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# When Economic Growth is No Longer the Norm: Teaching Urban Design in a Time of Transformation

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# WHEN GROWTH IS NO LONGER THE NORM: TEACHING URBAN DESIGN IN A TIME OF TRANSFORMATION

**Sujata Shetty and Andreas Luescher**

## Abstract

Over the past few years, there has been increasing interest in cities that are rapidly losing population, so-called shrinking cities. This is becoming a global phenomenon, with shrinking cities found on every continent. The decline has been attributed variously to changing demographics, suburbanization, post-socialist transformation and deindustrialization.

We are just beginning to develop approaches to dealing with shrinkage and its consequences – vacancy, abandonment, and limited public and private resources. However, there is currently little faith in the ability of design-related disciplines to deal with shrinking cities. Some authors argue that disciplines such as architecture, urban design and urban planning have always planned for growth and have reached their limits when dealing with shrinking cities (Oswalt, 2006). Still others suggest that restructuring should be seen as an opportunity (Vey, 2007).

This paper challenges the first view and responds to the second by suggesting that design education can and must respond to these new realities. It critically examines a collaborative urban design studio that was part of an attempt to transform a part of a shrinking city in the American 'rustbelt.' The city, once a flourishing manufacturing center, is now facing steep economic decline along with the decline of the auto industry. It is also home to a university that is beginning efforts to revitalize neighborhoods adjacent to the campus. The studio, which brought together architecture and urban planning students from two different universities to work on a section of the city including the campus area, suggests possibilities for preparing students to work in an environment where economic growth is no longer the norm. The following lessons emerged: 1) In a shrinking city, urban designers may need to focus less on designing the solids and more on meeting the challenges of the voids. 2) In spite of urban design's historical bias towards design, students need to be strongly grounded in the planning context, which inter-disciplinary collaboration can help achieve. 3) Now more than ever, even a small urban design project has to be viewed in a larger scale - in the context of the entire city and region. 4) In an era of shrinking resources, the urban design studio can be an important source of ideas for cities facing the physical consequences of shrinkage.

## Keywords

Shrinking cities, deindustrialization urban design pedagogy, collaborative studio, Toledo.

## Introduction

"The Beaux-Arts approach to architectural education is dead.... We need a complete overhaul and right now we are tinkering at

the edges. What we need is integration, collaboration...less about singular intelligence and more about collective intelligence."

-James Timberlake, founding partner of the architectural design firm KieranTimberlake, in a keynote address at the Association of Collegiate School of Architecture Conference, March 2009

Despite the global trend towards increasing urbanization, cities in some parts of the world are experiencing the declining population characteristic of the "shrinking city phenomenon" (Oswald and Reinerts, 2006). Globally, one in four large cities declined in population between 1990 and 2000 (Lindsey, 2007). While much of the discussion of shrinking cities has focused on Europe, the challenge is especially acute in the industrial midwest of the U.S. due the decline of the manufacturing industry (Vey, 2007; Pallagst, 2007, 2008). High unemployment and the housing foreclosure crisis have also had severe impacts on these old industrial cities.

However, architecture, urban, and urban planning have historically been framed by a narrative of growth (Swope, 2006) and a reluctance to speak about shrinkage or decline. Thus the traditional planning response to shrinkage has combined efforts to reduce sprawl and attempts to revitalize inner-city neighborhoods or downtowns (Pallagst, 2008). It has not taken an approach framed by shrinkage itself.

Architectural and planning education have also been framed by a narrative of economic growth and prosperity. For example, the U.S. Bureau of Labor Statistics (2010) forecasts a higher-than-average need for urban planners "to address an array of problems associated with population growth, especially in affluent, rapidly expanding communities." There is little discussion of how education and practice might change to address an alternate reality, one in which growth is not the norm.

By analyzing an urban design studio that brought together students of architecture and urban planning to address urban design issues in a typical U.S. "rust-belt city," we seek to contribute to the nascent discussion of how urban design pedagogy might change to reflect current urban transformations. The studio had two main goals. The first was to allow students to work collaboratively and across disciplines, since urban design is no longer a singular pursuit. The second was to think about how to teach urban design in the context of economic and population decline. Specifically, we sought to answer two research questions: Do cities facing economic and population decline merit a different approach to urban design? And what might such an approach look like? Would it be different from current pedagogy, and would the outcomes be any different?

As increasing numbers of cities face a long and protracted economic contraction, questioning the future role of urban designers has implications for both practice and pedagogy. Urban contexts in shrinking cities are undergoing profound change (Pallagst, 2008), but our paradigms for teaching remain rooted in an earlier era of growth.

To answer these questions, we draw on the work developed in the studio, regular group reflection sessions, course evaluations, and interviews with individual students.

We found that as students changed their focus from growth to shrinkage, their proposals shifted

from focusing on buildings to emphasizing issues of sustainable land use and the environment, specifically issues of infrastructure, density, and urban ecology; broadening the scale of urban design to include planning and the socio-economic context; and community engagement.

Our conclusions are based on a single case study and should therefore be considered exploratory. However, we believe they provide a starting point for further empirical research.

The paper is divided into four sections. The first section begins by briefly outlining the scope of the shrinking city phenomenon worldwide, then reviews the literature on the planning and design issues confronting these cities. The second introduces the studio and the city of Toledo, a shrinking city in the U.S. midwest, currently undergoing economic transformation. The third describes and analyzes one project emerging from an interdisciplinary studio and highlights findings on urban design concepts and strategies specific to this context. The final section offers conclusions and recommendations.

## Planning and Design Issues Confronting Shrinking Cities

In a global survey, Oswalt and Reinerts (2006) estimated that worldwide, one in four cities with a population of at least 100,000 was shrinking. In the last half century or so, over 450 cities across the world with populations of over 100,000 have lost over 10% of their population, including 59 cities in the United States. Many of these are concentrated in the industrial northeast and midwest (Fishman, 2005; Vey, 2007); within this belt, Ohio has been particularly hard-hit. Except for the capital, Columbus, all of Ohio's major cities are declining in population, and the economic decline of cities often affects the entire metropolitan region (Brookings, 2007). This is not a uniquely Western European and U.S. phenomenon – it appears across the globe, including in South Korea and West Asia (Oswalt and Reinets, 2006).

### Changing the Focus from Growth to Shrinkage

Europeans have been discussing their shrinking cities for years (the first large publication was the 2006 German government-sponsored Shrinking Cities project). In Europe, shrinkage has largely been correlated with the post-socialist era. In East German cities, which have attracted much of the research on shrinking cities in Europe, the decline has been attributed to various factors including changing demographics, suburbanization, post-socialist transformation, and deindustrialization (Oswalt, 2006). In the U.S., Beauregard (2006, 2009) suggests that shrinkage in the last century has two distinctive periods, the first immediately following World War II, between 1950 and 1980, when industrial cities in the Northeast and Midwest lost residents, while cities in Southwest grew. During the second period, between 1980 and 2000, fewer large cities lost residents, but those that did had lost population in previous decades as well. Hence, the persistence of shrinkage is the issue. A population loss limited to a single decade might be considered a setback, but losing population in consecutive decades indicates structural rather than circumstantial barriers to growth (Beauregard, 2009).

Despite the persistent population loss of many U.S. cities, the idea of shrinking populations is not compatible with the ideals of local policy makers

(Beauregard, 2003: 673). In U.S. urban and regional planning, current discourse still shows a "high affinity toward growth" (Pallagst, 2008: 10). U.S. planners tend to concentrate on managing urban growth or revitalizing downtowns, with little discussion of the accompanying shrinkage of cities (Pallagst, 2009). The U.S. equivalent of sustainable development is smart growth—a concept that is still very much centered on growth (Pallagst, 2009)

*The Implications for Design Education*

Design and planning pedagogy have also been slow to react. Referring to Kelbaugh's (2001) model of three competing urbanisms - New Urbanism, Post-Urbanism, and Everyday Urbanism, Kaliski (2008: 116) suggests that "New Urbanism was the champion in 2001 and six years later is the near-hegemonic approach to urban design in the United States. It is demanded by publics, adopted by developers and accepted by decision-makers. Its preeminence among planners is simple. It provides straightforward place-making principles that are imageable, reassuring and communicable." The International Network for Traditional Building, Architecture and Urbanism lists several universities in the US., including some very prestigious ones, as having courses or faculty members dedicated to New Urbanism. This approach remains focused on building, raising questions about whether such a prescriptive approach to urban design makes sense in a city facing shrinkage.

## Designing the Void: Sustainable Land Uses

Physical consequences of shrinking cities include abandoned buildings and vacant lots. After years of depopulation, job loss and disinvestment, such cities' land use patterns and physical footprints do not reflect their current economy or population levels (Brookings, 2010). The availability of open space both poses new challenges and opens up new "spheres of action" to urban design, presenting opportunities to think about sustainable land use in terms of urban ecology, infrastructure and density. These are obviously intertwined, but for reasons of clarity, we will address each separately.

*Urban Ecology*

Proponents of Landscape Urbanism suggest that abandonment and vacancy reveal lost natural features (Spirn, 1995) that can now be restored (Waldheim, 2006), or that the area can be returned to a more natural state. In many shrinking cities, nature has already begun reclaiming once built-up lots, but not by design. Unmaintained landscapes can reduce property values (Wachter and Gillen, 2006) and erode faith in a neighborhood's future (Schwarz, 2008). In Philadelphia, for example, Wachter and Gillen (2006) found that in blocks with high concentrations of unmanaged vacant lots, residential values decline by about 18%.

Vacant land can, however, be a valuable asset in improving a city's environmental infrastructure. Most simply, vacant land helps to "green" a city, either through a managed return to a natural habitat, or through planting. Philadelphia has used greening as a policy specifically to tackle shrinkage and vacant properties (Bonham and Smith, 2008). Working with residents, businesses and local organizations, Philadelphia Green, a program run by the Philadelphia Horticultural Society, reclaims vacant urban land. Individual lots are cleared of litter, graded, and planted with grass and a few saplings to create pocket-park-type settings. Long-term maintenance is

part of the program. In one of the few studies to calculate the economic impact of such greening policies, Wachter and Gillen (2006) found that proximity to a neglected vacant lot reduced the value of a home by 20% from the base value of an adjacent home. Location adjacent to an improved lot increased the home's base value by approximately 15%.

Describing efforts in Buffalo, a U.S. city facing population loss, Schilling (2008) suggests that vacant and abandoned properties be replaced with green infrastructure. At its most basic, this consists of "cleaning and greening" – clearing vacant lots and adding some simple plantings. If the lots are maintained, neighborhoods not only benefit from the visual impact of well-maintained open space, but also benefit economically, as the prices of adjoining lots increases (Wachter, 2005).

*Density*

As the open space in shrinking cities increases, figure ground diagrams highlight their changing density. As populations decline and buildings are demolished, a patchwork of built form emerges – loosely connected, if at all. Two approaches have emerged to address this – the consolidation and dispersion models (Schwarz, 2008). One example of the former is architect Oswald Mathais Unger's early proposal for Berlin, called the Urban Green Archipelago. It described areas of dense development in the most viable areas of the city, creating archipelagos around which all future development would be clustered. In other parts of the city, buildings would be demolished, the land allowed to return to nature, and the residents relocated to the urban archipelagos (Cepl, 2006). Youngstown, Ohio is attempting a gentle version of this approach (Swope, 2006), and the mayor of Detroit recently urged citizens to think seriously about this option (MacDonald, 2010).

In contrast, dispersion occurs when, for example, residents have taken over adjacent vacant lots, creating areas of suburban-like low-density development (Armborst et al., 2008). Planners and urban designers tend to oppose de-densification, fearing that it will lead to suburbanization of the city. Using Cleveland as an example, Schwarz (2008) argues that "while suburban-style development patterns can in some cases undermine the character of the city, the statistical reality of Cleveland's on-going population decline obligates us to be more flexible and open-minded about what good urban form means for our city in this period of transition" (Schwarz, 2008:81).

*Infrastructure*

A shrinking city's vacant land can also be used to accommodate infrastructure. As populations decline, impervious surfaces for uses like parking can be converted, for example, to rain gardens or bioswales to help manage storm water run off. In a pilot project in Philadelphia, vacant lots have also been used for storm water management (Bonham and Smith, 2008).

Open spaces are increasingly being used to develop a sustainable local food infrastructure, from individual lots to community gardens (Rugare and Schwarz, 2008). Such uses help to develop a sustainable, local food system in areas where access to fresh food has long been an issue. Although the availability of land and low land costs benefit such uses, contamination could present challenges in cities where the

land has had widespread industrial uses.

*The Implications for Design Education*

Discussions of land use, infrastructure, urban ecology or density often fall into the category of sustainability. Given their importance in the urban context, one might assume that these ideas are central to design education. However, analyses of architecture programs in Africa and the Middle East found that the concepts of sustainability do not form a big part of the curriculum (Salama, 2002, 2007). A similar study of architecture, landscape architecture, planning and surveying schools in the United Kingdom had similar results (Iball, 2003). There are, however, suggestions on how to integrate sustainability into architectural education in the U.S. (Wright, 2003), as well as specific examples of how sustainability can be incorporated into design education (Salama, 2008; Hayles and Holdsworth, 2008). Urban design must begin to incorporate ideas of sustainability into the curriculum.

## A Broader Scope for Urban Design: Crossing Disciplines and Scales

Urban design education and practice continues to focus on how to build on the steady supply of open space in many U.S. cities. For example, Fishman (2008: xviii) says that "fortunately for urban design, deindustrialization has created in almost every city a large inventory of... sites where lost space can be found," and he suggests that these lost spaces are potentially available for redevelopment.

But what might the redevelopment look like? Urban design as practiced now has been described as architecture at a large scale in an urban context (Inam 2002; McCullough 2008), as an "extension of architecture, not something inherently different" (Marshall 2009: 53). Architects lead some of the largest urban design projects around the country (see Ouroussoff 2009), a trend that has international parallels (Ockman 2008).

Kelbaugh and Krankel McCullough (2008) suggest that the focus on the individual building and the underdeveloped urban design sensibility in schools and practice has too often led to buildings that do not engage their urban settings. "The hegemony, even fetishization of the individual building in both the design studio and professional practice continues to plague architectural culture. The singular building - whether signature or vernacular – remains the digit of design in the built environment. The building is still seen as the morphological, legal, financial and operational unit of urban development" (p. xxi).

Designing in cities that are experiencing population loss raises a number of practical issues as described above – for example, what, if anything, should we do with the vacant land in the city, or how best can we provide services in a city with very uneven density? There are social issues, such as, who will decide where in the city new investments will be made? There are issues of image – what should a city that has lost, let's say, a third of its population, look like?

These questions cross the conventional boundaries of disciplines like architecture, urban planning, and landscape architecture. In response to these issues, a discipline like urban design must push beyond its focus on building and engage the urban setting. Urban designers must collaborate beyond professional boundaries (Krankel McCullough 2008; Krieger 2009).

*The Implications for Design Education*

Design education then, has to encourage students to stretch far beyond the individual building or site and work across different scales and help students collaborate across disciplines. Making a case for collaboration, Krankel McCullough (2008:3-4) argues that "urban design, more than other design disciplines, is inter-disciplinary, crossing the boundaries of architecture, planning, landscape architecture, and engineering. Like planning, it is a creature of policy, political decision-making and power structures. Yet it is distinct from urban planning, because it is predicated on three-dimensional form. The process of urban design is to resolve the political, economic and social vectors with the goal of arriving at urban form that works."

Even when urban designers were exposed to planning, Scott Brown (2009) argues that their exposure was not well-integrated. She suggests that the problem got worse "as planning departments lost their social thinkers and activists, and architects lost interest in social problems. So eventually, most urban designers had training that was primarily in architecture…." (Scott Brown 2009: 82).

Embracing a multiplicity of scales, and reaching across disciplines, urban design must be anchored in research and analysis of conditions on the ground, then propose specific interventions at different scales, (such as a single lot, street, neighborhood, etc.,), while mindful of the regional context and beyond.

## Community Engagement

The literature is not yet explicit about the social dimensions of shrinkage. Who will determine what approach a city should take to address shrinkage? What process can ensure that marginalized residents of the community have a role in decision-making?

Equity has long been important in the field of planning, where inclusive design and social inclusion are key principles (Krumholz and Forrester, 1990; Peel and Posas, 2009). Urban designers should recognize the multiple interests and decision-makers at work in cities and engage community members much more broadly (Scott Brown 2009; Krieger 2009; Kaliski 2008; Sanoff 2007). Proponents of 'Everyday Urbanism' have articulated the principle of community engagement most clearly. One of the primary spokespersons for this approach, Kaliski (2008) suggests that rather than relying on good planning processes or generalized knowledge of urban design, "planners, architects and landscape architects, acting as urban designers must associate themselves and their specialized activities with everyday people to do everyday planning" (Kaliski, 2009: 250). Kaliski (2009:251) argues that the details citizens cannot draw and planners tend to abstract make urban designers the professionals "that best integrate citizen-based planning concerns and practices into the actual bricks and mortar of qualitative place-making."

*The Implications for Design Education*

Although community participation in design has been established now for about four decades (Sanoff, 2000), there is still resistance to this approach among those who believe that architecture is a creative art, that the social aspects that frame architecture are not issues for architectural education, but for practice (Salama and Wilkinson, 2007). However, the design issues facing cities cannot be seen as

artistic endeavors divorced from a social context. Engaging members of a community in the process of urban design and being responsive to community needs can lead to many significant positive outcomes in the design and planning process, which Toker and Toker (2006) suggest is the pragmatic turn that community design has taken. At the same time, the complexity of problems that practitioners of urban design will face suggests the need to provide students the opportunity to engage socio-economic, political and other community-related issues in the course of their design education.

## The Studio

This paper explores the issues raised for urban design in a shrinking city through the lens of a studio based in one such city. The city of Toledo, once a thriving industrial town with a rich architectural heritage, has for several decades experienced declining population. It has poverty, unemployment, and crime rates that exceed national averages (U.S. Census, 2000). The city's population is now a little under 300,000.

Dorr Street, a major artery in Toledo, runs west from downtown towards Toledo's suburbs (see Figure 1). A mix of uses is visible along its length – single-family homes, apartment buildings, a few stores, the University of Toledo, a private golf course, a city park, a post office, some industry. Also visible are largely vacant strip malls and parking lots, fast-moving traffic, and few pedestrians. But this was not always the case. Sections of Dorr Street were once the bustling center of Toledo's African-American community and hosted bars, restaurants, theaters and live entertainment venues. Famous musicians always made Toledo a stop on their tours. Other sections of Dorr had destination stores and professional offices, many of which were black-owned businesses. Dorr Street was one of the city's thriving arteries.

The 1960s and '70s were a time of urban unrest in the U.S., and Toledo had its share of problems, including, in 1970, the high-profile shooting of a patrolman and a shootout at the Black Panther offices on Dorr Street. By the mid-1970s, urban renewal was in full force across the country, and Dorr Street was slated to receive federal funds for blight removal. Between 1976 and 1979, $25 million was spent to acquire and relocate 300 businesses and homes so that Dorr Street could be widened. Some were relocated to other parts of Toledo, but many businesses closed for good.

The city has also suffered from a lack of political leadership in planning and design - Dorr Street is only one example. However, in the past five years the university has shown renewed interest in engaging the community, in redeveloping areas adjacent to the campus (notably Dorr Street), and in being a better neighbor to the residents of surrounding areas. Included in the planning was the West Central Alliance, a federation of four local community development corporations (CDCs) serving sections of the Dorr Street study area. The University of Toledo Foundation was the fiduciary agent for the project.

Clearly, there is renewed interest in Dorr Street, including the university's interest in being a better neighbor. This is reflected in the Dorr Street Neighborhoods Visioning & Implementation Plan, whose purpose was to provide a conceptual context for development decisions

Figure 1: Figure-Ground of Dorr Street and surroundings from downtown Toledo (to the right) to the edge of the city (to the left). The main east-west axis is Dorr Street.(Source:Authors).

on issues related to land use, transportation, and community facilities. The plan focuses on "big picture" issues.

With the Visioning and Implementation Plan as the starting point, students of architecture from Bowling Green State University and students of geography and planning from the University of Toledo were charged with developing visionary and sustainable urban design concepts for the length of Dorr Street. Teams of students drawn from both universities were assigned to different stretches of the corridor. They were instructed to concentrate on their site while always keeping the larger city context in mind, paying particular attention to the role of the street. Could it anchor a shrinking city? Did the street work for students as well as community members? What part could it play in the life of the city? How was this reflected in the team's design?

The students came to the project having prepared in multiple ways. Some studied other cities that have used a street or a linear form as a linking element, such as Duesberg in Germany and the High Line in New York. Others looked at city-university plans for redevelopment, including those of the city of Columbus with the Ohio State University, and those of Philadelphia with Drexel University and the University of Pennsylvania. Still other students studied the history of Dorr Street to provide a context for the current work.

Before collaborating on proposals, groups of students were also assigned to short stretches of the street. They studied each section closely to understand not just the architecture and planning issues confronting the area, but also its historical and social contexts. Students walked along different stretches of Dorr, took photographs or sketched, and talked informally to members of the community. After each assignment, they reported back to the larger group. Students received briefings from members of the Toledo Design Center and were encouraged to look at the Toledo 20/20 plan. At the end of the semester, students shared their work at a public presentation.

## Findings

### From Growth to Shrinkage: Building versus Not Building

The students were familiar with vacancy and abandonment in Toledo, but in their experience, public policy addressing these voids had focused on project-based building – a government center, festival marketplace, convention center, baseball field, and multi-

purpose arena. Rethinking whom these projects are for and what purpose they serve in a city facing population loss and economic decline led many students to question what urban design means in such a city. Vacancy and abandonment are pervasive – only one downtown intersection still has buildings on all four corners. Figure ground drawings give most streets a gap-toothed profile. There is plenty of land on which to build, but the first question for the budding urban designers was, "Should we build?"

Figure 2: Figure-ground of the University of Toledo Main Campus (top half of the figure) and the denser residential neighborhood (bottom half of the figure), with Dorr Street acting as the divider, Toledo, USA (Source: Authors).

A figure ground analysis of the site that included the main campus of the university and an adjacent neighborhood (see Figure 2) shows that while the university, north of Dorr Street, follows a typical low-density buildings-in-a-park pattern, the neighborhood to the south, which once used to be dense residential fabric with retail uses along stretches of Dorr, now shows lots of vacant land. The concepts of economic decline and shrinking populations framed the proposed interventions of the students who worked on this site. The challenge, the students said, was in "connecting campus and community after decades of division in a city that is experiencing obvious decline" (Kallio et al 2009:2). One of the goals of this proposal was to "focus intervention and limit development to a scale that both appreciates the status of Toledo as a 'shrinking city' and acknowledges the opportunities and demands uniquely present in a site serving a major university and its neighbors" (Kallio et al, 2009:8).

This proposal portrays Dorr Street as "a necklace – a landscaped boulevard linking nodes of activity, with several modifications to calm traffic and provide a safer, more inviting environment for non-automobile users, and make the area more aesthetically pleasing" (Kallio et al, 2009:8). Proposed changes are distinguished by their small scale and their strategic distribution across the site to strengthen existing nodes of activity (see Figure 3). Among the proposed new uses are a concentration of small-scale retail, such as cafes, food establishments, and a small convenience or drug store to meet the everyday needs of long-term residents and students; moving the university's visual arts studios to Dorr Street; and using a vacant strip mall as the site for a community center that will

house public meeting rooms, offer one-stop shopping for public services such as housing, legal or employment assistance, and host after-school activities for neighborhood children.

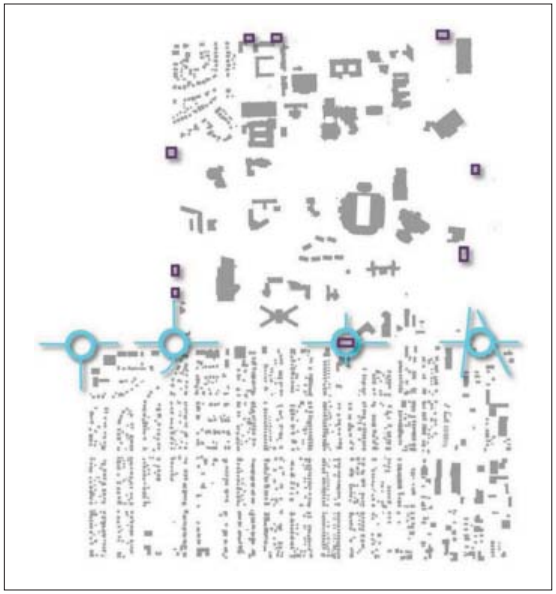

Figure 3: Analysis of nodes at the University of Toledo Campus. (Source: Authors).

Many of the proposed interventions were small and detailed. A church parking lot would be transformed to green space; parishioners could use the lot next door, which they would share with the proposed community center. Two blocks along Dorr Street with vacant lots and poorly maintained rental and commercial buildings would be home to fast food restaurants and businesses now lacking in the area. One larger intervention was to use a nearly vacant parking lot at a major intersection for a small mixed use development that would include a much-needed grocery store, small offices, banks, restaurants, stores catering to residents, and upper-story living space. What tied these various interventions together was the idea of a legible street – Dorr Street as a necklace.

## Designing the Void: Sustainable Land Uses

*Infrastructure*

Students began their analysis of the site by looking first at the natural, physical context. They found a relatively flat site outside of flood zones and floodways. However, the soil was compacted and thus less permeable. This, combined with the inadequate storm water drainage system, the seasonal floods along the Ottawa River (which runs through campus just north of Dorr), and flooding problems in the city suggested the importance of reducing impervious surfaces and managing storm water runoff. The proposal addresses these issues with several suggestions, including converting a long strip of green into a rain garden with signs to educate passers-by. The proposal suggests that any new paving utilize porous technology. It also identifies unused and under-used parking lots and vacant lots to be converted to rain and community gardens.

*Urban Ecology*

Open space is now firmly a part of the city's fabric, and contrary to the city's attempts to fill up these spaces with big buildings, students featured the open spaces in their proposals.

An analysis of the existing green spaces on the site suggests an extremely uneven distribution, with large swaths on campus to the north, and very few within the neighborhood to the south (see Figure 4). They are inaccessible to residents

due to their location (deep inside the campus and difficult to reach from south of Dorr) and their nature (often undulating landscape elements rather than easily usable green space). The proposal does several things to address this. For example, seven parcels along Dorr Street, close to campus - four vacant and three with a long-vacant service garage – could be turned into a pocket park so that community residents, students and visitors have access to a usable green space. Farther east, an under-utilized parking lot belonging to the engineering school is the proposed site for "Cricket Corner," which would serve the needs of students who currently play cricket there in good weather.

Figure 4: Analysis of green space at the University of Toledo Campus and the surrounding neighborhood. (Source: Authors).

Vacant lots within the neighborhood and on its edge close to campus have also been designated for community gardens as part of the city's active and growing local food movement. In addition, this proposal, inspired by an example in Toronto, proposes a community brick oven to allow for communal cooking.

*Density*

Students addressed the issue of density through consolidation, though the abandonment here is not so serious as to create urban archipelagos. Using publicly available data, students identified the ownership and tax status of every lot on their stretch of Dorr Street. They also identified the use and condition of each structure. Students were very aware of the history of demolition during urban renewal and residents' subsequent distrust. As a result, very few structures, and only those in poor condition, were ear-marked for demolition. Where possible, parking was moved to the back of buildings, with suggestions for streetscape enhancements including better lighting, wider sidewalks, and the redesign of some open spaces into plazas with outdoor seating.

The few small new buildings and the proposed new uses for old buildings incorporated mixed uses or were placed close to each other so that people could meet many of their needs within a reasonably small area, possibly without using an automobile (see Figure 5). Students promoted connectivity between nodes of activity with proposals for bike paths, cooperation between the university and city bus services and a regular shuttle along Dorr Street. Using the suggested pedestrian overlay zone as a planning tool, strengthening public transportation along Dorr, and using pedestrian and bike paths across


Figure 5: Proposed land uses along Dorr Street.(Source:Authors).

Dorr to connect campus and community were attempts to strengthen infrastructure to promote walkability.

## A Broader Scope for Urban Design: Crossing Disciplines and Scales

In response to calls for urban design to become more "urban" and less "design," this studio was structured to foster collaboration between architects and urban planners, and it drew from those two disciplines as well as from urban design.

These disciplines have different sensibilities – planners lean towards data and analysis, and architects lean towards physical design. Their collaboration, combined with our insistence that they justify the relevance of their proposals to a shrinking city, had the effect of grounding of the proposals firmly in the current reality of the city. It forced students to look at their site at many scales, ranging from its location in a shrinking city in economic decline, to census data on the population in their area, to the property value of buildings (see Figure 6), all the way down to the condition of individual buildings. At the same time, they had to think about how to make the city more legible, define the edge of a street, or create attractive open spaces.

For example, a planning analysis of the residential neighborhood covered in this site

revealed several challenges. Compared to county averages, census data showed that it had a higher rate of owner occupancy, a higher percentage of vacant housing units, a higher rate of adult disability, and a higher rate of poverty. Moreover, its average per-capital income and monthly mortgage costs were lower than the county average. Since households in this neighborhood are relatively poor and have low housing costs, it is critical to preserve housing, and, where possible, expand housing choices. These were goals of the proposal, even though the housing stock is old (about 39% built before 1939, and about 80% built before 1960), and many of the houses need maintenance. At another time, these conditions would have made the neighborhood ripe for razing and redevelopment.

This example highlights another aspect of this broad view of urban design. Meetings with members of the local design and planning communities prodded students to think about the relevance and economics of their proposals for Toledo. Thus, even when students suggested a new building, for example, to house a much-needed local grocery store, they also proposed alternatives, such as a community garden, that could put the site to good use relatively inexpensively until a grocery store became feasible. Students adopted an incremental approach, suggesting both long-term land uses and short-term alternatives that could be implemented before a more ambitious proposal was realized. Furthermore, their proposed land uses could either stay the same or change to reflect changed circumstances.

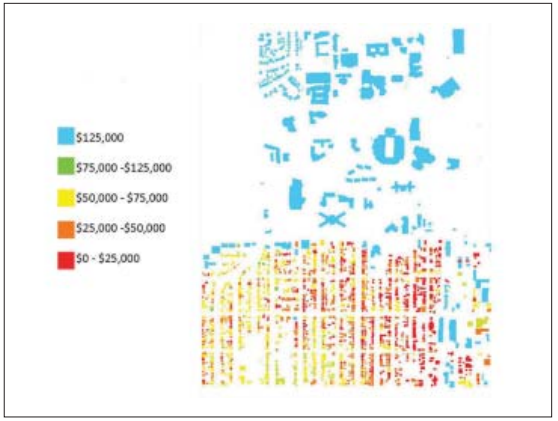


Figure 6: Analysis of property values surrounding neighborhood of the University of Toledo Campus.(Source: Authors).

## Community Engagement

Following a series of analysis drawings and conversations with those who live in or frequent the area, students felt that Dorr Street acted as a physical barrier between the university and community (see Figure 7). In addition, residents in the neighborhoods to the south of Dorr Street, mindful of history, expressed mistrust of institutions north of this border, such as the city and university. They feared that students renters would negatively impact their property values and quality of life.

In crafting their proposals, students were guided by their conversations with residents and students, their experiences, resident input gathered by recent planning initiatives, and the everyday needs identified by those living in or frequenting the site. Many of the uses suggested – a grocery store, a convenience store, parks, a neighborhood medical clinic,

fast food restaurants and cafes – came from an appreciation of these needs. Many of these would be spaces that would bring togther residents from both sides of Dorr Street.

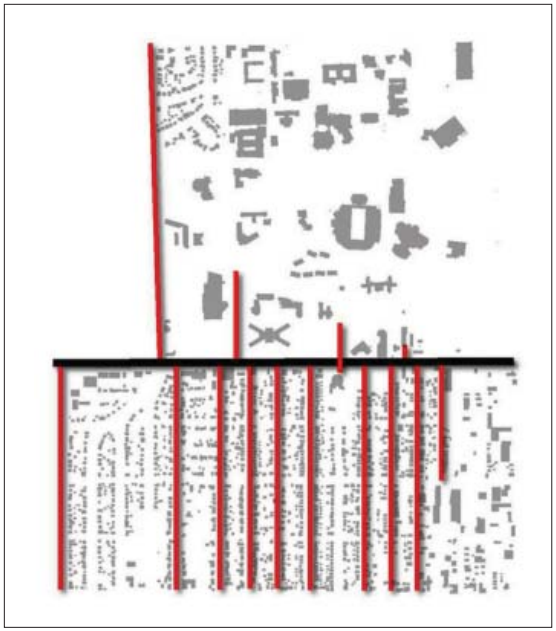

Figure 7: Analysis of stagnant circulation between University of Toledo Campus and the surrounding neighborhood. (Source: Authors).

Some uses were not as palatable to the students – for example, an existing "plasma center" where students and poor residents sell blood for money. Similarly, some urban forms were not as desirable, for example, the vacant strip malls lining Dorr Street. But students were following a path similar to what Kaliski (2008) describes as the work of the North American everyday urban designer, who is "simultaneously accepting and critical of automobility, suburbia, single-family houses, shopping malls, sprawl, and all the other accretions of contemporary urbanisms, believing that each addresses a human need and that all remain a subject for betterment as opposed to obliteration" (p. 117).

## Some Lessons

In reflecting critically on this studio, we sought to answer two questions: first, do cities facing economic and population decline, so-called "shrinking cities," merit a different approach to urban design? And, second, what might such as approach look like? We structured our research to highlight the planning and design issues in shrinking cities based on the literature as well as our experience on the ground, and designed the studio to respond to these.

Our work showed that in a shrinking city, the focus for urban designers may not be in designing the solids. The challenge could lie in the voids, meeting the needs of cities whose populations and economies cannot support more buildings, and questions of sustainable land use have to be addressed directly. Among the specific features, we saw attention to urban ecology, infrastructure and density. Additionally, we saw a leaning towards working in multiple scales. There were smaller and staged interventions, (for example, using a vacant lot for an urban garden until the time is right for a much-needed grocery store). These interventions, though individual, were seen as part of a larger plan for the area to increase the coherence and legibility of the urban fabric.

Despite urban design's historical bias towards

design and the singular building, students need to be strongly grounded in a broader context, which inter-disciplinary collaboration can help achieve. The push towards inter-disciplinary collaboration in universities has come from the natural sciences. Forsyth (2007), while suggesting reasons why it might be difficult for architecture faculty to respond, argues that it has the potential for positive effects on architecture programs, especially those engaged in traditionally support areas such as social factors. We suggest providing opportunities for students to interact early and frequently in the course of their education from people in other disciplines, with the aim of having students perceive an intellectual comfort in a broad area of knowledge allowing them to interact confidently with people from a variety of backgrounds. (Ferreira, et al, 2009: 47)

In an era of diminishing resources, the community-based urban design studio can be an important source of ideas for cities - not just for city leaders, but for residents - facing the physical consequences of shrinkage. Communities with limited resources can benefit from the design work done by students (Sanoff, 2000). For the student, community-based learning provides students an opportunity to integrate techniques with theory (Kotval, 2000). For the profession, as Boyer and Mitgang (1996:144) suggest, "the scholarly activities of both faculty and students should relate to...matters of consequence for the profession and beyond that, to society as a whole."

The Beaux-Arts master-apprentice model of teaching design thus has limited applicability in the context of shrinking cities. The pedagogy and practice of urban design have to evolve in response to new circumstances – shifting focus from buildings alone to working at multiple scales, reaching out across disciplines, engaging the complexity of communities.

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