

University of Pennsylvania

From the SelectedWorks of Laura Wolf-Powers

January 2012

Designing an Urban Industrial Future: Philadelphia's Lower Schuylkill industrial district

Contact
Author

Start Your Own
SelectedWorks

Notify Me
of New Work



Available at: http://works.bepress.com/laura_wolf_powers/17

Designing an Urban Industrial Future

Philadelphia's Lower Schuylkill River District

By Laura Wolf-Powers

THIS CASE STUDY of the Lower Schuylkill River District in Philadelphia highlights current debates about how to integrate progressive ideas into on-the-ground efforts to regenerate urban manufacturing. As they position the Lower Schuylkill District for a new generation of investment, Philadelphia planners are faced with a set of questions that in many ways typifies efforts to unlock twenty-first century job growth in older industrial cities. Can contemporary industrial districts be compatible with urban vibrancy and livability from a design perspective? How can investments in high-level, university-connected research lead to jobs for workers with low and moderate skills? And how can we reconfigure a broken educational system to better position economically struggling urban residents to benefit from industrial growth? Progressive planners need to be part of this discussion.

The Lower Schuylkill River District—a historically industrial corridor comprising 3,700 acres on the east and west banks of the Schuylkill River in Philadelphia near its convergence with the Delaware—has in the past five years begun to play a key role in conversations about the city's economic future. A vibrant center of industrial activity in the early twentieth century, the Lower Schuylkill was deeply affected by the decline in Philadelphia's industrial base between 1950 and 2010. It is now characterized by aging infrastructure, underutilization, transportation access challenges and

(due to the variety of petroleum and heavy manufacturing uses in its past) significant environmental contamination. But that's really only half the story; in spite of its challenges, the district is opportunity-rich. It lies two miles southeast of Center City's dense mix of housing, offices and retail and due south of the campuses that make up the burgeoning employment district of University City. It is eminently accessible by rail, highway, air transport and water port infrastructure, including the recently redeveloped Philadelphia Navy Yard. Much of the acreage is publicly owned. Strategic redevelopment can poise the area for incorporation into a larger strategy for job growth in a city rebounding from a difficult half-century.

Two planning documents have come to frame discussion of the Lower Schuylkill's immediate future. The first, an industrial land use and market study released by the city in 2010, identifies parcels within the district as prime locations for "modern industrial sites," ranging from university-linked lab space to large logistics and distribution centers to purpose-built manufacturing facilities. The second, the Philadelphia City Planning Commission's *Philadelphia2035* comprehensive plan, also envisions opportunities for industrial and research-linked employment growth in the corridor while emphasizing the potential to use parts of it for stormwater management and to provide public green space at the river's edges. An early 2011 announcement by Sunoco Oil that it would be selling 1,400 acres within the area and ceasing its refining operations in Philadelphia as of mid-2012 has added increased urgency to a master planning process recently launched by the Philadelphia Industrial Development Corporation and the Philadelphia City Planning Commission.



Laura Wolf-Powers teaches economic and community development at the University of Pennsylvania.

Standard Boxes vs. Urban Context

Given the sheer size of the parcels that currently exist or could be created in this area, there is a strong inclination among those with their eyes on the industrial real estate market toward priming Lower Schuylkill sites for single-story, large-floorplate development. The city's 2010 industry study concluded that Philadelphia can become more competitive with its suburbs by assembling and preparing multiple-acre sites suitable for the flat, sprawling, parking-enclosed building typologies that increasingly characterize production and distribution; strategists in city government are particularly optimistic about the possibility of attracting air freight facilities and food distribution operations. But this raises eyebrows among urbanists. Isn't this suburban-style development that forecloses opportunities to create dense, visually interesting city form in a central location? Can't developers put in place job-dense industrial districts that feature street walls and connect to an urban grid?

The conundrum here is that job-dense industrial use in an urban setting is a relatively rare thing in 2012. Requirements for large floorplates, complex truck staging capacity and high loading clearances shape nearly all contemporary demand for industrial property. And to date, these requirements remain incompatible with anything that looks like a city to most people—though Tom Dalfo of the Philadelphia Industrial Development Corporation (PIDC) argues that automated warehouses and distribution centers with heights exceeding 80 feet will be “largely,

if not exclusively, an urban building form” in the near term due to permitting challenges in low-height suburban communities.

A 100-foot single-story warehouse may epitomize Jane Jacobs's definition of a border vacuum, especially if juxtaposed with a more traditionally urban built fabric, but does it have to? It may be the case that in prioritizing the equity and diversity that industrial jobs bring, progressive planners will need to make peace with underwhelming architecture. Alternatively, though, we might help transform functionalist flat-roofed boxes into interesting urban neighbors. Medium-scale commercial farming is already taking place on factory roofs in Brooklyn, and it isn't difficult to imagine combining clean industry with restorative landscapes and recreational spaces.

Architecture historian and curator Nina Rappoport recently taught a Syracuse University seminar in which students experimented with integrating industry and the public realm based on historic urban utopian precedents. While she primarily advocates the preservation of multi-story buildings in older neighborhoods, Rappoport believes that many manufacturing facilities can be made compatible with public realm interventions; examples include bike paths buffered from traffic by landscape features and ballfields or sculpture parks on the tops of the buildings themselves. Philadelphia planners, who have tasked themselves with creating space as well as jobs in the Lower Schuylkill District, are open to combining modern goods production and distribution with trail net-

works, wetlands and play areas.

Finally, while the main opportunity in the Lower Schuylkill District lies with the “modern” box, an alternative form—the multi-story legacy industrial building housing small-scale artisans and fabricators—is succeeding in other parts of Philadelphia. The PIDC is about to release a strategy document on supporting artisanal manufacturing which, in adaptively reusing nineteenth and early twentieth century loft-style factories in mixed-use neighborhoods like Kensington and Frankford, has a more traditionally urban character.

The Job Creation Value of Proximity to Universities

In the northern portion of the district on both banks of the river lie sites that call out for connection with the nearby campuses of University of the Sciences, Drexel, and University of Pennsylvania as well as technology commercialization centers and centers for medical research. Together, University City initiatives have over a billion dollars in funding from the National Institutes of Health and \$54 million from the National Science Foundation. Part of the Lower Schuylkill District master planning process will certainly entail an evaluation of these institutions' demand for research-related offices, labs and product design and prototyping space.

As in many cities where medical and engineering research are growing parts of the economic base after declines in mass manufacturing, the challenge is to translate innovation

Produce Market, which has recently relocated just outside it, and the Port of Philadelphia (a major unloading point for imported foods such as cocoa and bananas), sites in the Lower Schuylkill District may make competitive locations for food processors, manufacturers and distributors.

One challenge at the Lower Schuylkill site, which applies to any development that might occur there, not just food manufacturing, is the question of vehicular access. Traditional methods of servicing businesses in this area were river barges and freight rail. Rail is still useful for some firms, but infrastructure—currently lacking—for moving trucks and cars and connecting them to the regional highway network must be a central part of the district's redevelopment. For those considering the food cluster, this site presents an opportunity to minimize trucking's environmental impact by encouraging co-location of processing, manufacturing and distribution facilities close to food wholesale sites.

Workforce Issues

Any strategy to grow industry in Philadelphia must engage with the fact that while the city's large working-age population is a potential asset, low high school graduation and college attainment rates and high rates of functional illiteracy create a mismatch between the skills of the workforce and the skill demands of many firms. Recent national studies have pointed to a gap between demand for manufacturing and other

industrial workers and the supply of such workers. In a recent survey of manufacturers in the Delaware Valley region conducted by the Delaware Valley Industrial Resource Council, 86 percent of 139 firms responding reported that they were trying to fill full-time vacancies. Well-paid manufacturing work requires relatively sophisticated technical skills that often require several semesters of post-secondary education. The key to earning a high wage in a manufacturing position is increasingly tied to the ability to program computer numerically controlled (CNC) machines. Of Philadelphia's working-age population, 22 percent have not obtained a high school degree, and by one estimate, 550,000 individuals, or over half, are functionally low-literate.

A higher skilled workforce cannot be produced overnight, and high school dropouts with low functional literacy are unlikely to find jobs in modern factories without significant educational remediation. Furthermore, the yawning income gap cannot be attributed entirely to skill deficits; ample evidence has shown that the diminished power of labor under neoliberalism (to use a shorthand term) plays a significant role as well. But even as they work from outside the system, progressive planners focused on the Lower Schuylkill site and on Philadelphia industry can make an impact by advocating for closer collaboration among high schools, post-secondary institutions and consortia of firms in the city. Such efforts could provide exposure to manufacturing occupations at the high school

level, solid technical training at a technical college level and targeted on-the-job training (possibly subsidized or financed through state grants such as the State of Pennsylvania's Industry Partnerships) at the employer level. For decades, the prevailing focus of workforce and education policy has been "knowledge" jobs in the service industries. In fact, industrial jobs *do* typically involve knowledge work, and the fact that these sectors have seen employment gains nationwide even during the past two years of sluggish economic growth suggests that this would be a good time to build up a skilled labor supply.

Nationwide indications of an employment "comeback" in manufacturing from 2009 through 2011 after more than a decade of decline is cause for cautious optimism. The state of Pennsylvania (which is the sixth largest state in the nation in terms of manufacturing GDP) has tracked this national trend, but the Philadelphia metropolitan region and city have not. The redevelopment of the Lower Schuylkill corridor, if accompanied by other strategic industrial development initiatives like university engagement and workforce training, has the potential to introduce new jobs and revenues into the city's economy while remediating contaminated land and adding to the city's rapidly improving public realm. Smart, progressive planning—and advocacy for the interests of the less skilled potential employees of emergent industrial firms—will be a big piece of the puzzle. **P²**