

# Fair Game: Learning from La Salada

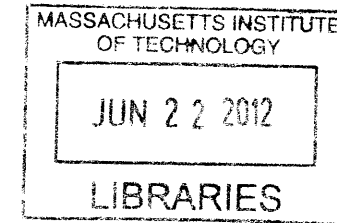
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SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE IN ARCHITECTURE STUDIES  
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# Fair Game: Learning from La Salada

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## ABSTRACT

This thesis seeks to expand the potential role of urban design for informal places under the process of formalization. More specifically, it examines the spatial principles that comprise the successful cultural and economic underpinnings of a self-made place and then find opportunities for design to amplify or improve upon them. To make such strategies practical, the thesis asks a methodological question: how does one design for variety and participation, towards a vision that will unfold over time and by the hands of many actors, without compromising one's role as a designer?

An exceptional case study, La Salada Fair, provides initial design principles. A large commercial market covering a dense half square mile in Buenos Aires, Argentina, La Salada represents the increasing tendency for users to shape sophisticated and culturally influential urban spaces in the modern metropolis, particularly in the context of weakened governance. Yet without an external eye overseeing the process, there are inherent limits to the scope of concerns. Shaped by new insights and critiques, a design proposal imagines a future for the factory-market. Taking the form of a conceptual game, the proposal compresses an incremental formation process, presents a method for collective evaluation, and clarifies the role of design.

## **Thesis Supervisor:**

Anne Whiston Spirn

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Sergio Palleroni and Margarete Leite: thank you for giving me the courage to come to MIT. Sergio, thank you for instilling me with confidence and for passionately encouraging my curiosity. Juan Miro and Vince Snyder: thank you for your faith in me.

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Finally, this thesis is for my family and for Nick: my time here would have been unthinkable without you.





# **Fair Game**

Learning From La Salada

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# 1. Setting the Scene

## Problem Statement

This thesis seeks to expand the potential role of urban design in informal places under the process of self-formalization. More specifically, it examines spatial principles that comprise the successful cultural and economic underpinnings of a self-made place and then finds opportunities for design to sustain, amplify, or improve upon them.

Finally, to make such strategies practical, the thesis asks a methodological question. In such a context, how does one design for variety and participation, towards a vision that will unfold over time and by the hands of many actors, without compromising one's role as an architect?

An exceptional case study provides the initial design principles from which to evolve. The commercial fair of La Salada ascends controversially on a half-square mile in the most rapidly urbanizing corner of Buenos Aires. Paralleling Argentina's economic reforms of the early 90s, the fair emerged as an informal enterprise, evolving into a regional hub absorbing a sizeable labor force of small garment producers and distributors an

bringing in 30,000 people with each opening.<sup>1</sup>

More important to the thesis is the social function of the zone, which in many ways exceeds its commercial role. Like a city within the periphery, it delivers public services, gives rise to transnational festivals, and serves as an important knowledge-sharing space for migrant workers (migrants from interior Argentina and immigrants from Bolivia comprise many of the workers and consumers at La Salada).

However, questionable environmental and productive practices severely overshadow the legitimacy of La Salada. Globalization theorist Roland Robertson argues that play events at the site directly target the need for legitimacy.<sup>2</sup> As a result, La Salada presents

1 Nacho, Girón. La Salada: Radiografía de la feria más polémica de Latinoamérica. 2011. Buenos Aires: Ediciones B, 2011. 308. Print.

2 d'Angiolillo, Julian. "Feria La Salada: una centralidad periférica intermitente en el Gran Buenos Aires." El Nuevo Municipio. (2010): 11. Web. 3 May. 2012. <<http://www.elnuevomunicipio.com.ar/wp-content/uploads/1.Feria-La-Salada.pdf>>.

more than a place of work but a new category of urban space built by and for the migrant.

The fair represents the increasing tendency for users to shape sophisticated and culturally influential urban spaces in the modern metropolis, particularly in the context of weakened governance. Yet without an external eye overseeing the process, there are inherent limits to the scope of concerns. Although environmental degradation, worker exploitation, and counterfeit production abound, the institution has managed not only to stay afloat but to grow through the past years.<sup>3</sup>

This thesis takes on a semi-hypothetical demise of La Salada and its production lines, bringing uncertainty to the livelihood of 100,000 people. It imagines what a second incarnation would look like: a chance to start anew with a similar group ethos yet with adjusted economic principles as well as thoughtful and adaptable spaces. The city would be given an opportunity to reflect on the entity's first life and to extract structural, formal, and organizational lessons. La Salada would not disappear immediately, and even once it did, its ghosts would remain, on site and in the imagination.

It is not unreasonable to imagine the city government taking on La Salada 2.0 as a project, or being its clos-

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3 "Polémica por la llegada de La Salada a Neuquén." InfoGlaciar. N.p., 14 11 2011. Web. 10 Dec. 2011. <<http://www.infoglaciar.com.ar/>>.

est supporter. To do so would be to align themselves with an ongoing regional inquiry into economic alternatives, to further its own investment in community development, and also as a means of tackling the criminality which emerges in a context of the market.<sup>4</sup>

However, to re-imagine La Salada in a meaningful way is to re-imagine its slice of the textile industry- it is not enough to simply provide an equivalent vending space, of which there are plenty. Reasons for La Salada's collective prosperity go beyond the vendor's post to include the success of larger logistical and retail networks, presence cultivation, site selection, and production environments.

The study and resulting design proposition is thus about an ecology of spatial concerns.

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4 "Programa Prosur Hábitat." Corporación Buenos Aires Sur S.E. N.p., 2010. Web. 3 May 2012. <<http://www.cbass.gov.ar/prosur.htm>>.

## Methodology:

In three parts, the investigation consists of a brief overview of La Salada and its geographic context, followed by an analysis of spatial conditions which have contributed to its success, and finally a conceptual proposition for the local textile industry which is based on a synthesis of lessons learned and theories on collectively generated urban form.

Initial research focused on reasons for the market's success that could be described by data from newspapers, classified ads, and online maps. This was followed by a month in the field. The goal of field work, on site and around the city of Buenos Aires, was to add spatial and architectural elaboration to the observed list of success strategies, to seek and document clues to discern the nature of La Salada's future, and to understand how the market entity influences- or fails to influence- the lives of citizens nearby and in more remote parts of the city.

To accomplish this, the field methodology included systematic photography, videography, and speaking with people on and off site.

The fieldwork also exposed attempts by the government and activists to provide a more just, creative alternative to the La Salada production model. To supplement these initial findings, the thesis includes brief glance at textile business incubators and skilled-craft cooperatives. Recent architectural writings about industrial work environments bring this into perspective.

With the exceedingly taudry picture that remote study provides of La Salada, it would have been nearly impossible to appreciate much of what La Salada had to offer without taking the approach advocated by *Learning from Las Vegas*. I allowed for "suspended disbelief," and attempted, when possible, to withhold judgment as "a tool to make later judgment more sensitive" and to discern "variety" over "confusion."<sup>5</sup>

Urban scholars describe La Salada as a place that consists of "managed objects" versus intentionally designed spaces implicitly denying that such a place could offer discreet architectural or spatial design strategies.<sup>6</sup> Yet there are phenomenological, symbolic, and aesthetic qualities to La Salada, which shape its experience in identifiable ways, and mat-building-like incremental strategies that have enabled its prosperous evolution over time.

Setting aside the "vernacular" surface reading of symbols and image, there will be an attempt to extract a conceptual overlay, as does the "on-off matrix" in Junzo Kuroda and Momya Kaijima's analysis of peculiar functional overlapping in everyday buildings in

---

5 Venturi, Robert, Denise Scott Brown, and Steven Izenour. *Learning From Las Vegas*. Revised Edition. New York: MIT Press, 1977.

6 Martin Peco, "La Salada and a77: The collective design and self construction of events in urbanism and architecture." *Informality: Re-Viewing Latin American Cities*. Cambridge, 2011.

*Made in Tokyo.*<sup>7</sup> The study will attempt to reconcile “architecture without architects” with the role of the designer.

Ideas about process-driven environmental design are informed by the writings of landscape architect Anne Whiston Spirn, geographers such as Bill Hillier, and architectural theorists such as Ann Pendleton-Jullian and Stan Allen. The design experiments take inspiration from these theoretical foundations.

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7 Kuroda, Junzo, and Momoyo Kaijima. *Made in Tokyo: Guide Book*. Tokyo: Kajima Institute Publishing Co., 2001. Print.

## The Southwest District in Relation to the City of Buenos Aires

Nearly 4.9 million people live in the Matanza-Riachuelo River Basin, or 13% of the population of Argentina.<sup>1</sup> The lower basin is comprised of a canalized industrial urban corridor, delineating the southern border between the Autonomous City of Buenos Aires (CABA) and Buenos Aires Province. Built on low-lying floodplain, the South is historically of lower socio-economic status and has received less infrastructural investment than the North.<sup>2</sup>

The portion of CABA within the basin is a landscape of high contrast. While it has the highest proportion of vacant land and buildings in the city, it contains the densest communities on account of high-rise public housing complexes and informal villas.<sup>3</sup> Southern CABA has the largest number of people in informal villas- up to 200,000, or 22% of the total southern population.<sup>4</sup> This sector is heavily concentrated in the southwest corner.

The extreme polarity between built density and open space is augmented by the concentration of public mega parks. La Salada is situated on the edge of this historic recreation, which marked the periphery as

1 M.C., "Riachuelo Basin: Consensus for action in the most delayed of Buenos Aires," *Cafe de las Ciudades*, #3, 2002, p. 1.

2 *Ibid.*, 1.

3 "El Sur en la Ciudad de Buenos Aires." *Cuadernos de trabajo*, #6, Centro de Estudios para el Desarrollo Economico Metropolitano. 2003. pp. 13-14.

4 *Ibid.*, 13

politically symbolic space half a century ago by the Peronist regime. In time, the parks experienced a combination of disinvestment, mismanagement, and abandonment, leaving contested ground for informal re-appropriation.

Despite its social marginality, the Southern corridor is of high economic and logistical importance to the city, containing the primary international airport, central market of food distribution, and the highest quantity of industrial establishments.<sup>5</sup>

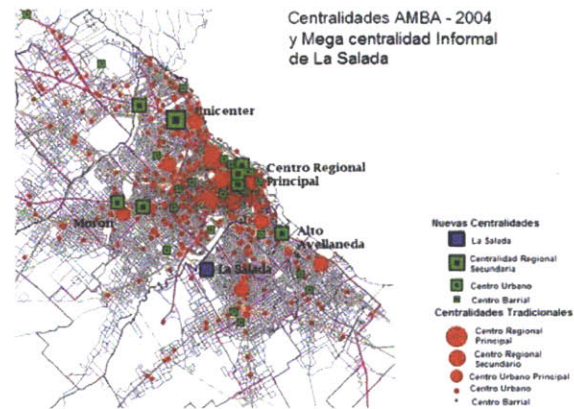
Contamination is both an inhibitor of development and a result of the lack thereof: the greatest sources of contaminants, even surpassing industrial effluent, are garbage and biological waste from informal settlements.

Preparing for its candidacy for the 2004 Olympic games, the city of Buenos Aires proposed to convert the Matanza-Riachuelo corridor into a modernized "productive strip" and linear recreation park, supplemented by programs for industrial consolidation and tourism, as well as micro enterprises and incubators in service of adjacent communities. Yet the overwhelming consensus was that any economic development plan was contingent on the success of a complete sanitation overhaul of the basin's contaminated waters and soils.<sup>6</sup> With the recent formation of the ACUMAR

5 M.C., 1.

6 *Ibid.*, 2.





**Figure 1** Centralities in Greater Buenos Aires and the informal "Mega-centrality" of La Salada Fair, 2004. (Source: ABBA, A.P. y Laborda, M. CiHaM / FADU / UBA)



**Figure 2** "Here too the Nation Grows." Billboard across from La Salada by the National Presidency, January 2012. (Source: Author)

multi-jurisdictional basin authority, charged with the clean-up of the basin, a new transparency is being forged, bringing new precision to the public's awareness of the weakest and strongest links in the basin.

Amidst a perceived shortage of desirable real estate, developers and politicians look to the Southern corridor for the future of the city's economic prosperity. La Salada sits in the middle as a both landmark and incendiary.

## Overview of the Fair

Although located on a troubled floodplain, La Salada Fair is no longer “marginal,” in the economic sense. Since its founding in 1991 by a small group of Bolivian traders, it has expanded through the absorption of distinct regional communities.<sup>1</sup>

People of all incomes will be found here, and the internal market has the city’s highest property value and revenue surpassing that of all shopping malls in the city, combined.<sup>2</sup> Both egalitarian and exploitive, Latin America’s largest “informal” market pushes the limits of the defunct saltwater spas it occupies, as well as the copying abilities of workers at the lowest tier of its complex economy. Its scale and status has earned the scrutinizing eye of international watchdog agencies and social theorists.<sup>3</sup>

Though largely disconnected from major city transit, in spatial terms, the site naturally fills a massive gap in the multi-nodal metropolis. It seems to foreshadow the Matanza-Riachuelo’s destiny as the future of the

---

1 Adrianna Massidda, “The ‘La Salada’ Fair (Buenos Aires) as a Place of Recreation and Construction of Identities.” HistorySpot. <https://historyspot.org.uk/podcasts/sport-and-leisure-history/la-salada-fair-buenos-aires-place-recreation-and-construction> 23 January 2012.

2 TBD

3 Sassen, Saskia. “La Salada: The Largest Informal Market In South America.” *Forbes*. 28 03 2011. Web. 10 Dec. 2011. <<http://www.forbes.com/sites/mega-cities/2011/03/28/la-salada-the-largest-informal-market-in-south-america/>>.

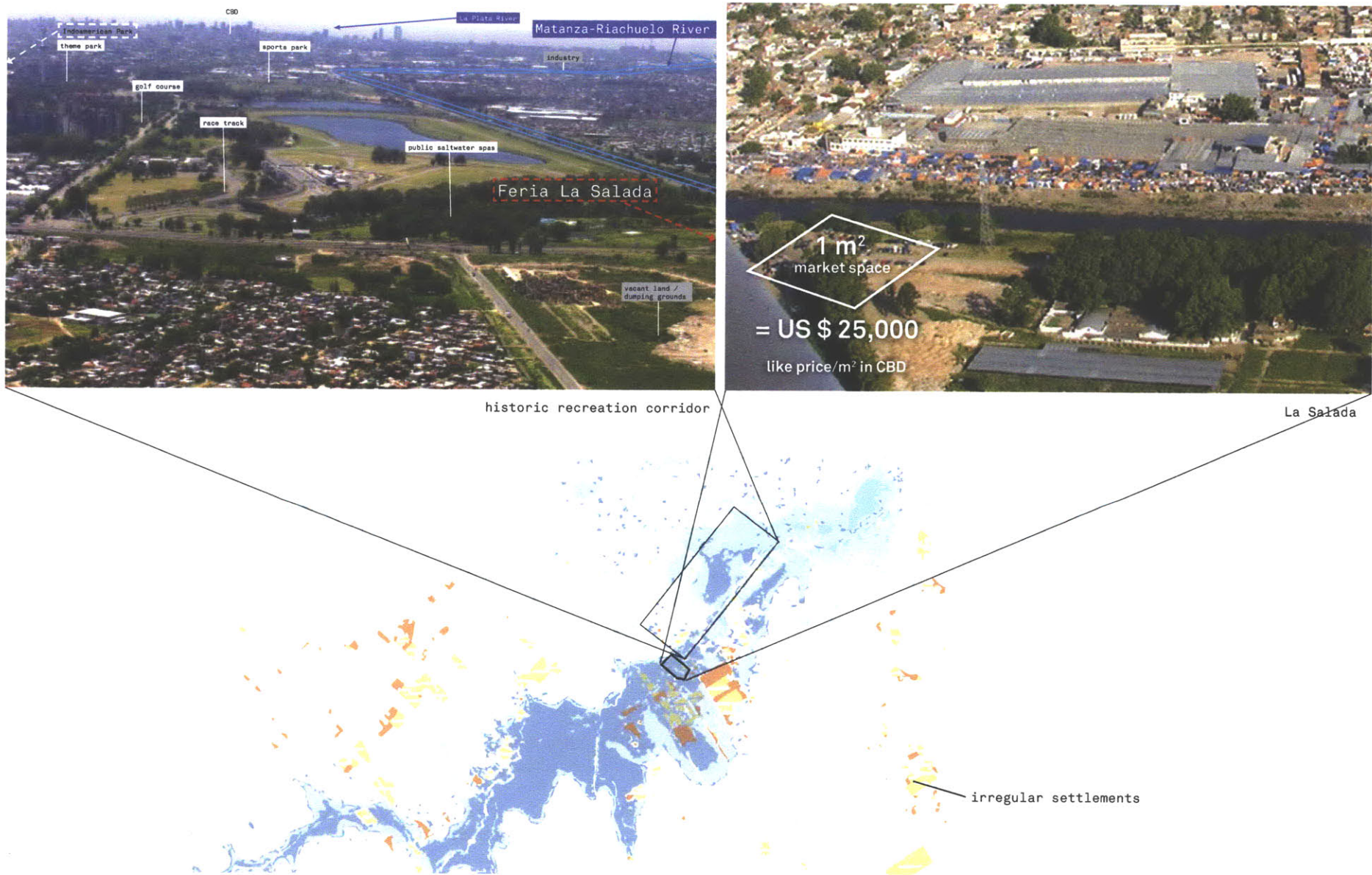
city.<sup>4</sup> In certain ways, the site represents a new typology of urban center that joins characteristics of centers both old and new.

In the foreseeable future, public tolerance for the market’s practices will begin to falter. Violent conflicts in recent months at La Salada between vendors and public officials may foreshadow eminent closure, or otherwise a serious transformation reconfiguring basic ethical concepts upon which the market’s unique ecology is founded.<sup>5</sup>

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4 M.C., “Riachuelo Basin: Consensus for action in the most delayed of Buenos Aires,” *Cafe de las Ciudades*, #3, 2002. p. 1.

5 “Jueves y viernes cortaron puente La Noria: Se enfrentaron a tiros en La Salada y dos puesteros resultaron heridos.” *Ambito.com* N 4203 14 Jan 2012. Ciudad Autónoma de Buenos Aires. 1 Feb 2012 <<http://www.ambito.com/noticia.asp?id=620173>>.



**Figure 3-4** La Salada is situated near the southwest corner of Buenos Aires, within the floodplain of the Matanza-Riachuelo River Basin. Despite the historic marginality of this area, real estate prices within and around the market are currently as high as those in the CBD. (Source: Author, with images from Noticiario Sur and data from ACUMAR)

## 2. Learning from La Salada

### A Hybrid Factory-Market

What leads to the success of the largest informal market in Latin America?

The official press tends to fixate on the advantage that extra-legal marketplaces can obtain over other venues by illegitimate means such as tax evasion and unfair or exploitive production practices.<sup>1</sup> While this may well help to explain the advantage that low price-of-goods offers to these venues, there is much less exploration of the topic of spatial strategies, or locational attributes, which have helped establish the Feria La Salada as both an economic and cultural phenomenon.

This question is particularly pertinent when the fair experiences popularity despite a surface reading of marginality. From a local perspective, this is best shown in the inconvenience of getting there due to an incomplete roadway and pedestrian access. Answering this question around success with a wider spatial bent

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1 "La feria La Salada quiere instalarse en Miami." *La Nacion* [Buenos Aires] 09 10 2011, n. pag. Web. 10 Dec. 2011. <<http://www.lanacion.com.ar/1413271-la-feria-la-salada-quiere-instalarse-en-miami>>.

might have compelling strategic implications for a periphery which generally struggles to provide equitable livelihood and services everywhere La Salada is not.<sup>2</sup>

Designers pursuing targeted spatial intervention to improve the socioeconomic conditions of large-scale settlements in the process of formalization are also a potential audience. Examining spatial attributes can work to clarify how the market is able to challenge accepted notions of core-periphery dependency theories, as suggested by Scarfi at the University of Cambridge, or is able to fill gaps of "social inclusion" left by deficient government presence.<sup>3</sup>

A detailed mapping of the site-scale appropriation of public property for the purpose of both primary vend-

2 Marcelo Corti, "Land Policies for Social Reinstatement," *Café de las Ciudades* 41 (March 2006). [http://www.cafedelasciudades.com.ar/ambiente\\_41.htm](http://www.cafedelasciudades.com.ar/ambiente_41.htm).

3 Scarfi, Juan Pablo. "Challenging Classical Political Notions on Informality: The Case of La Salada fair in Buenos Aires." *Informality: Re-viewing Latin American Cities Conference Programme*. 2 2011. Ed. Felipe Hernandez. Cambridge, UK: 2011. 13-14.

ing and auxiliary activities is an attempt to quantify the degree to which the extralegal appropriation of “prime” real estate allows for greater profitability than would a purely formal arrangement.

Next, I examine the hypothesis that achieving a large, concentrated mass has helped the fair to attract an equivalent-sized external program, as well as to achieve a certain quality of urbanity. Finer-grained examination of the fair’s physical evolution explains how this concentrated mass was achieved by starting small, with multiple entities growing in parallel, side by side.

In defining the success La Salada, the contribution of the social function of the zone arguably exceeds its commercial role.<sup>4</sup> Mapping zones of play on-site demonstrates how this social function intersects the commercial.

Continuing, the chapter examines experiential qualities of landscape sequences that help to solidify the market’s monumental presence.

Regional-scale factors provide some geographic perspective. One asks more specifically: how does La

Salada, located in the southwest periphery of Buenos Aires metropolitan area, reach customers? A series of maps attempts to tackle this question by breaking it down: first, where and from what social class or income group does La Salada draw customers from, and to what extent do the goods and services of La Salada reach places of “prestige,” or higher income? Second, what forms the regional access network? The maps demonstrate that La Salada overcomes its geographic marginality at by feeding small, distributed retail locations across the city and relying on informal regional access points.

Livelihood is the center of La Salada’s founding and ongoing purpose. Without delving into economic theory, the thesis simply posits that spatial factors of proximity, size and autonomy have some influence on the fair’s capacity to sustain livelihood.

In summary, a chart provides an overview of the examined factors. It decides if the heart of each lies in location, program, process, or form.

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4 Schiavo, Ester Schiavo. “The Paradox between the informality and the social inclusion in metropolitan cities. The Case of the fair “La Salada” in Buenos Aires.” *Informality: Re-Viewing Latin American Cities Conference*. 2 2011. Ed. Felipe Hernandez. Cambridge, UK: 2011. 14.

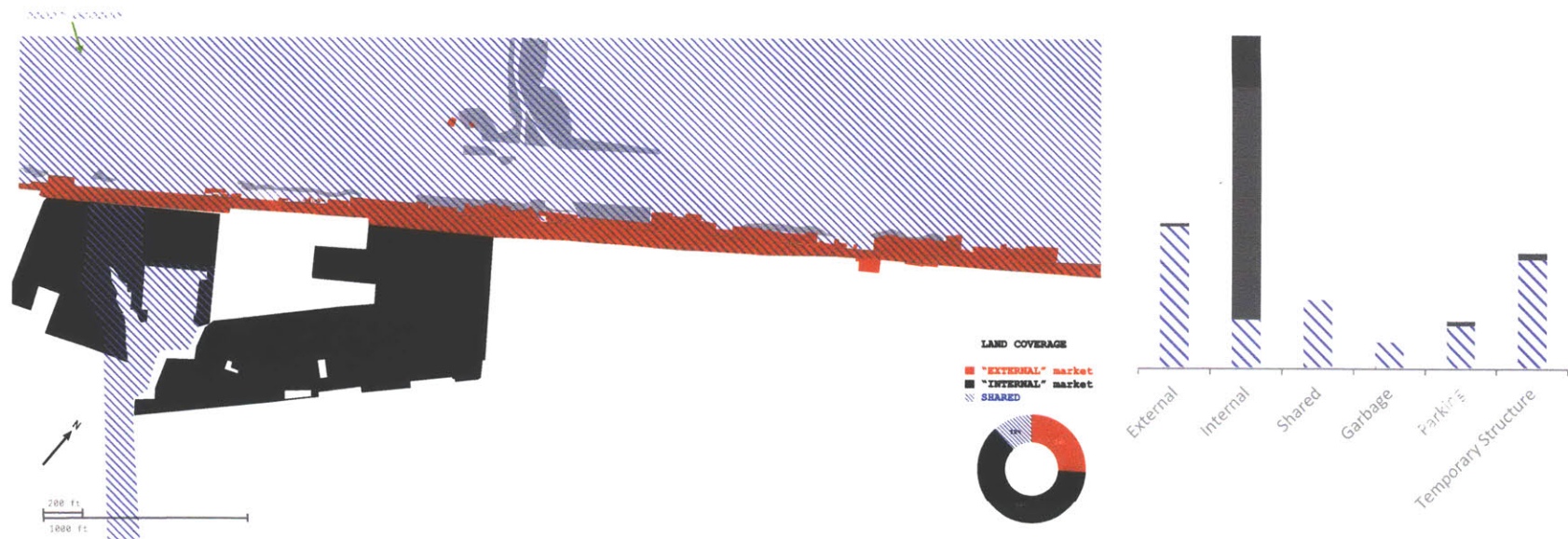
## Selecting a Site

Lessons:

**Appropriate a site with flexible ownership and symbolic weight.** At La Salada, public ownership of land accomodates spontaneous growth. Meanwhile, its identity is magnified by the legacy of the historic public spas upon which it sits. However, users exploit the commons to a harmful extreme, eliminating a lagoon crucial to the drainage of the floodplain.

**Select a site connected to a citywide intermodal network.** La Salada suffers due to its disconnect from active public space network and nearby intermodal hub at Punta La Noria.

To quantify the flexibility afforded to La Salada by its original siting on and surrounding public land, a detailed mapping of space appropriations at the scale of the local site was conducted. (Fig. 5, Fig. 9) The extent of this site was determined by identifying the outermost reach of the external market, as depicted in online aerial photography. The mapped content depicts the physical components of both the internal and external market through choosing from a large pool, sorting, indexing, and analyzing over fifty on-line photographs. The study attempts to quantify the real estate significance of public space appropriations



**Table 1:** Summarized Land Coverage

Use Type	Land Coverage (m <sup>2</sup> )	% Intersection with Public Property	% of Total Market (206,164 m <sup>2</sup> )	Estimated Real Estate Value of Public Property Use #1 (US\$183.9 / m <sup>2</sup> )*
External	53,033	98%	26%	\$9,557,713.33
Internal	128,380	13.7%	62%	\$3,234,444.23
Shared	24,751	100%	12%	\$4,551,708.90
Garbage	9,312	100%	5%	\$1,712,476.80
Parking	16,914	91%	8%	\$2,830,540.99
Temporary Structure	42,249	94.5%	21%	\$7,342,263.59

\*Based on avg. figure from USIT.SSP.MDU.GCABA Real Estate value map. At the other extremity, a square meter within the internal market costs an average of US\$25,000. (Fortunaweb)<sup>1</sup>

1 "Abonan U\$S 100.000 por un puesto en La Salada." *Fortuna* [Buenos Aires] 23 06 2010, n. pag. Web. 10 Dec. 2011. <<http://fortunaweb.com.ar/2010-06-23-31349-abonan-us-100-000-por-un-puesto-en-la-salada/>>.

by estimating coverage area and land value figures, particularly with respect to parking, garbage disposal, and temporary structures. (Table 1) A comparison of internal and external market coverage area overlapping attempts to draw out the varied dependency on public property of these two often conflicting parts.

The "internal market" is defined by the land under the authorized operators: Punta Magote, Ocean, and Urkupiña. The "external market" is defined as land under apparent operation by management unassociated with these three bodies. For the purpose of this test run, this is crudely defined as open-air use not within the perimeter bounds of the block on which the three official marketplaces sit. Shared use is comprised of functions such as garbage disposal or parking, which at the time of study cannot be exclusively attributed to either market.

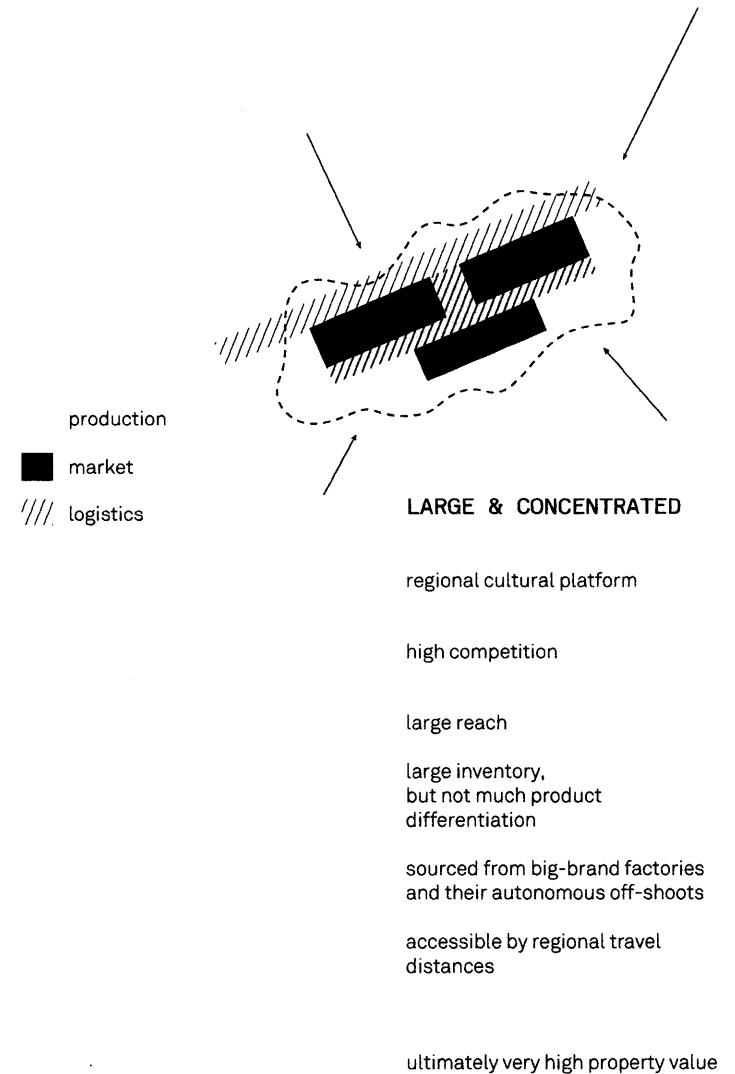
This table is a crude attempt to quantify an inherently nebulous, socially-constructed concept of "value." Not only is this means of calculation very preliminary, but one may argue that it is unfair to even suggest that the value of public property is based on a common price per square meter. This is only an attempt to derive a guess at the financial burden that operators on said public land may have faced if the land had been inaccessible, thus requiring them to turn to the formal real estate market. The second limitation to this study is the accuracy-level of land ownership designation, since the low resolution of the public property map necessitated guesswork. The intricate construction of the terms of property use ( eg. access, withdrawal, management, and alienation) on said public property are not yet addressed, but would add a crucial dimension to the study.

## Critical Mass

Lessons:

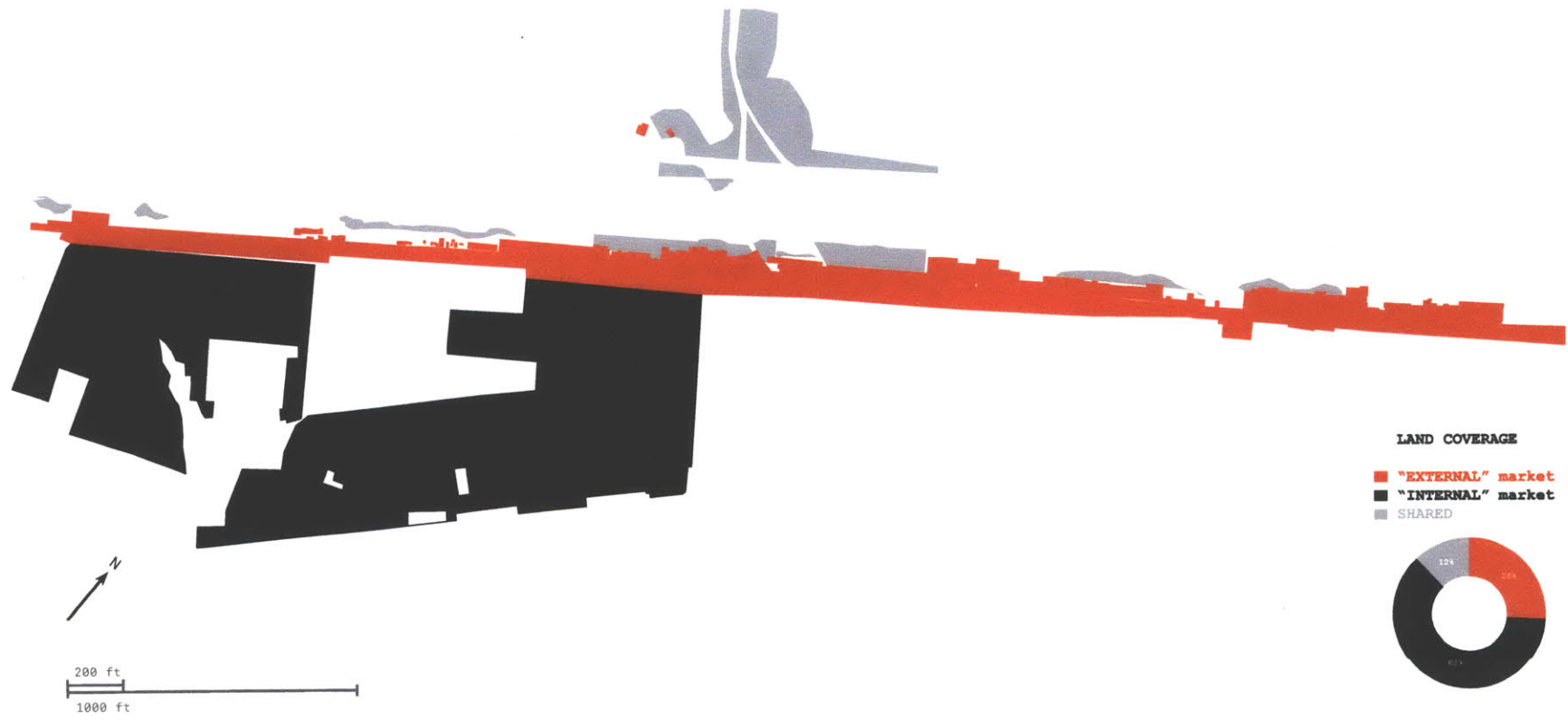
**Start big with a concentrated mass, then sprout a network.** La Salada's large concentration generates additional benefits- recognition, cultural potential, informal commercial activity, civic institutions- and allows for efficient sharing of logistical space.

**Determine ahead of time the appropriate size of the mass based on local ecological and economic limits.** The scale of La Salada's large concentration has reached a breaking point, after which it has become dysfunctional and causes harm to surroundings.

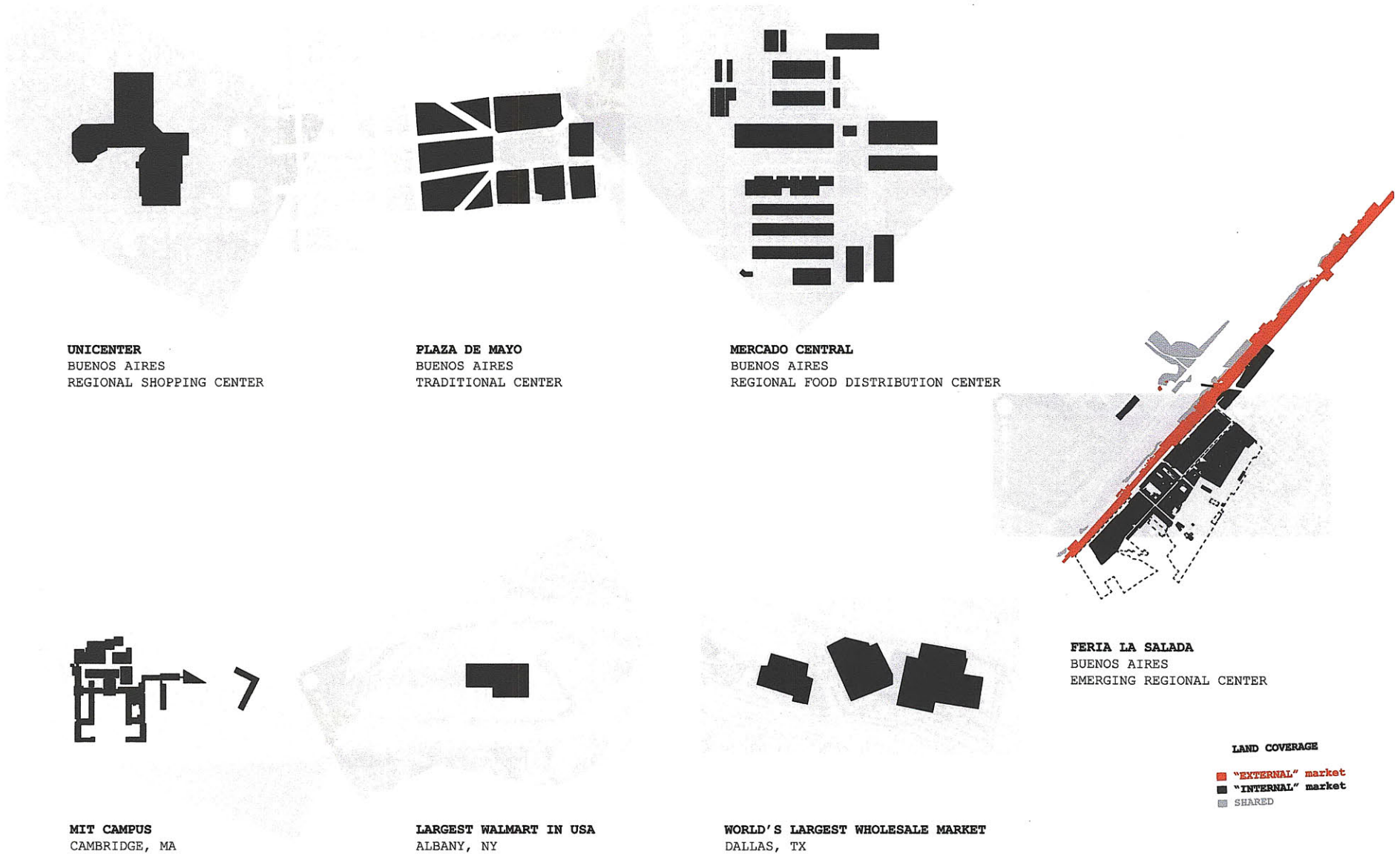


**Figure 6** A diagram of fair shows the sharing of logistical space but a diffusion of production spaces. (Source: Author)

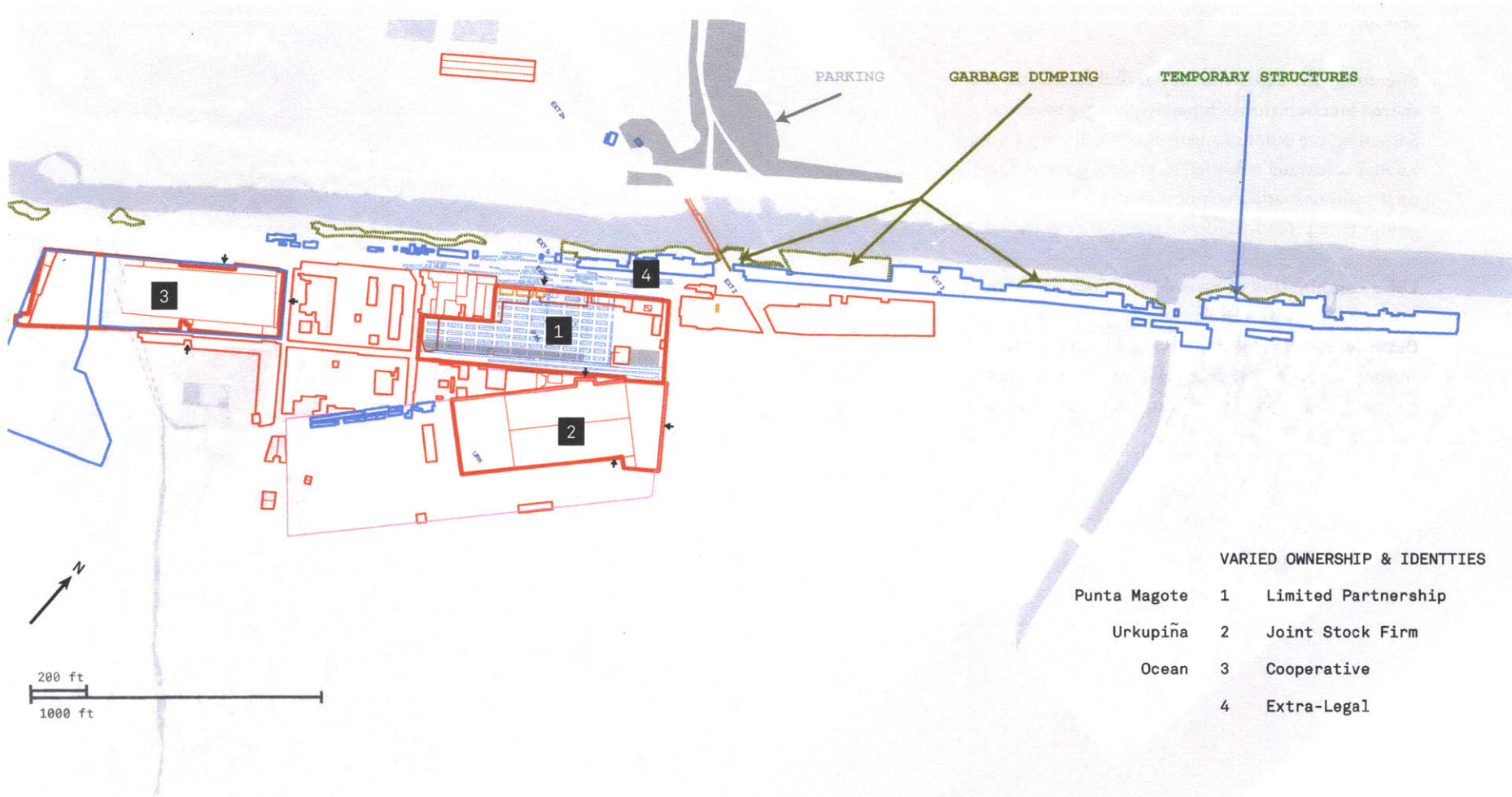




**Figure 7** Reaching a large concentration has generated a parallel external market and allowed for efficient sharing of service space. (Source: Author, using data from Google Maps)



**Figure 8** Scale Comparison with Other Urban Centers : The fair shares qualities with both free-floating urban centers and those embedded into dense fabric. (Source: Author, using data from Google Maps)



**Figure 9** Each of four markets operates under a separate governing entity and distinct formal strategy, meanwhile cohering together under the identification, "Feria La Salada."  
 (Source: Author, compiling data from online photographs, Google Maps, and Girón)

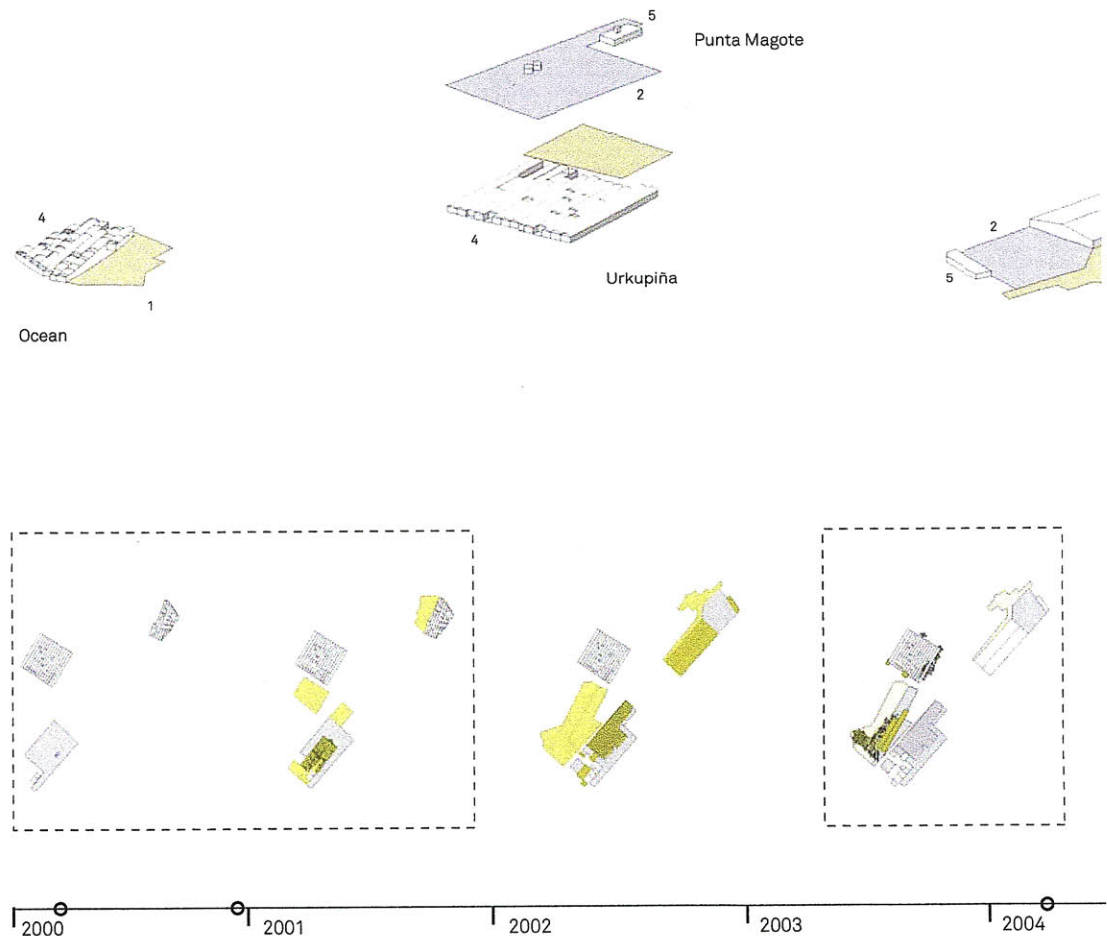
# Incremental Growth

Lesson:

**Encourage the expansion of parallel functions in a shared location through participatory processes.**

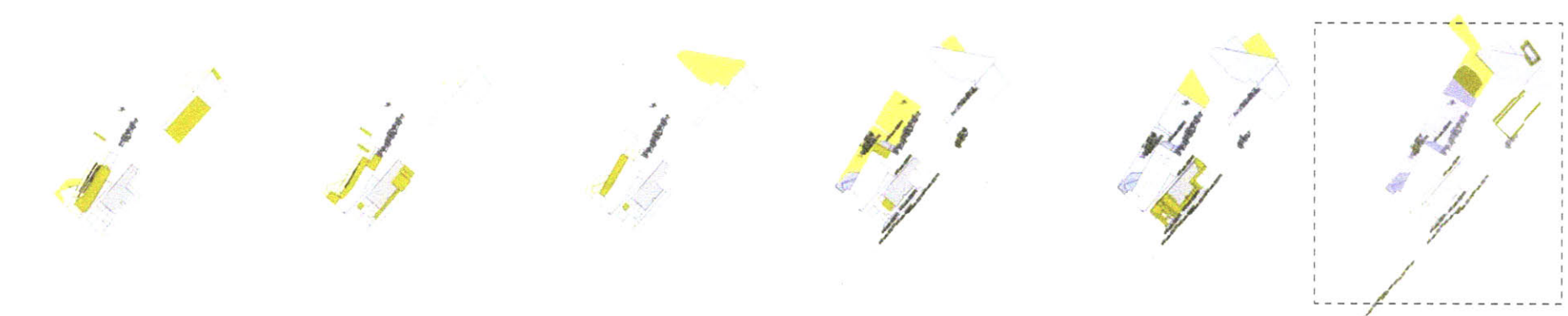
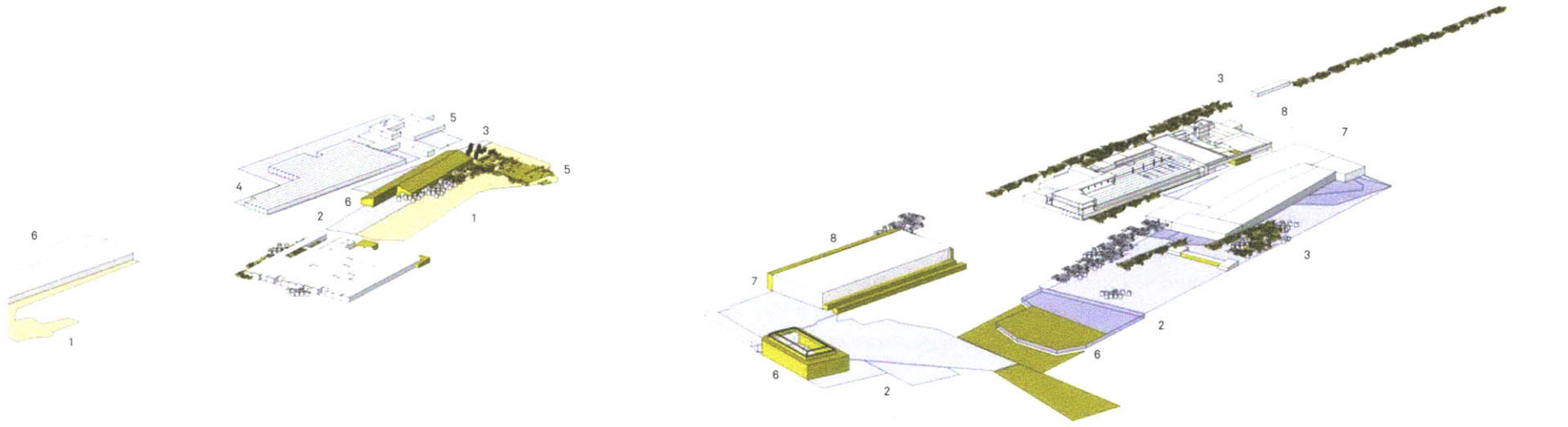
Sustaining the economic benefit of small units for La Salada's constituents has led to gradual growth. Distinct paths of spatial evolution between 3 cooperative groups have promoted formal group differentiation.

**Use a combination of assemblies to achieve both urban qualities and the appropriate degree of flexibility.** In the case of informal construction, the construction assembly type has a heightened influence on the spatial outcome, and thus its urban character.



**Figure 10** Decade of growth of three market bodies at La Salada. (Source: Author, drawn from

- 1 earth fill/level
- 2 pave asphalt
- 3 scaffold
- 4 linear vault
- 5 administrative cluster
- 6 unified space
- 7 thickening
- 8 vertical growth



imagery collected with Google Earth)

In sum, there are five primary types of construction on site, used in combination and to varying degrees over time. Without suggesting that materials absolutely determine form (thus disregarding design ingenuity), one observes that each assembly demonstrates a unique growth trajectory and have a particular formal orientation when pressed for material economy.

Meanwhile, each assembly and its most common spatial attributes have a particular adaptability in the face of changing activities. (Fig. 11) Architect Anders Tornqvist defines adaptability as having two strands: *versatility*, or the “ability of a building to accommodate a variety of uses without the need of comprehensive remodeling,” and *flexibility*, or “the ease with which... parts of the building can be redesigned or remodelled so as to accommodate new uses.”<sup>1</sup>

The flexibility of scaffold is readily apparent. It appears and disappears at will, everywhere on site, especially along paths and occupying tight nooks. Scaffold is also used to subdivide large interiors into smaller rooms. However, its versatility is limited by its inability to create large unified spaces.

Clusters of small buildings exhibit flexibility in groups, forming a variety of semi-public exterior spaces for specialized logistical activities. Over time, these clusters may lack versatility because they tend to be sized and outfitted for very particular uses. Meanwhile, narrow linear vaulting, concrete framing,

and long-span sheds demonstrate similar versatility by providing large spaces that are perceived as strongly unified, due to the regularity of their structural bays. Additionally, linear vaults and long-span sheds demonstrate flexibility because they are easily taken apart and moved. Meanwhile, concrete frames exhibit the most vertical flexibility: when members are sized generously, it supports future vertical growth and can be traversed by automobiles.

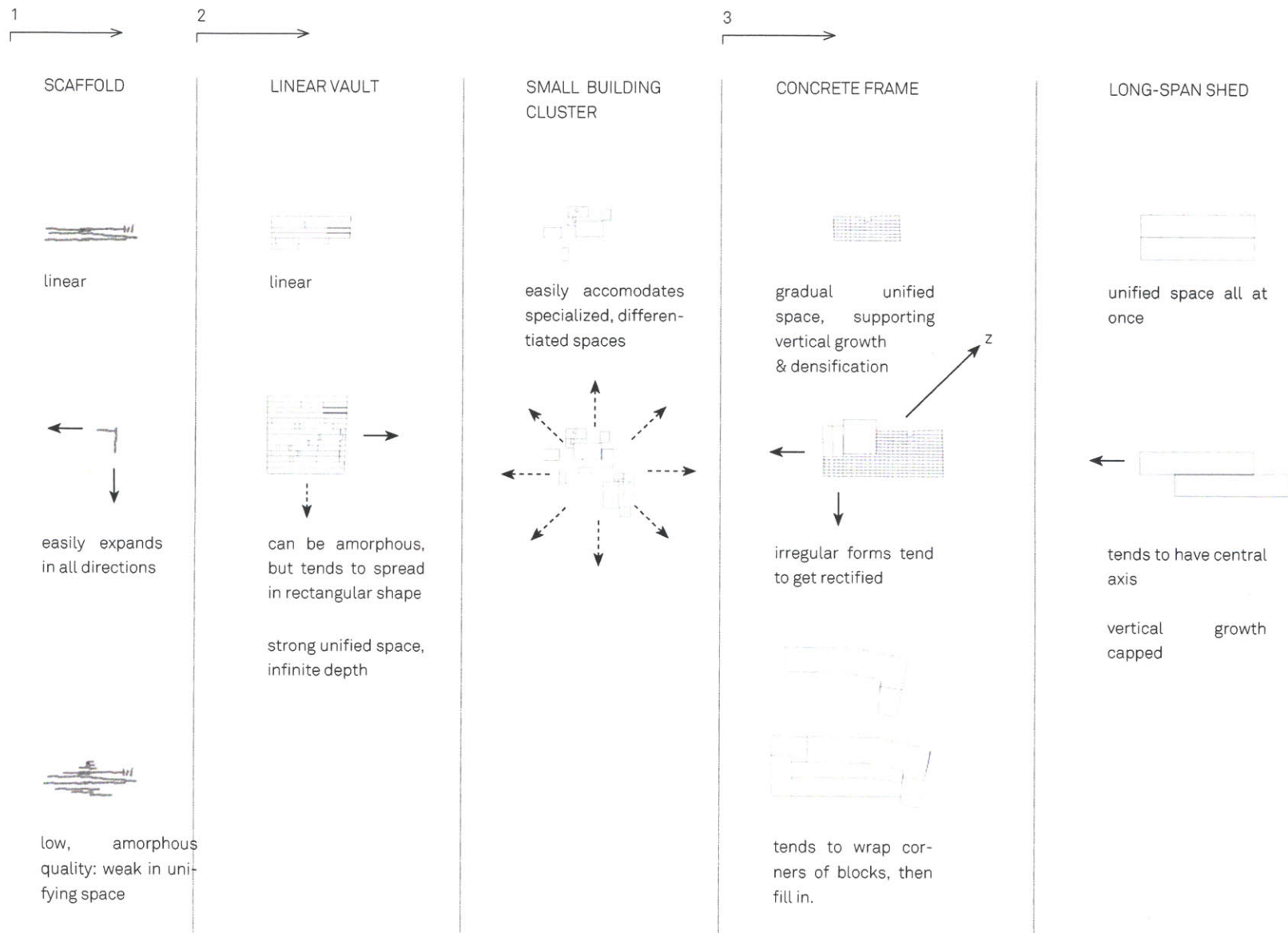
From analysis of historic imagery, one observes three distinct spatial evolutions, shaped by these assemblies, by the three market entities on site: Punta Magote, Ocean, and Urkupina. (Fig. 12) With the most limited lot size, Punta Magote appears to have the densest agglomeration of built structure: it first establishes an multi-story administrative center, then covers the rest of the lot with a unified space (initially built from narrow linear vaulting and then converted into concrete frame), and then finally proceeds to frame the perimeter of its vast rooftop with additional terraces of 20' depth.

Certain spaces stand out among the markets for their ability to support especially “urban” conditions. As Punta Magote makes the most use of concrete framing in its later stages, it is able to achieve the most vertical density, sectional complexity. The resulting vertical transition spaces and overlooks provide an interesting urban space of shared processions and spectatorship.

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1 Tornqvist, Anders, and Peter Ullmark, ed. *When People Matter: Nordic Industrial Architecture & Engineering Design*. Stockholm: Svensk Byggtjänst, 1989. 204-205.

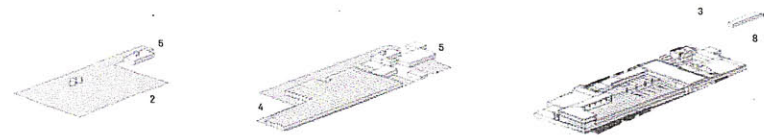
OBSERVED SPATIAL IMPLICATIONS OF ASSEMBLY TYPES



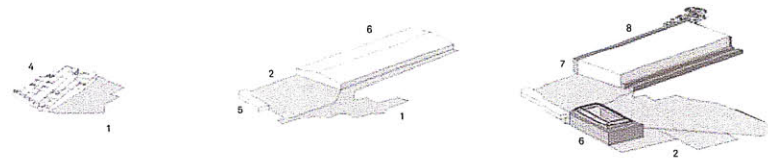
**Figure 11** Each of five primary assembly types observed on site exhibits a specific adaptability, defined by its growth orientation and resulting spatial character.

THREE DISTINCT SPATIAL EVOLUTIONS

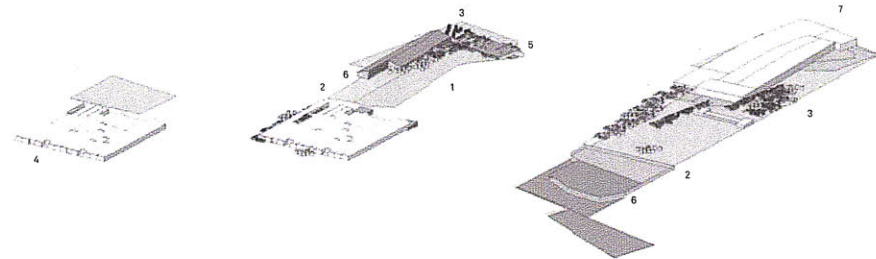
Punta Magote: “Power Framing” with limited-size lot.  
 1) admin center, 2) linear vaulting, 3) vertical “framing” of roof with tall, narrow terracing around edges.



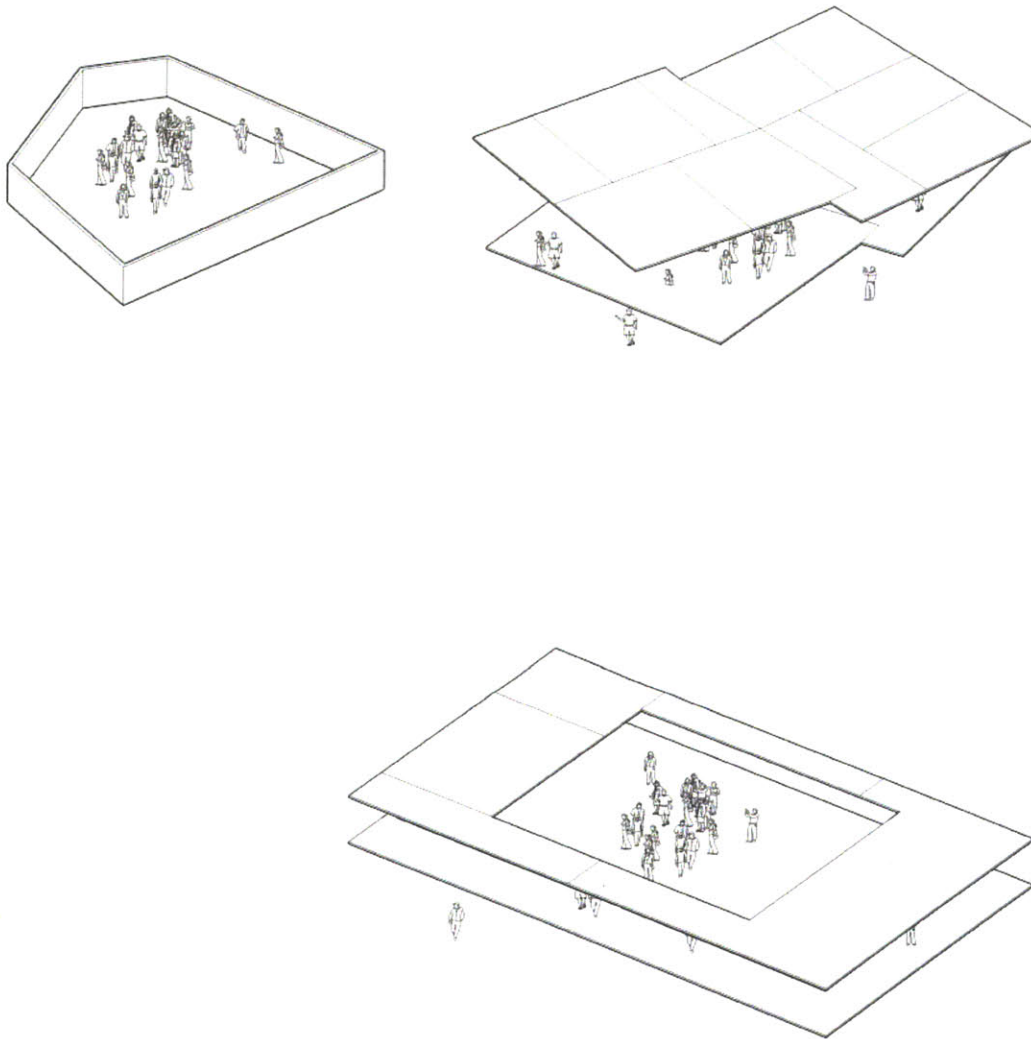
Ocean: “Sprawl, Hop, and Drop” on vast lot.  
 1) scaffolding, 2) construct largespan in nearby location 3) vast expansion of horizontal paving, 3) large new multi-story structure.



Urkupina: “Gradual Fattening” on vast, elongated lot. 1) unified scaffolding / linear vaulting, 2) paved expanse, 3) narrow unified structure, 4) perpendicular space along street edge, 5) fattening of original structure .







*"...There are only two primal kinds of building: the souk and the corral. The corral is a fence around a space; the souk is a carpet on the ground and a cloth ceiling..."*

*...there are structures that prioritize the walls and insist on a vertical relationship between the sky and the earth, between God and Nature; and there all structures that block out God and Nature and insist on the horizontal space of human commerce."<sup>1</sup>*

Lapidus

Physical assemblies present in informal market observe the form of the souk, placing importance on demarcation of territory by ground and roof.

Yet, in Punta Magote, framed by tall and wide clearings, the relationship of sky and earth emerges. Canopies and circulation paths are permanent, formed by concrete surfaces, while roomed enclosures occur by scaffold or light-weight material. Concrete brick walls do enclose some specialized service spaces. Nonetheless, the overall emphasis on horizontal planes allows for a unique adaptability.

<sup>1</sup> David Hickey (recounting Morris Lapidus), "On Not Being Governed," *The New Architectural Pragmatism*, ed. William S. Saunders (Minneapolis: University of Minnesota Press, 2007) 95-96.

**Figure 13** The roof terrace at Punta Magote creates the experience of a corral through the use of the souk.

## Ecology of Work and Play

Lessons:

**Provide a foundation for economic growth by facilitating play.** At La Salada, play is the foundation of cultural formation, knowledge sharing, and legitimization.

Yet, play events could be less “demonstrative” and more frequent, related to creativity.

At La Salada, the play of interest is defined as a voluntary and open form of recreation, a social construction as opposed to a biological impulse.

Many theoretical arguments place importance on play; they range from Thoreau’s emphasis on self-cultivation, Lefebvre (2005) on everyday rhythms, Wenger (1998) in *Communities of Practice*, Bateson (1955) on meta-communication, and Huizinga (1955) on the formation of culture. Furthermore, contemporary anthropology on migrant culture has emphasized play’s especially potent role in filling a void in spaces of migrant “arrival,” whether it be the vehicle for labor-related knowledge-sharing [Iskander (2011) on soccer games in Philadelphia], resistance of ethnic repression [Betancour (2000) on tango in Buenos Aires], or commerce networks [Canelo (2011) on soccer games in Buenos Aires].

Moreover, globalization theorist Roland Robertson argues that play events at La Salada directly target the need for legitimacy.<sup>1</sup>



**Figure 14** Festival of the fair saint occurs along exterior paseo as well as empty interior isles. (Source: Author, with photos from Flickr by Olmovich, Tu Parte Salada, and Martin Di Peco)

1 d'Angiolillo, Julian. “Feria La Salada: una centralidad periférica intermitente en el Gran Buenos Aires.” *El Nuevo Municipio*. (2010): 11. Web. 3 May. 2012. <<http://www.elnuevomunicipio.com.ar/wp-content/uploads/1.Feria-La-Salada.pdf>>.

CULTURAL THEORY

play as a social construction:	
self-definition	Thoreau
meta-communication	Bateson
formation of culture	Huizinga, Wenger
spatial subversion	Cruz
exploring an arguement	Bogost, Alfrink

+

ANTHROPOLOGY

migrant arrival and play space	
labor-related sharing of knowledge (on soccer; Philadelphia & BA)	Iskander, Caneio
resisting repression (on tango; La Boca, BA)	Betancour
legitimization (on festivals; La Salada, BA)	

“These holidays are not naive, are not spontaneous acts, but on the contrary, show the weight that La Salada acquired with the pasage of years... It is a space where exchanges are at stake, symbolic in the broadest sense of the term: goods and services for money, but also dances and parades for... media presence and institutional recognition, and offerings to Mother Earth in return for future prosperity.”<sup>2</sup>

To elaborate, Adrianna Massidda argues that La Salada is a singular place in which Bolivian and Argentine identities interface with one another through demonstrative play events. She claims the market as the “main place of identification for the Bolivian community in Buenos Aires, who hold their annual religious festivity ‘Virgen de Urkupiña’ there. As a

<sup>2</sup> Ibid, 11.

reaction, the Argentine community organises concerts of Argentine folklore and horse-breaking shows... Each community found in the traditional festivities an ideal way of making their presence clear in the larger context of the fair.”<sup>3</sup>

Spatially, the fair accomodates these large demonstrations by providing vast, paved expanses well-framed by covered spectator areas and numerous points of overlook. These double as parking terraces on routine fair days. The circulation structure of the fair provides ample opportunity for processional routes, with external paseos connecting directly to long interior paths

<sup>3</sup> Adrianna Massidda, “The ‘La Salada’ Fair (Buenos Aires) as a Place of Recreation and Construction of Identities.” HistorySpot. <https://historyspot.org.uk/>. 23 January 2012.

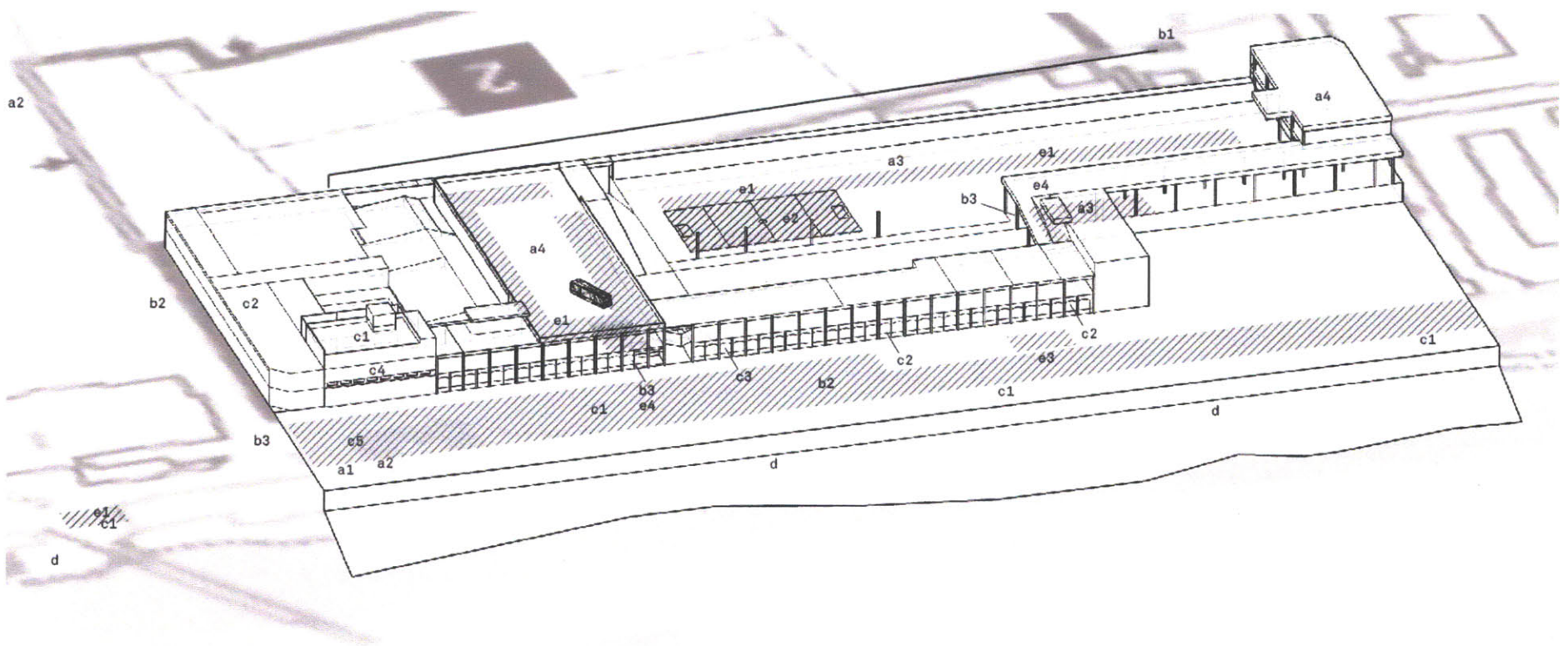
intersecting large interior halls, and finally to the urban street grid itself.

The other type of play of note at the fair that serving as a pretense for social exchange. Including both organized and spontaneous activity, leisure is a part of any routine fair day.

During a visit to the fair while the sun had not yet set, fairgoers were engaged in leisure in spaces adjacent to yet slightly removed from the bustle of vending activity. Drivers gathered in portable chairs to socialize on the rooftop near their parked vans and buses. Along the edge of the main paseo, maintaining distance from the eye of security near the main entrance, tables of fairgoers set up gambling stations, ready to absorb passersby into guessing games with cups. Sheltered by overhead parking, a massive spread of picnic tables accomodated chatting customers of food carts. In the center of the rooftop expanse at Punta Magote, line on the ground demarcated a miniature soccer field.

In this moment, early in the night, before the market had reached maximum crowd capacity. there seemed to be as many people absorbed in social exchange as their were consumed in the act of buying and selling.

a	Logistics	a1 a2 a3 a4	bus drop-off van drop-off bus parking car parking
b	Vending	b1 b2 b3	covered uncovered food/drink
c	Services	d1 d2 d3 d4	security bathroom dressing rooms admin
d	Waste		
e	Leisure	e1 e2 e3 e4 e5	socialize soccer gamble eat festival ground



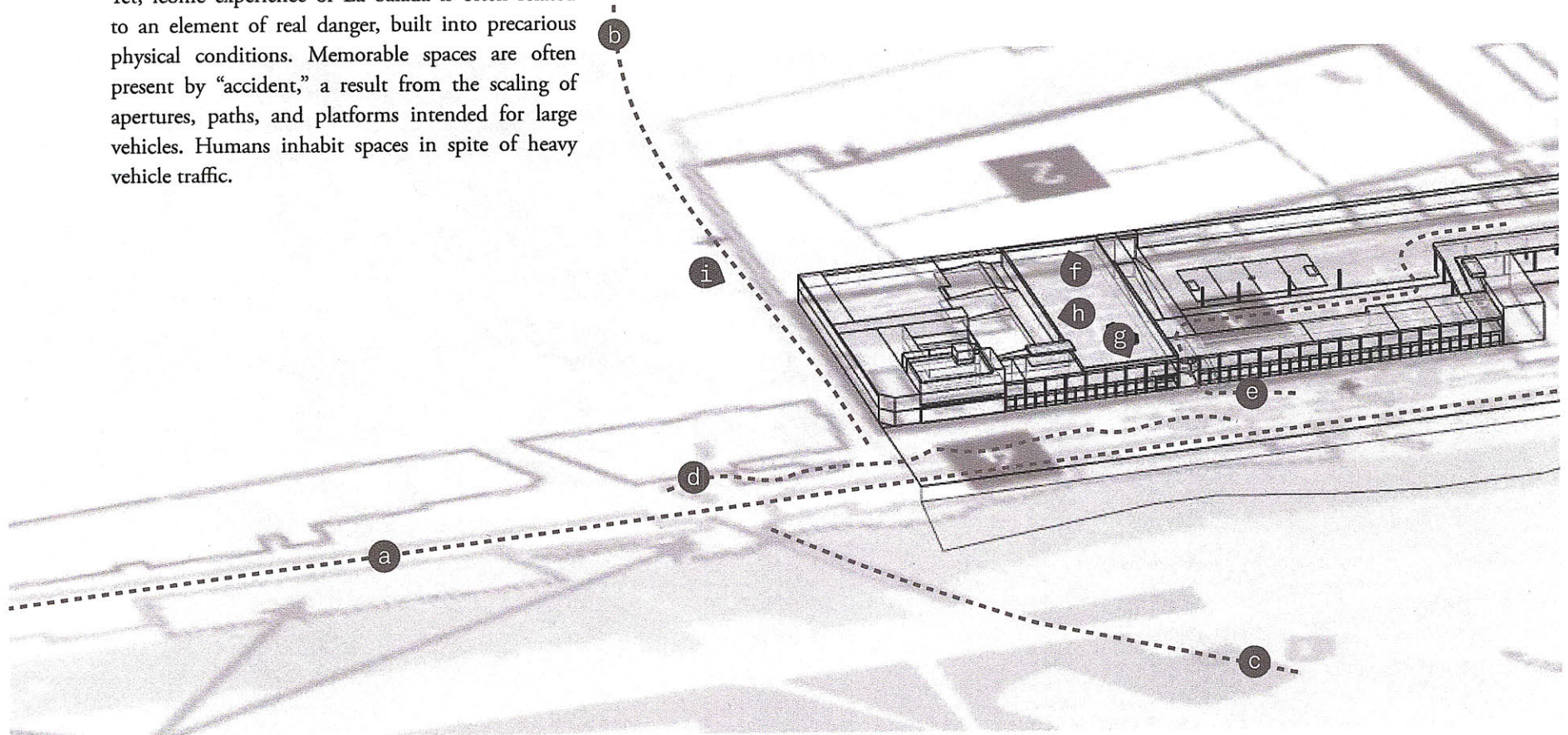
**Figure 15** Field observation focused on Punta Magote (one of three market bodies at La Salada). Above, marked zones show overlap of play and leisure with logistical, vending, and service spaces across market grounds. (Source: Author)

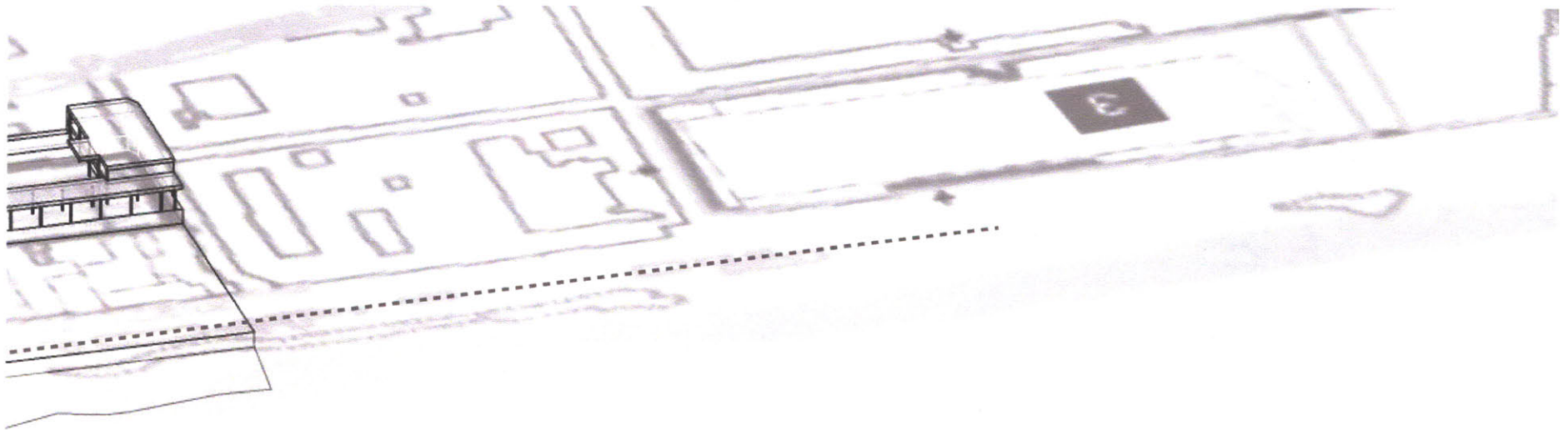
## Shared Experience

### Lesson:

**Design for shared sequences and moments.**  
Monumental phenomenological experiences define collective memory of the market.

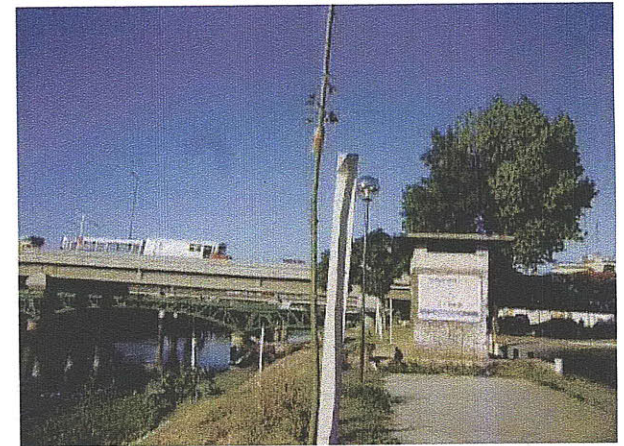
Yet, iconic experience of La Salada is often related to an element of real danger, built into precarious physical conditions. Memorable spaces are often present by “accident,” a result from the scaling of apertures, paths, and platforms intended for large vehicles. Humans inhabit spaces in spite of heavy vehicle traffic.





- |   |                       |  |
|---|-----------------------|--|
| a | New Paseo:            | from Puerta La Noria to La Salada      |
| b | Urban Neighborhood:   | alongside the market                   |
| c | Rail Bridge Crossing: | from train station / parking to market |
| d | Shared Mode Approach: | walking to/from market amidst traffic  |
| e | Main Ramp:            | ascending to upper level platform      |
| f | Auto Platform:        | view from roof to internal paseo       |
| g |                       | view from roof to external paseo       |
| h |                       | view from roof to distribution yards   |
| i | Across the Street:    | view from cafe to van drop-off point   |

**Figure 17** Major sequences marked on La Salada site map. (Source: Author)



**a. New Paseo: From Puente La Noria to La Salada**

La Salada is anchored to a river canal with a pedestrian path lined by impressive, broad-canopy trees. The city has recently installed lighting, separated the road and sidewalk with ballards. It is underutilized and dotted with prowling police cars.





**c. Rail Bridge Crossing: from train & parking to market**

A large portion of access to La Salada is from across the canal, where the train station and informal parking are located. This precarious compression sequence has become an iconic piece of the La Salada narrative, appearing prominently in a recent film about the market.<sup>1</sup>

<sup>1</sup> d'Angiolillo, Julian, dir. *Hacerme Feriante* (Become a Stall Holder). Magoya Films, 2010. DVD.



**e. Main Ramp: Ascending to Upper Level Platform**

An oversized, intermodal ramp provides a dramatic break in the regular façade rhythm, momentarily framing the sky and allowing pedestrians a privileged peek of the interior market floor below. The upper terrace is framed on the edges with platforms of monumental height, sheltering spaces for eating and socializing.



**f. Auto Platform: View from roof to internal paseo**

As a majority of customers and vendors arrive by large buses and charter vans, the roof overlook is a shared experience. Many linger on the rooftops, between or in front of parked vehicles, with portable chairs; waiting, socializing, and catching the breeze.

## Robust Informal Network of Access

Lessons:

**Encourage informal transit networks to supplement the formal.** Regional importance of the hub relies on this additional layer of access.

**Articulate circulation to humanize the pedestrian experience.** Amidst massive informal bus and charter operations, on-site pedestrian access suffers.

Research revealed the degree to which the informal provision of dedicated charter transit may contribute to the success of the market. A sampling of such charter buses, constructed from data gathered about the “tours de compras” from multiple online sources,<sup>1</sup> gives a sense of the national reach of a fleet of approximately 500 buses that arrive on Sunday and Wednesday nights at the market.<sup>2</sup> (Fig.B1) The selected data, collected by Guadalupe Dorna, highlights 33 serviced locations on approximately 8 routes, and cannot be taken as a comprehensive. Moreover, the sampling does not reflect the international scope of its visitor base (Fig. D1).

There are several characteristics of this bus service, which provide a clear advantage for La Salada customers, in terms of access, affordability, and trip duration. The Tour de Compras reaches remote villages in the Pampas which would otherwise have very limited bus access to Buenos Aires, particularly on major lines. Next, there is a drastic cost advantage when comparing the Tour de Compras ticket price with that of undedicated bus services. A round trip ticket from the furthest stop on one Tour de Compras, Bariloche, costs less than a one way ticket on a

1 “Tour de Compras.” Punta Magote. N.p., n.d. Web. 10 Dec 2011. <<http://www.puntamogote.com/tour.html>>.

2 Nacho, Girón. La Salada: Radiografía de la feria más polémica de Latinoamérica. 2011. Buenos Aires: Ediciones B, 2011. 308. Print.

major bus line. Finally, the data seems to suggest that the “Tour de Compras” trips are slightly shorter than comparable undedicated bus trips. The map begins to give a glimpse into the wide-ranging character of the population that congregates at the market. This concentrated diversity may contribute to the cultural significance of the site, particularly by providing visitors exposure to cohesive, large-scale expression in the form of regular festivals. This can help to provide the charismatic energy that reinforces La Salada’s financial success in extremely variable economic conditions.



**Figure 21** “Combi” fleet and drivers on roof of market.



**Figure 22** Departure points of informal charters across Argentina. Longest routes are marked. (Source: Author, with data from Food and Agriculture Organization of the United Nations and bus data collected by Guadalupe Dorna)



**Figure 23** Long lines form to board the crowded private city bus #32 to La Salada from Plaza Once, near the city center.

## Network of Small and Distributed

Lesson:

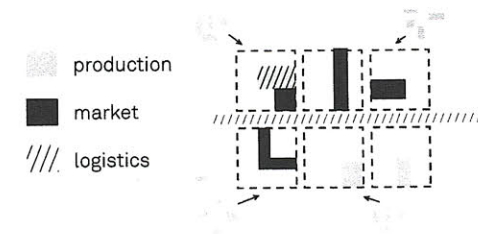
**Reach the high-income neighborhoods and counter social stigma by developing a network of small retail locations agglomerations.** Success of the large concentrated market requires a broad customer base. However, these embedded sites do not go far enough to incorporate locality or market original productions of nearby workshops.

In the early stages of La Salada's lifespan, it was typical in popular media to describe the market as patronized by and of relevance to a population characterized as low-income and migrant.<sup>1</sup>

However, a map of the the Buenos Aires metropolitan area (Fig.25) overlaid by an income gradient with newspaper reportage of smaller copy-cat markets, named "*Saladitas*" (both retail and wholesale, feeding on La Salada goods and branding but generally without official association), shows that the goods are patronized by, intentionally marketed to, or made accessible to residents of higher income zones. In fact, there seems to be an overall bias in the positioning of these sub-markets in the higher-income areas of the city. This is in stark contrast to the market's official mission, as paraphrased from the speech of Juan Castillo of Punta Magote (one of La Salada's three internal markets), to host the sale of affordable goods to the poor.<sup>2</sup> Figure 25 shows that many of these clusters are

1 Sassen, Saskia. "La Salada: The Largest Informal Market In South America." *Forbes*. 28 03 2011. Web. 10 Dec. 2011. <<http://www.forbes.com/sites/mega-cities/2011/03/28/la-salada-the-largest-informal-market-in-south-america/>>.

2 Socio-economic level is measured here by number of persons per room in households. The color gradient of this income map delineates a range of .72 to 2.28 persons per room (a difference by 3.16 times), from light to dark. 19 "Saladita" locations have been reported, with a total of 1792



### SMALL & DISTRIBUTED

strictly commercial,  
but including community programs

low competition

small reach

small selection  
but specialized,  
with some product differentiation

sourced from La Salada  
and local workshops

locally embedded,  
accessible by short travel distances

low property value,  
depending on location

**Figure 24** A general overview of distributed retail locations. (Source: Author)



**Figure 25** Metropolitan spatial reach overlaid with socioeconomic data. The size of yellow dots represents the number of vendors at each registered Saladita, ranging from 15 to 250. Thick black lines mark primary commercial corridors. (Source: Author, with data from AABA Atlas Ambiental Buenos Aires, and FDCCBA, Federacion de Comercio e Industrie de la Ciudad de Buenos Aires)

located on or within one block's distance from a main shopping corridor.

The spatial distribution of the submarkets, contrasted with the marginality of the main market site, suggests that there are two distinct strategic tiers within the marketing of La Salada goods: one relies on privileged, accessible positioning within the city, and the other relies on an alternative means. Perhaps this implies word-of-mouth, viral marketing, and cultural or symbolic significance. Of additional consequence is the reliance of the primary market on the success of outlets such as the Saladitas, since research has shown that the wholesale-buying for retail comprise a large portion of La Salada revenue.<sup>3</sup>

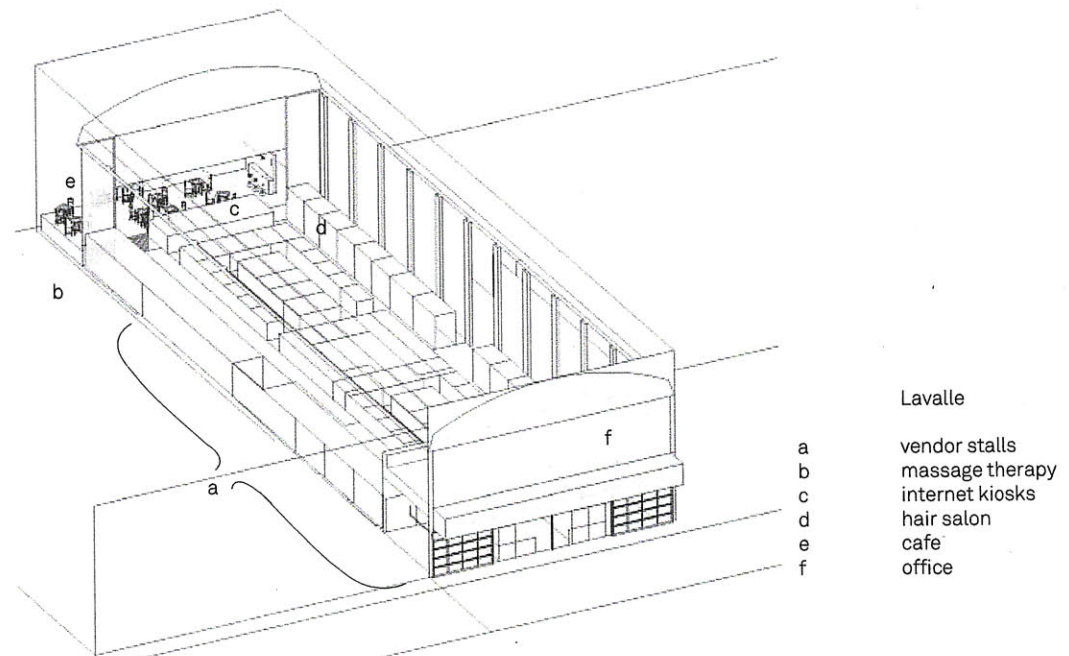
In several cases, multiple locations cluster around a single vicinity, creating a high-profile mass despite smaller lot sizes. In a further study, it would be useful to determine whether these clusters are comprised of multiple owners, or have accumulated through disparate owners.

Another interesting surprise on the metropolitan map (Fig.25) is that the only found report of a raid of the Saladitas occurred in Constitución, which appears to have the lowest income of all zones possessing a Saladitas.<sup>4</sup> Putting aside the issue of reporting bias, found stalls, compared to the alleged 30,000 stalls at La Salada.

3 Tiferes, Ariel. "La Salada llega a Buenos Aires." *La Nación*. (2008). Web. 10 Dec. 2011. <<http://www.lanacion.com.ar/1015901-la-salada-llega-a-buenos-aires>>.

4 "Cerraron "La Saladita" de Constitución." *Perfil* [Buenos Aires] 15 10 2011. Web. 10 Dec. 2011. <<http://www>>.

is it possible that this signifies a higher tolerance for Saladitas in the higher-income suburbs and CBD district, on the part of law enforcement? With more data, one could begin to determine whether Saladitas in higher-income areas are assimilated into their context, with a physical retail presentation reflecting higher-class shopping settings, appearing less threatening or illegitimate, but this would require field analysis. It is also possible to speculate as well about class discrepancies in policing strategies of counterfeit goods. Whatever the cause may be, there is a consensus among owners that Saladitas are best initiated in high-income shopping corridors of the city.



**Figure 26** A Saladita appropriates a historic theater. Other community services share the spaces near the stage. (Source: Author, drawn from a field visit.)





**Figure 27** This market, selling goods similar to those seen in La Salada, appropriates a historic theater. The view from the stage-turned-café toward the balcony features a reduced replica of the nearby Obelisk of Buenos Aires.



**Figure 28** Next-door, the city government provides commercial venues for selling of goods deemed legitimate.



**Figure 29** Through-block breezeway type. The appropriation of a variety of block types by Saladitas allows customer base to span socio-economic classes and environments.



**Figure 30** Inner-city Saladitas have multiple floors, beginning to resemble shopping mall. (Source: All Photos by Author)

## Access to Livelihood

Lesson:

**Design for ease and affordability of entry into the market incorporating small, autonomous spatial units.** Usage of space at La Salada is based on rental and ownership of the smallest possible spatial units.

**Provide physical proximity and transparency to production.** Improved quantity and quality of livelihoods have resulted from bringing producer closer to the place of commerce. However, La Salada obscures exploitive production practices.

## Conclusion

This investigation has outlined eight hypotheses about the singular prosperity and cultural ascension of Feria La Salada. With each argument, a spatial or formal strategy has been identified, qualified, and then critiqued under an expanded definition of success, one which includes criteria of authenticity as well as environmental and social responsibility. Finally, each strategy is characterized by design considerations- location, program, process, and urban form.

The most theoretically interesting concept is that inclusivity for the migrant worker (in the form of inclusive, culture-building play reinforcing inclusive livelihood), has been the primary driver of the enduring success of La Salada. This notion will drive the following design proposal.

One should note that La Salada's strategies rarely consist of isolated formal considerations. The nature of its formation proves to be equally important. Thus, the participation, variety, and gradual growth defining La Salada's formation process will shape the proposal's methodology.

# Summary of Lessons

	LESSON / CRITIQUE	OBSERVATION AT LA SALADA	LOCATION	PROGRAM	PROCESS	FORM
SITE SELECTION	Appropriate a site with flexible ownership and symbolic weight, connected to intermodal transit.	+ Public ownership of land has enabled spontaneous occupation. Identity is magnified by legacy of historic spa site. - Disconnect from active public space network and nearby intermodal hub at Punta La Noria.	●	○	○	○
CRITICAL MASS	Start big with a concentrated mass, then sprout a network.  Size based on local ecological and economic limits.	+ Large concentration allows additional cultural benefits and sharing of logistical space. - The scale of the large concentration has become dysfunctional, eg. by causing flooding.	○	○	●	●
INCREMENTAL GROWTH	Encourage the expansion of parallel functions in a shared location through participatory processes.  Configure multiple material assemblies to achieve a nuanced adaptability.	+ Economic benefit of small units for constituents has called for gradual growth. + Distinct paths of spatial evolution between 3 cooperative groups has promoted formal group differentiation. +/- In informal construction, the assembly type has a heightened influence on the spatial outcome	○	○	●	●
PLAY	Provide a foundation for economic growth by facilitating play aimed at cultivating creativity and public legitimacy.	+ Play has been the foundation of cultural formation, knowledge sharing, and legitimization. - Play events could be less “demonstrative” and more frequent, related to creativity.	●	●	●	●
SHARED EXPERIENCE	Design for identifiable phenomenological sequences to define the collective memory of the site.	+/- Memorable spaces are often present by “accident,” a result from the scaling of apertures, paths, and platforms intended for large vehicles. - Drama is related to an element of real danger, built into precarious physical conditions.	○	○	○	●
LIVELIHOOD	Design for ease and affordability of entry into the market incorporating small, autonomous spatial units.  Provide physical proximity and transparency to production.	+ Improved quantity and quality of livelihoods have resulted from bringing producer closer to the place of commerce. Small, autonomous spatial units has provided for this ease of entry.  - Yet, La Salada obscurs exploitive production practices.	●	●	●	●
DISTRIBUTED NETWORK	Reach high-income neighborhoods and counter social stigma by developing a network of small retail locations agglomerations.	+ Broad customer base required. - However, network of embedded sites do not go far enough to incorporate locality or market original productions of nearby workshops. Embedded sites do not go far enough to incorporate locality.	●	●	●	●
ACCESS	Encourage informal transit networks to supplement the formal.	+Regional importance of the hub relies on informal access. - On-site pedestrian access suffers amidst massive informal bus and charter operations.	○	○	●	●

### 3. Imagining a new La Salada as an Alternative Factory-Market Ecology

#### Context

Within a very short span of two decades, there has major shift in the organization of Argentina's garment industry and the economic strategies of low and mid income people. This rapidly transforming world, erupting en masse at La Salada, has not had the opportunity to reflect and project into future. Homogeneity of product scope and a big-brand emphasis mask hidden creative potential which simply has not had the correct "space" or impetus to develop. It also masks a cultural authenticity, a self-made interface between Bolivian migrants and native Argentines.

The city of Buenos Aires wants to be involved in garment industry and have a say on behalf of the well being citizens. As evidence, the city has incorporated formalized workshops and business incubation services into a 20,000 square-foot building at the core of its community development efforts. However, according to Theo, a textile entrepreneur at the incubator, these formal enterprises have difficulty competing with the massive economic presence of La Salada and its highly organized producers. An official of the governing agency also cites competition and the scale

of economy as the greatest challenge to the incubator.<sup>1</sup> To become a serious competitor or replacement, expanded facilities must be shaped by principles from lessons learned at La Salada.

It is difficult for an outside body to intervene directly with La Salada site, for such an intervention could provoke lawsuits, riots, or protests. It is also difficult to align oneself with La Salada as there is an unresolved exploitive element that cannot be reconciled from the outside. It is more realistic to imagine a completely new alternative to La Salada which learns from it but begins with new conceptual grounds and a new site.

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1 Rufail, Silvana. "Centro de Apoyo Productivo e Incubadora de Empresas de Base Social, con articulación público-privada, en villa Los Piletos." Ashoka Changemakers (2011): n.pag. Web. 3 May 2012. <<http://www.changemakers.com/es/node/106826>>.

## Sketch for a Game

*“Games become important for architecture when we break apart the mechanical relationship between function and the making of form, and instead, insert a new understanding of space (and form) as one in which the physical and psychological presence of us in space is integral.” - Ann Pendleton-Jullian <sup>1</sup>*

A game analogy frames the design space as an ecosystem that creatively involves the architect with other people and “managed objects.”<sup>2</sup> This is a way to transform lessons from La Salada about incremental development into a framework for deliberately incremental urban design.

Because the goal was to fully absorb a variety of lessons and critiques from a field case, I approached this

<sup>1</sup> Pendleton-Jullian, Ann. “Studio ( 1): A Case Study: Game Design and Play as a Heuristic Mechanism.” Four ( 1) Studios: 7 papers and an Epilogue. Ann Pendleton-Jullian / Design: Soulellis Studio, 2010. 180-181. Print.

<sup>2</sup> Martin Peco, “La Salada and a77: The collective design and self construction of events in urbanism and architecture.” Informality: Re-Viewing Latin American Cities. Cambridge, 2011.

project with a level of process articulation and linearity than I am not used to. I hoped to find a thought frame within which an intuitive design process could stand up to a rigorous system of criteria without falling to a flat, LEED-like checklist.

Two types of people may wish to play this game: informal community client groups and urban designers. The game could conceivably be employed in the field as a physical discussion tool for a designers working with a client community, particularly with the cooperative groups literally represented in the study area. Meanwhile, during the development of the game, it became apparent that the game has further use as a demonstrative tool, or template, in the hands of a designer who would like to learn how to maintain creative control over a project which will unfold in an additive, cumulative way, and under many actors. The logic of the framework affords a level of transparency to the design process. By being more aware of one’s own design logic, the designer can premeditate and better choreograph the entrance points for other people.

## Elements

For the purpose of exercise, we understand a particular form of game to be comprised of the following parts: a narrative (program), structure (board), a set of relational rules guiding moves, components, players, and gameplay goals.

This vocabulary molds a hierarchy out of design moves which were previously free-floating and non-linear. Concerns are distributed among parts such that the concern of actual play (and its mechanics) are relatively simple, of adding pieces to a common board as one would during a domino or scrabble game. This allows for the urban design equivalent of “emergent gameplay,” or, “complex situations... that emerge from the interaction of relatively simple game mechanics.”<sup>1</sup>

First, the game narrative sets the context in which urban design unfolds, providing a program under which all parts operate. La Salada is dismantled. The city, desperate to provide a thoughtful alternative before the same fair reconstructs itself elsewhere, proposes a factory-market business model improved through designing for vertical integration, connecting production, commerce, and education to the market floor.

Second, the “board” represents the proposed site, the dimensional limits, relevant landscape conditions, origin points based on potential logistical and neigh-

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<sup>1</sup> Various contributors. “Emergent gameplay.” Wikipedia, The Free Encyclopedia. Web. 2 May 2012.

borhood linkages. By doing so, the design can address, from the outset, lessons learned from La Salada about site selection, critical mass, and access.

Next, the primary goal(s) of gameplay are established. While the game analogy serves to embed many urban criteria, or goals, into the design, it leaves to the player’s choice those concerns subject to the greatest subjective interpretation. A goal of gameplay is not the same as the goal of design, nor the same as a programmatic requirement. This level of goals can often involve tradeoffs between multiple criteria since they often preclude one another. I have suggested three possible gameplay goals focused on creating maximum encounter during social events, though there are surely many other possibilities.

To encourage participation at multiple levels, the game defines the sequential engagement of three groups of decision-makers. This involves the designer with park authorities, cooperative leadership, and individual cooperative members. In gameplay, teams of 2-4 people subdivide in various ways to represent these real-life groups.

A set of rules, related in a repeatable sequence of nine steps, guide moves in light of principles focused on incremental growth, centrality of play, meaningful sequence built on landscape. The sequence of rules is also careful to ensure a visible critical mass from the outset. Likewise, the physical design of the components, or

	THEORETICAL INTEREST	IN GAME, IMPLICATION EMBEDDED WITHIN...				
		BOARD / RELATIONSHIPS / COMPONENTS / PLAYERS & MOVES / GOAL / EVENTS				
SITE SELECTION		<b>B</b>				
CRITICAL MASS		<b>B</b>				
		<b>B</b>	<b>R</b>			
INCREMENTAL GROWTH			<b>R</b>	<b>C</b>	<b>P &amp; M</b>	
				<b>C</b>		
PLAY			<b>R</b>	<b>C</b>		<b>G E</b>
SHARED EXPERIENCE			<b>R</b>			
LIVELIHOOD			<b>R</b>	<b>C</b>		<b>G E</b>
ACCESS		<b>B</b>				

“pieces,” has built-in implications for incremental growth, facilitates ongoing informal play, and encourages transparency between production and consumption. Pieces are also modestly sized for ease of access and economic construction. The thesis brings these components to a greater degree of design elaboration than necessary for simple gameplay.

Finally, as incremental development is simultaneously constructed and occupied, the players will evaluate the effectiveness of the configuration through exercises in the final moments of each round, each exercise representing a different type of occupation within the same space.



## The Narrative or Program

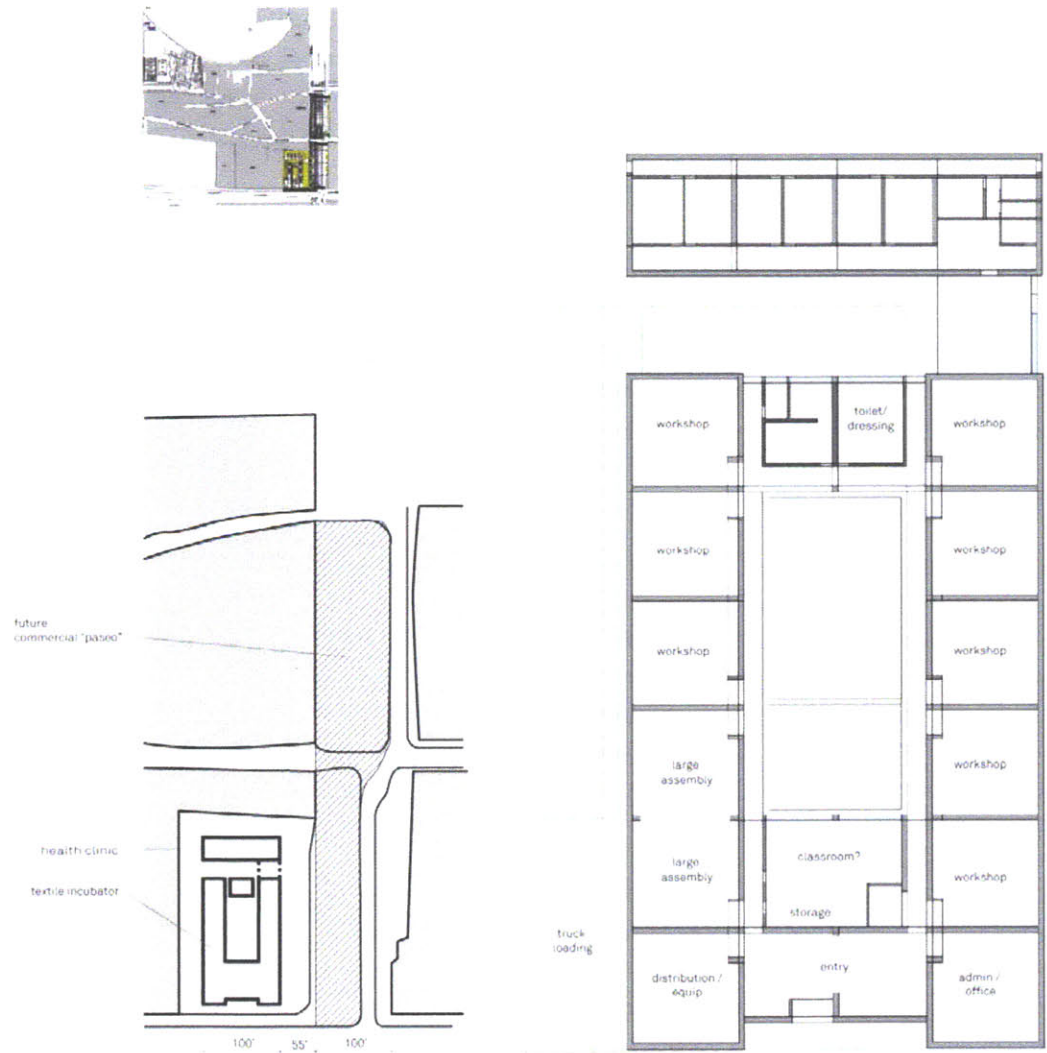
The thesis imagines a factory-market business model improved through designing for vertical integration, connecting production, commerce, and education. However, success of this three-way hybrid is ultimately judged based on its ability to facilitate cultural program. This reflects the field observation that sustained cultural engagement is, in reverse, crucial to the long-term success of the factory-market.

The program adopts the twenty-year growth timeline of the existing FERIA La Salada as an initial template to establish a twenty-year design program. This is augmented by a production and education space growth lineage resembling, to a rough extent, the expansion ambitions of the textile business incubator run by the City of Buenos Aires in Barrio Los Piletones.

The concentrated cellular formation of a mixed work environment can be a response to unstable industry conditions. In *Architecture for the Work Environment*, the German authors note that “a growing number of jobs [are] based on temporary work, thus requiring spatial proximity in order to be profitable. A specific new production milieu is evolving in which mutual help, learning, stimulation, and competition can release considerable energies.” In such an environment, “the more autonomous the basic unit, the more flexible the resulting urban structure, the more chances offered to small and middle companies, and the broader the labour-market opportunities for marginal groups and economic subcultures.” The specific ratio

of square footage dedicated to production, exchange, and learning relies on this demand in flux. An expert in contemporary production-oriented environments, Ulf RANHAGEN argues of the importance of an incremental design process which engages workers to provide input about their environment.

The proposal concentrates on providing a landscape framework founded on an ethos of play, on top of which small programmed “cells” can aggregate in response to need with a great degree of autonomy.



**Figure 31** Existing ProSur textile business incubator plan (Source: ProSur, redrawn by author)

**CULTURE**

original recreation land **barrio-scale** → **regional-scale**

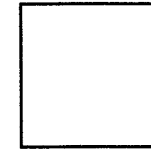
**unified space**  
100



85,600 sq ft



171,200 sq ft



256,800 sq ft



53,000 sq ft  
**anticipated external market**

**MARKET**

**landing**  
20  
43 sq ft  
1 large stall

**sprouting of retail network**  
1000  
"hatchlings" secure carts  
global network

**clustered mat growth**  
5,000

**vertical growth**  
10,000

**3 markets "+"**  
**site limits reached, begin new space appropriation**  
20,000

**PRODUCTION**

**incubator**  
6  
16,000 sq ft  
1,000 sq ft existing, nearby workshops

**hatchery**  
30  
60,000 sq ft

or  
**cooperative factory**  
200  
7070 sq ft existing, nearby small factories

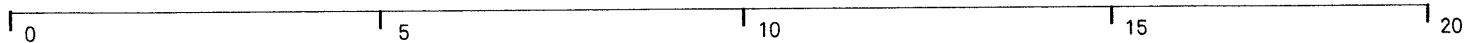
**specialized factory network**  
1000  
172442.3854 sq ft (equiv. to size of INTA textile factory)

**EDUCATION**

**skill training program**  
6  
16,000 sq ft

**skilled craft school**  
30  
60,000 sq ft

**design school**  
200  
60,000 sq ft



**Figure 32** An elaborated program timeline over 20-year period, not intended to reflect gameplay.

## The Board

With lessons learned from the original La Salada market, a set of site criteria was developed. Most important is public ownership, for this provides for ease of centralized oversight and guidance. Next, the site could benefit from a high percentage of existing hardscape, transit linkages, and generous spillover space. If the site incidentally offers an opportunity to recover degraded land, this is another plus. The market could also gain immediate cultural potential by choosing a site with proximity to low-income settlement, a symbolic past, adjacency to public park.

The chosen site should not only fulfill these basic criteria but present the potential to build upon the city's epicenter of investment in community development, a large textile business incubator that also doubles as the economic development agency's southern headquarters. The site is a 40-acre swath of land bridging across the southern portion of the contested and disinvested park, Parque Indoamericano. Moreover, occupying this site would serve a larger agenda of improving continuity of urban fabric by connecting four isolated areas of low-income settlement to one another, to new community assets, and to the existing mass-transit network.

Along with existing local connection points, the board addresses existing access problems by proposing a series of new stations along the existing bus and light rail lines. Large, existing swaths of asphalt to the south of the site would generously accommodate au-

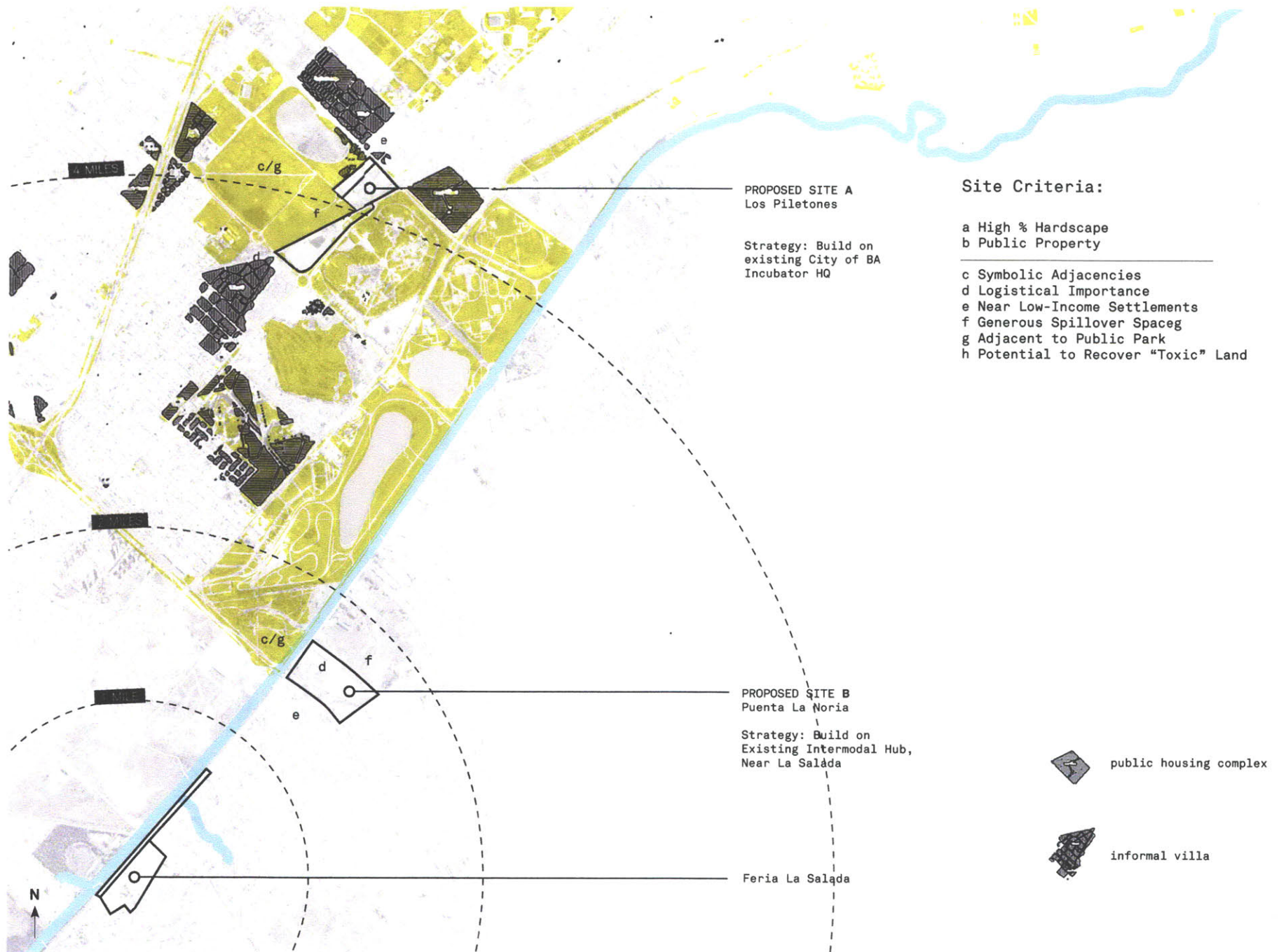
tomobile parking for the new market. The existing La Salada demonstrates that car parking which is off-site, but accessible by pedestrian path, is suitable to fair visitors.

Parque Indoamericano, like the original La Salada site, is in a relatively marginalized and abused piece of floodplain which began redevelopment in the 1960s.<sup>1</sup> In total, the proposed site covers an area of 40 acres, or 78% of the land coverage of La Salada.

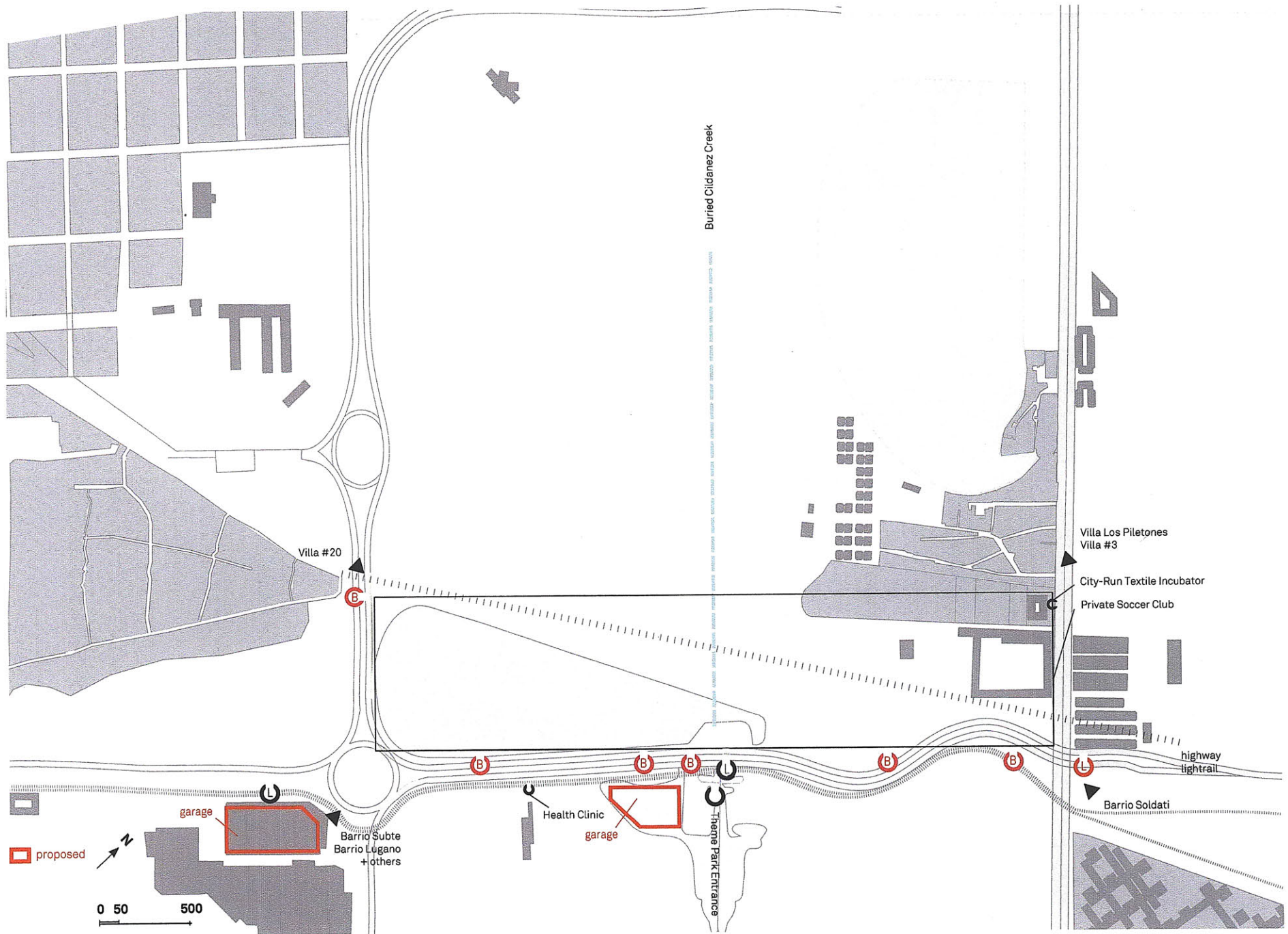
The intervention is intended to cover approximately half of this site, 40% of the size of the existing La Salada. This is a reasonable size in light of the observation that the excessive size of La Salada was causing an local product oversaturation, making it difficult for vendors to compete within.

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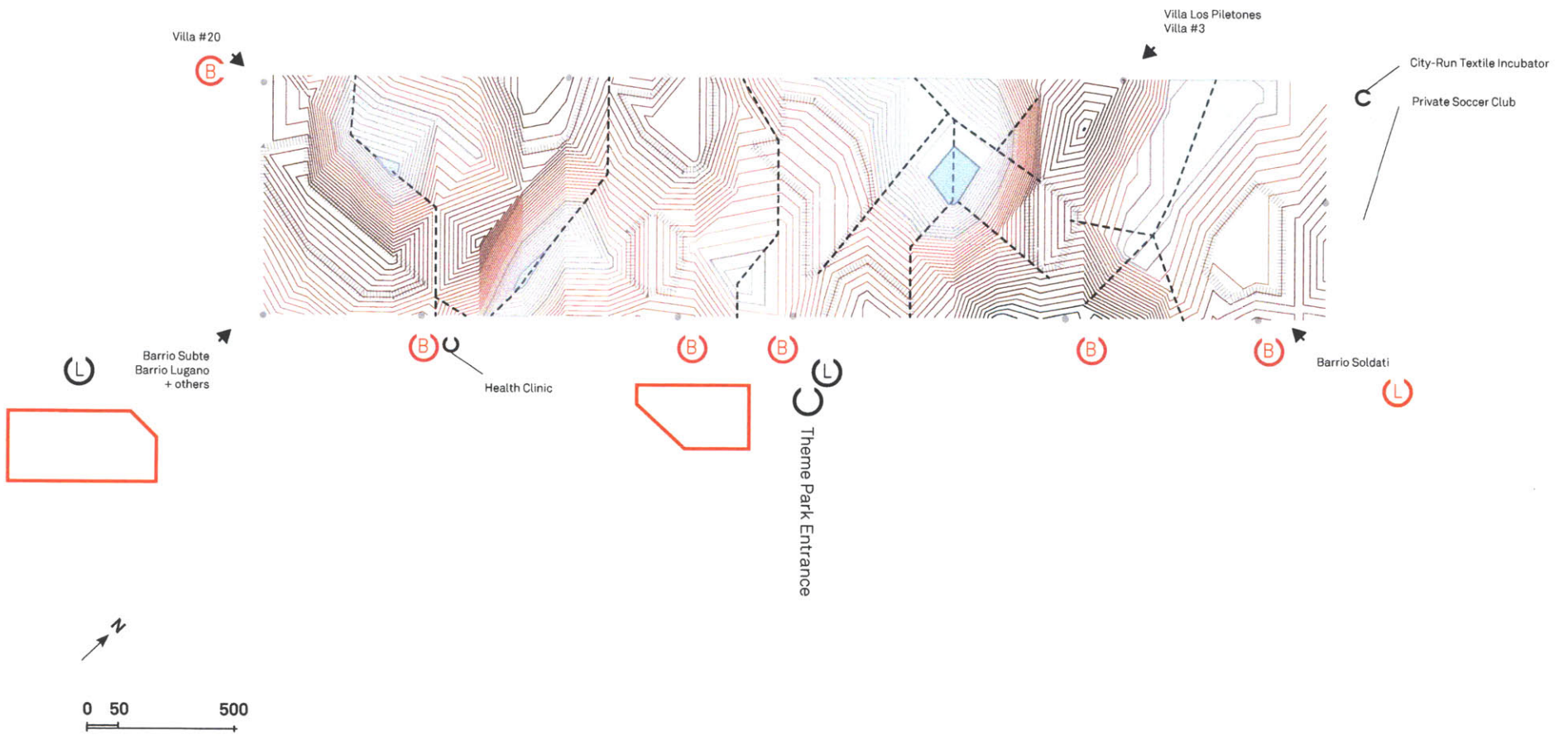
1 Alvarez de Celis, Fernando. Ciudad Autónoma de Buenos Aires. Secretaría de Desarrollo Económico. El sur en la Ciudad de Buenos Aires. Caracterización económica territorial de los barrios de La Boca, Barracas, Nueva Pompeya, Villa Riachuelo, Villa Soldati, Villa Lugano y Mataderos. Buenos Aires: Centro de Estudios para el Desarrollo Económico Metropolitano (CEDEM), 2003. Print.



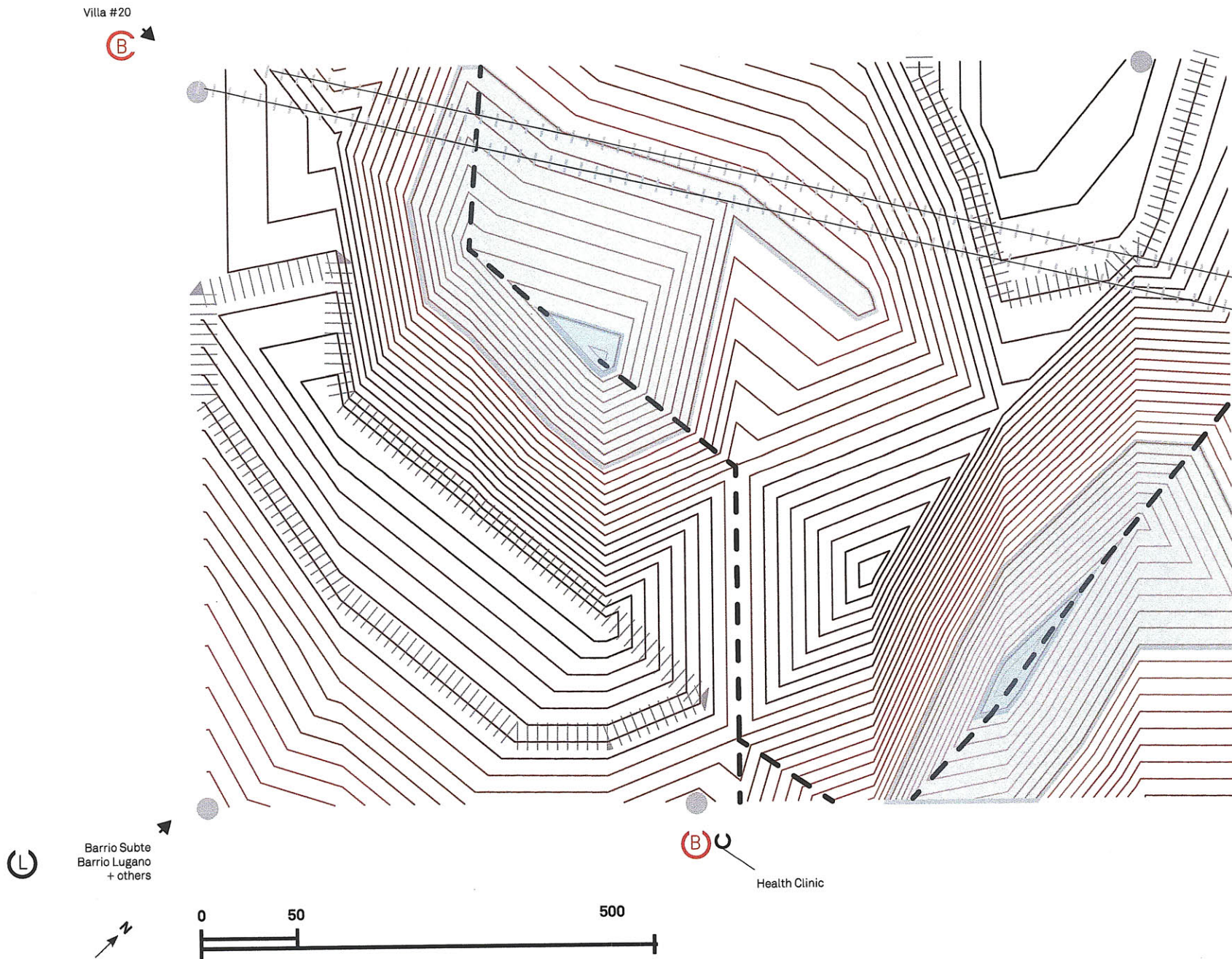
**Figure 33** Possible sites in relation to the original La Salada and site criteria. Site A is chosen over Site B so the project can build on an existing textile business incubator.



**Figure 34** The board in relationship to local fabric, transit linkages, and community assets. New transit stops and parking facilities are proposed.



**Figure 35** The resulting board provides information about site topography, drainage, and barriers. Both existing and proposed transit linkages are presented alongside community assets and access points. For this exercise, site considerations are limited to these factors, setting aside soil composition, solar and wind orientation.



**Figure 36** A closeup of the resulting board, featuring the approximate number of site features which may be brought under detailed consideration through a round of design.



## Goals & Evaluation

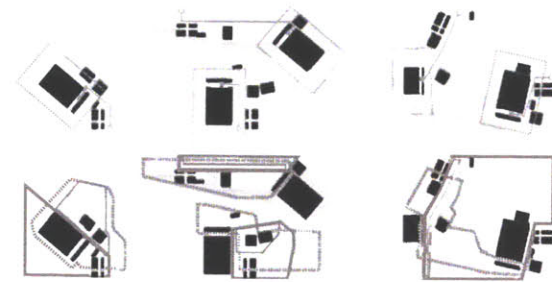
In this exercise, goals of gameplay focus around providing circulation which maximizes a visitor's encounter of key program pieces, with the intention of creating industry transparency and providing for unexpected emergent social situations.

Because the game at this stage would be tested by individuals not personally tied to a community or context of subjective concerns, the gameplay goals are intentionally quantitative to facilitate "objective" evaluation. Thus, they will likely appear whimsical or strangely empirical in the face of subjective social phenomena.

One goal could be to 1) provide an arrangement that leads a visitor to pass by all key pieces of the complex on the way to a soccer game. This has proven to be too easily achievable in the given design, and thus not an ideal gameplay goal. Another goal might be to 2) provide for the largest parade route, or that which crosses the most number of pieces. Evaluating this goal is to evaluate the potential for the scheme to expose a large quantity of commercial exchange points during a purely social event. In evaluating this goal, one gets a great deal of variation, and there is a more definitive winner. A third goal is to 3) provide a high number of continuous internal rings branching off of the main market. This represents the attempt to provide the greatest "public sphere," or in other words, endless circulation routes, such that a market customer would cross a maximum number of vendors without

hitting dead ends. Geographer Bill Hillier calls this condition the "ringiness," the capacity for a stranger to penetrate a settlement's open-space or semi-public space structure.<sup>1</sup>

These goals may all be important in the scheme of an overall design, but they are not guaranteed to be achievable together, at the same time. The designer has not pre-calculated the scheme which optimally achieves any of these goals, and to do so would be very time consuming. Thus, gameplay is a strategy to explore possible schemes and study the interaction of these various goals. In the situation in which the game is played by members of a real community, the goals of gameplay should be designed to explore the most subjective portion of the design requirements, or, in some cases, that which the designer himself or herself would not have been able to solve without the particular input of the client community.



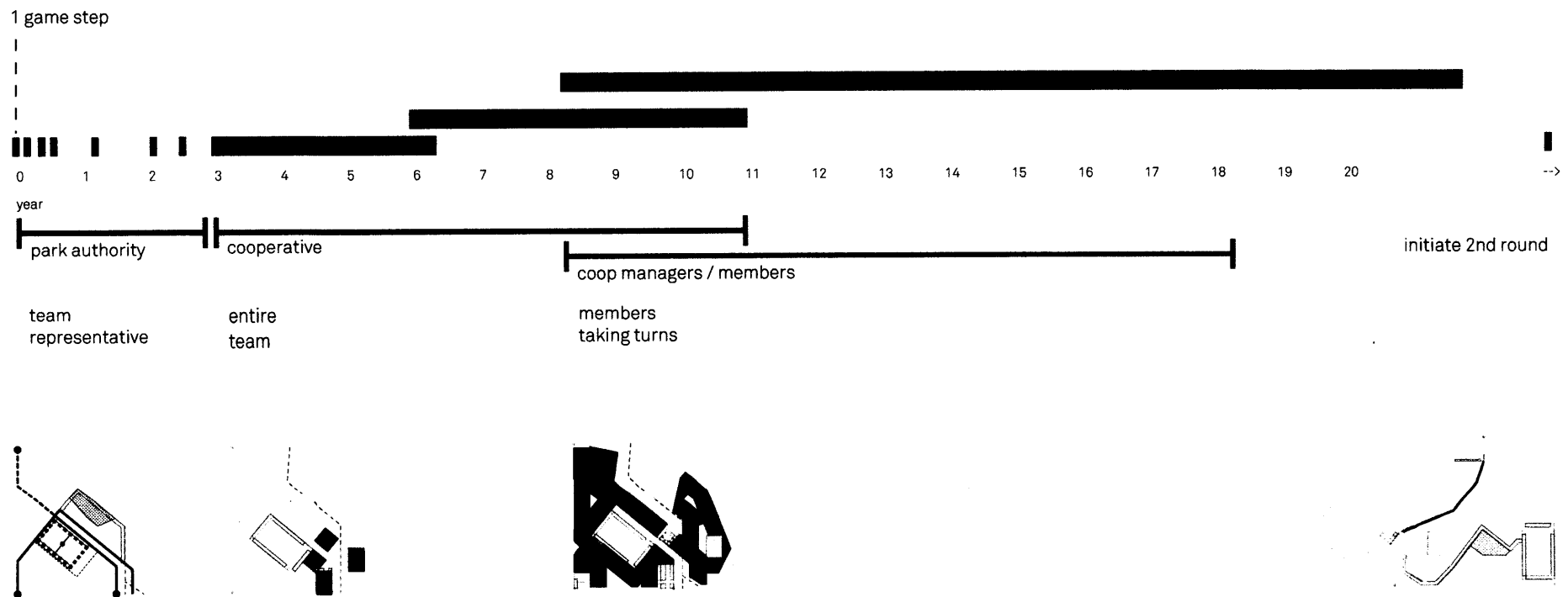
<sup>1</sup> Hillier, Bill, and Julienne Hanson. *The Social Logic of Space*. Cambridge: Cambridge University Press, 1989.

## Players

The first group of decisions, centered around the demarcation of the landscape framework, are made by a team representative standing for a cooperative representative working alongside the park authority.

The second group of decisions, focused around configuring key built structures, is made collectively by the entire team, representing the meeting hall decision-making that has defined nearly all significant construction and social projects at La Salada.

The final group of decisions configures the smallest, weakly-programmed modules that form clusters populating the rest of the site. These final choices are made by individual team members taking turns. With the start of a new round, the team representative, or “park authority” decides which direction to expand.



**Figure 37** A timeline reflecting player groups and respective sequence of moves. During the course of gameplay, each team of 2-4 players fills all roles by appointing a representative, by deciding as a whole group, and by taking turns as individuals decision-makers.

## Sequence of Relational Rules

In the *Language of Landscape*, landscape architect Anne Whiston Spirn describes “performance spaces,” present in human habitats which are generated by “active processes... not simply formal and fixed.” While their shape or arrangement cannot be generalized, elements of “territory, boundary, path, gateway, meeting place, prospect, refuge, source, and sign” materialize over time as people use space.

Fundamental to human life, such spaces may be recognized by culture, and are reinforced by design.<sup>1</sup> This insight suggests a loose, nondeterministic structure for mapping places of flux, an incremental commercial settlement, for example.

Structuralist Bill Hillier proposes a related idea, arguing that urban form follows the formation process of social structures which are unique to a place and people, and one can map activities of control and freedom by mapping the relationship of enclosures and paths.<sup>2</sup> Without accepting his level of environmental determinism, one indeed finds it more useful to understand the structure of an informal site such as La Salada as process-driven in this manner, rather than as characterized by the present forms.

Yet, how does the process of assemblage at the

original La Salada, in which un-prescribed pieces are arranged by many individuals, with unspoken relational rules, relate to the process of assemblage proposed by a designer, of predefined pieces, with defined relational rules?

Like the former process, the proposed approach is additive and based on immediate need and activity. More specifically, both create spaces that address a basic commercial, productive or logistical need while providing for a second, but perhaps more important, social or cultural activity. However, a designer, particularly in the beginning stages of development, can embed considerations of landscape, future expansion, and experiential sequence into the additive rules while re-interpreting activities demonstrated by the original case.

The first set of rules, generating the initial landscape framework, call for the surveying of the topography of a chosen area of land to demarcate areas, points, and lines that are ready to adapt to the most immediate activities and needs. The next rules build upon this framework by expanding or framing it as occupation advances. As a result of the initial attention given to the inherent potential of existing topography, territorial meanings may remain intact, even as the dimensions, form, and function of spaces evolve.

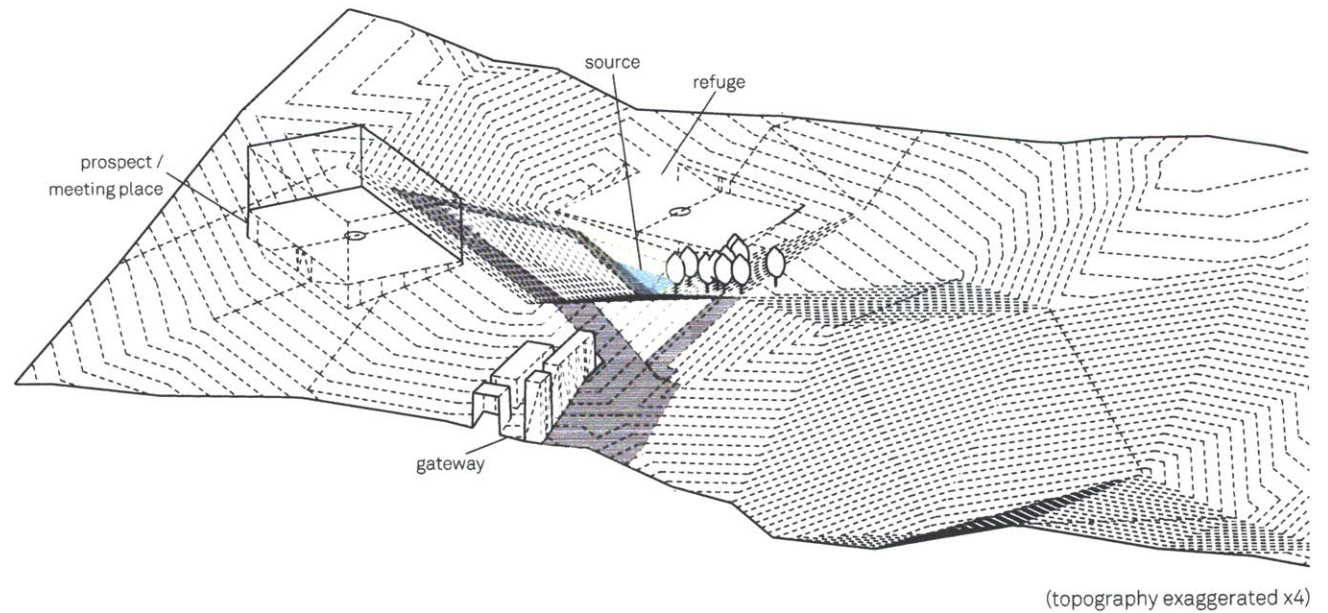
The diagrams on the following pages (Fig. 39-47) demonstrate three hypothetical teams playing out

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1 Spirn, Anne Whiston. *The Language of Landscape*. Yale University Press, May 1998. 121.

2 Hillier, Bill, and Julienne Hanson. *The Social Logic of Space*. Cambridge: Cambridge University Press, 1989.

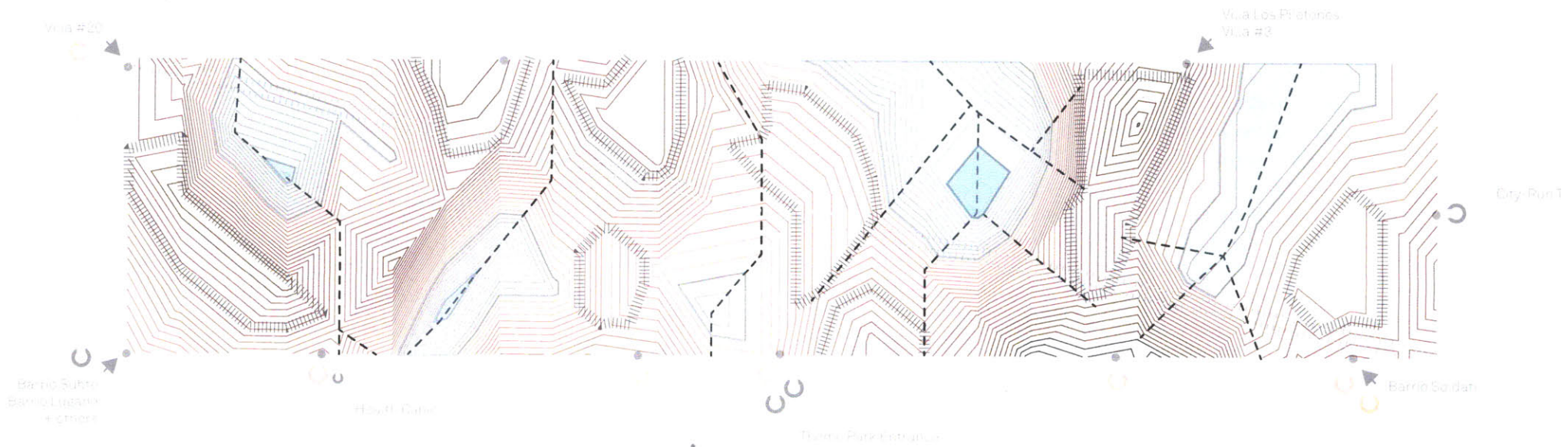
the game sequence on the same board, for the sake of brevity. Ideally, each team is given their own blank board on which to play, so as not to interfere with other clusters. Alternatively, one team can add onto the finished design of another team, or a single team can generate an extended arrangement through multiple rounds.



**Figure 38** The first moves address the most immediate activity: gathering around play. Satisfying its circulation and drainage requirements forms a basic social structure that extracts potential meaning from existing landscape topography.

## Step 1

Park Authority: Identify basins, flow paths, and ridges.



### Game Stages & Rules

1

park authority

Identify basins, flow paths, and ridges.

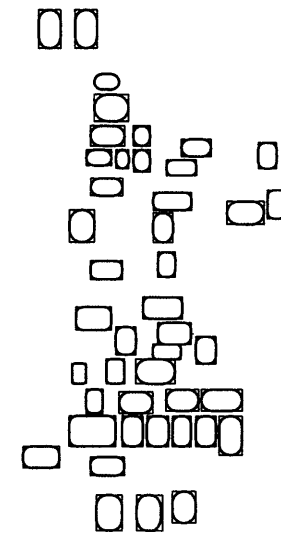
in game  
Signposts

## Step 2

Park Authority: On high ground with outward slope less than 2.5, mark a soccer field. Within a basin, mark a 2nd soccer field to serve as an immediate infiltration reserve and a future play area.

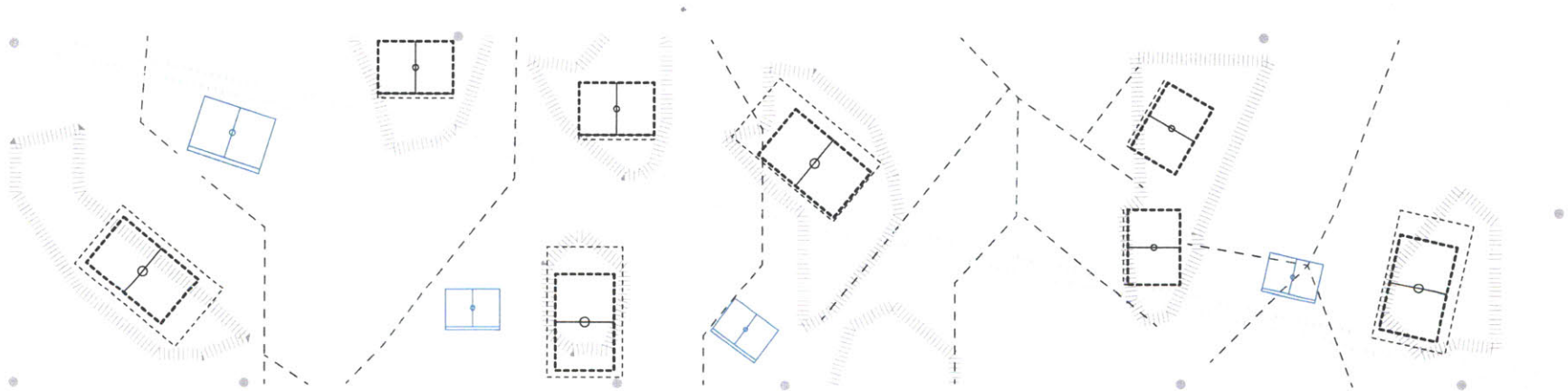
At both La Salada fair and at Parque Indoamericano, soccer fields are sites of significance greater than the sporting act itself. From 2004-2008, weekly gatherings of the migrant Bolivian population were observed on the parkland immediately north of the study area. The soccer field module was a device for organizing the assembly of 6,000 on a weekly basis into original Bolivian hometown affiliations. Before use of the park was banned in 2008, tournaments set the stage for market vendors, music and dance performances, and political demonstration (Canelo). This is the rationale for making the soccer field a first strategic move in the occupation of the study area.

Demarcating a significant swath of high, flat land for a simple soccer field, with a perimeter buffer area, gives a group an immediate reason and means to gather on a negligible budget.



**Figure 48** From 2004-2010, Parque IndoAmericano had been subdivided during weekly mass gatherings based on Bolivian hometowns, using soccer fields as a module for parcelization. (Source: Brenda Canelo, redrawn by author)





2 park authority

On high ground with outward slope less than 2.5, mark a soccer field.

Within the basin, mark a 2nd (future) soccer field to serve as reserved infiltration area.

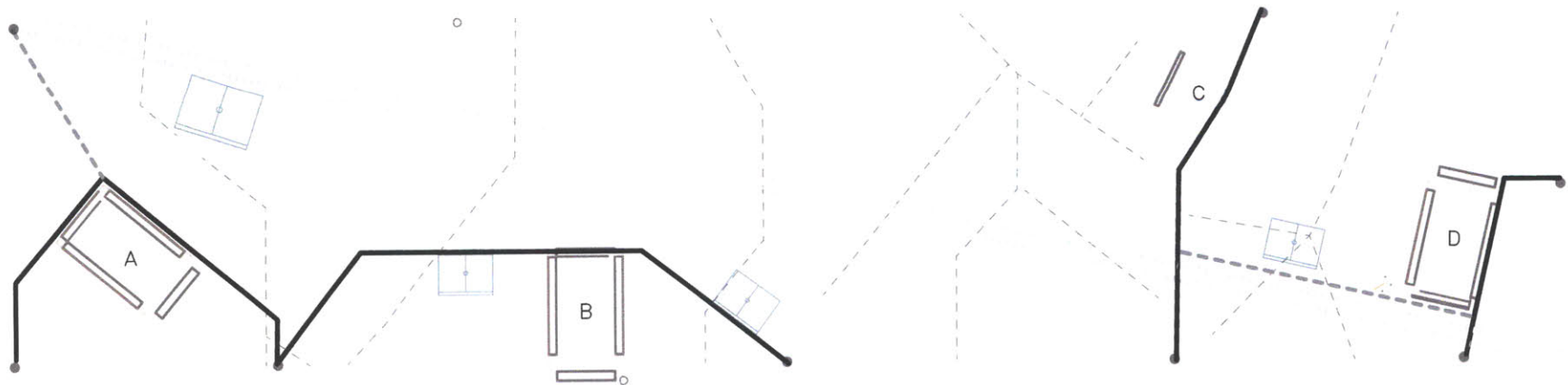
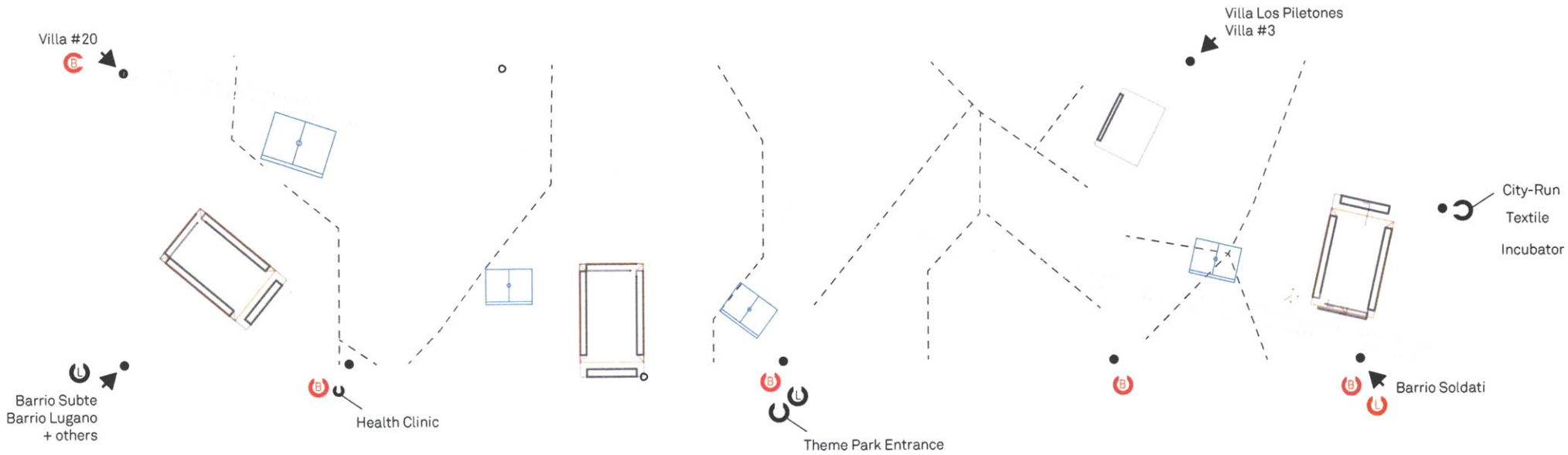
## Step 3 & 4

Park Authority: Choose at least 2 origin points along the edge of the park near the chosen soccer field locations.

Link Paths to soccer field.

Linking at least two origin points along the perimeter of the site are fundamental to activating the soccer field with existing local needs. An external connection of at least two existing parts ( community to asset, community to transit, or community to community) can give the arrangement an immediate meaning by solving an circulation problem.

In a short span of time, path segments most naturally useful to the external users would become apparent. The designers and occupants take note of this and populate these segments with commercial posts. The corner intersection of the field with the paths are designed to “swell” with the leveling of ground and an array of post footings to support canopy, demarcating important nodes for future growth.



- 3 park authority
- 4 park authority

Choose 1-2 origin points for paths.  
 Along high elevations, link paths to soccer field.

## Step 5 & 6

Park Authority: From main origin point, expand the depth of the first two path segments.

Mark flowlines touching these paths with 20' vegetated footpaths. Choose a vertex inside basin to serve as collection area. When possible, use footpath to complete linkages to nearby basins and market clusters.

These thickened paths will serve as the first market ground, strengthened by the social gravity of the soccer field. In reality, one would choose to thicken the width of path segments which have proven most active up until this time. For the purpose of this demonstration, we choose a main origin point and elaborate upon the first two segments.

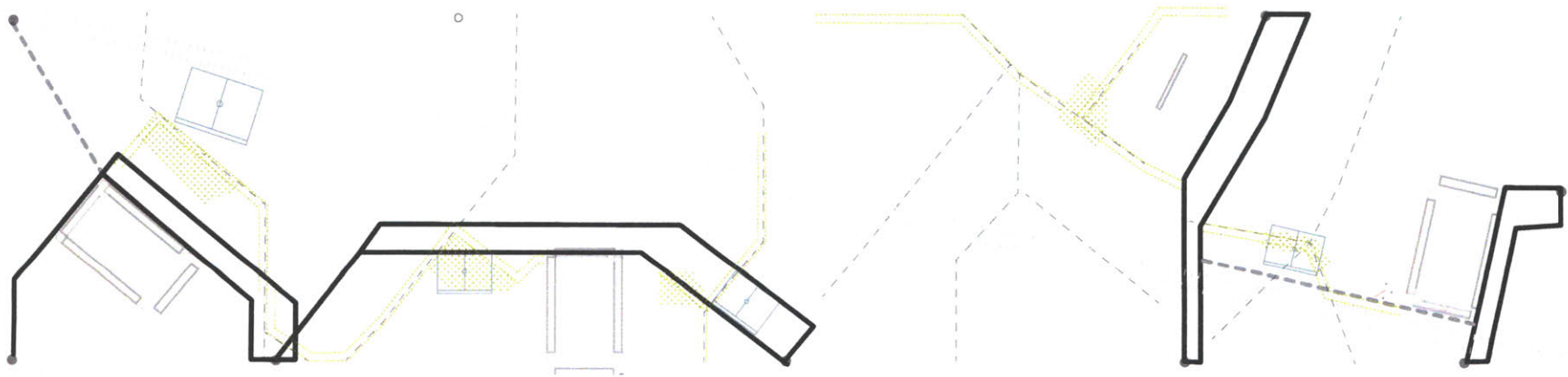
The vegetated footpaths serve to connect the initial paths to the reserve soccer field within the basin and designate line of unihibited water drainage. The footpath is lined with rocks transported from other parts of the site to stabilize ground as well as to discourage permanent construction.

At La Salada, initial gathering spaces were adjacent to

the low-lying footprint of the public saltwater pools in of the 1940s. Eventually, these footprints, as well as the drainage paths surrounding the lagoon, were tresspassed by concrete fill. Flooding of surrounding fabric has resulted.<sup>1</sup> This is the rationale for establishing drainage paths as important circulation paths.

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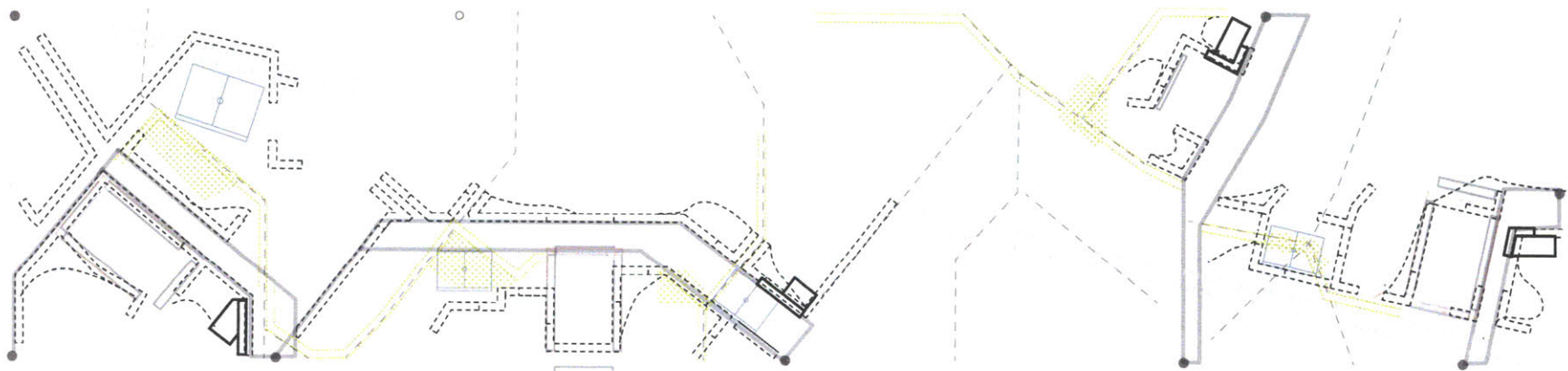
1 Julian d'Angiolillo. Tu Parte Salada. 2011. Infographic. Post-It City, Buenos Aires. Web. 22 May 2012. <[www.tupartesalada.com.ar](http://www.tupartesalada.com.ar)>.



- |          |                |  |
|----------|----------------|--|
| <b>5</b> | park authority | From origin point, thicken the depth of the first two path segments to provide extended informal market space along the path.  |
| <b>6</b> | park authority | Mark flowlines touching these paths with vegetated footpaths. Choose vertex inside basin to serve as collection area. When possible, use footpath to complete linkage to other clusters. |

## Step 7

Cooperative: Construct an incubator near main origin point and facing paseo. This will provide for initial needs such as storage and administration space, as well as serve as a gateway to secondary circulation paths.



7

cooperative

Figure 2-4

Build incubator near origin point and facing path.  
This will serve as gateway to internal shared spaces

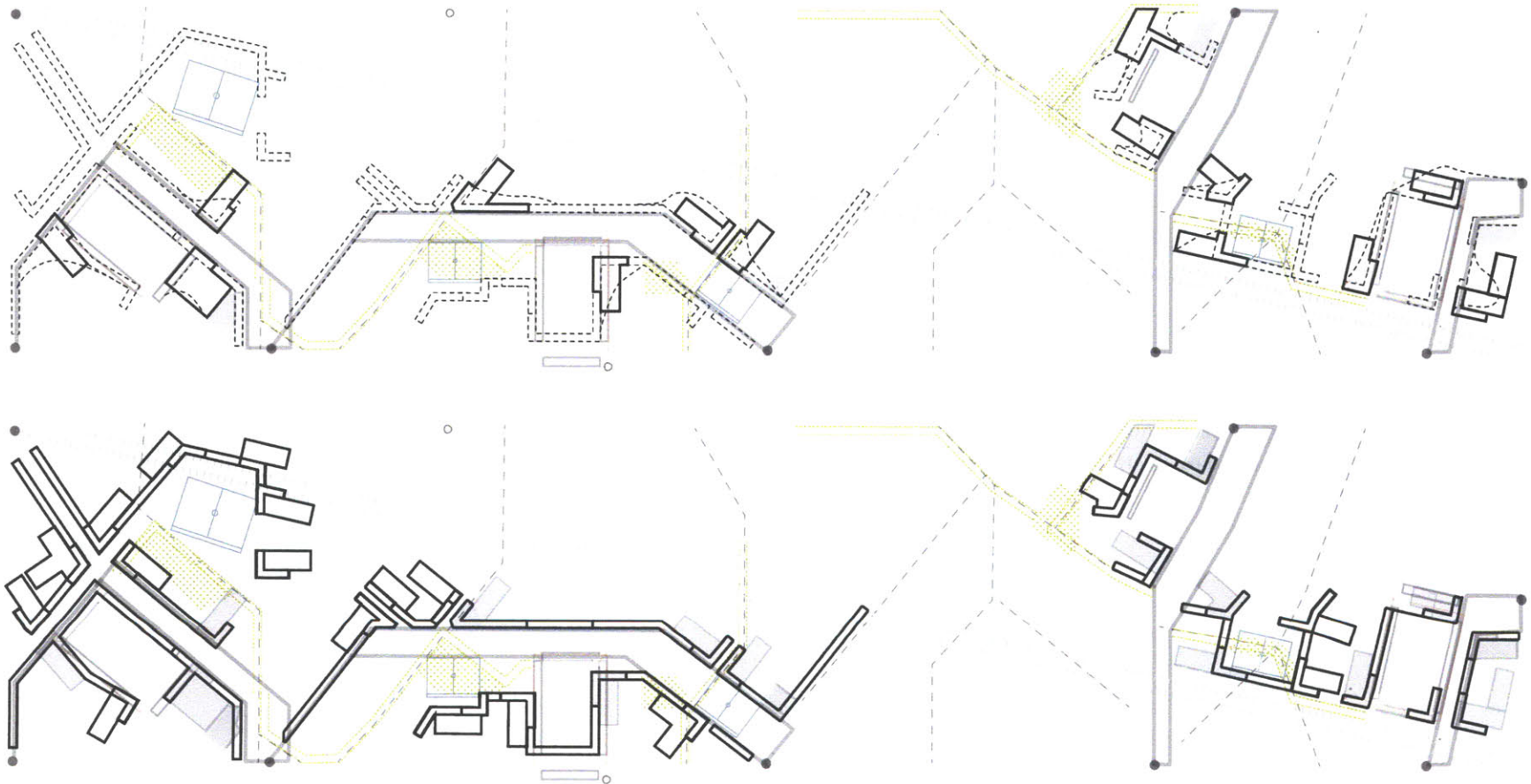
## Step 8

Cooperative: Plug-in large shared facilities, starting with the most active corner intersections of soccer fields with paths. This includes a market canopy, education hub and production hub. Both market canopy and production facility should have room to expand in at least one direction.

These structures serve to demarcate the significant corners of the primary gathering space, the soccer field. Pairs of pavilions face one another to form small external logistical yards.

Meanwhile, 20' strips of infrastructure, at strategic segments along paths, provide services for future construction as well as informal gathering and vending. The strip includes leveled ground, steps, ramps, seating, and lightweight posts for erecting temporary canopies.





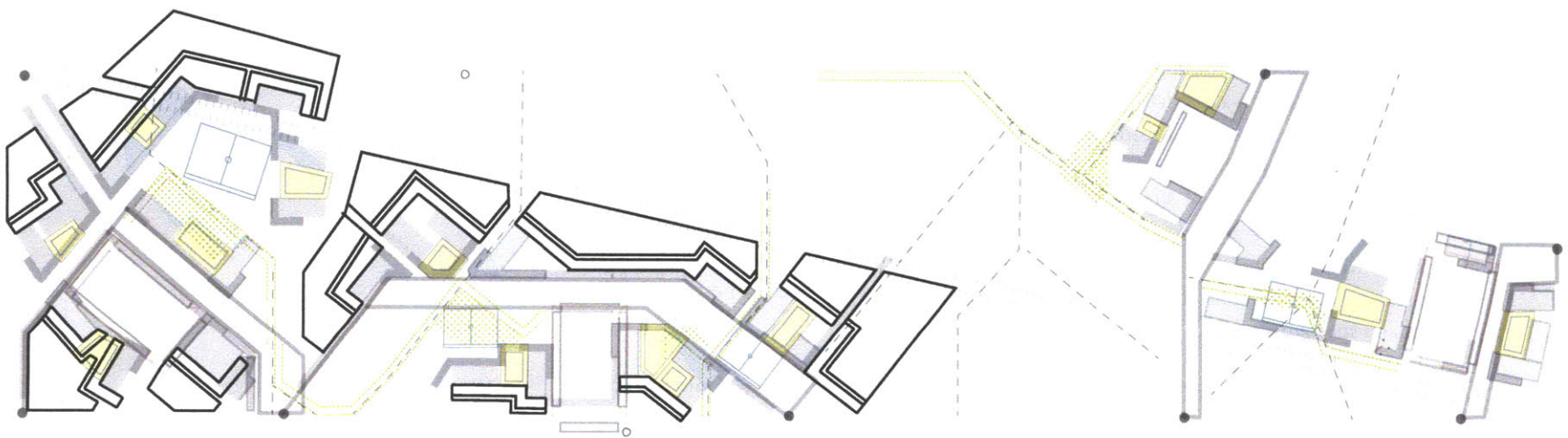
8

coop members

'Plug-in' large shared facilities, starting with the corner intersections of soccer fields with paths. This includes a market canopy, education hub and production hub. Both market canopy and production facility should have room to expand in at least one direction.

## Step 9

Individual Cooperative Members: Plug-in a succession of small, free-programed units, beginning by attaching to the large shared pavilions and next to the linear service strips.



**8** coop members

'Plug-in' large shared facilities, starting with the corner intersections of soccer fields with paths. This includes a market canopy, education hub and production hub. Both market canopy and production facility should have room to expand in at least one direction.

## Components

In this section, built components are described in the sequence in which they appear in the moves.

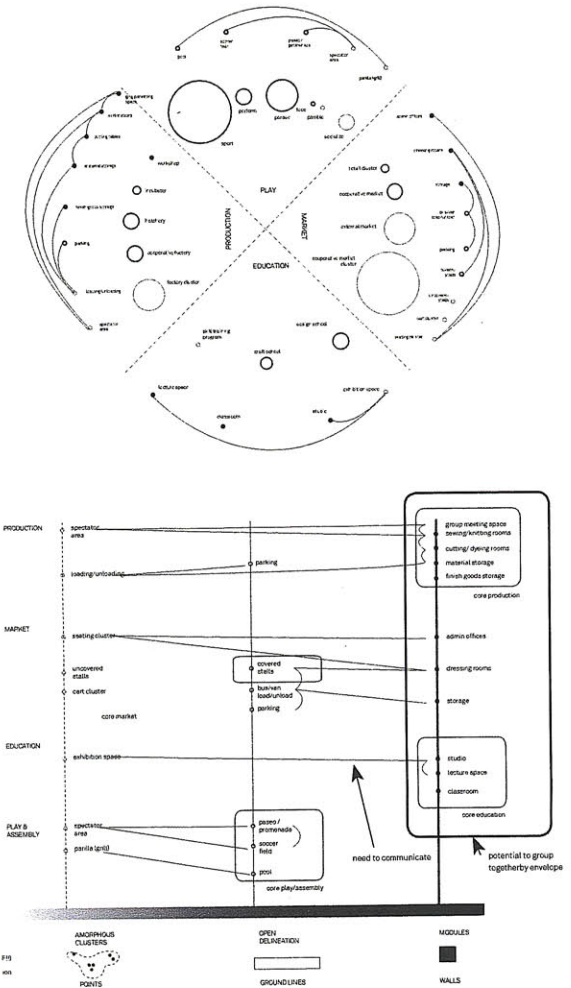
**Soccer Fields:** The first field serves as an exchange point- the heart of an informal market. Doubling as a prospect point, it evolves readily into the tallest, most visible piece of the complex. Over time, the perimeter buffer area is framed with continuous concrete strips which serve as roof shelter and earth berms which serve as terraced seating. Later on, as commercial and logistical activities overtake this largest structure, the second soccer field, with a bit of site manipulation, is ready to receive players and spectators. This new field is experienced as a refuge, certain to have at least one gentle facing slope that both shelters it and readily accommodates spectators.

**Corner Shared Pavilions:** Large 50'x120' parcels mark intersections with versatile, open pavilions for exchange, production, and learning. Each takes the form of a flat, elongated roof canopy with solid enclosures anchored one corner. These structures suggest the direction of future expansion along intersecting paths by orientation and by deliberately providing structural hook-ups and infrastructural systems on certain sides. As the perimeter buffer of the soccer field begins to grow vertically, these roof canopies will become united and serve as cart and van circulation and parking. The covered open area along each module provides a flexible space for informal market activity. The first pavilion constructed is an “incuba-

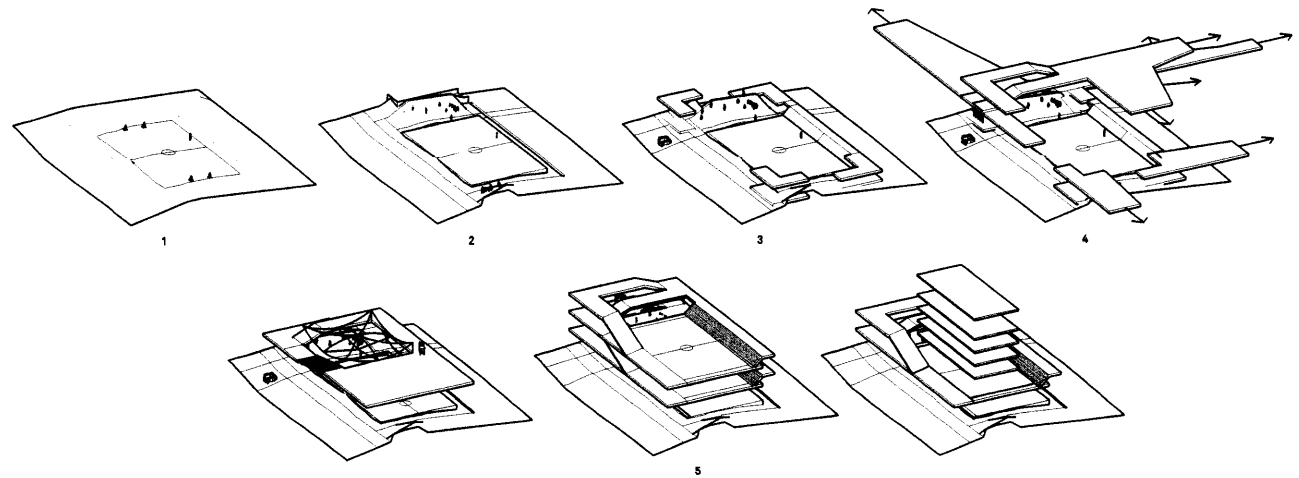
tor,” which, while providing for basic needs such as on-site admin, storage, and information space, is also a permeable space which serves to “thicken” the perceived depth of the paseo. It introduces the first internal public circulation. Over time, as the complex densifies and the structure no longer stands alone, it remains distinctly permeable gateway-like place.

**Perimeter Service Strips:** Meanwhile, 20' strips of infrastructure, at strategic segments along paths, provide services for future construction as well as informal gathering and vending. These strips first built from the initial corner pavilions established on site. The strip includes leveled ground, steps, ramps, seating, and lightweight posts for erecting temporary canopies.

**Small Mixed-program Units:** Within a 30'-deep area of land wrapping behind the large shared spaces, these autonomous units provide affordable storefront workshop and workshop housing space. A narrow path provides a service access or second frontage to these units. This path is accessible at regular intervals along the main strip as well as a through the shared pavilions. Sized from 400 to 1000 square feet supporting up to 2 levels, they are affordable to the smallest of enterprises. Moreover, their structure takes advantage of the outer columns of the shared facilities and service strips.



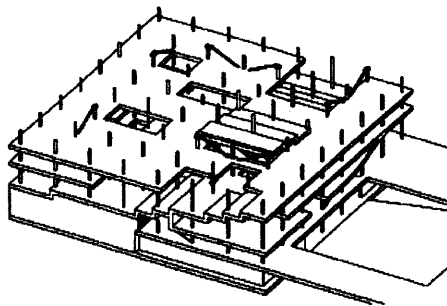
**Figures 49** Analysis of commercial, productive, and learning activities, their required spatial definition, and their need to communicate.



**Figure 51** As the first move in the occupation, the soccer field is the component which tie all other components together, and it evolves over time to match the largest demands for unified space.

The assemblage of horizontally-oriented pieces evokes ideas about mat-building. Allison Smithson introduced the term to describe an architecture which “epitomize[s] the anonymous collective; where the functions come to enrich the fabric and the individual gains new freedoms of action through a new shuffled order, based on interconnection, close knit patterns of association and possibilities for growth, diminution and change.”<sup>1</sup> Paralleling Stan Allen’s description of the origins of mat-building, they are conceived as “spaces for movement... merge[d] with spaces of assembly. Internally, nearly all exhibit a porous interconnectivity, in which transitional spaces are

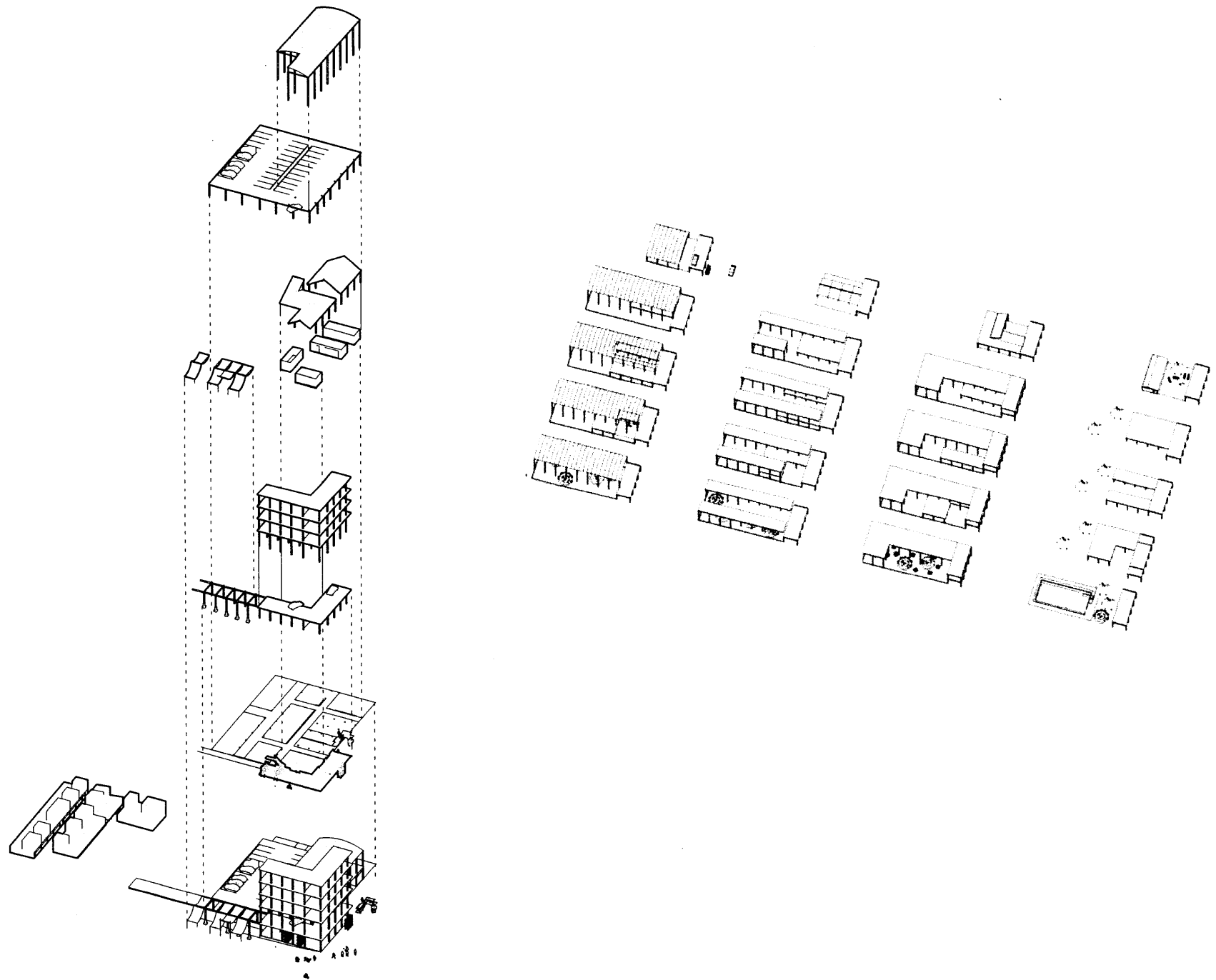
as important as the nodes they connect. Externally, they are loosely bounded.” However, unlike mat-building, the design is not “anti-monumental,” but on the contrary, pragmatically seeks an immediate monumentality. Moreover, Allen describes mat-building as an assembly type characterized by “the way in which the parts fit together, and the character of the void spaces formed by their architectural matter.”<sup>2</sup>



**Figure 50** Like La Salada and the built proposal, MVRDV’s Villa VPRO office delineates space primarily by manipulating stacked horizontal planes. 1

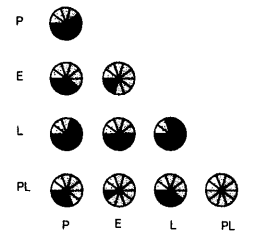
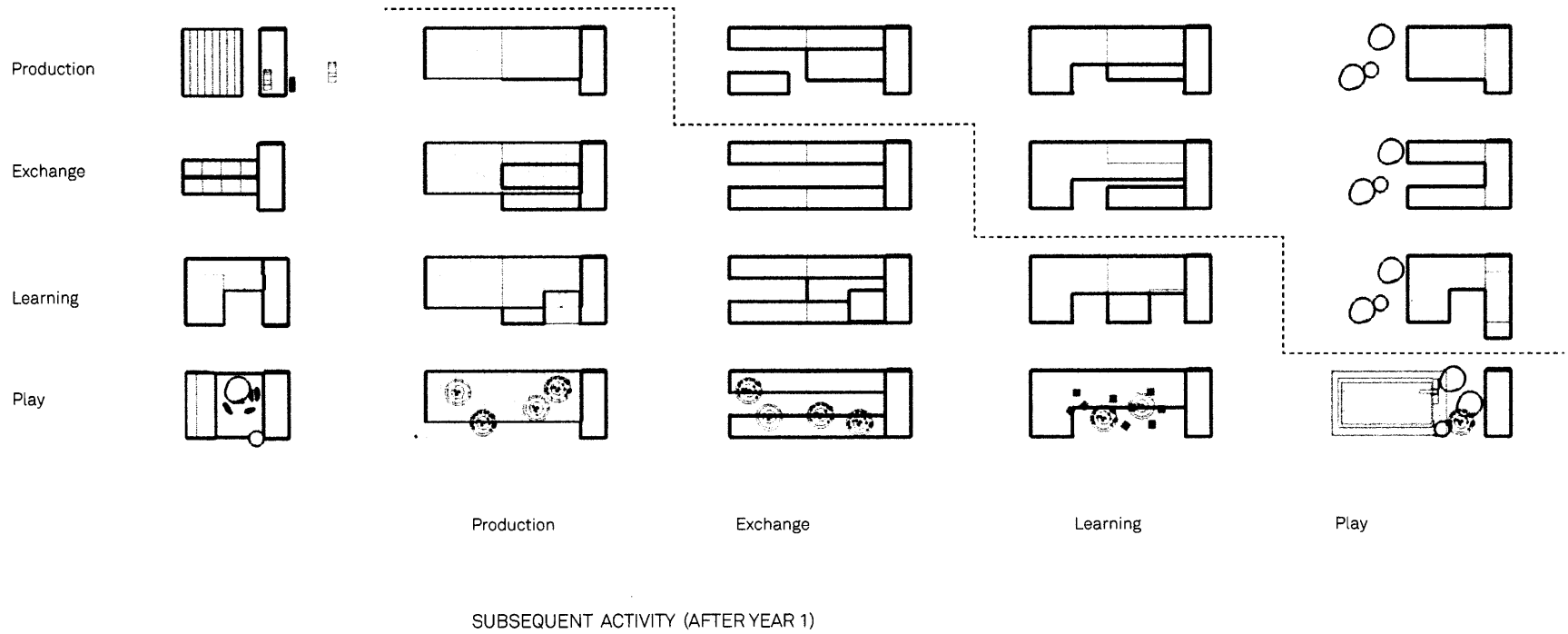
1 Smithson, Allison. “How to Recognize and Read Mat Building.” Case: Le Corbusier’s Venice Hospital and the Mat Building Revival. Ed. S. Sarkis, Ed. P. Allard and Ed. T. Hyde. New York: Prestel, 2001. 90-103.

2 Allen, Stan. “The Thick 2-D: Mat-Building in the Contemporary City.” Practice - Architecture, Technique and Representation: Revised and Expanded Edition. . 2 edition. London: Routledge, 2009. 193-214. Print.

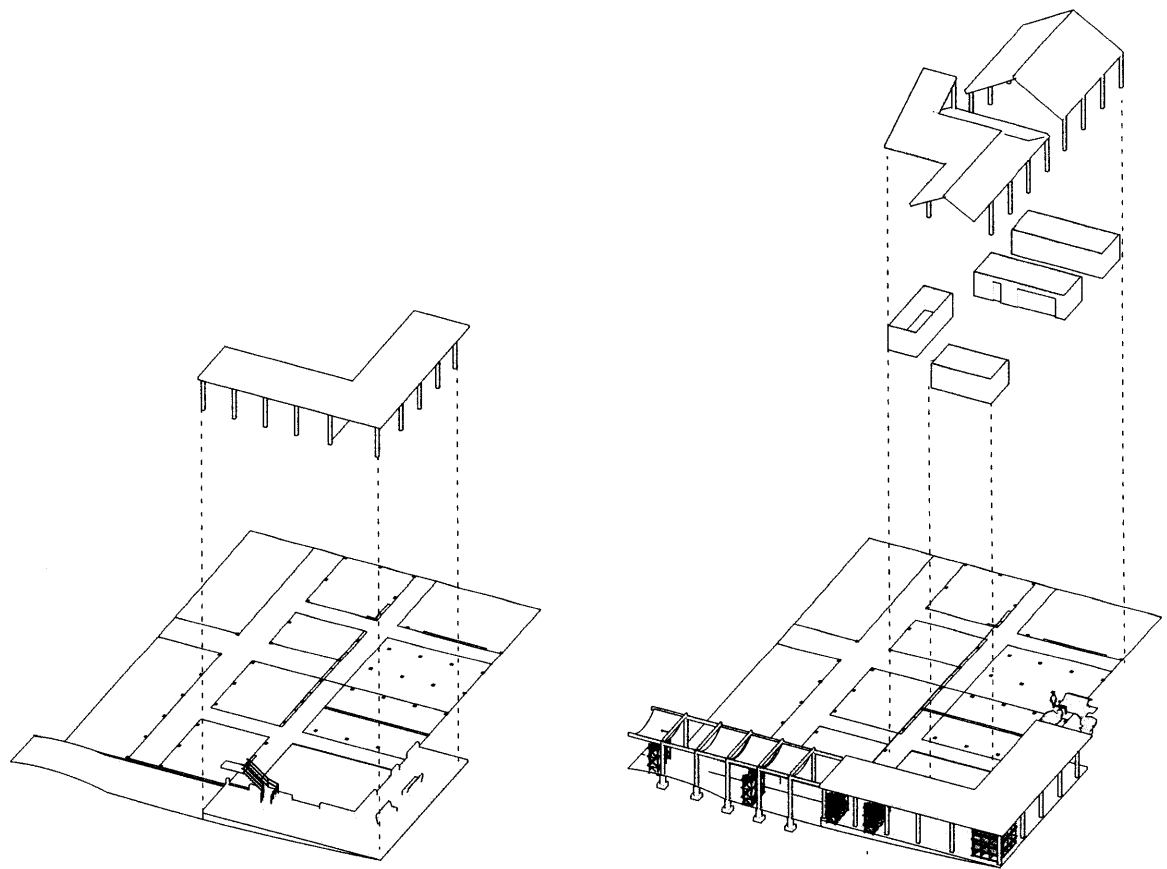


**Figure 52** Shared pavilion spaces incorporate a series of material assemblies in response to increasing demand for larger unified space over time, as well as rising budgets.

INITIAL ACTIVITY (YEAR 1)



**Figure 53** Plan diagrams of large shared pavilions. Shared pavilion spaces at corner intersections respond to initial activity and subsequently evolve to changing demand. A rough ratio was estimated for the required open, covered, and enclosed spaces for each activity or combined activity (bottom right).



**Figure 54** Taking from observations at La Salada, each of five primary assembly types provide a specific adaptability comprised of a combination of two ideas: Versatility, or the “ability of a building to accommodate a variety of uses without the need of comprehensive remodeling,” and flexibility, or “the ease with which... parts of the building can be redesigned or remodelled so as to accommodate new uses.”<sup>1</sup> The property of being movable is a third addition to this definition.

a  
flexible / movable  
scaffold

flexible  
concrete frame

vertical transitions, seating, utilities, vending

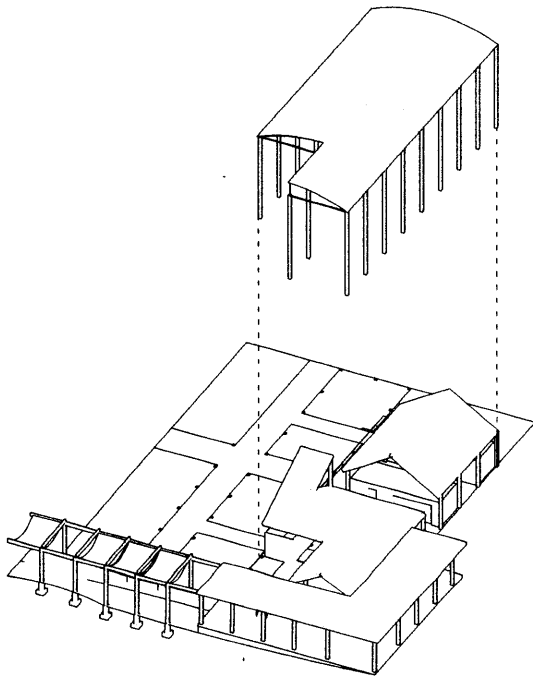
b  
flexible / versatile / movable  
lightweight vault truss / concrete frame

flexible / movable  
lightweight panel

specialized activity, administration, services

1 Tornqvist, 204-205.

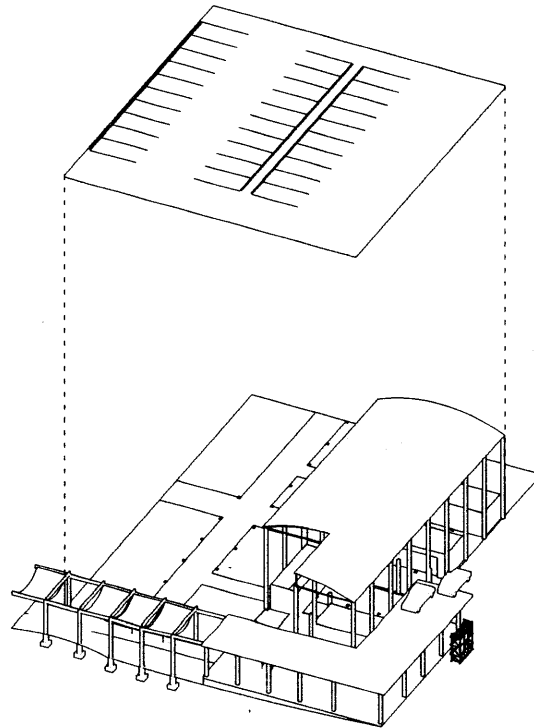




c

versatile  
longspan vault truss

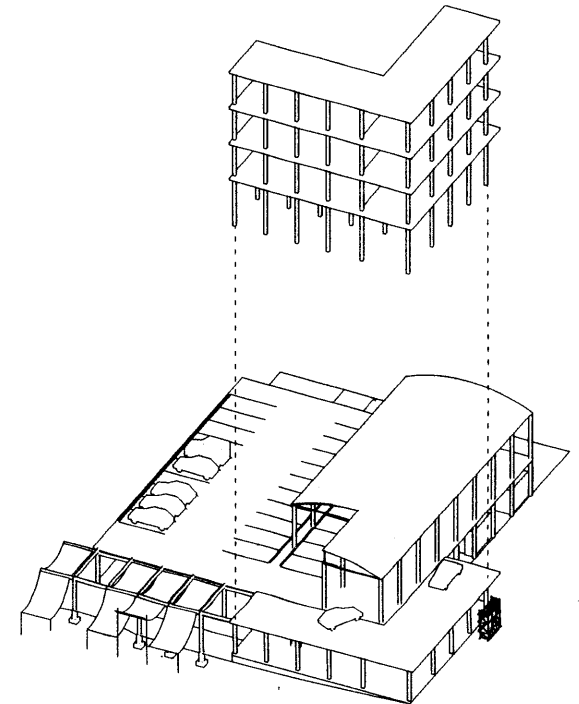
freeformed activity, vending, logistics



d

flexible / versatile  
concrete frame

freeformed activity, vending, logistics, parking

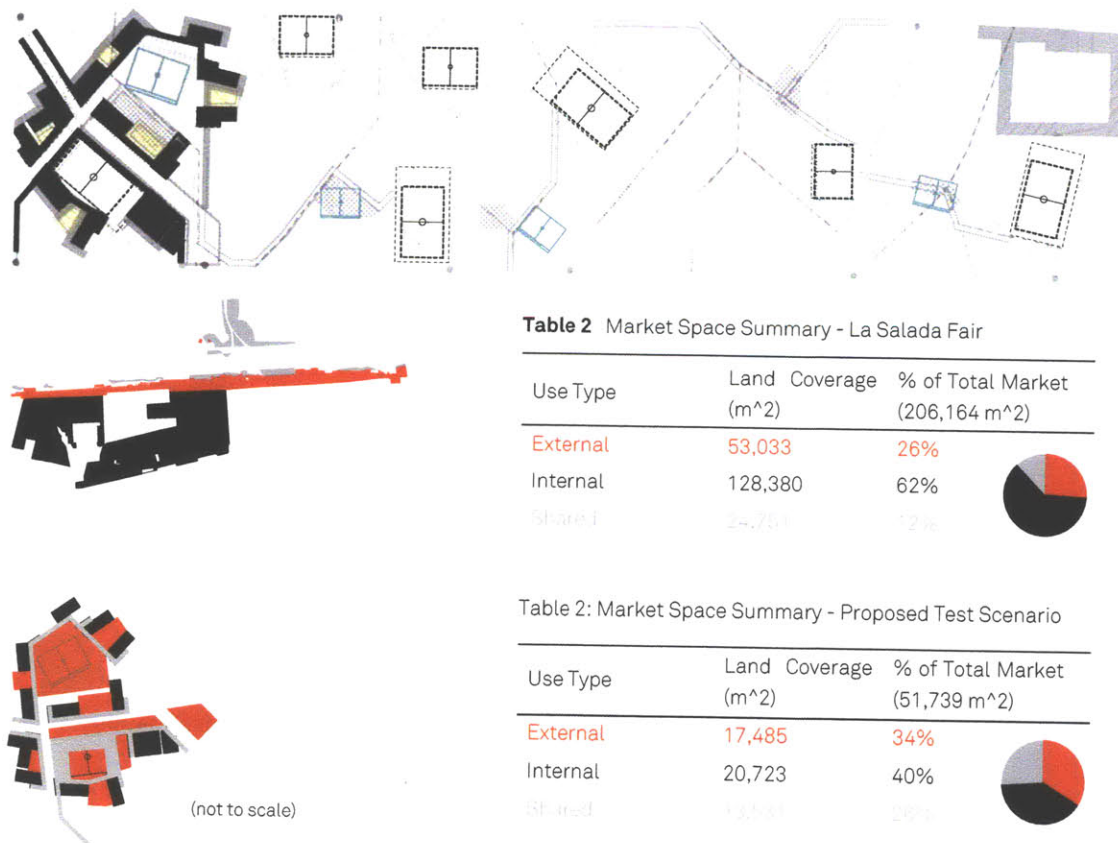


e

flexible  
concrete frame

vertical transitions, offices, housing

## 3.2. Testing a Scenario Through Design



90 **Figure 55** Compared distribution of external, internal, and shared program between La Salada Fair and the proposed scenario.

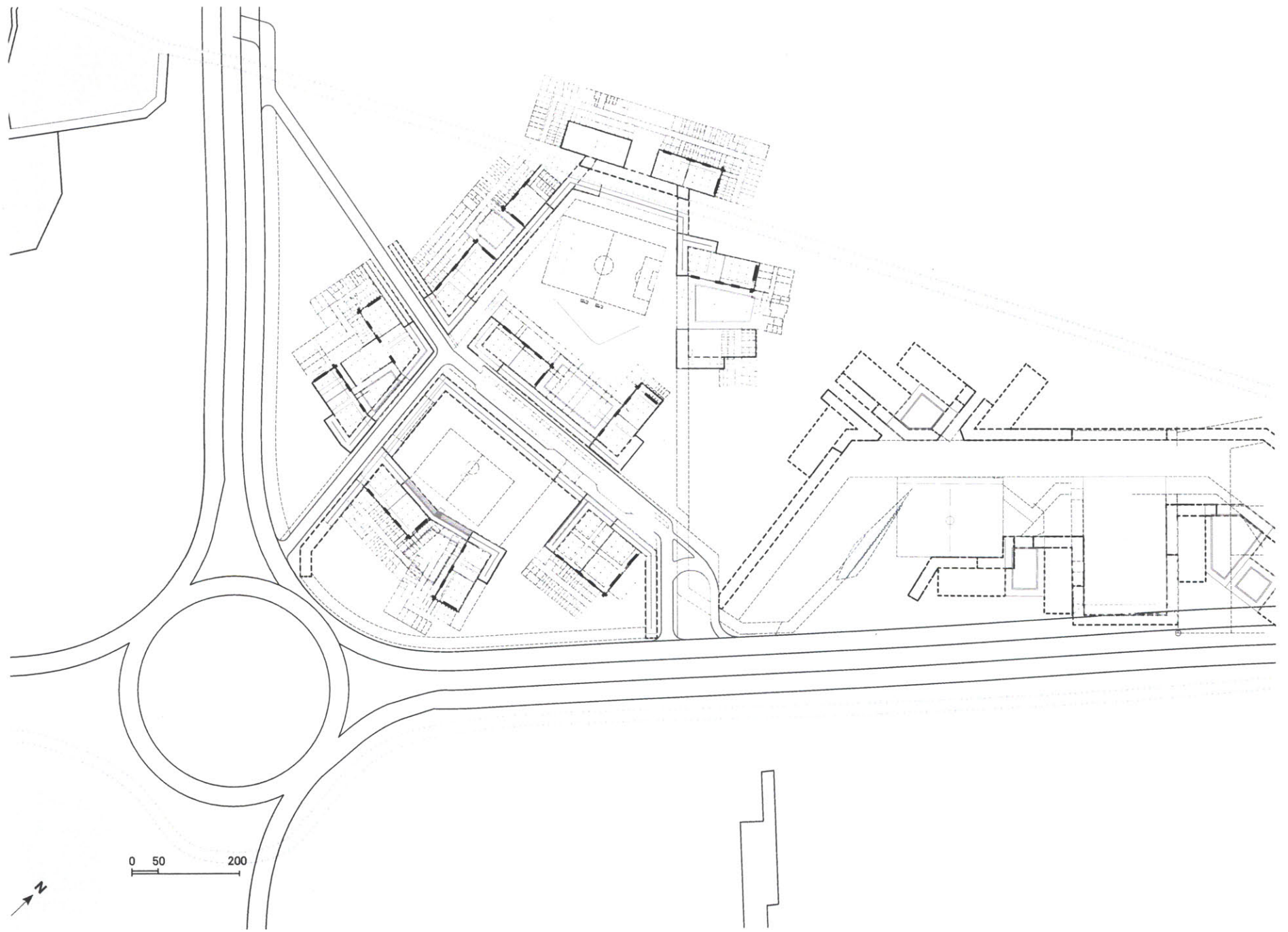


Figure 56 Plan of proposed scenario.

Table 3: Proposal Area Summaries

	Use	# Floors	Area m <sup>2</sup>
Covered	pavilions (internal market)	2	20,723
	strips-no corners	1	7066
	small mixed units	2	3852
	covered soccer	3	6466
	corner strip towers - 13	3	3674
	<b>total</b>		<b>41,781</b>
Uncovered	main path 1		731
	main path 2		1,071
	along footpath		3,432
	soccer 1 (not covered)		4,615
	soccer 2		6,064
	courtyards		524
	<b>total</b>		<b>20,917</b>

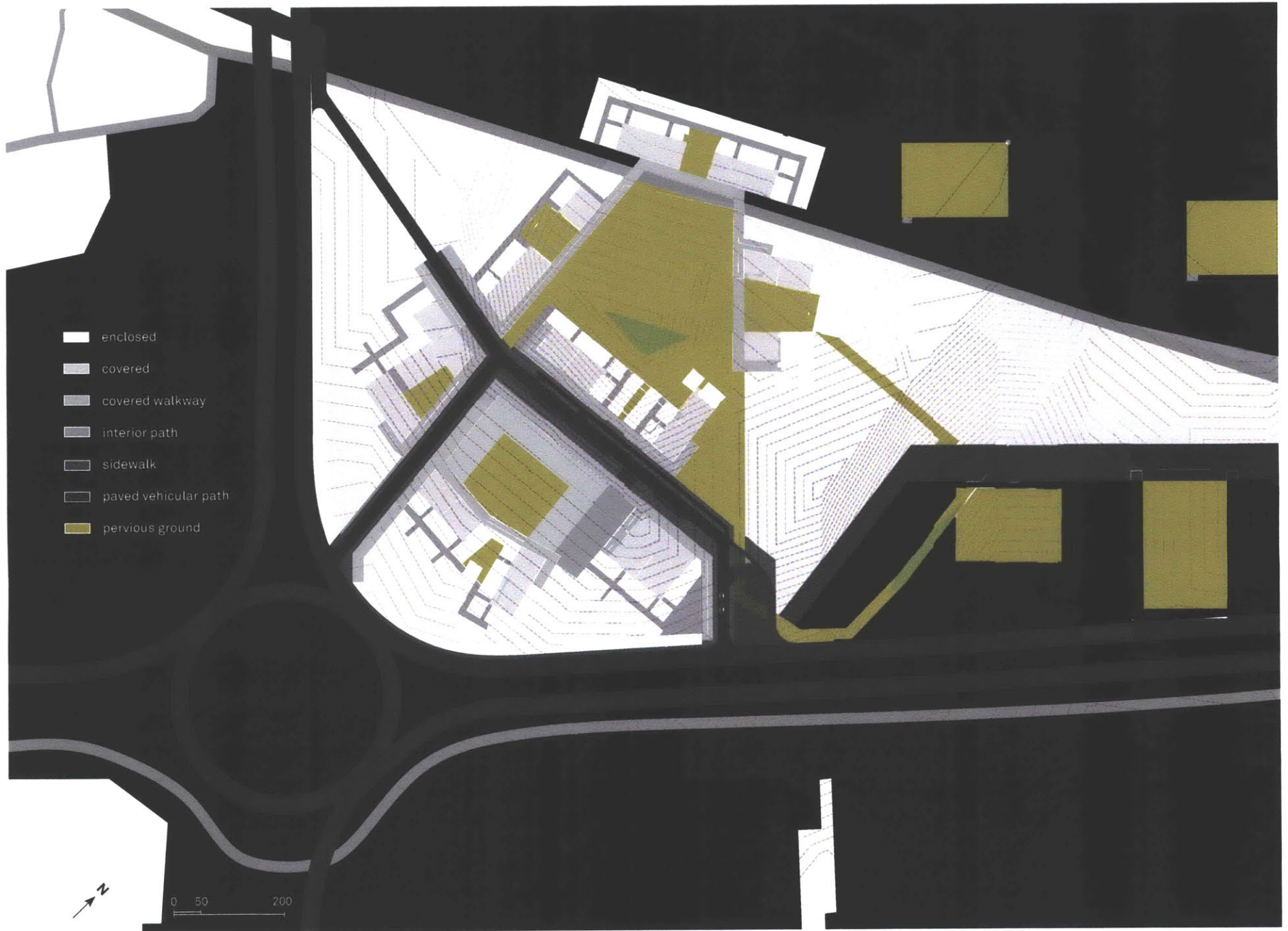


Figure 57 Open space zone diagram of proposed scenario.



Figure 58 Sample scenario in year 1.

Year 3



Figure 59 Sample scenario in year 3.

Year 5

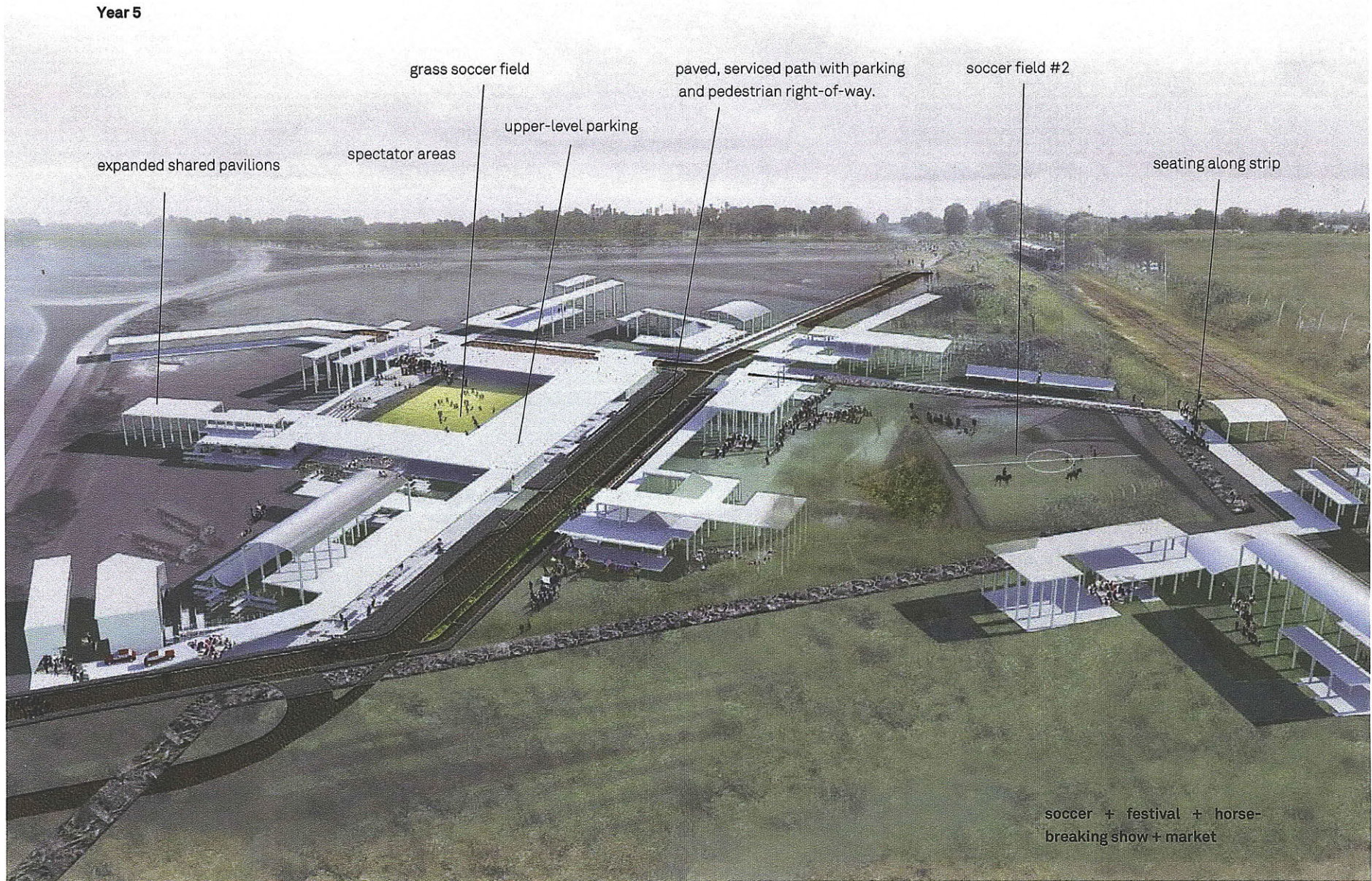


Figure 60 Sample scenario in year 5.



Year 20

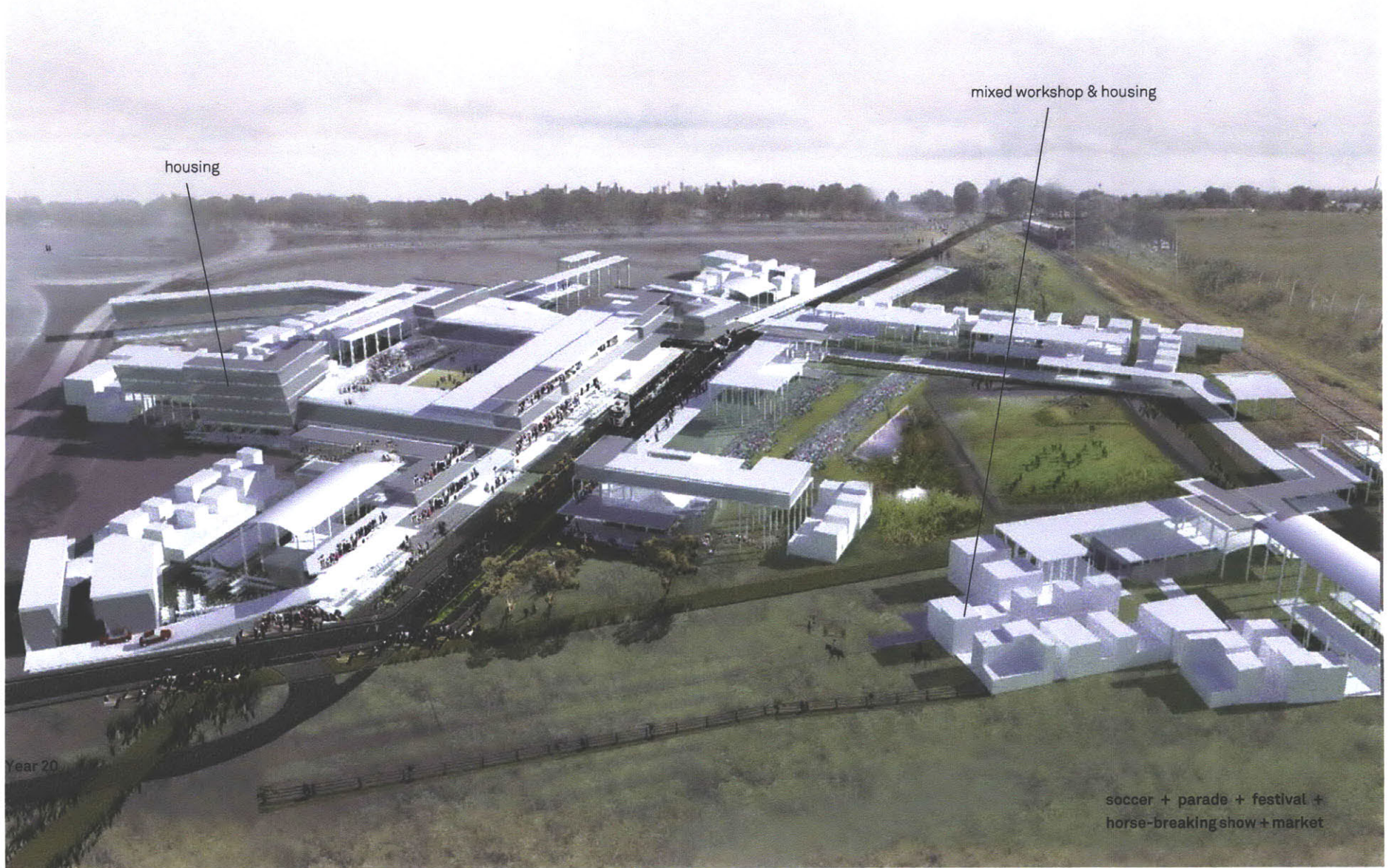


Figure 61 Sample scenario in year 20.



**Figure 62** View of proposed factory-market development scenario from existing light rail line along Southern edge of site.

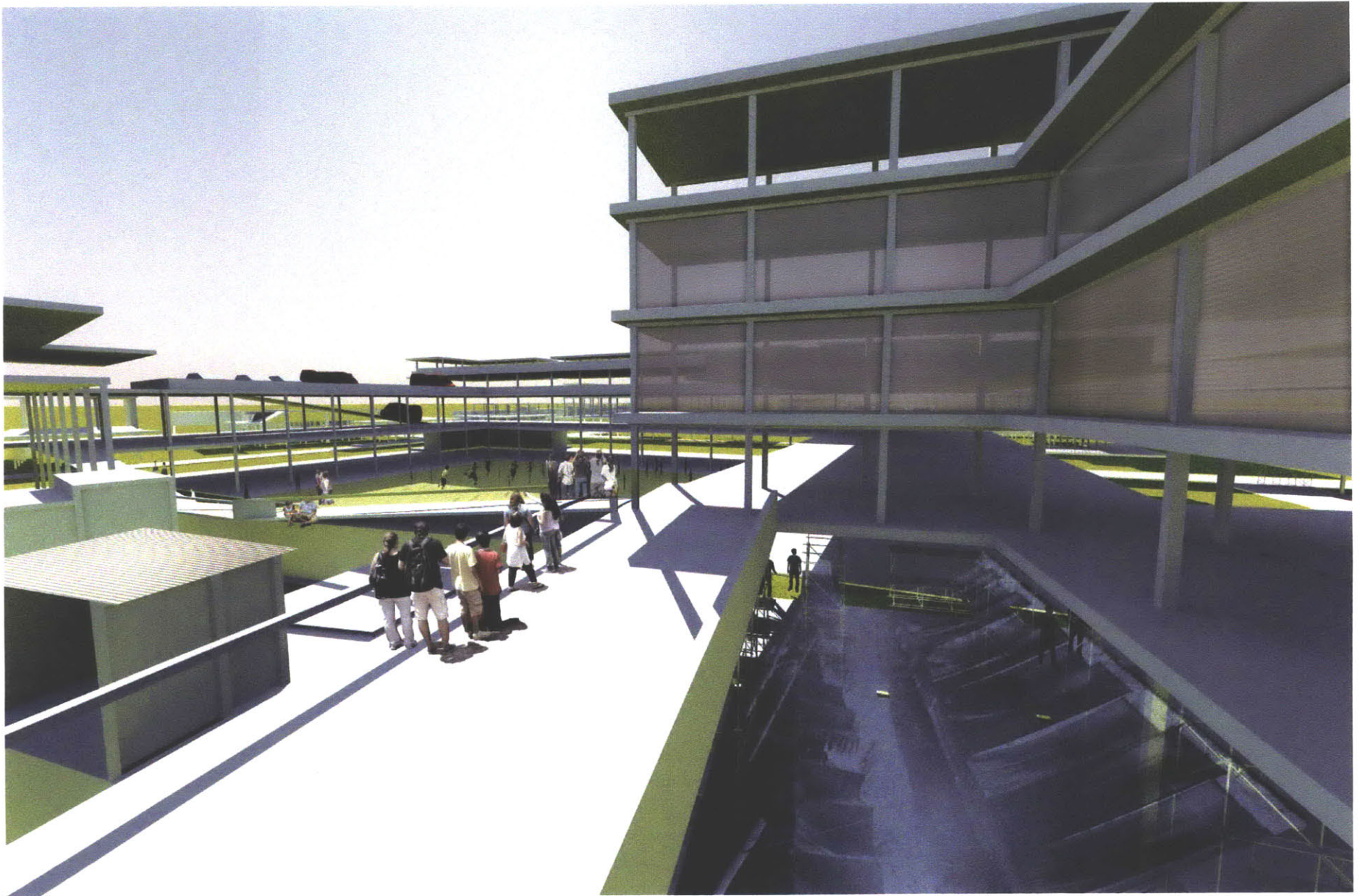


Figure 63 View of first soccer field from upper level of a corner market pavilion.

## 4. Reflections

### Conclusion

Drawing from the example of La Salada Fair in peripheral Buenos Aires, the thesis investigated the role of regional as well as fine-grained spatial principles in the success of a large, extra-legal commercial settlement in advanced stages of development. A conceptual proposal for a relocated and better-integrated factory-market evolved from a critique of these spatial principles. Determining that variety, participation, and gradual development drove the physical character of the study case, the proposal experimented with a design methodology centered on a game. Taking a sample outcome of the game, a design was elaborated and then evaluated against the original criteria. The most dominant criterion was to accommodate a resilient social structure amenable to culture-building play, shaped by the observation that sustained cultural identification had been the driver of the enduring success of La Salada.

Several conclusions arose in the process of completing the proposal which return to the question of maintaining design imperative when faced with preconditions of variety, participation, and gradual unfolding. In the

context of this particular game, one found that variety and participation is cultivated with specific elements and at specific stages.

The most recognizable spatial variety was introduced by making rules that, first and foremost, responded to landscape (particular topography). This contextual emphasis exaggerated the already high level of impact that first moves tend to make on a design. Moreover, formal differentiation at the building-scale was a result of built components that were embedded with constructs for flexibility and versatility, as well as a result of simply providing a wide spectrum of formal options operating on a single logic. Of course, a variety of possible schemes was also an intended result of the participation of others.

Participation was defined by the opportunity for the park authority, cooperative groups, and individual cooperative members to decide on the particular location of additive moves. The game also provided the opportunity for a client group to create their own “goals of gameplay” which would shape the evaluation

phase. The pursuit of these goals acted separately from the pursuit of the designer's own goals, which were secured within other components- the board, rules, and components.

The proposal also took into account the contingency of the ultimate outcome on prolonged, gradual unfolding. To counterbalance the uncertainty that this presented, the design attempted to secure the most important objectives in the first stages of development. Prioritizing play and resilient phenomenological experience, first moves established soccer fields as the dominant geometrical device and a circulation structure tied to "deep structure" of the site, in this case, topography and water flow. Furthermore, certain early moves, in the context of real-world application, relied on retrospection, considering the density of inhabitation as it unfolded thus far. For example, one move required the densification of the most actively-used intersections of the path with the soccer field. Also, in order to survive a long span of time, the rules of development needed to be built on ideas describable in simple, enduring terms.

In a broader sense, this methodology can help to cement the designer's decisions into an urban scheme by providing transparency of logic: although the design is conceived of holistically, it is deliberate in separating individual criteria into particular elements of the design. This transparency may help to add precision to a discussion with other people of a particular design rationale, thus safeguarding the larger design concept. Attempting to premeditate or choreograph the entrance points for others is a strategy for reinforcing design control.

The essence of urban design is nearly always additive: creative vision is either informed by or formed in spite of that which is already present on the site. Masterplans are additive in this regard, and they often attempt to complete, re-orient, or repair existing open-space frameworks. Large masterplans generally profess an incremental quality, but this is often the outcome of a reverse-incremental process in which the final vision is elaborated to the fullest and then subdivided into parts for phased construction. In practice however, masterplans are often redeveloped at the end of each such phase. As a result, re-visioning is a frequent occurrence.

The game presents a metaphor which compresses this iterative process into the designer's initial scheme. It presents a framework for collective evaluation and anticipates distributed actions, while upholding the role of the designer.

## On the Use of a Game

To generalize, the project sets up a framework for arriving at a series of very different, minimal design arrangements that are all at least “acceptable” in light of certain A) landscape and B) relational requirements. The results are predictable in these two types of criteria, plus in the C) design of the modules themselves, which are designed to be amenable to a certain trajectory of growth, evolution, and informality.

A key purpose of the game is to serve as a framework for the city, with community, to evaluate their options while falling within the designer’s chosen hierarchy of concerns. Many of the solutions would be unacceptable by the group’s standards: they are the “losers” in light of the gameplay goals chosen by the group. These criteria involves enough subjectivity or tradeoff between them to prevent them from being prescribed within the board, the rules, and the components, etc.

Unlike a computerized process, this game is an attempt to show how an algorithm might get messy by facilitating intuitive choice or preference. Of course, most abstract games are generally algorithms that hand-off the outcome to intuition, randomness, choice, or skill. The proposed game emphasizes human choice over the randomness and keeps the algorithm loose so that there is enough functional variety between outcomes to foster discussion.

One may critique of the use of a game to begin with. The tendency of a game towards abstraction may result

in greater conceptual clarity but serve as a hindrance to design nuance. In personal terms, I found it helpful for organizing variables and process, but somewhat demanding in the later stages of the project because it called for the design of a manipulatable artifact. The concept of a boardgame demands that the pieces have a certain modular quality and regularity at a particular scale. An initial decision to relate modules symmetrically and size them similarly (like pawns in a chess game) had created the most awkward simplification. In the final iteration, I chose to differentiate modules to a greater extent with form, dimension and nested relationships, but most of these finer-grained details would not show up within the course of gameplay.

**Socioeconomics:** If the study of La Salada is truly to be taken as a series of “lessons,” rather than hypotheses, a more precise socio-economic lens is needed. Thus, a

## Further Research & Design

crucial next step is to further verify the influence of space considerations on commercial settlements in light of economic principles.

It would be a mistake to see this study as an attempt to glorify the aesthetics of an impoverished environment. On the contrary, it is an attempted foray into the study of an essentially socioeconomic phenomenon, observing the physical artifact (and inhabitation of it) as simply one of many possible clues into its innerworkings. For example, one must appreciate the fact that certain qualities of the market which are admirable from afar, such as the collective or egalitarian ethos, is also deeply tied to an economic condition that masks a more important schema of capitalist differentiation. Ananya Roy warns of this “mythicized community” in the study of informal settlements.<sup>1</sup> Thus, the thesis has attempted to steer each observation in the study of La Salada back to a preliminary hypothesis about real socioeconomic prominence of the market. Further research should attempt to verify each spatial hypothesis with respect to economic principles and qualify each with more involved empirical study with constituents of the place.

Furthermore, this type of inquiry must not be interpreted as a celebration of “a utopian recovery of Third

1 “Transnational Trespassings: The Geopolitics of Urban Informality.” *Urban Informality: Transnational Perspectives from the Middle East, Latin America, and South Asia*. Eds. Ananya Roy and Nezar Alzayad. Lanham, MD: Lexington Books, 2004. 289-313.

World urban communities,” as Roy describes the prevailing urban planning idiom of the last decade.<sup>2</sup> To avoid this outcome, the thesis is critical of the fair. It argues that while the fair has been successful in filling a certain void that mainstream culture, the formal sector or government has failed to fill, it is not itself a perfect solution to chronic poverty, nor to the predicament of the migrant worker. One should note that the final spatial lessons extracted from La Salada are not particularly limited to application within a third-world or informal context and should not be able to limit or handicap a development enterprise. On the contrary, outlined strategies aim to benefit any large collective development project. Future empirical research could begin to clarify the transferability of such strategies to this broader context. Targeted research could more precisely analyze physical characteristics of La Salada to verify whether each is truly a *strategy* rather than a *result* of socioeconomic limitation.

**Engaging a Real Client:** As mentioned in the proposed program, the PROSUR-run textile business incubator near Parque Indoamericano could benefit from the study of La Salada during the development of their expansion scheme. The applicability of lessons needs further investigation in light of a general difference in scale between the two. Moreover, while the competitive relationship between La Salada and the enterprises within the PROSUR-run textile business incubation center is felt on real terms by enterprise

2 *Ibid*, p.294.

owners, further research is required to examine the actual overlap of their market bases. In other words, a better understanding of the known crossover between formal and informal marketplaces is needed.

On the other hand, many of the lessons drawn from the La Salada are about culture-making and might be applicable to any type of commercial enterprise seeking to reinforce their cultural relevance. These lessons could be most readily considered by PROSUR.

Incidentally, the city has recently begun masterplanning efforts for the large public open spaces of Com-mune 8. This includes the Parque Indoamericano site. Like this design proposal, the official efforts have economic development objectives for a low-income population as well as environmental overtones. The design proposal might be further refined in light of these officially mandated objectives.

**Landscape Pragmatism:** A key idea in the proposal's first phase is to use existing landscape to one's advantage when on a limited initial budget. This is one of many reasons for working with existing topography, for example, to establish an appropriately sloped soccer field, or to identify a stormwater infiltration area. For the purpose of maintaining clarity, the exercise continued to emphasize topography throughout the larger life of the proposed settlement. Of course, there is also a need to balance this attitude with one which modifies topography for the sake of achieving an efficient use of land. Further design investigation should continue to find a balance between adopting and modifying landscape, particularly in the context

of sensitive, lowlying areas. This is a key design problem for Buenos Aires, which, facing both scarcity of land and rapid growth, has no choice but to imagine a significant level of occupation within such low-lying areas.

**Participatory Planning:** Further research could relate the experiment with the game to previous experiments using games as a participatory framework for design, and moreover, to other types of participatory tools. In particular, one could more closely examine the practical rationale of using a game from the point of view of a planning practitioner. How can enhanced participation help to more effectively and efficiently gauge development options? Can it help to prevent costly future mistakes or help to increase client acceptance of a project? Embedded within the proposal is a faith in the contribution of the design discipline, which leads the proposed game to be more prescriptive than a toolkit but less prescriptive than a masterplan. Future research should experiment with the use of the game *alongside* a toolkit or masterplan. Theoretical inquiry can examine whether integrating this type of designer-prescribed design process is more successfully 'democratic' than an alternative tool used alone.

**Design Methodology:** The methodological experiment undertaken by this thesis can lead one down several paths. Further integration can be made with the following design discourses.

- *Algorithmic or "parametric" urban design.* The attitude taken by the thesis is that pattern-based design



should be highly contextual, based on fieldwork, with the goal of sustaining a deep connection to culture.

A rich urban environment fulfills many layers of criteria. Yet, in the context of a game, each additional design criteria adds a level of complexity which can be a hindrance to gameplay, unless cleverly absorbed by the structure of the game itself. It is understandable how complex criteria may call for more sophisticated processing software than a simple boardgame can handle. Relational Urbanism is an example of the trajectory of this type of thinking. For architects Enriqueta Llabres and Eduardo Rico, even a highly digitized algorithmic design process is a method for generating a variety of options for human discussion, rather than for determining absolutely optimal solutions.<sup>3</sup> Further work could introduce greater processual sophistication to the proposal.

- *Urban design based on active processes rather than on preconceived forms.* The thesis design proposal formulates an urban structure around concepts of *performance space* through interventions corresponding to variable landscape, evolving activities and scales of occupation.<sup>4</sup> This meant that the shape of the larger urban plan was, to a certain degree, improvised and irregular. Later, the assemblage of commercial, productive, and learning spaces were based on an understanding of each program as dissected into an array of fundamental activities. Spaces were provided

recognizing the commonalities between these activities across programs. In this way, final forms were not preconceived from the start.

This was not always true. For example, there was a deliberate attempt to build a marked monumentality around large rectilinear fields, whose shape and dimension are prescribed by the rules of soccer. However, the delineation of these fields was intended to go beyond the sport to fulfill the social role of certain *performance spaces*.

As a result, the final urban form is a combination of both organic assemblages and recognizable forms, each correlated to its own scale of operation. Contemporary design discourse polarizes these two approaches to urbanism into completely unrelated schools, when in reality, there is clearly an important relationship between the two. It would be interesting to explore the character of this relationship in future fieldwork and design.

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3 Rico, Eduardo, and Enriqueta Llabres. "In Progress: Relational Urbanism." MIT, Cambridge. 22 March 2012. Lecture.

4 Spirn, 121.

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## Figures

All images by author except those listed below.

### **Fig. 1**

A.P., and M. Laborda. *Centralities in Greater Buenos Aires and the Informal “Mega-centrality” of La Salada Fair*. 2004. Map. ABBA / CiHaM / FADU / UBA, Buenos Aires. Web. 22 May 2012.

### **Fig. 3-4**

Unknown Author. *Feria “Trucha” La Salada*. 2007. Photograph. Noticiario Sur, Panoramio, Google Maps, Buenos Aires. Web. 22 May 2012. <<http://www.panoramio.com/photo/6009832>>.

### **Fig. 14**

Olmo Calvo. *Celebracion Boliviana en Buenos Aires*. 2010. Photograph. Flickr, Buenos Aires. Web. 22 May 2012.  
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### **Fig. 65**

Hillier, Bill, and Julienne Hanson. *The women’s network of Fig. 124*. Drawing. *The Social Logic of Space*. Cambridge: Cambridge University Press, 1989. Hillier, Bill, and Julienne Hanson. *The men’s network of Fig. 124*. Drawing. *The Social Logic of Space*. Cambridge: Cambridge University Press, 1989.  
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## Appendix A: Experimenting with Generative Processes & Mapping Social Structure

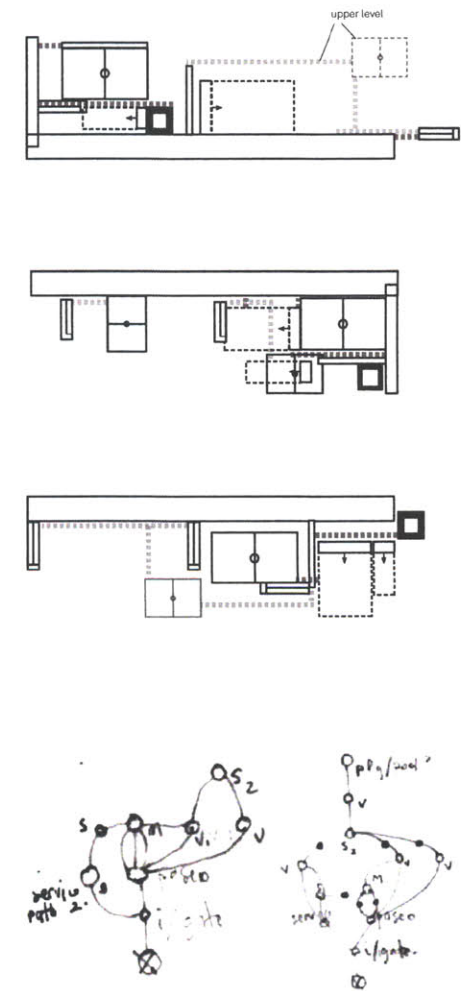
Transitioning from case analysis to design, it became clear that, with regard to the commercial function of the proposal, the question was not “how to design an optimized factory-market” but instead, “how to design an open-space structure that is amenable to the greatest interaction and transparency” between inhabitant and stranger, or rather, producer and consumer. Moreover, in the abstract context of the game, it seemed the question had to be answered by measurable or “objective” terms. Upon realizing this, I turned to descriptive techniques proposed by Bill Hillier in *The Social Logic of Space*.

The idea that social structures across cultures, though unique and idiosyncratic, could be dissected by a similar topological vocabulary, was intriguing. Once mapped, one can view a hierarchy of spaces, shallow and deep. These topology maps suggest that there is a correlation between control relationships and the “ring-iness” vs “tree-ness” of the spatial network. Moreover, Hillier presents the idea that an incremental additive process, reinforced by a particular sustained societal behavior, could perpetuate a distinct pattern of continuous and fragmented space over time. Some spaces are related spatially (they attracted one another due to adjacency and proximity, and perpetuated a spatial identity), while others are related “transpatially” (they retained a group identity through similar program, form, or ceremony, politics etc.).

I experimented with the idea of predetermining social structure in the game by prescribing an initial “map” of key beads along a ring. (See Appendix B for process drawings.) This turned out to be too cumbersome and prescriptive for the context of an open-ended game that was meant to spur group discussion.

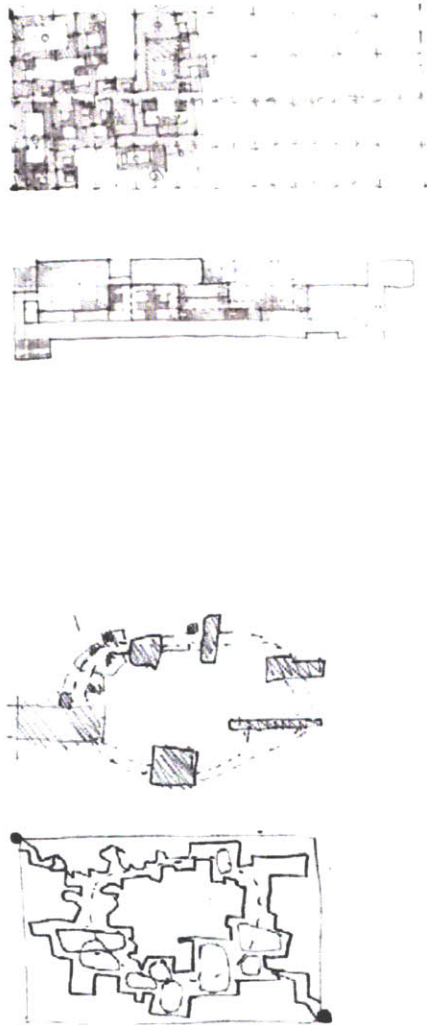
The Social Logic of Space also presented a theory of open-space formation based on a “clump” generative process. A simple real-world example (name it!) with which simple clump-generative processes, operating on a simple rule (open-spaces attach to existing open spaces) and a simple pairing (1 open + 1 enclosed space), resulted in an ever-expanding field of continuous open-space rings and isolated islands of enclosure.<sup>5</sup>

I experimented with the incremental formation of fabric without a pre-determined circulation path. This also lent itself well to a weak programming of space. Instead of grouping spaces based on program, the larger scheme would simply delineate activities based on their spatial requirements- open, covered or enclosed. Each tiny addition may have a defined program- vending, production, education, or play. But, “fuzzy zoning” by space types would systematically force dissimilar programs to be grouped together. Meanwhile, a flexible yet continuous path, formed by open spaces embedded within each module, would tie these islands together over time. This provided for the



**Figure 64** Experiments in predetermining a social structure map.

<sup>5</sup> Hillier, Bill, and Julienne Hanson. *The Social Logic of Space*. Cambridge: Cambridge University Press, 1989.



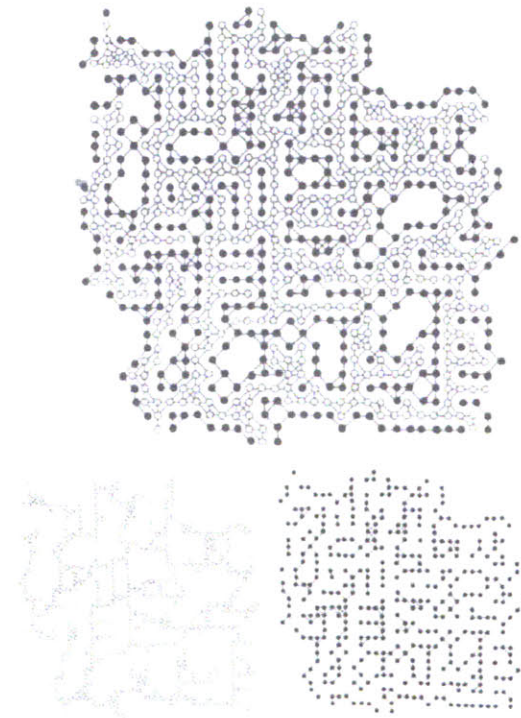
**Figure 64** Experiments in free-forming beaded rings of open space.

desired interaction between dissimilar programs (most importantly production and consumption), as well as promoted an evenly ring-like continuity, amenable to the interaction of inhabitant and stranger. (images of process drawings and Hillier's book)

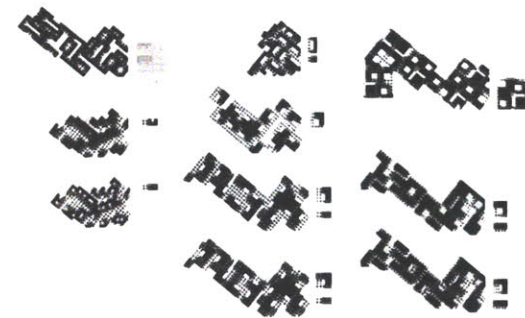
In the aftermath, it seems that this "clump" generative process can adapt to landscapes, facilitate a flexible expansion timeline of the tiniest of pieces while creating a large variety of semi-public spaces, strung together by a winding, continuous public path. However, such an unpredictable arrangement process proved to be desirable only at certain scales. Once one zoomed out a bit, beyond an area the size of a megablock, it became frustrating not to be able to predefine a path. I argue that the definition of infrastructural or circulation paths is still an important first step at larger scales.

Whether or not the ultimate design of fabric was successful, and whether or not this kind of rule-based system would be able to sustain itself over time, among many hands, I argue that Hillier's insight was helpful in imagining of alternative strategies for design control and variety within an incremental system.

In a rough way, the definition of open-space structure became a method for the evaluation of outcomes. Nonetheless, I question whether this syntax can be used except for in purely inductive way.



**Figure 65** Hillier's "naive experiment" with aggregating dyads representing hypothetical women's and men's networks.



**Figure 66** Experiments in using small modules to generate inner-block circulation.