RICE UNIVERSITY

Negotiating [Ex]Change

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

Master of Architecture

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HOUSTON, TEXAS
MAY 2004
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Negotiating [Ex]Change

RICE UNIVERSITY

Rice School of Architecture
Master of Architecture
Kariene J. Morgan
May 2004
ABSTRACT

Negotiating [ex]change seeks to identify a new unique form of consumer exchange within Houston's predominately car-oriented society. A rich qualitative experience that yields high human interaction, spontaneity and a wide choice selection through the varying number of vendors is found in the street-vending atmosphere in the Jamaican culture. These qualities are exploited and transposed onto Houston's inherently different urban condition spawning a new form of consumer [ex]change.

An opportunity for engagement presents itself with the redevelopment of midtown Houston and the implementation of the light-rail line through the Main Street corridor presenting a large density of people in transition. Seeking implementation at park and ride locations along the rail or at sites with equivalent conditions, a 'bundled [ex]change' is formed as a new engagement in the act of produce shopping within the existing city fabric, offering increased interaction in a sociable atmosphere. Bundled [ex]change is a complementary infrastructural system that disperses activity along the rail resulting in the increased use of the light-rail system and ultimately making an [ex]change for vital urban space in Houston.
ACKNOWLEDGEMENTS

I would like to thank my parents and family for their continuous support and encouragement throughout my architectural education. Thanks to my friends for being there for me when I just needed to get away from it all. Special thanks to Jennifer Painter for her support and encouraging words, Gage Reese for the helping me keep a level head, Lina Lee for being there and helping me not to stress! To the thesis class of 2004, thanks for the support and many memories, it was a great experience and I hope we all keep in touch.

To my thesis director, Dawn Finley and my thesis committee, thanks for their kind words of encouragement and having faith in me.

To Elizabeth Salmon, thanks for always keeping in touch and making sure that I was okay, to Sheldon James thanks for your constant care and encouragement.

Many thanks to Sharen Bidaisee and Dan Nemec for their invaluable help towards the end of my thesis. If it were not for their dedication and hard work the last week of thesis would have been a lot more stressful! Thanks again!!
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Market:
1 a (1): a meeting together of people for the purpose of trade by private purchase and sale and usually not by auction (2): the people assembled at such a meeting. b (1): a public place where a market is held especially a place where provisions are sold at wholesale 
< a farmers’ market > (2): a retail establishment usually of a specified kind < a fish market > 
2 archaic: the act or an instance of buying and selling
3: the rate or price offered for a commodity or security
4 a (1): a geographical area of demand for commodities or services (2): a specified category of potential buyers < the youth market > b: the course of commercial activity by which the exchange of commodities is effected: extent of demand < the market is dull > (1): an opportunity for selling < a good market for used cars > (2): the available supply of or potential demand for specified goods or services < the labor market > (3): the area of economic activity in which buyers and sellers come together and the forces of supply and demand affect prices < producing goods for market rather than for consumption >
FARMER'S MARKET/PUBLIC MARKET PROCESS

- Individual farmers
- Produce is transported on market day
- Farmers/Vendors
- Market
- Consumers

- Nature of a market is a place of personal Interactions
- Permanent building
- Temporary structures/hents
- Increased consumer interaction
- Public Space:
  Space of the market is transformed to house public activities, creating new uses for the space when the market is not in session.
Study of Existing Distribution Models in Houston

Through a number of investigations of existing models of exchange in Houston that looks to identify various kinds of consumer exchange on how Houstonians acquire produce, an understanding was developed of the distribution, operational and delivery methods employed throughout each model.
MODEL A: KROGER
Location: Buffalo Speedway,
Houston, TX

INDIRECT System:
• Long chain of distribution
• Series of warehouses
• Use of a buying company
• Orders are made daily
• Store receives seven 18 wheeler trucks/week
Model A: INDIRECT

Warehousing of produce, longer chain of distribution before reaching the consumer
Model A:

INDIRECT

Warehousing of produce, longer chain of distribution before reaching the consumer.
MODEL B: FIESTA
Location: Old Spanish Trail and South Main
Houston, TX

INDIRECT [multiple suppliers]:
• Long chain of distribution
• Series of warehouses
• Number of international suppliers
• Uses a buying a company
• Orders are made daily
• Store receives six 18 wheeler trucks/week
Model B:
INDIRECT [multiple suppliers]

Multiple warehousing of produce, longer chain of distribution before reaching the consumer. More diverse range of produce.
Model B:

INDIRECT [multiple suppliers]

Multiple warehousing of produce, longer chain of distribution before reaching the consumer. More diverse range of produce.
MODEL C: CENTRAL MARKET
Location: Westheimer Road
Houston, TX

DIRECT [multiple suppliers]:
• New chain of HEB; new clientele
• Multiple suppliers
• Direct from farmers
• None or little warehousing
• Layout entices consumers to shop
• Market atmosphere
Model C: *Central Market*

**DIRECT (multiple suppliers)**

- Multiple suppliers allow for a wide range of produce.
- Direct link with farmers provides fresh produce.
Model C: CentralMark

DIRECT (multiple suppliers)

Multiple suppliers allows for wide range of produce.
Direct link with farmers provides fresh produce.
MODEL D: FARMER’S MARKET
Location: Canino’s Farmer’s market
Airline Drive, Houston TX

MULTIPLE DIRECT [multiple vendors]:
• Direct relationship
• Interaction with farmers
• Multitude of choice
• Produce brokers
• Large warehouse facility at this market
• Average of 25-40 18-wheeler trucks daily
Model D: Farmers Market

MULTIPLE DIRECT (multitude of choice vendors)

Direct contact with farmers allows for increased interaction and fresh from the farm produce.
Model D: Farmers Market

MULTIPLE DIRECT (multitude of choice vendors)

Direct contact with farmers allows for increased interaction and freshest from the farm produce.
An opportunity presents itself with the redevelopment of midtown Houston and the implementation of a 7.5-mile light rail line that will facilitate a large volume of people traveling along an urban corridor from the University of Houston to south of Reliant Park. Situated at park n' ride locations or their equivalent conditions, the utilization of this urban system allows for a density of people in transition to be present displaying similar qualities of exchange.

City of Houston Transit System Plan
Phase 1 MetroRail Implementation 7.5 miles
City of Houston Transit System Plan
Phase 1 MetroRail Implementation 7.5 miles
TEXAS MEDICAL CENTRE

Time of Use:
24 hours a day/7 days a week

TMC Facts & Figures:
50,000 employees
20,000 students
75,000 visitors

6,1 million patients in 2001
15,300 international patients

Light rail frequency:
every 6 minutes - weekday
every 12 minutes - evening and weekends

Rush Hour: every 3 minutes

Smith’s Lands

Time of Use:
Evenings/day/weekends
Activities:
Jogging
McGovern lake
Japanese Garden
Houston Zoo
Miller Outdoor Theatre
Golf Course

Light rail frequency:
every 6 minutes - weekday
every 12 minutes - evenings and weekends
every 3 minutes - rush hour and major events
Theatre District

Time of Use:
- Mainly evenings & weekends
  9pm-midnight (typical show times)

Number of trips generated per year:
- Theatre District: 2001: 1,886,000; 2005: 2,414,000

Light rail frequency: every 12 minutes - evenings and weekends

Central Business District

Time of Use:
- Weekdays
  9am - 6pm (typical weekday)

Number of trips generated per year:

Light rail frequency: every 6 minutes - weekdays
  every 3 minutes in rush hour [3pm-6pm]

Commercial

Time of Use:
- 5 days a week Mon-Friday

Light rail frequency: every 6 minutes - weekdays
  every 12 minutes - evenings and weekends
  every 3 minutes in rush hour [3pm-6pm]
THE SITE:
Wheeler Transit Station
SCENARIOS

Through the previous studies an understanding of relative sizes and requirements for each model's system was tested through a series of possible scenarios.
Scenario A: Mini Stores
Tapping into existing warehouse facilities

- Smaller outlets for larger retailers such as Kroger, Randalls, Fiesta etc.
- Set client base: those that prefer to buy from a known store...reputation
- Smaller scale shopping environment
- Convenient location
- Creates new market using existing resources

Less stores at location but larger choice within each 'Mini-Store'
Scenario A: MINI-STORES
Tapping into existing warehouse facilities

Distribution Model
Service

Components:
produce coolers
private storage areas

2 bands @ 8’=16'-0'
Service bars hold all the service and infrastructural needs of the market and are shared by retail spaces.

Retail Spaces are based on the band module and are equal for each retailer to plug into.

Exchange
Components:
- mini-stores
- 3 bands @ 8' = 24'-0"
Delivery

Delivery happens within the delivery zone that occurs along an edge of the project. The delivery zone feeds into service bays that hold the infrastructural needs of the market.

delivery times: 7am to 8am before opening
Scenario B: Petit Mercados
Small farmers and small retailers partnership
Acting as produce broker and retail space
- Smaller scale that involves the small farmers
- New system and concept
- Warehousing of goods
- Scheduling of deliveries
- Each retailer specializes

More stores at location with less choice/variety per retailer.
Scenario B: PETIT MERCADOS
Farmer and small retailer partnership
Acting as a produce broker and retail space

Using Model D:
Farmers Market

Distribution Model
Service

Components:
- produce coolers
- storage areas
- 2 bands @ 5'-0" = 16'-0"

Delivery zone has direct access to produce coolers and storage units

Small retailers component

Circulation between small retailers

Produce Coolers are shared by 2 small retailers
Service bars hold all the service and infrastructural needs of the market and are shared by retail spaces.

Retail Spaces are based on the 9 module (smallest stall). Each store is comprised of 2 band widths = 16'-0".

**Exchange**

- 2 bands @ 8' each = 16' modules
- more stores @ smaller size
Delivery

Delivery happens within the delivery zone that occurs between the two bars of retail space. The delivery zone feeds into service bars that hold the infrastructural needs of the market.
Scenario C: Proto Market
Tapping into farmers market

- One company that is a client of the farmers market
- Use of a produce broker as a go between for sourcing produce
- Warehousing facilities
- Convenient location

Categorized market with several choices within each category.
Scenario C: PROTO MARKETS

Tapping into farmers market

Distribution Model
The market is divided into sections, each section is fed by a service bar which connects to storage. Sections include produce, fruits, bakery, deli, flowers etc.

Service bars is set up as a system

Exchange

Space of Exchange
Categorized by sections
Delivery

Delivery happens within the delivery zone. The delivery zone feeds into service bays that hold the infrastructural needs of the market.
Scenario **D**: Bundled Exchange
New urban market for Houston

- Bundling of three of the above scenarios
- Diverse set of relationships
- MiniStores provide a set amount of clientele and acts as anchor stores
- Small retailers and individual farmers make it a place of high activity
- Individual farmers provides vitality of project

Offers different levels of engagement, the system feeds off one another allowing for a dialogue between the three components.
Scenario D: BUNDLED EXCHANGE

Tapping into existing warehouses - Mini-stores
Tapping into petite mercados
Involvement of individual entrepreneurs

Components

Distribution Model
numerous circulation paths that allows for a porosity on the site

Service

Space of storage/service
service bars holding courses and storage areas
other service for the project such as restrooms
columns that facilitate a plug-in setup for individual vendors
Components are a bundling of different levels of exchange: Mini-stores, Small retailers and the individual vendors.

Small retailers housed under a large encompassing roof structure.

Exterior pavillion structure that serves as an outdoor open air market once a week and exterior exposure of market that allows individuals to plug into provided services.

Service bars are located along & off the delivery zone to facilitate a delivery system.

**Exchange**

Space of exchange:
- Mini-stores 20' module
- Small retail 10' module
- Individual 8' module
Delivery

Delivery occurs between 9am and 7am through a delivery zone. The space is seen as a flexible space that allows for circulation and exchange spaces.
Scenario D: "Bundled [ex]change" is used as a test bed through further design development as a system that offers a new engagement in the act of produce shopping while providing a new experience within the existing city fabric. Offering different levels of engagement, the system feeds off one another allowing for a dialogue between the mini chain stores, small retailers as well as the individual who only wants to sell a few items on any particular day. Operating on a cyclical basis 'bundled [ex]change' allows for the transformation of the site from daily, weekly to monthly events providing a number of ways to engage the site and create a new urban space within the city.

On a larger scale, 'bundled [ex]change' will be a complementary infrastructural system that disperses activity at Park n' Ride locations or its equivalent condition along the rail, pulling people into a sociable environment, increasing the use of the light rail and ultimately making vital urban space in Houston.
SERVICE
A. Mini Stores - 6 yr lease
B. Small Retailers - 3 month & monthly
C. Individuals - day stalls
EXCHANGE

A. Mini Stores
B. Small Retailers
C. Individuals - day stalls
DELIVERY 6am - 8am

A. Mini Stores - 16 wheelers ... daily deliveries
B. Small Retailers - trucks ... daily deliveries
C. Individuals - day stalls ... drop offs & pickups
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