

The Romance of Abandonment: Industrial Parks

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Built largely during the Industrial Era in Europe and America, from 1850 to 1950, plants, mines, mills and factories—the now-defunct behemoths of heavy industry—processed steel, built ships, made munitions, extracted coal, generated electricity, and fashioned textiles. Dependent on reliable transportation, these small cities, their towers silhouetted along the horizon, rose on large tracts of land at seaports and along railways and rivers.

The aesthetics of these abandoned sites may seem unusual today because their building shapes were dictated by function, not conventional architectural forms. It was the machines and processes they housed that determined their configurations, molded to purposes known only to those who used them.

Often, their gigantic size and startling juxtapositions also give them a sinister beauty that speaks of prodigious human effort and material transformation wrought by great physical forces. Even silent, they resound with power. The hypnotic attraction of places like Bethlehem Steel in Pennsylvania, or the former Thyssen Steelworks in Duisburg, Germany, stems from the romance of their abandonment—the saga of what was once so mighty brought low.

The Legacy

Today the phantasmagoria of heavy industry's complex shapes and slowly decomposing profiles demands our attention. Reconstruction holds the prospect of reversing the environmental degradation with which they were often synonymous, and encouraging urban rejuvenation. There are three general determinants to success in these efforts: the nature of the reuse (what activities to include); the availability of funding; and the aesthetic approach taken. Yet each site must also be considered on its own merits. Since no two communities view conversion the same way, no two projects can achieve the same result. And because of their variety, there is no uniform method for reconstruction.

Redevelopment of such sites takes place between two extremes. One is clearing the land, using it for completely new development without reference to its industrial past; the other is preserving the total facility as a museum. In between lie a variety of approaches, incorporating many possible new uses, including housing, retail stores, offices, and entertainment venues. By appealing to multiple funding sources, redevelopers can more easily turn these places into lively environments that generate a variety of activities, yet retain much of their original character. In America such redevelopment is likely to be pursued as a profit-making venture emphasizing new private uses and

funding sources. European examples are more likely to be dependent on government funding and notions of the public good.

The Nature of Reuse

As the Duisburg project that so impressed the 2005 EDRA/*Places* jurors indicates, the idea that an old industrial site can be used as a park—a place where nature holds sway—at first seems a startling contradiction. Blast-furnace infernos have little to do with the soft enticements of a green landscape; indeed, the validity of one seems to deny the other. But municipalities are reclaiming these leftover spaces as parks all over the world, motivated sometimes by fascination with the aesthetic juxtaposition of nature and built artifacts, other times by concern about the environment.

Reclamation of industrial sites potentially holds other rewards, too. Their restoration can help fight urban sprawl. Properly conceived—as mixed-use complexes, sports centers, conference centers, museums and educational organizations, theaters, and modern business parks—they may bring healthy returns for private developers. They also may be vital to the burgeoning heritage tourism market, which captivates visitors with dramatic evidence of a work ethic that led to unimaginable wealth and power.

In other cases, however, such sites must remain as open space, future public land “waiting” until remediation processes can cleanse their soils of contaminants. Here and abroad, many former industrial sites adjacent to the communities they once created are so polluted they present a serious health hazard.

Known as “brownfields” in America, such lands are subject to federally mandated cleanup. Federal funding for such work comes with the usual bureaucratic complexities, but the economic benefits of creating new developable land can be a powerful incentive. Furthermore, all levels of government are now coming to recognize the urgency of intelligent stewardship of land. More than 40,000 brownfields in this country alone have been remediated and are now actively reused.

Funding

However fervent the motivations for development might be, numerous obstacles must be overcome before these sites can be brought back to life. In America the transformation of an industrial site often requires consensus among varied constituencies and a complex mix of funding sources. With no single source of money large enough to power such efforts, we must rely on a mix of public and private resources. As a result, the virtues of



each site—its geography, built configuration, and historic legacy—must be discovered and explained to many supporting entities, an exercise that requires a concerted effort by the surrounding community.

Securing funding also requires careful work to address issues of environmental contamination, land use, accessibility, transportation, circulation, structural maintenance, and public safety. Even if the intent is simply to clear the land to construct new mixed-use facilities or encourage new forms of manufacturing, the vast size of these places often defeats conversion efforts. For instance, the conversion of the Bethlehem Steel plant in Pennsylvania has never advanced beyond planning reports, despite attempts by government agencies, local politicians, arts administrators, philanthropists, and two large community groups.

Sloss Furnaces in Birmingham, Alabama. Historic photo courtesy of Sloss Furnaces.

A Diversity of Development

Sloss Furnaces, in Birmingham, Alabama, is the only twentieth-century blast furnace in the U.S. being preserved and interpreted as an historic industrial site. Established as a pig-iron factory in 1881 by James Sloss, the plant is located within a thirty-mile radius of all the ingredients needed to make iron. The population of the City of Birmingham grew rapidly in the late nineteenth century in response to the plant's expansion. But by the 1970s it had become obsolete, and was closed. In 1980, Hardy Holzman Pfeiffer Associates completed a master plan for the redevelopment of Sloss Furnaces entitled "A Museum of Modern Times." It described the potential of the site as a home for educational, cultural and recreational programs.

Supported by public and private funding, this "museum of industry's" two four-hundred-ton blast furnaces and forty other buildings now offer a community celebration of the arts, providing insight to the city's industrial heritage. Some of Sloss's old machines and mechanical installations are now used to make metal sculptures. Its Metal Arts

program offers workshops, open studios, exhibitions and conferences on metal sculpture, providing residencies for mature and emerging artists. Visitors can also participate in walking tours that include the apron of the furnace, the stock trestle, and the underground railroad line. Sloss also hosts concerts and festivals.

Bethlehem Steel, in Bethlehem, Pennsylvania, began as small rail-making operation in 1857 to serve the expanding railroad industry. By 1904, it had grown into one of America's largest corporations. During World War II Bethlehem Steel was the world's second largest steelmaker and employed thirty thousand people. Machine Shop #2 was



once the largest industrial building in the world. However, steady decline caused the plant to cease operations in 1995, leaving some 124 acres of buildings and brownfields. Like Birmingham, the City of Bethlehem has tried to retain its structures and equipment intact. But in redevelopment terms, that's where the resemblance ends.

Although the Smithsonian Institution originally expressed interest in creating the National Museum of Industrial History at the plant, that effort never received funding. Today, two coalitions of public and private organizations—Save our Steel and the Friends of Steel—are attempting to revive the site for a variety of activities. But it is the construction of a casino that is currently imagined as a linchpin for this effort. If that project were approved, local homeowners would see their property taxes reduced by an average of \$330 each, and the plant site would become “an eight-hundred-million-dollar retail and entertainment complex with a slots parlor, a hotel, and a renovated museum.”

Such a combination of preservation and gambling represents a new approach to industrial redevelopment, offering a financial base few other activities could guarantee. However, this proposal is stalled in the state legislature. Such an important site, with its cavernous structures and enormous potential awaits inventive solutions for mixed-use activities that can integrate new public participation with what now remains derelict.

Landschaftspark Duisburg Nord, Germany, winner of a 2005 EDRA/*Places* Design Award, is the magnificent hybrid designed by landscape architect Peter Latz, founder of Latz + Partners.



The same forces behind the thriving Sloss Furnaces conversion (and that have so far struggled to produce results at Bethlehem Steel) have led to the reuse of many of the coal-mining and steel-manufacturing sites in a 200-square-mile area of Germany bordered by the Lippe, Ruhr and Rhine rivers. Reviving these places in their entirety is a project conceived and implemented by a public-private coalition called the International Building Exhibition Emscherpark. The project is a self-described “Route of Industrial Culture,” unusual because of its regional, rather than site-specific, basis.

The most spectacular of the reclamation efforts so far has been that at Duisburg. Defying the traditional serene notion of “park,” Latz’s design juxtaposes nature with industry by transforming massive industrial objects into places of culture and recreation. It reconstitutes the original fabric in ways sympathetic to its configuration by using water to make slides, ponds, swimming pools, a diving



center, and fountains, and by using existing structures as promenades and footbridges. A hulking wall has become a rock-climbing center, and one of three gigantic blast furnaces is a concert venue. The park's vast acreage accommodates fairgrounds, children's play areas, and extensive gardens.

This is almost the ideal reuse of an industrial site, one instance when huge size (568 acres) is an advantage, and where the area's history is preserved. Also, because the land is being reclaimed slowly, the project can be funded incrementally, and its design can evolve along with the landscape. The park is free to its six hundred thousand annual visitors.

The Massachusetts Museum of Contemporary Art, better known as Mass MoCA, comprises 26 red-brick buildings and courtyards connected by bridges, viaducts, and elevated walkways. The buildings contained a variety of manufacturing processes until 1942, when Sprague Electric bought the complex to convert it into a site to design

and manufacture high-tech weapons systems, including components of the atomic bomb. By 1966, Sprague employed 4,137 people, living in a community of 18,000. But the plant closed in 1985 because of competition from lower-priced components from abroad.

Transformation of the site to an arts center began with a proposal in 1986 by Tom Krens (then Director of the Williams College of Art and currently Director of the Solomon R. Guggenheim Museum in New York) and has involved a \$22 million construction grant from the Commonwealth of Massachusetts and nearly \$9.5 million in private funds for construction support. A master plan by Simeon Bruner, of Bruner Cott & Associates, was completed in 1995, and after its opening in 1999 Mass MoCA became the country's largest center for contemporary visual and performing arts. Its summer programs have brought visitors from all over the world that have revitalized the once-dormant town of North Adams.

The Chelsea High Line, in New York City, is an artifact of the railroad era, an elevated steel viaduct that threads its way down one and a half miles of lower Manhattan's far West Side. This spur line once joined freight service from New Jersey to warehouses along the east side of the Hudson River, passing over city streets and through buildings. But after the structure fell into disuse in the 1950s, nature reclaimed it as a grassy corridor, leading to current plans to redevelop it as a park.

Through a combination of public and private funding sources (chief among them the City of New York at \$15,750,000), the first section of this redevelopment is now underway, combining a striated planking system that joins planting beds and water features with seating areas, event spaces, and found objects (*Places*, Vol. 16, No. 3, pp. 4-5).

The federal government has supported the project for the past three years, and in July 2005, it granted the High Line \$18 million as part of the transportation bill approved by Congress. When complete, it will provide a linear platform from which to view the river and the surrounding city. The project's design, by James Corner's Field Operations and Diller Scofidio + Renfro, was deemed of sufficient artistic merit to be on exhibition at the Museum of Modern Art in New York in the spring of 2005.

A European precursor, almost a twin, to the High Line

Top: Climbers in the old ore bunkers at Duisburg Nord. Photo by Michael Latz.

Opposite: Views of abandoned facilities at Bethlehem Steel. Photos by Dariusz Aldala, courtesy of City of Bethlehem. Additional images are available at <http://www.bethlehem-pa.gov/about/imageGallery/historicalBethlehemSteel.htm>.



is the three-mile *Promenade Plantée in Paris*. It, too, was once an elevated freight railroad. But today, as redesigned by Philippe Mathieu and Jacques Vergely and rebuilt in the early 1990s, it is a planted pedestrian walkway set atop a series of masonry arches called the *Viaduc des Arts*. Meanwhile, empty lots alongside the promenade, which runs along a major commercial street with bus and bike lanes, have been filled in with new housing and multilevel pocket parks.

Where the Chelsea High Line will be anchored at its southern end by the new Dia Museum, the *Viaduc's* arches contain 45 artist studios and nine cafés. Both of these projects combine old and new, built and bucolic, commercial and cultural; both are in deeply urban environments.

A former industrial complex in North Adams now serves as the home of the Massachusetts Institute of Contemporary Art. Photo courtesy of Mass MoCA.

Aesthetics

Originally known for their fire-breathing buildings, their startling profiles, or the extent of their underground networks, industrial sites are best redeveloped when some aspect of their original character and organization is preserved to recall the forces and people that brought them into being. Beyond this, however, each of these relics was a response to specific utilitarian requirements. And since no two buildings were conceived with the same needs and each supported a different set of activities, it is impossible to adopt a single aesthetic approach to their reconstruction.

One extreme is to remove everything except the basic building structure. Demolition, however, is blunt tool, and should be employed advisedly. For instance, the Tate Modern, London, and the Dia Beacon, New York, offer visitors no clue to their original uses—a power station and a Nabisco factory, respectively. The interiors of these buildings have been stripped to provide a neutral back-

ground for the display of art. Except for moving gantries at the Tate or floor stains at the Dia, there are no visual traces of what brought these buildings into being. Their minimalist design produces large, simple volumes, but they lack identity with the industrial past, making big, but bland, places.

The other extreme is to keep everything just as it was. At Sloss Furnaces, visitors encounter the active artifacts of steel-making. Short of wearing costumes recalling the late 1800s, its organizers have left the site and its buildings intact. The complex required some editing, however, to satisfy building code and safety concerns, so that a balance could be struck between what the structures were built to do



and the education programs they now present. In fostering discovery by visitors, public circulation becomes a crucial element in their design. This literal interpretation, costumes and all, is also a popular approach in the United Kingdom.

Measuring Success

Why does reconstruction have value, and what are its long-term results? There are several ways to judge. Using correct environmental standards, returning such lands to productive use is enormously beneficial to surrounding communities. The sites' adaptation for municipal and cultural endeavors brings new life to former wastelands. Educational programs provided by museums offer insight about what these places represent and how they changed their respective societies. Turning them into parks revolutionizes urban neighborhoods, offering residents and visitors alike access to active and passive recreation.

When well-conceived by their twenty-first-century

inheritors, these developments may preserve the environment, recycle buildings, make positive contributions to urban life, strengthen community, support the arts, and retain local heritage. Depending upon their organization as profit or nonprofit ventures, they can also become a source of income for their communities. However, no single result can be identified as best.

Innovation in the reconstruction of industrial sites is sure to continue as this phenomenon is refined and better understood. The alternative, urban sprawl, creates featureless places, devoid of heritage, whose pasted-on character consists of architectural motifs found in catalogues. Like



the preservation movement before it, industrial redevelopment becomes easier to implement when its merits are understood by the public.

Although it may be paradoxical to think that explaining the past leads to innovation, numerous success stories suggest that politically broad-based solutions best serve community needs. The intelligent reuse of industrial sites can provide a genuine sense of place, one that celebrates both a rich history and an off-beat aesthetic.

In Paris, the reclamation of an abandoned rail viaduct as the Promenade Plantée served as an important precursor to New York's planned High Line. Right photo by Peter Mullan, courtesy of Friends of the High Line.