RICE UNIVERSITY

THE OPEN SUPERBLOCK

by

Elizabeth Mickey

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APPROVED, THESIS COMMITTEE:

Lars Lerup, Dean Emeritus and Harry K. and Albert K. Smith Professor
Rice University School of Architecture

Fares El-Dahdah, Associate Professor
Rice University School of Architecture

Albert Pope, Gus Sessions Wortham Professor
Rice University School of Architecture

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ABSTRACT

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THE OPEN SUPERBLOCK looks towards the unused land within the existing superblock grid as an opportunity to introduce public space into the suburban fabric. By gathering and juxtaposing a variety of programs and activities into specific sites, the Open Superblock acts in contrast to its surrounding context. Unlike the current mono-functional superblock which is bound by the grid, the proposed intervention challenges the endless infrastructural gridiron, stitching together existing blocks, and overtime inverts the initial closed superblock into a dense, yet open development. In the end, this proposed intervention combines multifamily housing, programmatic density and planned open space in order to address the public realm within the suburban fabric.
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[1] INTRODUCTION

In the realm of globalization, the city is a container. It is simultaneously condensing the society within it and proliferating the uniformity it creates. It grows without direction, becoming unaware of the context around it. This growth renders it placeless. It becomes a machine with dangerous power, duplicating itself endlessly with no regard to nature, turning into an invasive object on the earth. The redundancy of the urban fabric creates a lack of identity for the city. The city becomes an artificial place focused around the qualityless object. The object swallows the city and the city itself becomes an object, sublime, without architecture.
INTRODUCTION

The OPEN Superblock is a proposal that aims at creating a future type of urbanism set within the suburban landscape. It takes the approach of learning from history and looking at trends that have developed over time in order to propose future development strategies.

While the site for this specific design solution is specified in the suburbs of Las Vegas, the intention is that it could be applied to nearly any suburban landscape formed by the superblock grid. Most American cities laid out in the second half of the nineteenth century were platted in extensive grids that continue to grow outward as the suburbs expand.

Lastly, the design project for this thesis is a byproduct of the initial research focusing on memory and its role (or lack thereof) in the development of contemporary suburbs. Aldo Rossi discusses memory in relationship to the city, but his words cannot be as easily applied to the flattened out, consumer driven developments of suburban sprawl. While memory no longer remains the key element of the argument, traces of it remain embedded in this thesis.
FIGURE 1. Conceptual diagram of suburban superblocks showing sites of proposed interventions.
SUBURBAN DENSITY

The suburbs are no longer a representation of The 'American Dream'. Instead, suburbia has surpassed that dream and became a new reality; a reality that consists of endless tract-home developments and neighbors nearly within an arm's reach. No longer are the suburbs a place of nostalgia; instead they are the haunting reality of everyday life. The rush of going from [no] place to [no] place in stop and go traffic has replaced the idea of 'country living' and the 'open road'.

The artificial landscapes (golf courses, front yard lawns, etc.) attempt to replace the natural landscape that they flattened out, but the mowed grass doesn't equate to the once wild grasses of the prairies. In this dream, white picket fences have been replaced by concrete block walls. Let us dream again!
[2] SUBURBAN DENSITY

By looking at a historical overview of suburban developments, (from the early enclaves of places like Riverside near Chicago, to massed produced post war developments like Levittown, NY), we can see that throughout time there has been a shift in their organizational layouts that reflect society's changing ideologies influenced by historical events. [Figure 2.0] However, the one thing we never see introduced as an idea into these developments is a place for the public. [Figure 2.1] With contemporary suburban environments becoming a global phenomenon and with a continual increase in the number of people living in these types of places, the public needs to be considered. [Figure 2.2]

Historical trends also show a growing density in the suburban landscape. The number of houses per acre is increasing exponentially over time. [Figure 2.3] However, while suburban developments have become more and more dense, the attitude towards private and public space has remained unchanged. People believe that in the suburbs you should own your own house with your own yard. But when contemporary development has forced houses to be within nearly an arm's reach of each other, why haven't the attitudes towards private and public
More recently we are starting to see a shift in suburban housing typologies, where today, 1 in 4 suburban housing units is actually an alternative to the single family home. [Figure 2.4] The question becomes: How can the new patterns of density emerging in the suburbs be woven into a viable project for introducing public space (a thing often neglected in suburban developments)? [Figure 2.5]

While overtime, suburban developments have become more and more dense, the attitude towards private and public space has remained unchanged. People believe that in the suburbs you should have your own house with your own yard and your own lawn mower. But when development has forced houses to be within nearly an arm’s reach of each other, why haven’t the attitudes towards private and public space changed?
FIGURE 2.0_historical analysis of suburban form

FIGURE 2.1_changing ideologies

FIGURE 2.2_suburbs as a global phenomenon
1 in every 4 housing units in suburbia is an alternative to the single family home. (2007 US Census Bureau)

**APARTMENT COMPLEX**
- 20-30 units per acre

**TOWN HOMES**
- 14 units per acre

**DETACHED HOUSES**
- 8 units per acre

**FIGURE 2.4_shifts in suburban housing typologies**

**HOUSE TO LAND RATIOS**

**FIGURE 2.3_increasing densities**
How can the new patterns of density emerging in the suburbs be woven into a viable project for introducing public space?
The superblock grid plays a large role in the organization of contemporary suburban environments. The autonomous developments created by the large scale gridiron results in a repetition of generic building types, creating a flattened experience of space that lacks any opportunity for public interaction. These current suburban planning methods, where isolated buildings of a single function are surrounded by a sea of parking, are no longer adequate for the development of suburbia: a place that nearly half of Americans call home.
[3] SUPERBLOCK

As a test site, I look at the suburbs of Las Vegas, which is a city formed by the superblock. [Figure 3.1] The superblock grid has become the organizing infrastructure for several contemporary suburban environments, creating block sizes that are six time larger than a New York City block. Due to the large size, (which is about $\frac{1}{4}$ mile x $\frac{1}{4}$ mile) each block has become an autonomous development, generally composed of either generic commercial or residential building types. [Figure 3.3] The result of this type of development is that isolated programs get scattered throughout the large scale grid, creating a life for the automobile, rather than a life for the citizen. [Figure 3.4] With so much dependency on the car, public space remains ignored.

I began to look more closely at a 25 square mile area of Northern Las Vegas. [Figure 3.2] This area is composed of 450 superblocks, housing roughly 40,000 people. Within this gridded area, there are several patches of undeveloped land within the different blocks. [Figure 3.5] I look towards this unused space an opportunity to plant a seed for a more dense, more public, yet more open development within the suburban context.
In order to identify specific moments where this new intervention can occur, I look to the areas that have 2 or more adjacent voids in separate superblocks that when connected, these voids will create a site similar in size to the 40 acres of a typical superblock. These specific voids create an opportunity to connect over the streets and break free from the bounded, isolated and inward looking development caused by the grid. There are 6 sites that offer this potential within this 25 square miles test site. [Figure 3.6]

Unlike the current superblock, the open superblock interacts with the grid, stitching together existing blocks, and over time, inverts the closed/bounded system of the current superblock into a more dense yet open development. [Figure 3.7] Both of which are characteristics needed to create more active public space.
FIGURE 3.1_map of northern las vegas

FIGURE 3.2_25 square mile test site, housing roughly 40,000 people
FIGURE 3.3_superblock analysis

FIGURE 3.4_autonomous developments scattered throughout large scale grid
25 square mile area of focus

voids within the suburban fabric

potential sites of intervention

FIGURE 3.5
sites of intervention

FIGURE 3.6 projected open superblocks
CURRENT VOIDS WITHIN CLOSED SUPERBLOCKS

NEW OPEN SUPERBLOCK

FIGURE 3.7_conceptual diagram
This thesis challenges the 'endless' grid by proposing a development that breaks the boundaries of the closed superblocks created by the infrastructural gridiron. Rather than creating another autonomous development that is typical to suburbia, this thesis intentionally juxtaposes a variety of programs into a specific site in order to create a new public realm in the suburban landscape.
PROPOSAL

In order to create the transition from a closed to open superblock within the gridded suburban fabric, a series of four phases for the development have been established. [Figure 4.3] Each phase consist of adding both housing and a variety of program. The housing is defined by linear bar building types, [Figure 4.4] and the mix of program takes on the form of horizontal platforms. This formal logic was derived from the idea of the souk and corral. The corral, defining space with vertical walls, is paired with the souk, defining space with only two parallel planes (floor and ceiling). The housing bars act like a corral, helping to define and frame the development. The difference, however, is that unlike a corral, the housing bars are strategically placed and elevated allowing free movement in and out of the development. The programmatic platforms (souk), on the other hand, allow for continual circulation from one program to the next, helping to create active public space between the defined program.

In phase one, the housing bars are used to set up a frame around the existing void, and program (ranging from day care, to restaurant to grocery stores) starts to develop within this framed area. Phase two, while adding another housing
bar type, also starts to connect the different programs across the grid by using a continuous platform. Phase three adds a new layer of program, and also starts to affect the surrounding context, replacing portions of other sub-divisions with open park space as well as surface parking. Phase four finalizes the transition into an open superblock by adding elevated housing bars outside of the initial frame, and replaces the remainder of the context within these different blocks with open space.

While there are six potential sites of intervention within the 25 square miles of the test site [Figure 4.1], I focus one specific voided area in order to expand upon the development strategy and zoom into a more 'architectural' scale. The design remains generic enough in its formal logic that it can be applied to any of the specified sites, but it is specific enough that one can understand the spatial qualities of the development and how these spaces change throughout the different phases. This can be seen more clearly in the rendered sections. [Figures 4.5 and 4.6]

In the end, this proposed intervention combines multifamily housing, programmatic density and planned open space in order to address the need for public space within the suburban fabric.
FIGURE 4.1  six open superblock sites
FIGURE 4.2 Conceptual view of open superblock development within the existing gridded suburban fabric
FIGURE 4.3 phasing diagrams

phase 1_ 0 - 5 years

phase 2_ 5 - 10 years

phase 3_ 10 - 15 years

phase 4_ 15 - 20 years
phase 1: bar housing

phase 2: atrium housing

phase 3: shifted housing

phase 4: elevated housing

FIGURE 4.4_housing
FIGURE 4.5: rendered sections of phases
FIGURE 4.7_detailed plan

FIGURE 4.8_overall view of open superblock
FIGURE 4.9. Program diversity and organization
FIGURE 4.10 rendered views
FIGURE 4.11_diagrams of public space

FIGURE 4.12_overall section
FIGURE 4.13_rendered views from within development
The following pages relate to the final review and oral defense of the thesis which occurred on January 13th, 2011 in the Farish Gallery at Rice University, Houston TX. The jury panel consisted of the following guest critics: Sarah Deyong, Florian Idenburg, Jonathan Massey, Heather Roberge and Michael Bell, as well as in house professors and faculty: Lars Lerup, Albert Pope, Sarah Whiting, Ron Witte, Troy Schaum and Neyran Turan.

FIGURE 5.0_ The final presentation consisted of 7 boards, each 36" x 96"
This thesis looks towards the unused land within the existing superblock grid as an opportunity to introduce public space into the suburban landscape. By gathering and juxtaposing a variety of programs and activities within the grid, the OPEN Superblock acts in contrast to its surrounding context. Unlike the current superblock which is bound by the grid, creating closed developments, the proposed intervention interacts with the grid, allowing together existing blocks and over time inverts specific voided areas into an open superblock.

FIGURE 5.1 Board 1 // Research [original dimensions 36" X 96"]
FIGURE 5.2 Board 2 // Site Aerial [original dimensions 36" X 96"]
FIGURE 5.3 Board 3 // Phasing (original dimensions 36" X 96")
FIGURE 5.4 Board 4 // Sections [original dimensions 36" X 96"]
FIGURE 5.5: Board 5 // Plan [original dimensions 36" x 96"]
FIGURE 5.6 Board 6 // Program [original dimensions 36" X 96"]
FIGURE 5.7 Board 7 // Renderings [original dimensions 36" X 96"]
The design project for this thesis is a byproduct of the initial research focusing on memory and its role (or lack thereof) in the development of contemporary suburbs. Aldo Rossi discusses memory in relationship to the city, but his words cannot be as easily applied to the flattened out, consumer driven developments of suburban sprawl. While memory no longer remains the key element of the argument, traces of it remain embedded in this thesis.

*Memory: "a process of reconstruction; an activity of localization and configuration functioning essentially from and within socially elaborated frames or reference systems."
*Maurice Halbwachs*
Memory, over the course of the thesis, was slowly translated into the idea of public. This change was made possible when picking apart Aido Rossi’s Architecture and the City. Rossi speaks of memory in terms of the collective. He says the city builds upon itself overtime in order for it to create its own consciousness and memory. He also talks about urban artifacts in terms of their permanence. Housing and monuments are two types that he sees as being permanent. When talking about housing, he isn’t talking about each individual house, but how the program of housing will be a permanent necessity. Monuments, on the other hand, will remain permanent in their actual form, creating continuity over time in the public space around it. To break it down to even more simple terms, by using the idea of housing and monuments, he is really talking about private and public space. It is the public space in terms of its form that produces a collective memory. While theoretically, suburbia is lacking memory, physically, it lacks public space. This, in turn, made it easier to transition from the intangible idea of memory into an architectural design project, using public space as a key element.
The word memory always seems to be a subjective term. In order to try and objectify the idea of memory within architecture, I look at it in relationship to history. The difference between memory and history is that memory is linked to the past, yet situated in the present, whereas history is the past. History and memory are not the same. You cannot research a memory, you must feel it. Memory is a muscle; it has to be used in order for it to work. The following examples try and explore this difference of memory through Form, Site and Function, in order to see how memory and history differ in the built environment.

"History exists so long as an object is in use; that is, so long as form relates to function. However, when form and function are severed, and only form remains vital, history shifts into the realm of memory. When history ends, memory begins."

-Aldo Rossi
THE CONTEMPORARY CITY

Traditionally, in terms of architecture, memory has been studied in relationship to the inner city. Aldo Rossi, when speaking about memory, refers to a building as an urban artifact and the city itself as a place of collective memory. However, with more and more people living outside of historic city centers in the suburbs, a place where a ‘collective’ seems to disappear, a new question of memory arises. What is the memory of the suburb?

“The contemporary city has been defined as, “the continued decentralization of both population and employment, the increasing levels of social diversity and social polarization, the emergence of an elite inner city, and the deepening spatial separation between jobs and labor.”
- David Sui

CITY
- collective
- city
- object
- internal
- one center

SUBURB
- individual
- building
- space
- external
- multiple centers
Suburbs

Suburbia, the third condition, is the space between city and rural; a place that meditates between interior and exterior and blurs the distinction between town and country. This outer city - the suburbs - a place where over half of Americans call home, becomes a site of confrontation between memory and globalization. Suburbs have often been criticized for being 'unsustainable', for being homogeneous and having lack of social interaction. Perhaps part of the problem is the lack of memory inherent in the suburb. The idea of the suburb itself reflects a certain time in history; it reflects a time of global expansion, the changes in transportation and advancements of technology and infrastructure. However, the suburbs are such a recent phenomenon, only developed within the last fifty years, that there has not been time for a true history and therefore memory to exist in the same way it does in the historical city center.

"Suburbia literally means, the city below; it is a circular gulf between city and country- a place where buildings sink away from one's vision- buildings fall back in the sprawling babels or limbos. Every site glides away from absence. An immense negative entity of formlessness displaces the center which is the city and swamps the country."

- Robert Smithson
PREDEDEENT STUDIES

In order to start investigating the memory inherent in the space (and landscape) of the suburbs, I look towards four specific 'attitudes' of the suburban landscape.

[1] memory of the site
[2] site as a process rather than a product
[3] reading open space as depth rather than planar
[4] site as fields of relations rather than as arrangement of objects

These 'attitudes' are extracted from 'Sub-Urbanism and the Art of Memory' by Sebastien Marot.

It is with these four attitudes that I have also began to look at architectural case studies. By looking at the suburbs and precedents with similar 'attitudes', I try to explore how one might begin to address the latent memory of the suburbs through architectural and landscape solutions.
MEMORY OF THE SITE

Robert Smithson’s Monuments of Passaic suggest one way to look at memory in the suburbs. According to Smithson, the suburb exists without a rational past and without the ‘big’ events of history. It is the smaller, everyday things that he turns to in order to explore the memory of a suburb. He also suggests that the holes or voids in the suburbs are what define its memory.

"Passaic does seem full of "holes" compared to New York City, which seems tightly packed and solid....those holes in a sense are the monumental values that define, without trying, the memory-traces of an abandoned set of futures."
- Robert Smithson
"The Berlin Wall as architecture was for me the first spectacular revelation in architecture of how absence can be stronger than presence." - Rem Koolhaas
SITE AS PROCESS RATHER THAN PRODUCT

Many places in the suburbs are part of a larger process, whether it is a factory, a warehouse, or even the home as a process of everyday life. However, suburbs themselves need to be part of a larger process. They need to evolve and adapt to future needs. This is where a layering of space becomes necessary.

"The city no longer represents the system, but becomes the system itself, programmed and isotropic, and within it the various functions are contained homogeneously, without contradictions.... Freed from the armor of its own character, architecture must become an open structure, accessible to intellectual mass production as the only force symbolizing the collective landscape."
- Andrea Branzi
FRESH KILLS
Staten Island, 2006, James Corner

FACTORY 798
Beijing, 2004, Bernard Tschumi
READING OPEN SPACE AS DEPTH RATHER THAN PLANAR

If we can begin to extract potentials from the open space in or between suburbs, perhaps we can start to realize the importance and depth of that space. The space of the suburb is like a palimpsest that can be read if examined closely.

"It is to space, to our space, that we must turn our attention: the space we occupy, which we frequently cross, to which we always have access, and which in any case our imagination and our thought is able to reconstruct at every moment. It is there that our thought must fix itself, in order for any given category of memories to reappear."

- Sebastien Marot
“There is a global as well as a local issue going on here. Rather than seek a 'Disneyfication' that call for islands devoted to history in a world of globalism, I’m attempting to reverse things by having islands devoted to globality in a world of local culture.”

- Bernard Tschumi
FIELD OF RELATIONS RATHER THAN AS AN ARRANGEMENT OF OBJECTS

Suburbs are often seen as places that disregard the landscape and erase the past completely in order to build generic developments. While Chandler, AZ was once literally fields, it is now the fastest growing suburb of Phoenix, which in 2001 was the city with the highest percentage of its population living in suburbs. This area can now be read as a series of housing developments laid out within the same framework that was initially set up farmland.

"Space is like an immobile image of time. Thus, there is no collective memory that does not unfold in a spatial framework."

- Maurice Halbwachs
THE SWISS WAY
along Lake Uri Switzerland, 1991, Georges Descombes

PARC DE LA VILLETTE
Paris, 1987, Bernard Tschumi
"The suburban landscape remains a puzzle, with as many solutions as there are observers."
-Lars Lerup, Building the Unfinished
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