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Mind the Gap: Understanding the Interface

Edgar Adams
Roger Williams University, eadams@rwu.edu

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Mind the Gap: *Understanding the Interface*

Introduction

Many years ago, shortly after graduation, I received a traveling fellowship to study Housing and Town Planning in Great Britain and the Netherlands. During my travels, a new appreciation of the role of the individual work of architecture within the larger built environment began to emerge. The broadcast reminders to "Mind the Gap" that regularly greet the riders of London's Underground subliminally reinforced this nascent understanding. I was taken by the curious expression and I find myself returning to it as I reflect on the dramatic changes unleashed by the industrial revolution in London, and the current post-industrial restructuring of our economy and our metropolitan regions. Perhaps this ingenuous warning regarding this fundamental relationship between infrastructure and the city could serve as an ongoing reminder regarding a range of relationships between various elements within the built environment, between the disciplines that shape it and, by extension, between the academy and the city.

At the very moment when there is a tremendous rush of urbanization in the developing world (for the first time, 50% of the worlds population is living in urban areas), many of America's urban centers continue to loose population (in relative terms) to the outlying regions that surround them.[1] In recognizing the changing role of our cities, we have been challenged to examine the city's place in an increasingly dynamic regional (global) terrain. All of this places increasing pressures on our natural and rural landscapes, which are being overrun by sprawling and wasteful development patterns. What is the role of Architecture and of the Architect in addressing the scale and complexity of the challenges above? How do we interact productively with systems and forces seemingly beyond our control?

In order to address the issues above, I have recently undertaken a prolonged investigation of the potential for "Transit Oriented Development" (TOD) in relation to the proposed restoration of commuter rail service from Boston, Massachusetts to Fall River and New Bedford (now known as the South Coast Rail project). This investigation is being conducted as part of a "Community Partnerships Initiative" that has allowed Roger Williams University architecture students to work with local planning officials, the Southeast Regional Planning and Economic Development District (SRPEDD) and the Southeastern Massachusetts Commuter Rail Task Force. This collaboration has helped students understand the complexities of operating between scales and disciplines to engage some of the most pressing issues of our time - from affordable housing, to sprawl and our dependence on the automobile. This paper will use selected recent studio explorations to look at the potential for Transit Oriented Development as a teaching tool to help students to take a broader view of their role in shaping our built environment. In approaching this task, I have tried to bridge the concerns of academia and those of the "real world" in order to focus on the "interface" between scales of interaction, between uses, between modes of transport and between the built environment and the natural environment.

Notes on the In-between

Architects have long sought inspiration from outside of the "Art and Science of Building". Heidegger's meditations on "dwelling" evoke an inner life that has an outer dimension referred to by Ardent (and latter Baird) as "The

Space Appearance".[2] Ever since Rykwert and van Eyck's musings on the ritual meaning and structuring of communal life in primitive cultures and Shadrach Wood's evocations of "everyday urbanism" (or more specifically his concepts of "stem" and "web"), modern architects have used the in-between realm of urban life as a source of inspiration and as a means of structuring the larger built environment.[3]

More recently, the "in-between" has been used to refer to the ruptured, contested or "transient" landscapes that have become an all too common feature of the contemporary city. On the "urban fringe", where such conditions proliferate, they stand as stark reminders of our inability to come to terms with the varied and dynamic forces shaping our larger metropolitan regions. These "in-between" realms can be seen as unequivocal evocations of the spirit of our age with its diverse and often competing economic, political and cultural impulses; or as direct challenges to the design and planning profession's ability to reach beyond the dated urban / suburban dichotomy and disciplinary or political boundaries to engage these forces in a more productive fashion. Some contemporary architects (much in the same vain as Le Corbusier in the first half of the 20th century) have appealed to the inherent scale and power of infrastructure as a means of relating to these larger forces. Others have sought to enlist an augmented and de-natured landscape in the name of "Landscape Urbanism". Still others rely on more traditional urban elements (streets, blocks, squares) to structure the site. While architects did not create the conditions that we currently face, we - in dialogue with landscape architects, urban designers and planners - may be one of the few disciplines capable of bridging the scales and giving a human dimension to this "middle landscape".[4]

South Coast Rail

The longstanding and oft delayed initiative to restore commuter rail service to Fall River and New Bedford received new life with an ambitious plan by newly elected Governor Deval Patrick to be up and running by 2016. The 1.4 billion project represents an enormous opportunity to ensure that the entire region benefits from the continued prosperity of the Metro Boston Region and to relieve pressure on Boston's constrained housing and job markets. A recent report by the Brookings Institute entitled "Reconnecting Massachusetts Gateway Cities" confirms the longstanding need for greater regional cooperation. In order for Boston to compete with the Bay Region, and other larger more integrated regional powerhouses in the Mid-Atlantic States, it needs the help of its former partners who established the region as the birthplace of the Industrial Revolution in America.

The local reception to the plan has been mixed, with smaller communities on the metropolitan fringe generally opposed due to growth fears and larger communities to the south welcoming the anticipated economic benefits. The Massachusetts Bay Transportation Authority's (MBTA) initial plans focused on bare bones "park and ride" facilities; however, the need to maximize ridership and the potential for housing and economic development has now made the identification of Transit Oriented Development (TOD) opportunities a major priority. With the "Big Dig" and other major infrastructure projects taking center stage over the past 10 years, this task fell to the Southeast Regional Planning and Economic Development District (SRPEDD) and the Southeastern Massachusetts Commuter Rail Task Force. More recently the initiative is being spearheaded by the Executive Office of Transportation in Boston with SRPEDD acting as the local liaison.

Community Partnerships Initiative

The Community Partnerships Initiative was born out of a desire to offer a clearer structure and much needed support for design studio efforts that seek to engage local communities in exploring the pressing issues of the day. Beyond simply using local decision makers as outside resources, these studios offer students and faculty the opportunity to partner with local communities to create a meaningful dialogue. Through research and design exploration, issues are illuminated and explored. Best practices are shared and assumptions are challenged; however the notion of "partnership" often tests well-established academic prerogatives. It also requires that students hone their graphic and verbal communication skills; and gain a working knowledge of the legal and political

environment within which decisions that impact the larger built environment are made.

With the South Coast rail project, the challenge was to allow local communities to look beyond "park & ride" and to explore the potential for mixed-use pedestrian oriented development to complement the activity generated by this substantial new investment in transit infrastructure. In the Fall of 2006 I investigated two sites in Taunton Massachusetts with 4th and 5th year architecture students and in the Spring of 2007 we used a similar format to investigate the redevelopment of the Raynham Dog Track located one stop to the North. While a discussion of the relative merits of Transit Oriented Development as a growth management strategy is outside of the bounds of this paper, the variety of sites under consideration by the MBTA will allow for the concept to be tested at various scales and densities. I will limit my discussion to the two sites in Taunton and will then focus on the Dean Street site for a more detailed discussion of the issues explored and strategies employed.

Taunton TOD

Taunton Massachusetts was once a major regional center and home to many important early industries. Its prowess in metallurgy soon earned it the appellation of "The Silver City". Less precious essentials such as nails, shovels and stoves were the staples of a local economy that also spawned the Mason Machine Works and the Taunton Locomotive Manufacturing Co.. William Mason arrived in 1835 and soon began manufacturing equipment and looms for use in the textile mills of nearby New Bedford and Fall River.[5] By 1845 it had become one of the largest machine works in the country. In 1846 the Taunton Locomotive Works was founded and in 1852 Mason also began manufacturing locomotives.[6] Since the decline of the textile industry and the advent of the automobile Taunton has struggled to regain its former stature. The reintroduction of commuter rail service is seen as a major step toward reestablishing Taunton as a regional hub.

Fig. 1 The GATRA Site

The current GATRA / Bloom Bus Terminal (Greater Attleboro Taunton Regional Transit Authority) is located on the site of the former Mason Machine Works. The former site of the Taunton Locomotive Manufacturing Co. lies vacant awaiting costly remediation efforts. These two sites are separated from the site of the former rail depot - now a failing automobile oriented shopping center – by a seldom used freight line (one of two possible routes to Fall River and New Bedford). The urban fabric in this area has always been irregular due to it's former industrial use and it's separation from the Town Green by the aptly named Mill River that supported much of the early industry in the area. The proximity to the Town Green (dominated by a courthouse) and the struggling but well formed Main Street linking to the Church Green, offers a stark contrast to the ambiguous scale and structure of the GATRA Site to the west (Fig. 1).

Unlike the previous site, the Dean Street site still holds a converted rail station, the ruins of the New Jersey Rubber Company and assorted transient light-manufacturing activity. This site is surrounded by low-density residential development, ball fields and wetlands. On the south it is bordered by historic homes overlooking the Taunton River (and now Route 44).

Fig. 2 The Dean Street Site

The Dean Street site contains many layers. The natural structure of the site, that featured a substantial stream that emptied into the Taunton River to the South, has been overwritten, first by the railway (which was laid directly over the course of the stream) and then by the industry that followed, turning the former stream into a series of disconnected bodies of water including a pond, wetlands and an abandoned culvert under Rt. 44. Long Meadow Road to the east forms a graceful arc that follows the eastern edge of the former meadow that once defined the extent of the town. The meadow is now occupied by some suburban homes, ball fields, a pond, grain silos, and a lumberyard. The western side of the tracks has a decidedly industrial flavor. This split between the pastoral and the industrial (with encroaching sprawl) formed the basis of many of the design responses.

Student Work: Dean Street

To illustrate the range of strategies employed, I have chosen to focus the discussion of student projects to those related to the Dean Street site in Taunton (discussed previously). This site contains aspects of the other sites in a more concentrated form and helps to illustrate the difficulties of applying typical TOD strategies in a more established historic environment with many competing layers and interests. I will discuss four distinct site strategies as described below by the students themselves (titles by author)

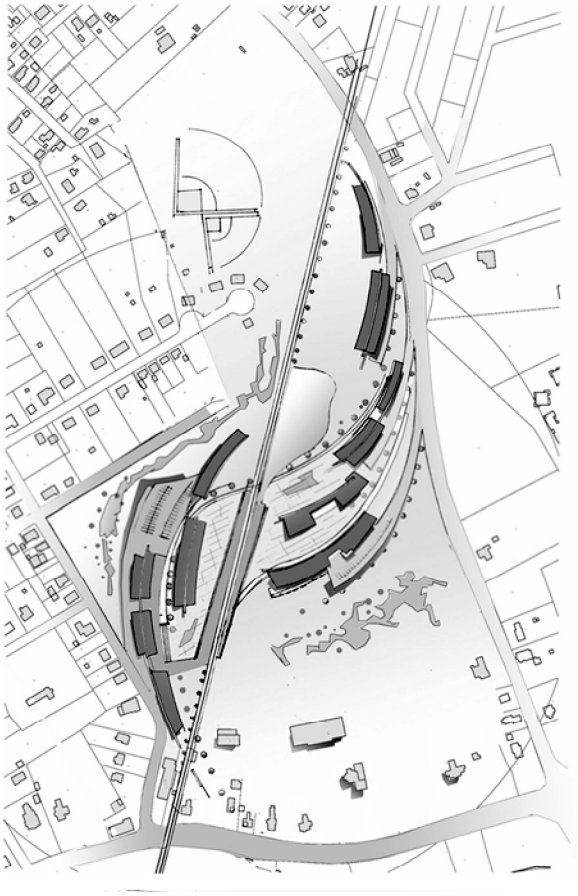

Fig. 3 Landscape Response I
by Michael Cimorelli

"The current site conditions dictated a sinuous form of exfoliating masses physically stretching across a north south axis of the rail line while visually connecting a user through a framed perspective along the east west axis. The natural site conditions of the

wetlands and the man-made condition of the rail line initiated a conceptual response of two arms; one reaching out and accepting users from the south end and one arm reaching out and grabbing users from the north end of the site while interlocking at a central node. The central node was positioned in a calculated location in accordance to a quarter mile walking radius for the site's inhabitants and functions as a gravitational pull where each "arm" progressively becomes more public approaching the belly of the site where the transit landing is located."

Fig. 4 Landscape Response II
by Keith Carlson

"The proposed Dean Street site in Taunton provides a number of options for a truly unique transit oriented development. There is an opportunity for a place to exist that not only provides a link to the rail, but also explores the natural features of the site and serves as a communal and recreational focal point for the residents of the area and commuters. My proposal utilizes the natural features of the site to organize development along a sweeping landscape that bridges the northern and southern ends of the site. The existing pond is utilized as a celebrated water element along with winding trails and views across the site. The curve of the landscape culminates to the south into a public area at the train station with coffee shops with outdoor seating. The primary street linking the adjacent sides of the site is lined with retail storefront, topped with housing and small office. Lower density housing wraps around the landscape to the northern end of the site where there is apartment style housing as well as a daycare and small community center. The overall environment created provides a unique blend of transit oriented design criteria and the features of a natural landscape."

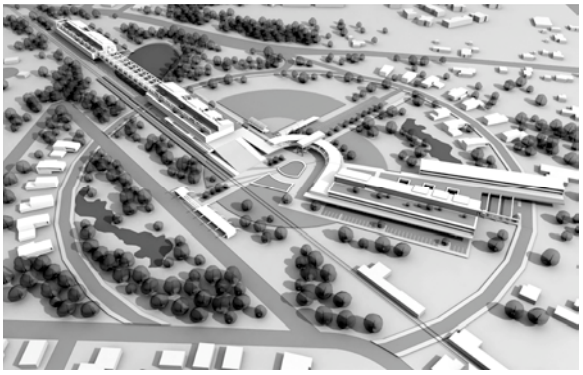

Fig. 5 Infrastructural Response
by Alejandro Korda

"This scheme involves the centralization of the commons in the form of a plaza. This region houses office and retail space at the lower level and restaurants with coffee shops in the upper floor to provide views to the green. The Bus and train platforms are easily accessible and are in direct connection with the common space and the commuter parking. Connecting to the central area are bars of housing units that sit on a carpet of green enabling the ground level to become an extensive parking lot. The design also embraces the natural features of the site as part of the composition, while traffic conditions are dissipated and distributed into the surrounding fabric by the circular roadway. Single-family housing encompasses the outer edge of the circle to bring harmony, privacy and connectivity with the environment."

Fig. 6 Urban Response
by Cheryl Downie

> "Of utmost importance in the design of the Dean Street site is the integration of the new design with the surrounding fabric by improving circulation and enhancing the natural features of the site. A centralized plaza created adjacent to the station platform allows for three access points. The mixed-use plaza has offices and housing above retail stores. The primary access to the plaza is via an east-west boulevard with a drop-off point and pedestrian grade crossing. The townhouses on the northern side of the boulevard are at ground level, while the southern townhouses are raised to allow for parking on the ground level. Retail along the street hides the parking. A bus and car drop-off is located on the western side of the tracks, where short-term parking is provided. A third access point is to the north, near the community building which contains a daycare and youth center. Parking is provided for commuters, and residents in the new apartment buildings."

The range of responses and the tone of the descriptions above indicates differing perceptions regarding the role of the Architect (Urban Designer) and the role of the individual work of architecture itself in transforming a complex multi-layered site of this scale (the descriptions were written by the students for a publication funded by SRPEDD and the Roger Williams University School of Architecture, Art and Historic Preservation). All of the schemes try to unify what is rightly perceived as a damaged and divided site; however the medium through which this process is achieved differs.

The first two schemes have been labeled "Landscape Responses"; however they employ the landscape in radically different ways. In the first instance, (Fig. 3) the traces of the wetlands and the sweep of the former meadow are used to create animated arcs that embrace both sides of the tracks, healing the split between the industrial and the pastoral conditions of the site. By inviting the landscape into the middle of the site, it is brought into an intensified relationship with the railway that remains relatively unexplored. The role of this artificial landscape is ambiguous, as is the role of the landscape outside of the sweeping bars of housing. Varying levels are employed to differentiate between public and private and to conceal parking below; however little is done to further define the expanse of space within or to make up for the inherent lack of density required to activate such an expanse.

The second "Landscape Response" (Fig. 4) employs a more traditional bounded "Olmstedian" landscape to unify the site. Here, the landscape is something to be viewed and to be enjoyed. A more discrete plaza is used to access shops and restaurants that cluster at one end of the platform area. The platform also serves as a bridge to allow access from the northern portion of the site. However, the main public plaza maintains an open relationship with the park that acknowledges its presence, but respects its difference. The primary difficulty with these more internalized schemes is the relationship with the surrounding streets and adjacent fabric. This is solved, in this particular instance, by using a Radburn-like access pattern to ensure that most residents have direct pedestrian access to the central park.

The third and fourth schemes under discussion rely less on landscape and more on the logic of the infrastructure or the urban pattern of Taunton itself. By mimicking the relentless geometry and logic of the rail line, the third scheme (Fig. 5) also uses an artificial landscape to orchestrate the site. By conspicuously marking the stoppage in the movement of the train, the corresponding break in the geometry of the project allows for the creation of a public space that also invites a relationship with the open landscape beyond and recognizes the treasured ball field that currently occupies a portion of the site. The potential loss of this ball field is a major issue for many local residents.

The fourth scheme (Fig. 6) makes use of a more traditional main street to link to a plaza that could be seen as a reference to the Taunton Town Green. The use of a boulevard section here relates more to the fact that one side contains commercial activity and the other does not. The desire not to compete with the existing Main Street required that this commercial activity be more focused toward the needs of the local community. The tracks crossing with Long Meadow Rd. becomes a swing point that also helps organize the housing. This arrangement also allows layers of landscape and wetlands to be incorporated in bands running perpendicular to the track.

Conclusion

Operating in the "middle landscape" (as in any context) requires that you take a position. Here, there are no easy alliances or the comfortable conventions. The status quo is not a tenable option. It requires one to question the underpinnings of our automobile dependent lifestyles and causes us to question the unwieldy apparatus that shapes what is rapidly becoming our common landscape. It makes us question our role as citizens, as professionals and as academics.

The format of the studio as a "Community Partnership" is one that is still evolving. Unlike CDC's, we have no professional staff and have not relied heavily on direct citizen participation (although this was one of the original goals). In this particular case we have relied on local planning officials and their regional planning agency (SRPEDD). The success of our first two semesters working with SRPEDD and the Commuter Rail Task Force has led to the inclusion of our program in the latest round of funding for the rail project; however, this relationship has not been without its challenges. The included student work was chosen to indicate a range of approaches. The studio itself is not dedicated to exploring a particular approach to the Middle Landscape; but is dedicated to pursuing a dialogue – a dialogue with the students and with the local and regional planning community. Perhaps we should not be surprised that the "Urban Response" (Fig. 6) was most readily appreciated by the local planning community. In fact, people seemed to be confused by the range of approaches – "just give us two or three choices". In short, the public seemed to prefer tested alternatives that could be easily codified.

To complicate matters further, the very schemes that received the most praise from our community partners were the same ones that were criticized by the academic community as being projects that "looked like you could build them tomorrow". Some faculty also showed a dismissive scorn for our attempts to work within and to inform the existing legal (zoning) framework. I chose to give students the tools to understand and critically evaluate the processes that will ultimately determine whether their projects get built or not. In this case, our work with the local and regional planning officials is providing valuable feedback that will aid directly in the establishment of site-specific TOD overlay zoning criteria. In addition the diversity of strategies illustrated will expose local decision makers to various methods of engaging the surrounding context/landscape and perhaps avoid the impulse toward overly prescriptive constraints.

The notion of the interface or the in-between is here being used very broadly to refer to a range of relationships, both within the built environment, and between the various parties that have a role in shaping that environment. Academia would seem to be an ideal environment in which to explore such multidisciplinary possibilities. It is ironic that I had to reach outside of the bounds of our isolated campus to find such willing collaborators. Our continued partnership will allow for a more detailed investigation of the rail interface and additional sites (this

semester we are looking at a site in Fall River MA); however, I would argue that bridging the gap between the Campus and the City (or in this case the Region) has been just as valuable as the lessons drawn from any of the various formal interfaces we have explored to date.

[1] The United Nations Human Settlement Program (UN-Habitat). "Urbanization: A Turning Point in History", http://www.unhabitat.org/

[2] Baird, George. 1995. *The Space of Appearance*, Cambridge, MA: The MIT Press.

[3] Rykwert, Joseph. 1976. *The Idea of Town,* Cambribge, MA: The MIT Press. See also, Woods, Shadrach. 1975. *The Man in the Street: a Polemic on Urbanism,* Baltimore, MD: Penguin Books. or Feld, Gabriel; "Shadrach Woods and the Architecture of Everyday Urbanism"

[4] This term is most conspicuously known by way of its use by Peter Rowe's study entitled, *The Making of the Middle Landscape.*

[5] Harding, Robert S. and Barbara Kemp. "William Mason Papers, 1839 – 1857". Archives Center, Smithsonian Museum of American History: http://americanhistory.si.edu/archives/d8045.htm see also: http://www.oldcolonyhistoricalsociety.org/

[6] Ibid.