

# A Case for Synthesis Between Research and Pedagogy: Incremental Urbanism

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## INTRODUCTION

There is to date a significant amount of writing on the connection between teaching and research within the University. One thing is clear, the statistical relationship between being a good researcher and being a good teacher is fraught with uncertainties. Architectural educators are no different; many of us have grappled with the issue over the last couple of decades, especially as the discipline has become more professionally aligned. The Boyer Report from 1996 reiterates the point that professional development and preparation for practice comes first. Pedagogical goals at many institutions privilege praxis based approaches over and above faculty research agendas, leaving many instructors at odds over just how to function as a researcher. This plays out in terms of how architectural departments are redefined and presented within the context of the larger Institution. This uncertain union between research and pedagogy is in constant play, particularly during RP&T. Most tenure decisions are based typically on creative *work/research*, and *teaching/pedagogy* (and then rounded out by a record of service). One gain in this evolving debate is the resultant clarification of what was implied but often not stated in the traditional studio environment.

Most studio projects would naturally be based on a general observation that would be stated in terms of a problem or problems to be solved by some means over which controls were set. This process as described is remarkably similar to the three-fold constitution of "traditional research" - a topic

is selected, the topic is problematized by a hypothesis (a educated guess based on an informed question) and controlled means are set up to test the results. Most graduate level architecture programs and some undergraduate programs culminate in a thesis project - a project based on a hypothesis and tested with a program and a site.

If we look far enough back in history, we see that the relation between research and teaching was much more explicit, depending on the departmental standards as well as the Institution. For example, the Russian Constructivist, El Lizzitsky, *et.al.* referred to the design studio as a laboratory. The ideology of one strain of modernism, functionalism saw architecture as a solution to a problem creatively defined.

The work presented here is a collection of student work which responds to questions that are framed in response to a specific topic situated between architecture and urban design set up by the authors' line of research inquiry. Through a grant we developed means to test the capacity to reform suburban environments to acquire amenities associated with traditional towns and cities. The details of this work will be described in the fuller text but our primary question concerns the capacity of suburban infrastructure to support pedestrian systems. Our site, a strip in Atlanta, Georgia and our research to date, formed the foundation two separate Masters Projects Design Studios. The premise is supported by the fact that, in the years to come, many of our recent graduates will be working on projects on and around suburban peripheries. Our challenge is to invite students

to think in larger circles and consider not just the single building, but reflect on ways in which other connections could be made in otherwise severely compromised environments.

## RESEARCH

Our research on contemporary cities such as Atlanta and Houston has led us to believe that a reassessment of how strip corridors could be revitalized is timely, especially considering recent literature on the relationship between poor health and a poorly planned built environment. Although suburban aggregation has been severely criticized in academia for decades as *culturally* unhealthy, it was only after allied professions of medicine and public health became interested and sounded an alarm related to problems like obesity that the issue began to get exposure among the general public. Our cross-disciplinary team has expanded to include researchers in public health and psychology at the Center for Disease Control and at UCLA, and most recently, a local municipality. We are working to develop an analytical framework and design alternatives that rehabilitate these underutilized territories and diminish the dominance of the automobile over the pedestrian in strip developments. The research begins with an assumed link between public health and the built environment. While there is significant writing on the subject, there are few examples of exactly how to implement change.

This study seeks to develop an analytical framework and design alternatives which act to allay the gap between the automobile and the pedestrian in greyfield developments. The study area is Buford Highway, Atlanta, Georgia, the most ethnically diverse corridor in the city and home to Atlanta's Asian and Hispanic population. The highway is unique, with its own special demographics and characteristics, yet is representative of the major urban problems of many contemporary cities: ubiquitous strip developments that are single use, low density and auto oriented and in this case, extremely dangerous, with a very high pedestrian kill rate.

*The question remains: How can the linear layout of typical commercial strips be*

*ameliorated to support pedestrian movement, when in fact, their morphology enforces walks that may be too long for most people?* Our approach, while committed to practical strategies of how to realize interparcel connectivity and enhanced street networks, takes into account the fact that higher density development will remain nodal. Key topics include:

### Health Impact Assessment

The CDC has just completed a 90 page Health Impact Assessment (HIA) on Phase I of this study. HIA's are relatively new methodological models for assessing proposed health improvement along the highway and compare a variety of demographic, transportation, environmental and infrastructural measures, existing and proposed, as a means to determine the impact that improvements to zoning, subdivision regulations might have on a given area. We propose to present the structure of the HIA in relation to our site and discuss the relevance of the HIA as a tool for future corridor overlays.

We speculate that growth and change can occur incrementally, and we define the most effective parameters and incentives to facilitate and promote new urban aggregations (more street intersections and parking options, greater mixed use and density, smaller block sizes). Most significantly, these changes will occur over time, through the actions of the most diverse players with the most varied projects, properties, and goals.

The first diagram presented here illustrates typical suburban or strip developments that require front yard building setbacks of sixty to seventy-five feet. This setback is required to allow for parking in the case of commercial developments and for buffers in the case of multifamily housing developments. Side/rear yard setbacks average twenty feet; these are required to ensure that future developments do not impinge on each other. Buffers are common in suburban contexts and rare in urban contexts, where they usually represent an imprudent use of land, if not a design failure.

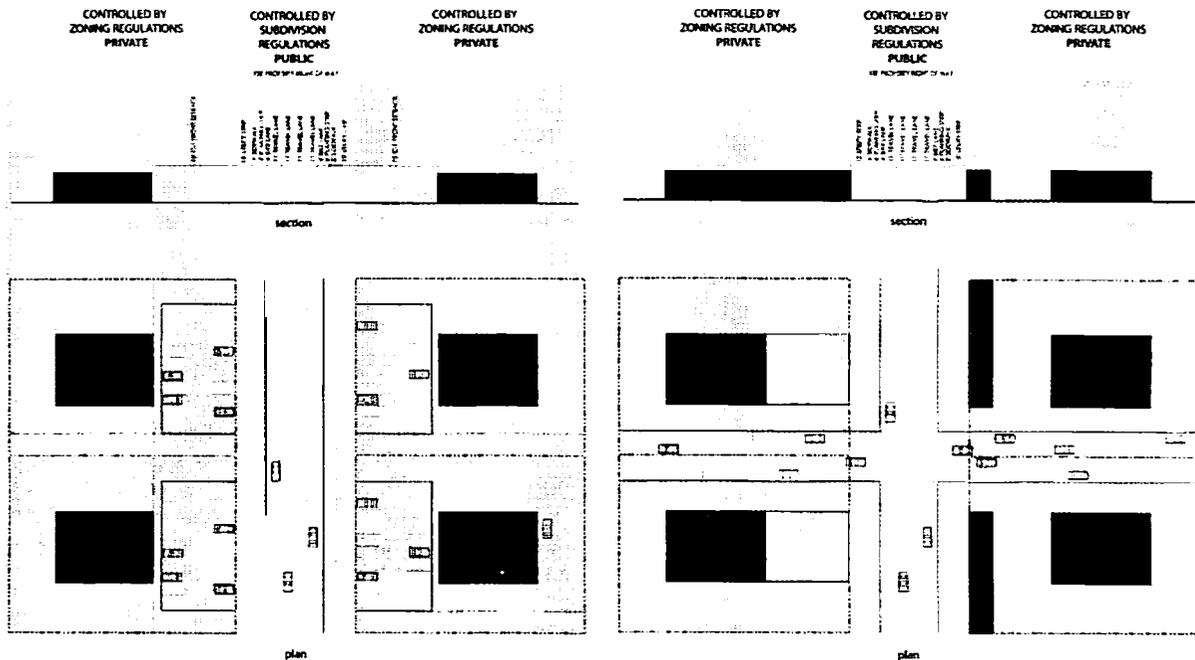


Figure 1

**Dissolution of the Superblock (Figure 1)**

In the second diagram, we propose a series of thin building prototypes to retrofit the front yard setbacks. For the side and rear yard easements we propose that new streets, wherever possible, be placed at these boundaries to join together that which was separated—to nurture continuous pedestrian circulation, and to cut down on the oversized blocks of suburban development.

These new streets would be privately held public right of ways that work with existing property lines and building placements. This strategy would have minimal negative impact on existing land owners—streets would occur on land previously not available for building. Existing landowners could benefit from increased building density and additional rental income.

The images here show the incremental approach to redevelopment of a superblock, in this case over 1 mile long. In plan 1 the roads are emphasized and highlighted according to speed: fast, medium, and slow. The resultant

image reveals the undesirably large size of the superblock, lacking intersections, connectivity, and a pedestrian system. Plan 2 shows existing property divisions. Plan 3 is speculative. It shows existing street and shortcuts through open spaces such as parking lots; we connect a few of these roads and shortcuts. The result is an overlap of Plans 1 and 2 in which connecting streets fall on property lines.

Plan 4 shows a more articulate street system based on this strategy. A major issue is how to break down the size of the superblock without penalizing some property owners over others. If the city will not acquire land to build roads, why should private property owners give up buildable land? Encouraging property owners to build in side yard easements largely solves this problem, since they are now prevented from building in these areas.

The goal is to create private roadways with public access. This should culminate in several gains—reduced block sizes, more intersections, plausible sidewalks, and so on. Plan 5 is a future projection that shows how

the new road system could provide interconnectivity. It also shows a denser filling out of the area, again without taking down existing buildings.

### **Gentrification/Preservation** of Existing Population

An intelligent approach to the division of the superblock is imperative, an approach that will be outlined in the presentation, along with a palette of infill prototypes at various scales which work increase density and safety, unlike so many *tabula rasa* approaches, while remaining sensitive to displacement, gentrification and economics. Our goal is to encourage development by existing property owners once setbacks, FAR and parking requirements have been revised.

#### Prototypes

We are simultaneously developing a set of infill prototypes that function to provide additional edges to new sidewalks along existing roads or new frontage on the added streets. We are interested in the reconstitution of the thin building. The thin building transcends style and has been with us, across the globe, for millennia. Its rapid diminishment as a preferred type is recent.

#### *Liner: thin wall arcade*

This is the thinnest of our proposals—twenty feet, the depth of a parking space. This prototype is conceived as an enhanced pedestrian arcade and social edge at the parking lot level, with office, housing, or mixed-use space above. Typical applications occur in front of fast food restaurants or low-rise strip commercial buildings in the area once designated for convenient parking.

#### *Liner: thin flat housing*

This housing prototype is similar to the thin wall arcade. The lower level can be used as a public arcade or as parking areas for the housing. This prototype occupies front, side, and rear yard setbacks depending on its context.

#### *Liner: thin service station*

Service stations located in urban and suburban areas are now designed by placing the point of purchase for retail in the rear of the site. We propose an inverse strategy in which the point of purchase is moved to the sidewalk. The obvious advantage is that an enhanced pedestrian sidewalk is created without diminishing auto access to the gasoline pumps or the amount of parking space. (In most cases underground fuel tanks can remain where they are.)

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#### *Liner: thin wall-wrapped parking deck*

We are not very concerned with framing the parking garage as an aesthetic problem. The issue for us is not the skin, but the program. A typical parking garage in an urban or suburban setting damages the environment

by creating a large-scale rift in any existing or proposed pedestrian system.

*Liner: thin wall/parking hybrid*

This building type is conceived to work within the sixty to seventy-five foot front yard setback restriction of most commercial zoning. It consists of retail space on the ground floor and a ramp up to parking on the second floor, with the third floor given over to uses such as office space or restaurants (uses that do not rely on foot traffic to succeed). Parking on the second floor adds to the overall cost of the project, but the benefit is connectivity at the ground level for pedestrians and a long-term return for a property owner who can increase leasable space because of the additional parking this prototype provides.

*Liner: thin wall-wrapped parking deck*

Parking garages can and should be designed to accommodate any other function at grade. First, lining a sidewalk with cars precludes more appropriate and interesting uses. Building elevations at sidewalks should have entrances at reasonable distances and/or should provide views on the street or views into the interiors. In instances in which market research indicates that retail is not yet feasible, zoning variances would allow that the first floor be used as parking until such time as conversions could be made.

## TEACHING/PEDAGOGY

### STUDIO ONE

A broad focus of this studio is the ubiquitous situation of *sprawl* or "suburban" planning that is endemic to American building today. If the **problem(s)** of sprawl, or suburban planning, can be characterized as: 1. an inefficient and therefore wasteful use of land for habitation; and 2. a form of aggregation that is more and more considered to be unhealthy for the individual, society, and the natural environment, then this studio will take a greyfield "suburban" corridor as the context within which to position our research and our experiments. The hypotheses generated in the studio will probably include some version of the following question: how might a re-thinking of the deployment and interdependence of architecture, automobile and mass transit infrastructure and a

pedestrian system ameliorate or diminish the negative aspects of contemporary sprawl or suburban development? (The means by which individual architectural and environmental questions will be "tested" is through design--through the proposal of architectural projects. As the aforementioned text suggests, this studio assumes a link between architecture and urban design. Any thorough design proposal will demonstrate an attitude to representation and signification. First, there is the practical matter that the projects will have to be *shown* or otherwise described. In other words, the design project will be *represented* by means of some system of *signification*. Second, issues of representation and signification seem to be embedded in the disciplines of both architecture and urban design. Architecture and urban design are synthetic enterprises--part functional and practical **system(s)** and part cultural or art-like. We know that things, buildings and places are open to broad and changing interpretations of meaning. As designers of such artifacts, is it not prudent to consider, or to attempt to imagine, the intended or latent meanings that will reside in that which we propose to make?



Figure 2

Strip Joints: Suburban Retrofit (Figure 2)  
Masters Degree Candidate 1

Segregated zoning and super block infrastructure have dictated a built landscape of stand alone objects disengaged from adjacent uses and the public right of way. This landscape operates at a scale disconnected from the human being and local traffic. With so much of the built environment structured in this manner, alternative solutions of connection must be provided. This proposal seeks to find if strip development can be selectively redefined through the formal insertion of new connections using parking lots, buffers, and privately owned public drives that will simultaneously interconnect and revitalize both public and private interests.

### Retail and Residence Recombined on the Strip

Masters Degree Candidate 2

The current structure of the suburban landscape (low density, single-use zoning, automobile oriented, etc.) prescribes a lifestyle largely at odds with the economic means of many immigrants living in the Buford Highway corridor. While conventional redevelopment models often rely upon gentrification at the expense of current residents, they also tend to favor conventional relationships between the workplace and the home (i.e. physical separation at vast scales) that may not fit the needs of inhabitants. However, the relative economic independence of the small retail business may provide a locus from which to develop an environment whose very structure can challenge the dominant conventions of suburbia. Inspired by the divergent conceptions of the relationship between work-life and home-life being developed by the immigrant communities in the Buford Highway corridor, this study projects a *live/work hybrid* made possible by the relaxation of single-use zoning and the concurrent trend towards "mixed-use" development. Specifically, this hybrid reflects the inter-penetration of the spheres of the home and the workplace that is evident in the lifestyles of many immigrants; which in turn stem from either the culture of their homelands or the exigencies of life in a new place. The site for investigation is the Pinetree West shopping center at 5280 Buford Highway, approximately  $\frac{3}{4}$  of a mile south of I-285. Chosen for its formal typicality, Pinetree West sits between similar strip centers and shares a rear property line with an apartment complex. This property line is projected as a potential future right-of-way, making the 1.27-acre site part of a new "block" with 2 primary sides: one commercial and the other residential in character.



Figure 3

### Bridge-Space: Reconnection of the suburban fabric (Figure 3)

Masters Degree Candidate 3

The fact that the word "Sprawl" has become a mainstream term in our everyday vocabulary, demonstrates the severity of our current urban problem. Development for 50 years has privileged the car at the expense of other values- especially the capacity to create pedestrian systems. This project identifies two aspects of the current condition that seem to preclude pedestrian life.

These disrupters of the pedestrian are: 1. big box retail and 2. high-speed infrastructure. These two elements act in very much the same way in relation to transportation systems by favoring the use of the car; they are designed for the car and they exist in every city. They disrupt the potential for a pedestrian network (which is defined as a continuous system resulting at the pace of walking) and require the use of huge amounts of land for their purposes. How might these "disrupters" (and related typologies) be reconfigured, (i.e. hybridized, butt joined, over lapped, etc.) to improve the existing "suburban" environment and reconnect it while producing a more efficient use of land? This project attempts to create a prototype that in general deals with issues of sprawl and specifically adjusts to particular site characteristics that will enable a reconnection of the urban and/or sub-urban fabric.

### STUDIO TWO

#### Incremental Urbanism: Rethinking the Buford Highway Corridor

*"Whether original or plagiarist, one is the novelist of ones life."*

Jose Ortega y Gasset

The poetic/philosophical writings of Ortega y Gasset from the 1940s--in particular "Man the Technician" and "History as a System" remain relevant for us as an insightful critique of current thought and values. Ortega argues that technology is an essential attribute, a distinguishing characteristic, of humans. He also poetically describes technology as a precondition for living well. Ortega argues that technology is related to the capacity of humans to define historical narratives for

themselves and in so doing discover and create value. However, in much of his writing he remains skeptical of two things--the capacity for technology to speak to questions of general value and the notion of "progressivism."

Many recent studies conclude that low-density auto-oriented development results in surroundings that adversely affect public health. Characteristics include poor vehicular/pedestrian circulation systems, excess surface parking, low building density and inadequate mass transit. Health is affected at the scales of the individual, the neighborhood social unit and the larger ecological system. While there is significant writing on the subject, there are few examples of exactly how to implement change. Our thesis studio is an extension of research begun this summer sponsored by the Center for Quality Growth and Regional Development. The studio is supported with an additional grant from the National Endowment of the Arts. Greyfield sites are strategically chosen in order to force speculation on the relationship between architectural projects, public policy and community design. Our hypothesis is that in Greyfield redevelopments revised relationships between interconnectivity, parking requirements, mixed use-density and public transportation are needed to produce healthier environments. In Greyfield redevelopments, master plans are of limited use due to the complexity of existing property ownership. Our challenge in the studio is to explore what we are defining as an urbanism of increments.

We believe that these topics relating environment to health, are required to answer the thesis question of how a pedestrian network can be realized in an environment originally conceived without one. The selection of Buford Highway as the base case area for investigation was prompted by two additional observations. First, the population around Buford Highway, like the general population of Atlanta, continues to increase. Second, Buford Highway is an area of high pedestrian fatalities. This high fatality rate is potentially due to the fact that Buford Highway was originally designed as an automobile corridor with essentially no pedestrian infrastructure. Consider for example, that at least 24% of the Buford Highway corridor inhabitants do not

own a car and that within our 8 linear mile study area there are no sidewalks.

### Framework

A set of applied analytical tools and indices for approaching and retrofitting the generic suburban strip to accommodate new growth in an urbanizing context are needed. These tools take architecture, planning, engineering, safety, and public policy into consideration to develop prototypical models that can be applied. Buford Highway exhibits many conditions that are universally applicable to corridors around the United States, particularly in suburban Sunbelt contexts. The Buford Highway corridor is viewed locally as the "poster-child" for poor design, so if tools are created for correcting the disconnect they should have a universal applicability factor.

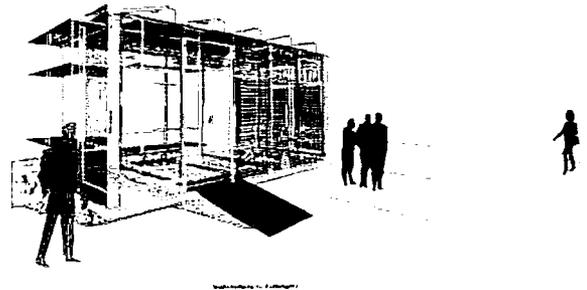


Figure 4

### PIP: Portable In-fill Prototype (Figure 4) Masters Degree Candidate 4

Even with the recent emergence of sustainable design, ecological architecture has failed to address the environmental problem of prototype buildings and mass customization. In addition, ecological architecture has rarely addressed problems at the urban scale. Viable solutions to the current problems of single-use, suburban sprawl could be incorporated into ecological design. These effects include social impacts, the creation of a healthy environments and the acknowledgement of alternatives to automotive transportation.

PIPS (Portable Infill Prototypes) fall into three categories, shell buildings, crosswalks, and pedestrian infrastructure. Like dots on a Cartesian grid, this new layer of prototypes will encourage enhanced nodal developments in areas currently lacking basic amenities. Shell prototypes can include buildings ranging from offices to restaurants. Crosswalk and

intersection prototypes will seek to rehabilitate the structure currently in place and encourage a new pedestrian environment. PIPS offer a way to enliven communities and create a safer environment by extending the vernacular temporary market type to include intentionally temporary/ungrounded structures which can be easily relocated once permanent development takes over. Pedestrian walkways come standard with pips. Bright yellow crossing strips create road humps to allow safe crossing within parking lots. Small shops with programs as diverse as the people themselves will help to promote window shopping in areas which were occupied only by asphalt. All PIP dimensions are governed simultaneously by the width of a parking space and the length of a shipping container, making PIPS exportable to almost anywhere.

### WORKS III - C. Patton

Suburban **Infill** - Rehabilitating the Strip  
Masters Degree Candidate 6

The site of study for this project is a large commercial property along Buford Highway called Northeast Plaza and behind it, an unused utility zone along Peachtree Creek. The retail center consists of 430,000 sf of leaseable space, of which only two-thirds is leased. Large portions of commercial sites such as Northeast Plaza remain unrented and parking lots are half full while area demands go unapprised. Specific to the demographic along the Buford Highway corridor, the demand for affordable and flexible housing, small scale and affordable retail spaces, and cultural and social activities is untapped. In fact, the social contribution of the site is very low compared to its potential land value. In the area housing is readily filled and small retail spaces thrive while the 430,000 square feet of Northeast Plaza is only two thirds leased and its parking lot is empty. The program of this project is based on converting a dying retail center to meet some of the area demands. This project studied alternatives to typical commercial development and arrived at a redevelopment model addressing problems caused by dispersed development [i.e. accessibility, social and cultural interaction, land use]. The is to create an environment that links dwelling and leisure activities within the normal framework and function of a commercial strip in response to demands of the demographic along Buford

Highway and to take advantage of the site's natural features.

Possibilities of a Regenerative Migration:  
A study in the simultaneous movements across the landscape (Figure 5)  
Masters Degree Candidate 5

The Buford Highway Corridor (B.H.C) is located in Dekalb County, one of the most rapidly growing and upwardly mobile counties in Georgia. The B.H.C is seven miles from Atlanta's downtown business district and extends 15 miles northwest. The highway was developed as an overflow path to 1-85 and handles an estimated 40,000 cars a day. Currently, the B.H.C. is one of the most vibrant multi-cultural regions within the Atlanta's metropolitan area and is continually adding diverse types of residents to its community. The specific site investigated is a transverse cut through the B.H.C. and its adjacent conditions. Through research into urban migrations, this study was able to begin to construct a lens through which the city can be examined from a trans-national scale all the way down to domestic scale. The investigation could be split into two primary components 1) research into the migratory processes, and 2) research into the groups who are migration. Together, these main components define a type(s) of urban migration that are occurring simultaneously throughout the city. In this particular study, the relationships between a trans-national migration and an intra-regional migration produced a secondary order within the city through the creation of the new urban bike path. This new order opened up many opportunities for a re-occupation of the city in a manner that is not currently available in Atlanta. In addition, the nature of the path dictated a need for a new typological node that would expand the possibilities, both spatially and programmatically within the city. This new typology, a linear construct, brought into question the areas within the city are currently dormant (ie. Buffers, setback, row's, easements) and question the manner in which we occupy them.

The establishment of a new type of housing settlement along the "new urban path" is situated around the necessity for temporary dwelling units for the trans-national migrants who are arriving into the Buford Highway context via the Adame bus line.

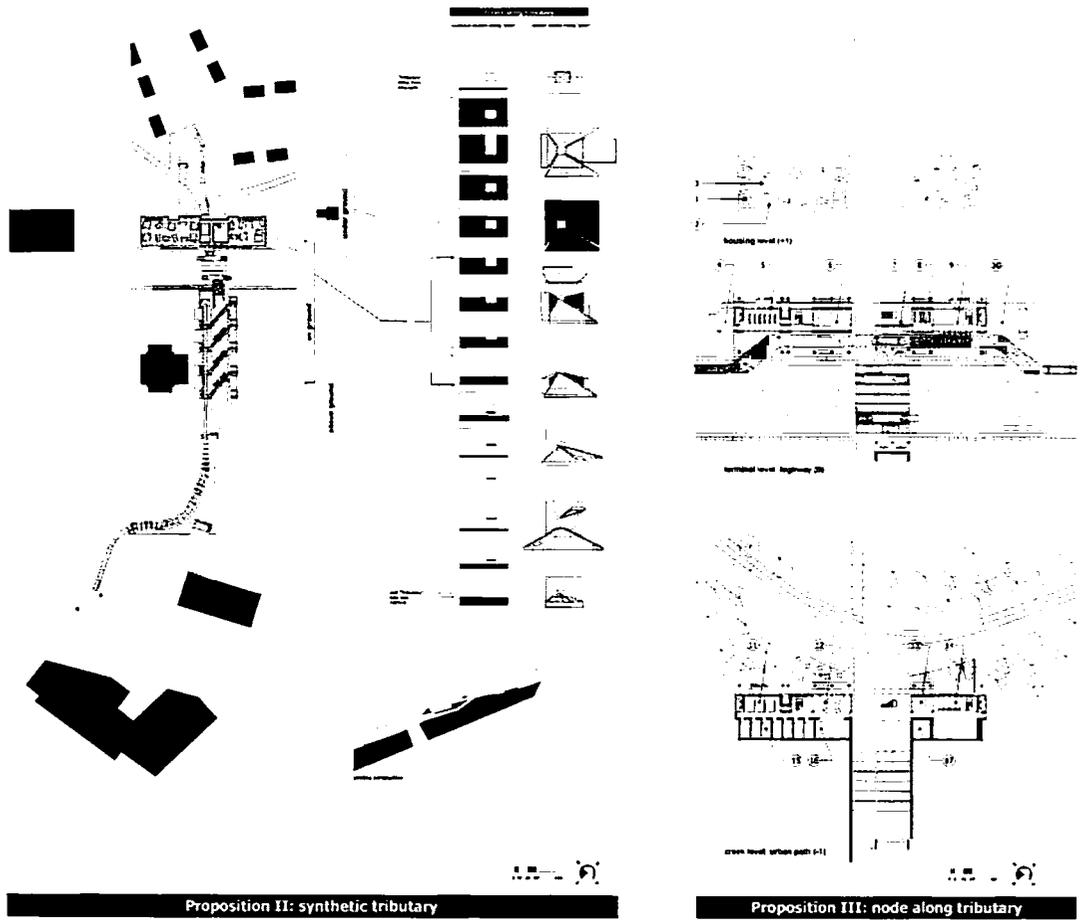


Figure 5