THE NOTION OF BUYING ARCHITECTURE
A proposition of strategic architecture for urban economic contexts

by

Jiwoon Kim

Bachelor of Engineering in Architecture
INHA University, The Republic of Korea, 2000

Submitted to the Department of Architecture
in partial fulfillment of the requirements for the degree of

Master of Architecture
at the Massachusetts Institute of Technology

June, 2007

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Signature of author: -
Jiwoon Kim
Department of Architecture
May 24, 2007

Certified by
Ann Pendleton-Jullian
Associate Professor of Architecture
Thesis Supervisor

Accepted by
Julian Beinart
Professor of Architecture
Chair of the Department Committee on Graduate Students
Thesis Supervisor
Ann Pendleton-Jullian
Associate Professor of Architecture

Thesis Readers
Stanford Anderson
Professor of History and Architecture

Robert Cowherd
Associate Professor of Architecture
Wentworth Institute of Technology
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Abstract

How can an urban redevelopment be the best thing that has ever happened to a proposed site and to its residents who have lived there before the development? With lack of appreciation for how re-development projects could affect the existing urban structure and its values at different levels, the projects create new “real estate products” responding to increased land value and expose old residents to new living environments. Eventually, the residents who cannot afford the housing price difference are pushed to move out of their communities or even forcefully evicted. This thesis starts by acknowledging that there is a huge gap understanding of the value of land, communal life, and architecture between development-involved constituencies such as investors (developers), architects, and current residents. With this awareness, and finding an urban site expecting huge development in the Shanghai Warehouse district, this thesis focuses on proposing architectural strategies that are intended to mitigate the extreme gap by providing diverse levels of urban spaces which consumers at different income levels could buy and share in.

Thesis supervisor: Ann Pendleton-Jullian
Title: Associate Professor of Architecture
It's the reality that developers build. Developers know what it is to build today. It's they who use reason in their work, much more than architects who like to call themselves rationalists. "Practical reason" has replaced all other reasons that have served Western culture after Kant. It's those who work in the construction industry who know most about the form of architecture.

Rafael Moneo
Prologue

Why “buying architecture”?

I think architecture has been responding to its users’ needs in terms of basic sheltering, artistic, and communal values. However, under rampant interventions of financial agents into the current building industry, architecture can no longer proactively engage with the industry. Since the demands architecture has interpreted autonomously are about the non-calculable benefits such aesthetic, cultural, and communal values, when it comes to the realities of values expressed in money terms, architecture reluctantly follows the mighty economic system and loses its good intentions. That means architecture is not being appreciated by broad groups of people as it was before. It is becoming an expensive form of property possessed exclusively by the very small number of rich people. In a world full of modern commodities from which people get their satisfaction, people tend to be consumers of real estate rather than of architecture. If architecture can be valued as a commodity and if the utility it gives to people can be proved enough to convince investors, it then possible to start talking about the co-existence of multiple urban structures to create a symbiotic situation working for monetary profit as well as social benefit. Assuming, arguably, that human beings are consumers, who can be categorized depending on how they make money and how strong their purchasing powers are, architecture has to align its opinions with the existing economic-urban system and to develop its strategies within a newly recognized urban context.
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The REITS (Wall Street Real Estate Investment Trusts) do not care much about long-term value, let alone a building’s contribution to local place making. They care more about predictable performance in the short term (so they can be traded on Wall Street just like pork bellies or any other commodity).

Ellen Dunham-Jones
The empty land is waiting to be like one of them
(taken in one of development sites along the Suzhou river by author)
[photograph 01]
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Introduction

This thesis starts with admitting that there is a huge gap of understanding of the value of land, which I assume is differentiating communal lives at economic levels, and of architecture differing between parties such as investors (developers), architects, and current residents. All of them are architects insofar as they try to achieve something they value most through architecture. Architecture is not an exclusive field of architects any more. As the most powerful player in real estate under the capital market, investors normally do not provide their money under circumstances in which return will be less or slower than they expect.

[Background]

Architecture has been discussed as an art, as an elite discourse, and as a service for both public and private sectors. However, as even the public sector grows increasingly interested in the economic asset value and advantages of their buildings, architectural approaches for public goods seem to be losing their power in the process of investment and construction. Major players in the capital market, investors, desire to get as much return as possible from their investment. With this predominant rule, propositions for “high” architecture, which are not as proven as methods making quantitatively reliable commodities, might become extinct, because capitalists will rarely provide their money for such unproven products. After all, to make architectural properties acceptable to such investors, Real Estate Investment Trusts (REITs) define 19 standards for real estate products. Since these standards provide very limited descriptions of architectural typologies, developers necessarily follow the standards as described to attract money from investors. This results in “low”

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architecture conceived as functionally oriented mass products. Consequently, except for several "star" architects taking over the market that is consuming high architecture, most building markets in urban environments only get to have "low" architecture, in which investors and developers are usually persuasive in proposing forms of buildings that will bring optimized profit to them. As has been observed, the profit-oriented development approaches react to basic demands such as for area, and density created by the number of units, which are calculable through their financial methodologies. Lack of consideration of non-monetary urban values biases project toward the short-term. For developers, a short-term project is very preferable, because the money to be repaid to investors gets bigger, through interest, as time goes on. This illustrates how architectural intervention is less convincing when it comes to most development situations. For instance, more architectural concepts require more physical intentions such as a higher wall to create increased "spatial qualities" or have more open space which predictably generates more "communal activities." Those exemplary architectural features in quotation marks cost more construction time and money, and cannot even be measured with financial methods: only the analytical tool investors and developers rely on. Projects with such features are expected to require a medium-term or long-term period to produce monetary returns. This is risky to developers because there are no reliable rules promising expected money returns when projects have more architectural features. When developers undertake projects, the medium- or long-term projects involve higher risks of failure, because such projects require lots of money input for medium or long periods. Therefore, developers usually prefer short-term projects, which are much more profitable due to short implementation time and smaller money input. This situation leaves only a little niche for architecture. The problem is that architecture has not developed a common language with which to communicate with other stakeholders.

[Site]

As an aggressively developing city, Shanghai has been one of the most interesting markets for real estate development ever, not only for architects but for investors and developers as well. The proposed site is 1.7 miles away from the Pudong area, the new center of Shanghai. With excellent access to transportation such as the Shanghai Railway Station, and several subway stations being constructed or expected, and access to Nanjing Lu, one of the populated commercial areas, and People’s Park, the site offers great possibilities to be developed on a
huge scale. However, developments on a huge scale in China commonly lead to social conflicts such as poor people's compulsory evictions on a larger scale of development. Again, to minimize risks, developers and investors try to shorten the time of planning, negotiation, and construction. All too often, government supports developers without concern for human rights.

[Methodology - Land readjustment]

This thesis uses an urban development strategy called land readjustment. The basic concept of land readjustment is to exchange land parcels of different land owners by encouraging them to be stakeholders and distribute developed property to the owners after development completion. This design project assumes a time in the future when the investor constituency has found a feasible methodology, for measuring medium- or long-term development and forecasting the outcome. Therefore the investor constituency becomes able to be more responsible to society in terms of communal values. At that time, architecture will fulfill its potential in society when there is no segregation between people’s living environments. This architectural proposition will investigate how architecture can retain communal quality with the existing urban components as well as add present economic demand-oriented typologies. In order to do that, this study will consider architectural assets as commodities and use a game metaphor, which finds rules in the site and makes strategies under given rules, to see how each constituency works on the “board.”

19 Standardized Real Estate Products Acceptable to Lenders

**Income Products**

**Office**
1. Build-to-suit
2. Speculative suburban low-rise

**Industrial**
3. Build-to-suit
4. Speculative warehouse
   (>28' clear span)
5. Research and Development / Flex

**Retail**
6. Neighborhood
   (between 80 - 120,000 sq. ft.)
7. Power
   (between 120 - 400,000 sq. ft.)

**Hotel**
8. Limited service
9. Full service business
10. Suite

**Apartment**
11. Low-density suburban
    (over 150 units @ 15-20 DU/ acre)
12. High-density suburban
    (over 200 units @ > 20 DU/ acre)

**Miscellaneous**
13. Self storage
14. Assisted living

**For Sale Products**

**Residential**
15. Entry level attached
16. Entry level detached
17. Move-up/down attached
18. Move-up/down detached
19. Executive detached

---

**Source:** Arcadia Land Company and Robert Charles Lesser & Co.

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A game is a good method for understanding how certain constituencies make strategies in a given world to win what they want. General games such as board games or computer games provide the object of the game and rules to players and allow them to come up with their own strategies. An appeal of multi-agent games is that they require players to acknowledge that there are other strategic players who might beat the player within the given rules. In this competitive situation, a player must understand the world better than others to win the game. With this metaphoric approach, architecture can be conceived as a game board where constituencies affect architecture and vice versa. I have adapted this rule-based analysis method to two architectural theoretical projects; the Exodus, or Voluntary Prisoners of Architecture, by Rem Koolhaas, and Linear Industrial City by Le Corbusier.

The project: Exodus, Voluntary Prisoners of Architecture, sees an imaginary world. That world, however, offers insights into real urban issues. The most interesting thing is how it defines the world and its rules with certain scenarios and narrations. In this project, he sets forth a city which comprises two sides, “a good half,” and “a bad half.” Setting aside many debates about this project and its validity for the urbanism at that time, what I focus on in this...
With desperate worries about the increasing emmigration from their society, the authority of the Bad Half decides to make a huge wall around the Good Half. However, despite this dominant intention, the people of the Bad Half do not give up dreaming of escape.

For the people who left in the Bad half to ESCAPE
For the Bad half to PREVENT the people from escaping from its territory

Scenario I - the prisoners
Scenario II - the Authority of the Bad Half
Scenario III - the good half

Analysis, define the characters (what they do or do not, or what they can do or can't)

Behaviors on the Map
The Bad Authority CONSTRUCTS the wall as barrier to against flooding immigration into the Good part.
The prisoners ESCAPE from the Bad, INHABIT, supposed to be dominated by rules.
The Good part - CONSTRUCT a mirror image INDOCTRINATE fugitives' routines

Interpretation of architectural theory with rule-based analysis

Urban phenomena against undesirable conditions

[Diagram 01] Analysis diagram 1.

Two walls to ENCLOSE and PROTECT this zone to retain its integrity and to prevent any contamination of its surface by the cancerous organism that threatens to engulf it.
project is how Koolhaas proposes physical environments which individually control and generate human activities with certain strategies and simplified rules of the world which the author sets out. [Diagram 01] shows how this project can be interpreted as rule-based. Between the competitive situation of both the Good Half and the Bad Half, architecture strategically forms itself to become a buffer zone benefiting and proliferating new types of human activities.
Move 3
Programmatic strategy

-> An architectural sigh of relief from the Bad environment lack of sense

-> Indoctrinated (under conditions of Luxury and well-being)

Amateurs

-> Exercise an inspired state of Political inventiveness which is echoed by architecture

Move 4
Sectional strategy

-> The senses are overwhelmed by thought
- > Propose architectural refinements, extensions, strategies for the present and the future of the Strip.
-> Modify the model
-> The most contradictory programs fuse without compromise.

Move 5

-> Protect the inhabitants of the Strip from electronic exposure
-> Exercise mentally and physically, a conceptual Olympics

Information

-> Fight against the inmates of the old London
-> Model the Strip with information from the Reception area

[Diagram 01] Analysis diagram 2.
Interpretation of architectural theory with rule-based analysis
The Linear Industrial City by Le Corbusier (1941) shows a much clearer relationship between strategies and rules. In addition, when architects were conceived as building designer, and no urban planners existed, it is noticeable that he foresaw that the profession “will be opened wide.”

The project was proposed to be located between the Radiocentric cities, another of his urban planning ideas, to connect them. Therefore, the transportation system generates rules for the planning. Le Corbusier especially paid attention to the speed of the new transportation system. It is very amazing that he already suggests infrastructural architecture at that time. The infrastructural lines such as water ways, train rails, and roads are very essential elements to define this world. Since the function of the lines facilitates moving freight, the city grows as a supporting depot having factories, warehouses and housing. The interesting thing is that this project notices the relationship of functionality and geometry, and allocates urban programs depending upon speed.

These two salient architectural concepts of Rem Koolhaas and Le Corbusier have unique view points for defining the

Linear Industrial City
Le Corbusier (1941, during World War II)

Le Corbusier
What is his goal as an architect in this project?

The architectural profession will be opened wide.

...Excerpt from the book: "Sur les quatre routes"
Scenario (Information)

What was the reason for the birth of this new field of study? The radical transformation, in less than a century, of the great routes along which men live: roads, waterways, railways, and airlines. Machines, breaking through millennia of history, replaced the traditional speed of men on foot or horseback by the twenty or a hundred times faster speeds of railroads, cars, steamers, and planes. Speed has transformed the values of space and time and, in so doing, has created tremendous misery...

- Conflict
- Generate
- Goal

Human residence vs. Mechanic Speed
- Four routes which generate “”.
- the radiocentric cities are ill adapted to the needs of modern industry: namely, the transport of raw materials and manufactured products.
- radio-centric urban fabric vs. Industrial lifestyle

The three respective forms and locations should be adapted to present-day needs.
- While industry develops to the best of its potential, the dwelling, in turn, finds its optimum solution. (Variety in the choice of a dwelling)

Define

Players
- the Architects
- the Builder, Technician, and other Specialists

Analysis, define the characters (what they do or do not, or what they can do or can’t)

Behaviors on the Map
- the Architect - COORDINATES, CONCILIATES, HARMONIZES
- as such, he will discover and integrate different factors

Generate

Map (Game board)
- Three basic “human establishments”
  1. Agricultural
  2. Industrial
  3. Commercial

Design phase proposition

[Diagram 02] Analysis diagram 1.
Interpretation of architectural theory with rule-based analysis
world where architecture exists, and they seek design propositions through using rules that simply interpret these worlds. What I am interested in in the two projects is how the two architects recognize and accept the outside factors that affect architecture and how they propose strategic architectural ideas responding to the rules determined under autonomous definitions of the world.

Given site conditions by scenario

- 1. a new or revised form of agriculture (a Radiant Farm)
- 2. Industrial linear cities, Radiocentric city at the intersection of major highways..., will again become commercial, intellectual, administrative, and governmental centers.
Move 1
Waterway
Road
Railroad
To the radiocentric city
Flowing of raw materials and manufactured products

Move 2
Waterway
Road
Railroad
Factories (for efficiency)
Flowing of raw materials and manufactured products

Move 3
Waterway
Road
Railroad (airline)
To the radiocentric city

Move 4
Waterway
Road (for connecting dwellings and common services)
To the radiocentric city
Parkway
Pedestrian path

Move 5
Waterway
Road (for connecting dwellings and common services)
Common services
Nurseries, schools, movies, libraries, youth centers, sport facilities
Parkway
Residences
Apartments

Analysis diagram 2.
Interpretation of architectural theory with rule-based analysis
## Speed of the mechanical age & Architectural Strategies

### Technological improvement
- Ship
- Train
- Car
- Airplane

### Scale of speed
(New phenomenon stimulating new types of architectures)

<table>
<thead>
<tr>
<th>Scale of Speed</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td><img src="image.png" alt="Diagram" /></td>
</tr>
<tr>
<td>20</td>
<td><img src="image.png" alt="Diagram" /></td>
</tr>
<tr>
<td>5</td>
<td><img src="image.png" alt="Diagram" /></td>
</tr>
<tr>
<td>1</td>
<td><img src="image.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

### Programs
- Factories
- Work Zone
- Green buffer zone
- Parkway
- Common services: Nurseries, Schools, Movies, Libraries, Youth centers, Sports facilities
- Residences

---

[Diagram 02] Analysis diagram 3. Interpretation of architectural theory with rule-based analysis
Land readjustment

Land readjustment is one of the land assembly methods that tries to implement less-conflicting developments within the real estate economic system. What it does is to reduce conflicts between land owners and developers by exchanging lands to make a bigger property and accepting the land owners’ community as partners in developments.

This thesis proposes an inclusive development working as a financial time buffer for architecture. What usually happens in huge developments is the compulsory eviction of poor people who cannot pay the gap between their old house and the new expensive houses taking over the old site. If the gap is kept down to an extent they can afford, people can either take out loans to buy the higher level housing without moving to other places, or sell their houses to the consumers in the upper market and move out to someplace they can afford with the money from the sale. “Spatial segregation necessarily results.” However, thinking about the value of places and the inseparable relationship with urban fabrics that communities have formed over a long time, this research assumes that the value of places becomes one of the significant assets that developers cannot ignore in marketing terms. (It defines a world where people value communities and the uniqueness of places most when they decide to buy a house or to invest their money in developments.) The design project of this research proposes an inclusive urban market in architectural terms.

Development for local demand
- Improvement

Development for high-end demand

[Diagram 02]
Land re-adjustment
The Notion of Buying Architecture
The Notion of Buying Architecture

The notion of buying architecture

In my thesis, architecture is considered as an object, which urban constituencies try to "buy" in order to satisfy their desires and goals. This thesis sees architecture as a manipulable game board with two competing constituencies on it.

These two are investment, or money per se, and community as an urban generator of spaces and programs related to making a living. The situation is that the money constituency is so powerful in a non-negotiable way, that it causes serious conflicts and harm to other constituencies (e.g. compulsory eviction, spatial segregation, monopolized urban assets of the rich and the discouragement of employing architecture in real estate development).

Between short-term and long-term financial time horizons, this constituency prefers to choose short-term ones, which means buildings should be constructed as fast as possible and able to be marketed effectively. Under the dominance of the money constituency, urban spaces get privatized and other constituencies are ignored. Eventually, the urban spaces are chiefly developed for the sake of money. This preference is not because a long-term financial horizon is neither efficient nor effective but because there is less feasible financial incentive to think long-term. My thesis investigates how each constituency and interest could increasingly overlap and respect others if all factions were fairly equal in terms of influence on shaping the board, architecture. The key question for my thesis expresses an ideal goal: How can real estate developments be the best things that have ever happened to every urban constituency? My inquiry places architecture in the middle of the strategies of each constituency as they align themselves in relation to each other in the urban context. Here are other questions. Can architecture be a central notion around which differing constituencies can come together to form a shared commitment to the common good? Or is this an idea that nobody will "buy"? Three strategies are proposed to answer these questions.

- Theoretical strategy – 300 wealthy people and 1000 people who serve the wealthy
- Urban strategy – Where and how they overlap each other
- Architectural strategies – proposed urban programs, typologies and connections.

Site

Before turning to those strategies, let us consider the project site, one of the areas in the city of Shanghai in China. Around this site, especially along the river, lots of huge developments are being built without leaving anything from the past. People are evicted and places are erased. The project site
is also vulnerable to massive development, like the other land along the river. The land value is expected to skyrocket because of its many attractive components for urban life. However, not everybody can get access to the attractions in the reality of privatization.

As for theoretical strategy, this thesis uses the concept of an urban development strategy called land readjustment. In general terms, the concept of land readjustment is the exchange of plots in the project area between land owners, who are the existing community. The strategy also includes municipal intervention championing public, cultural, social and economic values. Theoretically, the existing community as a group of land owners becomes a partner with developers. Eventually the land would ideally be developed at multiple levels for the existing community and for a new community. However several land readjustment cases implemented so far have ended themselves at the level of coexistence without any consideration of the inseparable relationship between the existing community and urban fabric. So, I start my design project with a scenario that could make the land readjustment strategy more persuasive. I assume a hypothetical situation in which the existing community gets granted a right to live where they have lived. In this situation, architecture should begin to align itself to work for both developers and community.

The developer constituency tends to make building products from which they can gain income. To succeed in this goal, they analyze what the real estate market is demanding and which group of people will be their target consumers. Their main concern is how many people at a certain income level will buy their products at an acceptable price and what those people primarily want from the product. This illustrates how uniqueness of design brings a risk in marketing terms. The more distinctive design a building has, the higher cost it may take to build it; ultimately, it may be less marketable than a mass-produced one which is made with common and basic functionality. Necessarily, developers focus on manufacturing products for their target consumers: a group of people who presumably have similar purchasing power. Standardization and mass production enable developers to set the price of their products easily at a lower price, knowing the approximate number of prospective buyers. (the economy of scale) Less differentiation means less cost.

Under these circumstances, land readjustment tries to achieve coexistence. It necessarily has to have at least two different groups of people in the site: the old residents, as a sub-constituency of the community, and the newcomers, another sub-constituency which is created by the developer constituency. Then the question is, how is it possible to get the two together within the constrained situation? Again, developers want to
take in the amount of income they have projected. Land does not change its size. Therefore, a differentiation of architectural typology within the area is required. I assume each type brings different monetary returns, yet the total return should be the same. I propose an extremely luxurious hotel and condominiums for the investment constituency and the improvement of the existing housing structure without hurting urban fabric qualities. The more return generated per unit of land in the more lucrative part of the development, the more land can be available to the less wealthy. The project site is divided into two areas. One is developed for high-end users; the other is improved to meet expressed communal needs.

Urban strategy
The site consists of many urban programs around it; they are mainly a middle school, an art center which is renovated from a warehouse, and a recycling center. Basically, my urban strategy is to accept the old community as part of the business plan, as an asset to the project. However, this is very complicated and dependent on how a business entity reacts to the market, what state the current market is in, and so on. To make it simple, I set several rules. First, when it comes to location, the investment constituency gets priority in achieving infrastructural facilities such as transportation systems and cultural amenities. (Those facilities are maintained by taxes. It pays for it.) On the other hand, as for communal spaces, the old community gets priority in getting space. The challenge is how to synthesize these two demands so they work properly with each other. The urban strategy is considered by investigating how different urban elements overlap with each other. Eventually, spaces from in-between happenings generate effective moments of transporting one constituency to the other's world. For this aspect, I propose to have the layers of communities and implant them into the new typologies (that supposedly satisfy current luxury market demands on the site). As a part of the new, the old community serves the new. So money flows to the less wealthy. Every urban program has its supportive facilities for logistics and management. The old community works for the new as a partner as well as an asset that maintains one of the most marketable elements in the Shanghai urban fabric, the li-long housing.

Architectural strategy
Again, the larger the discrepancy between the two constituencies in economic terms that this project has, the more land the project can give to the community according to this approach. Between the two, architecture should develop itself for each market and facilitate the overlapping of spaces. I set three simple rules for this architectural strategy. The first one is for the old community. The urban fabric the Li-long typology generates has
been creating communal activities effectively responding to the dimensionality of the cultural activities on the street. However, the land price is going up. (That means the number of people who want that particular location or building has increased.) A higher density of space is necessary. Therefore, a new typology is required. The Li-long structure has two main features that define it. One is the relationship between the Li-long residents and the public who use the street. The other is the happenings in the semi-private courtyard where the residents run into each other. Rule number two is the appropriate height, determined from the current urban demand. This rule shows what density could be acceptable in the market. The last rule I set is to integrate the previous rules without breaking them and to create the overlaps.

Conclusion

To sum up, this thesis starts from a simple idea: thinking about what value the world places on architecture. Economic approaches seem to dominate the world without questioning. These approaches have discarded a lot of good urban qualities from the past and created new types of urban life, which are much simpler than the previous ones. Every constituency in the world is required to follow the system because the system is poorly developed to measure qualitative value in its own terms. Because of this situ-
The Satellite photo was obtained from Google Earth.
The Satellite photo obtained from Google Earth.

Recent development

Recent development

Recent development

Shanghai train station

Proposed site

Subway station

People's park

Nanjing-Lu

one of populated commercial area

Pudong area

the new center of Shanghai
The proposed site and its urban context
(Taken by author)
[photograph 02]
The proposed site and its urban context collaged with two different values
(Collaged by author)
[photo-collage 02]
Site analysis
Urban Constituencies
- Investment
- Community
Urban constituencies

The community constituency has adapted itself to urban existences a long time. It would be very advantageous and helpful for the newly proposed development to connect with the very articulated existing urban system, but how can the community work for the new without losing its communal life? This proposal suggests layers of community, connecting through back of house functions through which established residents work for the new monied constituencies. The spaces where they run into each other will become salient components of new streets where both can appreciate the new communal life.

Investment

- Sub-constituency 1: Short term development
- Sub-constituency 2: Long term development

It is investors that make an urban development possible. Since developers who borrow money from this constituency wants to make more money and need to repay the loans as soon as possible rather than take social or cultural responsibility for their products (real estate developments), the projects should be done short-term. That means architecture in the project should be very minimal and calculable in financial terms. The lack of financial measurement of qualitative values lets developments destroy all the values that have been socially and communally developed for a long time and start over from scratching adding only very basic functions responding to new population and density.

Strategy: Finance
Estimated demand for X area of house (Population and Density in Economic level) Determinants

- Land Value Y
- FAR regulation
- Height proportioned to Y/X
- View toward nature
- Accessibility to transportation nature

a Product for a new **community 1, 2**
Constituency 1-1.

Community 1

They are newcomers. The only reason they come here and start new lives is that they can afford to buy their house specifically here, at the currently set price. The introduction of this powerful community affects the neighborhood in money terms and generates new consumption at diverse levels.

Constituency 1-2.

Community 2

Some of these are temporary visitors who come to shop.

Constituency 2.

Community 3

It is people that make a culture from similar interests and social backgrounds in association with the existing urban fabric. From the relationship between the fabric (or socio-economic environment) and themselves, they interact with each other in urban spaces.
Dimensionality of community space

The Satellite photo obtained from Google Earth.
Three Strategies

- Theoretical strategies
- Urban strategies
- Architectural strategies
Theoretical strategies

600 people

150m²/unit
300 people
300m²/unit

1200 people
80m²/unit
Urban strategies

Community as an asset of the hotel and condominium

School

Recycling Center

Art + History + Auction

Employee(r) = community
Circulation (Pedestrian and logistical)
Architectural strategies

Rule 1. Typology
Rule 2. Height
Rule 3. Old Urban Fabric integrated with the New

Lobby 1

- Public bath & Spa
- Banquet & restaurant
- Coffee shop
- Administration office
- To the lobby 2, the hotel
- Circulation from underground parking lot
- Circulation from the creek
Leisure + community
Wood shop + community

Laundry drying

Wood shop, Technician, metal shop

Disposal area

To recycling center

Second-hand market

Housekeeping

Lodging Elevator
Kitchen + community
Recycling + community
View toward in-between

Recycling area

The new street in the old community area

Between the community and the art center
Alternative Models
Alternative Models
Conclusion

To sum up, this thesis starts from a simple idea: thinking about how the world views architecture, what the world needs from architecture, and how architecture should react to it. As a dominant paradigm, economic approaches totally rule over the world without questioning. Such approaches have discarded a lot of good urban qualities from the past because the system is poorly developed to measure qualitative value in its own terms. Those concerned about qualitative values have been criticizing what capitalism is doing without thinking about how they should operate differently in this powerful system. My thesis has located itself in-between, starting to realign architecture in relation to the economic paradigm.

It has proposed a methodology of inclusive urban development and provided a specific design project that demonstrates an implementation of that methodology. Under the assumption that all developments are conducted to create raised value of land and best use of it, this thesis suggests having higher standards that can afford to maintain old communal values and to add a new value so as to generate more profit from development projects.

This thesis has found that the market needs to develop reliable financial methodologies for other new typologies and to determine how they can become compatible with the old values in economic terms. For the future, this study of objectives will become more feasible with the support of information collected about diverse architectural typologies in the current market; and its topic also needs to be approached in statistical ways to base it more on objective data rather than on subjective judgements. Thus strengthened, such research, in combination with this study, will add aggressive application of architectural values to real estate developments and urban planning projects.

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**Theoretical references**


Professor Ann Pendleton-Jullian, my advisor, thank you so much for your endless encouragement and energy during more than a year. Without your academic and moral support, I would not have finished my thesis. Since I first met you in your design studio, you have always led me to see beyond what I could see with my myopic view. I still remember how one day you said to me, “I am gonna push you very hard, so be well-prepared!” I knew you believed I could get through this. I really appreciate it with all my heart.

Professor Stanford Anderson, I remember the first time I met you with my poorly written proposal at your office. I was so tired of being trapped and lost in my ideas. Your wisdom and enormous academic knowledge relieved my franticness. Thank you so much for always being supportive.

Professor Robert Cowherd, on a rainy day, I visited you without a confirmed appointment. I was that desperate to ask you to be the final committee member. That was all I was prepared to say. However, after I shared my thesis idea with you, I realized that you were not only the final member of my committee but also someone I should have been in contact with from the beginning of my thesis. Thank you so much for being my reader.
Supplementary researches

- Big-box typology
- Hotel typology
- Shopping center typology

The typology of a bigbox should be more than this.
Abstract
The recent emergence of vacant superstores is worsening the repulsive image of such stores and their business strategies. However, even though protest against them is getting greater, these big businesses keep their victorious process with the support of their shareholders and customers. Discount chain stores, also known as “big boxes,” have sprawled along traffic infrastructure purely using business strategies, without considering any urban and communal conditions. At a time when big boxes have become new social nodes for the people living scattered in suburban areas, and when big box retailers have become evil icons because of their aggressive strategy, the big box business needs architectural intervention. This thesis will first investigate the nature of the big box and its business success as well as its failure to get involved in any communities and, second, come up with architectural intermediation reconciling marketing strategies and civic-ness. Such intermediation is based on the perception of people as consumers rather than “conventional community keepers” and on the way architecture can be proposed to match a new type of life style. The design aspect of the thesis will focus on creating various typologies of architecture, which big-box consumers choose for making their life patterns including work, leisure, community and shopping.

Problems of Big-boxes
There are two main problems caused by huge discount stores. First, the competition for a site results in the enormous size of stores. In basic marketing strategy, the economy of scale allows retailers to set lower prices than other smaller retailers all the time, so the biggest retailers with mammoth capital have built their stores normally occupying from 20,000 to 200,000 square feet, and sometimes even 1 million square feet when they build extremely huge stores called “power centers.” Because of this monopolization of economic activity in the region, the big box effectively puts out of business any other possible civic centers such as small shopping strips that have developed on the scale of the smaller community. Therefore, the big box effectively becomes nearly the only central civic node where people can meet their friends and socialize. Secondly, its size costs tremendous environmental resources. The typology of the superstore necessitates having customers within a 25 mile radius. This means that such big boxes require tremendous quantities of consumption and destruction of resources in communities. In particular, when a big box moves into a site near smaller...
communities in a suburban area, its negative impact gets greater. For example, a superstore designed to be built 2 miles away from St. Albans, Vermont, a historic community with 10,800 people, would devour 44 acres of land for its buildings and parking lot, which is almost the same size as the town itself, and generate 9,332 extra car trips a day around the area.¹

Conflict with communities
Communities are starting to doubt the advantage of having the huge boxes because they are not consistent helpers. This is a sharp contrast to the heyday of big boxes, when such stores were very attractive to communities. Huge retail developments were welcomed all the time by communities who tried to satisfy their consumption growth as well as increase property and sales tax revenue. Some communities even subsidized the development. However, in the year 2002 K-mart, one of the biggest US retailers, declared bankruptcy, and has since closed over 600 stores in the United States. Wal-mart, the biggest retailer in the United States, has 245 stores empty or partly empty across the country as well.² Yet, when the closing happens, the retailers no longer take responsibility for the empty box; instead, the communities do. For instance, Kmart has saved $550 million through closing their stores and $45 million each following year from the cost saving.³ In contrast, the communities are left desolate, with empty big boxes. Further, they are worried about losing their attractiveness to potential investors because of the scale of “emptiness” of the ghost box. Because of these problems big-boxes have caused, protest across the country has been growing. Protesters, as on the website “Against Walmart,” claim that such big boxes are destroying the labor market, the community, and good environmental practices. Furthermore, for such problem, there have also been publications blaming big-box businesses like Wal-mart. Robert Putnam, the author of Bowling Alone: The Collapse and Revival of American Community, describes “social capital” as referring to “civic virtue” between people in a community and “reciprocity” in trust. Putnam emphasizes that social capital is very important for building a healthy community.⁴ In addition, he argues that the consumptive aspect of our society has depleted the social capital by citing the evidence of suburbanization, sprawl, television, the electronic revolution, the appearance of the chain stores, branch firms, globalization, and so on. In his book the Forms of Capital(1986), the French writer Pierre Bourdieu points out that we have obtained economic capital by sacrificing non-economic
capital such as social capital, political capital, and natural capital. However, the arguments of the sociologists seem to be too weak to establish that people should give up the convenience and satisfaction from consumption when it comes to a small town. After an unexpected vacancy happens, communities keep suffering from not finding other tenants who can afford the box. However, small communities still tend to depend on retailers’ developments, which usually come on a huge scale to create more jobs and prosperity. Here are two exemplary cases.

The Kmart site in Carrollwood occupied 166,000 square feet, but has been empty for several years, and residents were worried about the huge abandoned store being unattractive for future investment. After Lowe’s, one of the biggest US retailers, announced they were buying the deserted property, the community seemed to be excited about it. The company is planning to demolish the entire site and construct another big box on a similar scale on the former Kmart footprint.

Ashland, Virginia, a small town with about 7000 population, had strong protests against a Wal-mart coming to the community in 1999. People were divided into two groups. One group was insisting on the value of community and arguing that Wal-marts had demolished communities. The other group was advocating the lower prices and convenience coming from the closer location of the store. After a series of council meetings with serious arguments among the community members, it ended up with the decision of accepting the store. 

For reference, according to Global Insight, a researching group, Wal-mart allowed customers to save 2,329 dollars per household in 2004.

Potential of Big boxes to become civic centers
In fact, there are critical problems for big boxes to become civic centers with traditional social value systems, because the stores were born with purely economic logic. Victor Gruen, known as the inventor of the shopping center, predicted the vigorous growth of suburban sprawl under the increased reliance on automobiles and saw the opportunity that, in this context, shopping centers could be new urban centers. In his book, Centers for the Urban Environment (1973), Gruen mentions that a shopping center should be a “machine for selling.” The machine does not permit anything which is not related to buying and selling. It has been constructed in cheap ways and for “uni-function.” Financially, the capital invested in a shopping center project and its maintenance costs have to be paid back soon.

This means that owners would be under more pressure if they put in more investment initially. As a result, they choose to make it cheap
cheap and flexible to be sold easily any time after their investment has been back. A shopper does not care how the store they are shopping in looks. They do care about the guarantee of the lowest price. The relationships that big-boxes have made with people are completely different from those that other typologies of architecture have had in history. That is, people have never experienced this kind of undeniably charismatic piece of architecture. As mentioned before, such stores with huge capital cannot contribute to communities, even though they are acting as one of the most important components of people’s everyday life, maybe the only component. Such a business is abusing the fact that people really need it. However, a problem is that the extent of people’s dependency has never been as strong as it is today.

According to the collage work, Untitled (I shop, therefore I am, 1987), one of the genius works of Barbara Kruger, people find their reason for being through shopping. They can live well only through buying particular items. In particular, Americans live overly supplied with commodities, with needs that are created in the interests of “market and that can be satisfied only through the market”. In the history of the relationship between people and markets, the scale of consumption and expenditure has exploded. In the twentieth century, when the “perpetual growth” that Ernest Gellner mentioned and the new type of culture, “consumer capitalism” that John Bodley pointed out emerged, a new type of person, the consumer was born.

Questions
Is the concept of community the same as it was twenty years ago? Even the question about what people can be defined as seems to be unanswerable. If it is answerable, with this alternative concept of people and community, what can architecture become? My thesis therefore will start to redefine people as units of consumption and their community and, with the changed concepts, propose an architectural response for them.

Consumer Community, a new form of civic-ness
Consumers are creating various forms of communities. The term “a community” typically refers to the group of people who live in a particular area and share the same religion, race, kind of jobs, and so on. Despite individuality and the privatized life style which consumerism causes, people still meet others and share information about commodities they have bought. They seemingly share “a sense of belonging, a feeling of excitement for company’s product(s), and an
impression of shared values.”  

For example, Apple Computer’s Macintosh has a huge consumer community even though the operating system works narrowly for its users. Such users always pay attention to new released products from the company and are ready to buy them. Harley Davidson is another brand known for its success with support from its consumer community. Even though the company for a long time had poor quality of production, it has been successful due to such community. With the facts that consumer community can be a very important factor for achieving successful business strategies, what form of community can be proposed to be compatible with the big-box and to generate profit for both the community and the business? For that proposed community, architecture should be aggressively supportive to generate more shoppers and consumers.

What are consumers? The new type of life style

Consumers are a group of people whose only goal is to buy and use up forever. William Leach has argued that industrial capitalism needed consumers to maintain its own efficiency.  

Minimum Consumption (of Cars and Houses), Maximum Shopping

A vacant big-box and its huge parking lot offer great opportunities to think about the new type of people: consumers and their community can start over, designing it with the new definition of community in mind. Assuming that consumers want to buy as much as possible within their limited income, the expenditure pattern of a person shows how architecture can contribute to creating more available money for him or her. According to data from the US Census Bureau in 2002, approximately 30 percent of the entire expenditure per household is for housing and 21 percent for transportation. Thinking of where a person who live in a suburban area goes in a day, one will find that cars always come together with drivers, usually one lone driver (on average, 77% of the time in the country as a whole). The number of cars per person has exceeded 1.0 a long time ago (1990).

Mobility and Individuality

If a car takes the place of an individual room in a house, its owner can save the money that would be spent for both a house and a car. Then, houses would become smaller because of having fewer rooms. Money from saving construction costs and maintenance costs can go to shopping. For shoppers, their cars can be a room which is moving. Their houses can be warehouses or display places to keep items they buy and use. Members of a family can gather in their house to talk about their desires for buying more commodities. With this consumer-generative living pattern, big boxes would become a strong node for scattered suburban masses. The new box found in such a living
context would generate more profit in terms of communal activity and economy.

Big-box as the new community center for shoppers

This architectural proposition starts from the assumption that a small town with an empty big-box can be reorganized responding to the demand and supply for local consumption. In addition, the empty big-box would be automatically a civic center. Bay City, Texas is a small town where 20,000 people live. Recently, it comes to have an empty Wal-mart store occupying 90,971 square feet. This ridiculously huge ghost box is waiting for being sold. [Site analysis]

Big-box stores are a new type of architecture born through responding to the massive desires of consumers. They have effectively become new civic centers for shoppers due to their aggressive strategies for the location, size, and logistics of the stores. Such business strategies are so successful as to change all the value systems that have developed over the centuries. With strong disapproval of traditional community value champions and lack of consumer community for it, the great success of these business strategies calls for a next level of investment. Being a machine for living is still convincing for many people struggling with the anxiety about how to spend their limited income efficiently and satisfactorily. A box type of architecture can make more sense with supports of mechanic system becoming reliable and cheaper to buy.
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3. Jenny Strasburg, Bernadette Tansey, Kmart finally names names, March 9, 2002
8. Ibid: 86
9. Ibid: 101
11. Ibid: 3
12. Ibid: 4

[Photograph 03] from Cedarcrossing Business Park by Cushman&Wakefield (http://www.cedarcrossing.net)
[Photograph 04] from Harvard Design Magazine: Number 12, Fall 2000
A study of Hotel typology

Hotel, space market, people buy rooms (room numbers) and services

Accommodation (Occupancy)

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<tr>
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Accommodation > Culture

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Hybrid (+ Accommodation and Culture)

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Room rate is a price on which consumers are willing to pay. The rates are decided from land price, construction cost, and in some cases, locational value or architectural value.

F(room rate, occupancy rate) = (Gross profit from the rooms)
= (Room rate) x (Occupied room number/total number of rooms)
= 300 x 30 = 9000 $ per night

* Occupancy relies on demand in the market.
Marketing and Economic values

Star rating

Material: Stone harvested locally
Structure: Masonry
Program: Spa

Architectural qualities

= OR
What do they sell in hotels spatially and programatically?

Accommodation (Occupancy) + Hybrid (+ Accommodation and Culture)

Case 1. Therme Vals (Peter Zumthor)

- Site (Vals, Chur, Switzerland)
  + Natural value
  - Cold weather
  - On huge scale
- Desire to stay around

Market demand

+ accommodation (supply)

+ Peter Zumthor
  + Spa
  --- Wellness culture
  --- Restaurant
  + Lobby

SWITZERLAND) Natural value + Desire to stay around

..
Marketing and Economic values

Star ratings ★

Day package

Tariesum Selva Stuo
Hans Sdva
Outbildings
Douleoo
20.3. 3./ 3. 20. 18. 10.

DoubleRoom 205.- E138.- 170.-/E 110.- 130.-/E 88.- 104.-/E 68.-
SingleRoom 245.-/E 165.- 190.-/E 125.- 150.-/E 101.- 120.-/E 78.-
Hotel Therm 21.-/E 14.-

Material: Stone harvested locally
Structure: Masonry
Program: Spa

Architectural qualities

Material + Structure + Program + Spatial
(Quantity)

Stone + Masonry + Indoor Bath
(ton) + (ton) + (ton)
(price) + (price) + (ton)

Owned by Vals community

Water + Spa + Outdoor Bath
(ton) + (ton) + (ton)

* All images obtained from the hotel website.
http://www.therme-vals.ch/
Case 2. Lloyd Hotel (MVRDV)

Urban value

Site (Amsterdam, Nederland)

Need to stay around for business, job
Proximity to the city center

Market demand

Accommodation (supply)

restaurant
library
exhibition

High ceiling void

+ Restaurant
+ Library
+ Exhibition
+ Sleep and dine from one to five stars
+ Offering different experience
+ Accommodation (supply)

Sleep and dine from one to five stars
Offering different experience
Accommodation (supply)
Overall rate

- Dealing with space and convenience
- Share bathroom

- Spacious shower

- Furniture by artists

- Ceiling-high windows
- Furniture by artists

- Ceiling-high windows
- Furniture by artists
- Spaciousness

* All images except the satellite photo were obtained from the hotel website. [www.lloydhotel.com](http://www.lloydhotel.com)
* The Satellite photo was obtained from Google Earth.
A study of Shopping center typology

Counter-Functionalism?

- Showing off by the consumers
- Aspirational products
- Limited production quantities

Functionalism

- Scale

Inventory
Income group 4-5

Income group 3

Income group 2

Income group 1

- The Satellite photos were obtained from Google Earth.