environmental challenge. And all this, of course, had to be accomplished in strict accord with the standards of such agencies as the state Department of Environmental Management.

Klopfer and Martin found that only a small portion of the soil was so contaminated that it had to be removed. The remain-



1 CAR SHOW
Among the activities the space hosts is Cruise Night, a gathering of antique cars.

2 GRASSES
Untrimmed planting in peripheral areas gives the sense that the site has been found rather than designed.

3 EDGE
Sheet piling becomes an industrial edge for a grassy knoll.

4 WALL
Junked metal, compacted into cubes, finds new life as an artistic retaining wall.

ing toxic earth was treated with a geotextile fabric binder. A cap of 12 inches, of either clean fill or of pavement, was then placed over the entire outdoor site. All toxic soil is beneath this cap. Placing the cap, however, raised the elevation of the outdoor space higher than the ground-floor levels of the buildings. To deal with that issue, the designers created a system of what they call "moats," ditches that run along the edges of the buildings and are excavated below the floor levels. The moats are crossed by pedestrian bridges, which become the entrances to the buildings. The moats are also a key part of the stormwater retention system. Like other areas of the site, they are capped with a binder and covered with 12 inches of clean soil. (The fabric binder is a warning layer, an indication that contamination exists should someone in the future dig through the layer of clean fill.) The moats are planted with hydric (water-loving) species that help clean the water as it passes through and infiltrates. Swales and other level changes, some of them created from dug earth, also help direct the water. The Steel Yard now infiltrates 90 percent of annual rainfall before employing the sewer.

As for placemaking, the designers solved that one by creating a brightly colored paved area in the center of the site. They call

it "the Carpet." Suddenly, all those random scattered buildings seem to be gathering in an orderly manner around a center. The presence of the Carpet organizes the site. It reminds me of the wonderful poem by the American poet Wallace Stevens, "Anecdote of the Jar," in which the poet places a jar on a hill in Tennessee and finds that "It made the slovenly wilderness/Surround that hill," a wilderness no longer wild but newly ordered. The Carpet is also, of course, part of the reclamation effort: It's the paved part of the cap that covers the toxic soil everywhere on the site.

Klopfer and Martin have fun with the Carpet. It's striped with different materials and colors, most of them reminiscent of features found elsewhere on the site. In good weather, activities spill out onto the Carpet from indoor studios and craft shops. Some of the Carpet is porous to rainwater and some is not. People can dance or picnic on it and sometimes do.

Besides the Carpet, the key concept in the planning of the Steel Yard is something that sounds, at first, like an oxymoron. Everyone speaks of the "urban wild." Nobody, say Klopfer and Martin, wanted a conventional prettified park or a mulched garden. "Everyone bought into the grittiness," says



CHRISTIAN PHILLIPS PHOTOGRAPHY

COURTESY KLOPFER MARTIN DESIGN GROUP

Drake Patten, now the Steel Yard's executive director. The community loved the place as it was, both urban and wild. So, after the capping, the designers replanted some of the old grasses, leaving them to grow uncut. Klopfer says he used grass to "recolonize the site" after its period of being ignored.

Again and again, the site details bridge the gap between the past and the present. The designers scavenged everywhere. Their contractor found free lengths of sheet piling, about to be thrown away after being used at the excavation of another construction site. Klopfer and Martin chopped the pilings into short lengths and used them as an elegant trim at the edges of grass areas.

One site feature was created out of scrap steel that had been compacted by a junk dealer into cubic bales. Such compacted bales are normally created to be sold abroad, where they're melted down and re-formed. Here, they've been lined up like a row of boxes to form a low retaining wall. The bales gleam and bristle with their contents of junked bicycles, auto parts, home appliances, and whatever. They're richly colored, richly sculptural works of art. By employing the abandoned products of industrial technology to form a creative new landscape,

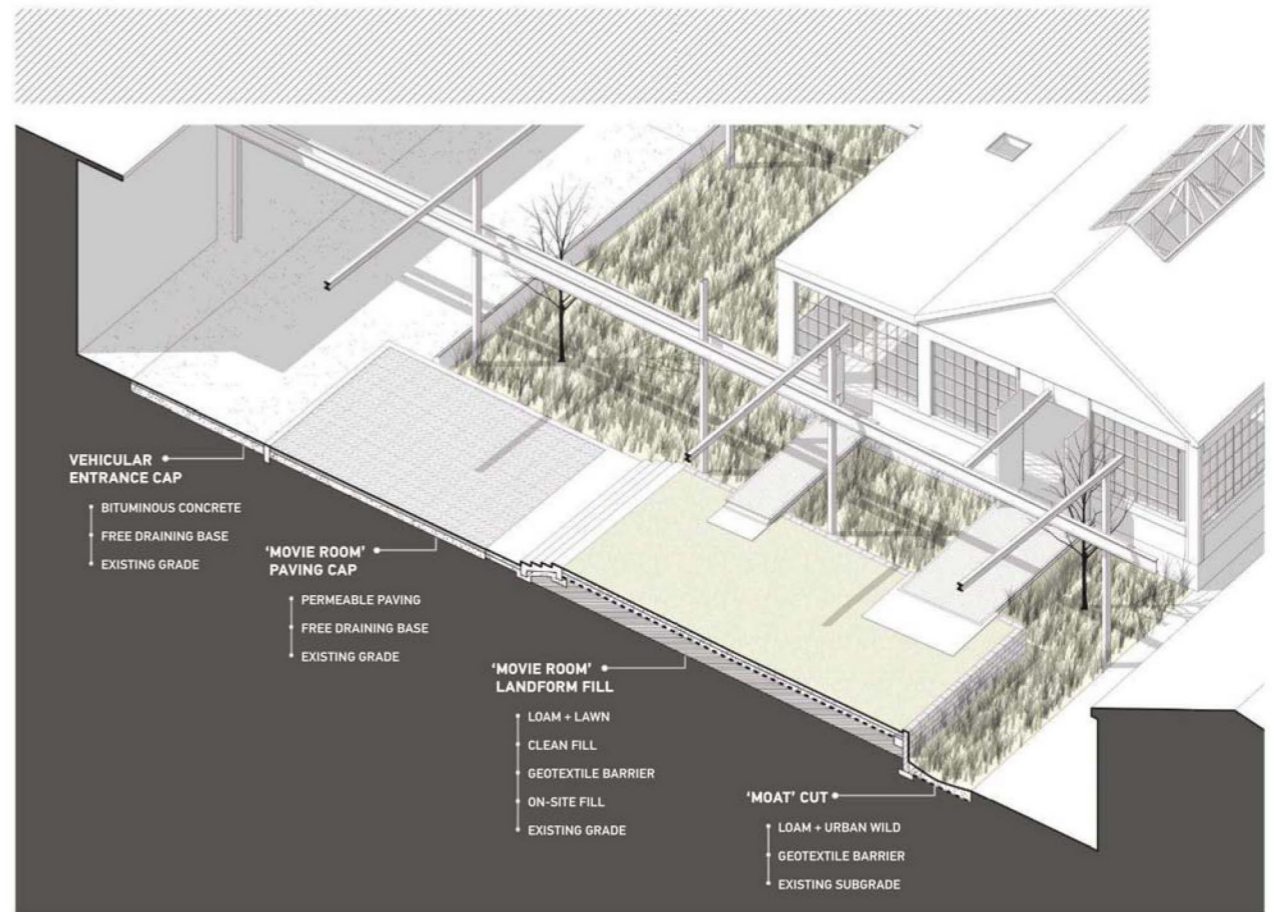
the bale retaining wall sums up, for me, the essence of the Steel Yard.

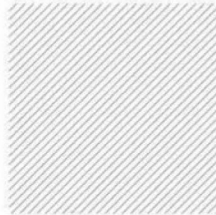
Cost had to be held to a minimum. One solution was volunteer labor. Klopfer says there were 192 volunteers on the site for what was called "Planting Day." Volunteers are still an essential part of maintenance. College kids arrive during vacations, from as far as Ohio and Kansas. They perform various cleanup jobs. Some leave college inscriptions as mementos on a wall or window. The inscriptions become part of the evolving history of the site. If you hang out enough at the Steel Yard, you get to be called one of "the Yardies."

It's impossible to list all the activities of the Steel Yard. New ones crop up all the time. Making steel is only the beginning. Among the activities: free industrial arts classes for low-income teens; Camp Metalhead, a summer camp that gets kids welding and making things out of steel; a Weld to Work initiative to prepare older youth for jobs; courses in metals, blacksmithing, welding, glass casting, jewelry making, and ceramics. There are also programs in theater and music, and there's a writers' series. There's a course on how to fix bikes, another called Wearable Art, another called a "copper

ABOVE
Contaminated soil is capped with a layer of new fill. New bridges span to old buildings.

OPPOSITE
A system of moats gathers and absorbs most rainwater.





ABOVE
A new central open space the designers call "the Carpet" is surfaced in a variety of materials.

bowl workshop." Martin herself took courses in welding and glassmaking.

Many courses are taught by artists, who are usually also creating their own work on the site.

They move in, rent space and equipment, and start to work or teach or both. Artists work with students to make bicycle racks, trash cans, fences, and sculptures for public sites. One school group made a "Peace Bench" for its schoolyard. Another team fashioned a steel fence mural for the Steel Yard's main entrance.

There are public activities too. There have been a wedding and a Rhode Island School of Design alumni gathering. This summer saw a techno music fest and a writer's conference. Every year there's a Cruise Night, when dozens of antique cars from all over the area converge on the Yard in a kind of *American Graffiti* rally. There are regular outdoor movies. Then there's the Halloween Iron Pour, when (to the accompaniment of a DJ and a sound track), a six-foot-high steel jack-o-lantern is filled with wood, to which is added an accelerant. The whole thing is then lit and virtually explodes.

The Steel Yard is set up as a nonprofit corporation. It has no endowment and lives entirely off fees, rents, and grants. Its

CHRISTIAN PHILLIPS PHOTOGRAPHY

influence is spreading. Providence's former mayor, David Cicilino, who is now a congressman, says: "We embedded lessons from the Steel Yard in the city's comprehensive plan, so it will have an impact on the process for a long time." Since winning their ASLA award, Klopfer and Martin have put together a PowerPoint lecture in which they describe and explain the project, both its technical solutions and its social engagement.

The Steel Yard is an industrial site that's been converted to a campus without losing its industrial character. Once again, as in the past, the gantry cranes roll overhead, picking up and depositing machines and materials.

Is the Steel Yard beautiful? It's a fascinating question. It's helpful to remember that back in the high tide of the modern movement in architecture, everything Victorian was widely considered to be ugly. "Ugly Victorian" was practically one word. But as time passed, Victorian came back into fashion. Today it is much loved.

I think the same thing is happening to industrial architecture. All our wonderful old bridges, all those marvelous smokestacks and cranes and shipyards, are as visually rich as any ornamental Victorian mansion or fully rigged clipper ship. Only last week I was overwhelmed by the power and beauty of the grain elevators of Buffalo, New York, which I visited on a tour sponsored by the National Trust for Historic Preservation. As such artifacts age and decay, and we begin to lose them, they often seem more beautiful and precious than ever.

As a listed entry on the National Register of Historic Places, the Steel Yard is certified as a significant monument of the past. But the best thing about it is that it's alive in the present. The Steel Yard is now a workplace, a park, a playground, a classroom, a studio, a factory, a business incubator, and a community center, all with the help of landscape architects who are expanding the definition of their profession. ●

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Project Credits

CLIENT THE STEEL YARD, PROVIDENCE, RHODE ISLAND (DRAKE PATTEN, EXECUTIVE DIRECTOR; CLAY ROCKEFELLER AND NICK BAUTA, COFOUNDERS; PETER GILL CASE, BOARD CHAIRMAN). **LANDSCAPE ARCHITECT** KLOPFER MARTIN DESIGN GROUP, CAMBRIDGE, MASSACHUSETTS (MARK KLOPFER, ASLA; KAKI MARTIN, ASLA; DAVID TAYLOR; KURT PETSCHKE; CHERI RUANE, ASLA; ELISE MAZAREAS). **ENVIRONMENTAL ENGINEERING** EA ENGINEERING, SCIENCE & TECHNOLOGY, WARWICK, RHODE ISLAND. **CIVIL ENGINEER** MORRIS BEACON DESIGN, PROVIDENCE, RHODE ISLAND. **STRUCTURAL ENGINEER** STRUCTURES WORKSHOP INC., PROVIDENCE, RHODE ISLAND. **CONTRACTOR** CATALANO CONSTRUCTION, CUMBERLAND, RHODE ISLAND. **WETLAND PLANT CONSULTANT** VERMONT WETLAND PLANTS, ORWELL, VERMONT. **VOLUNTEER PLANTING DAY PARTNER** GROUNDWORK PROVIDENCE & TREES 2020 PROGRAM, PROVIDENCE, RHODE ISLAND.