

THE PENNSYLVANIA STATE UNIVERSITY

SCHREYER HONORS COLLEGE

DEPARTMENT OF ARCHITECTURE

SOCIAL INFRASTRUCTURE: CREATING COMMONS IN SAN JUAN FAVELA

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SPRING 2018

A thesis

submitted in partial fulfillment

of the requirements

for a baccalaureate degree

in Architecture

with honors in Architecture

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ABSTRACT

Current models for redevelopment in poverty stricken areas are either exploitative or paternalistic. Exploitation occurs through privatization of property and the dissolution of common space, and results in the separation of people and the seizure of their resources for private gain. Paternalism, is misdirected assistance from both governmental and nongovernmental entities, and often weakens existing social and economic infrastructures by creating dependency and reducing political agency. New planning methods are needed in these communities that promote agency, democracy, and the idea of ‘commons’.

Commons, as understood in architecture, are often associated with ‘public’ urban space, owned by local or state governments. Users who occupy these spaces are regulated by laws and restricted from modifying, adapting, or ‘owning’ these spaces.

The more general form of ‘commons’, are natural resources that are openly accessible and held in ‘common’ as opposed to privately owned as in English pastureland and North-Atlantic fisheries. In this understanding ‘commons’ are susceptible to commons collapse due to their finite nature and the innate greediness of rational actors as discussed in Garrett Hardin’s seminal article *Tragedy of the Commons*. It was in this article that Hardin advocated for the closing of commons through privatization and nationalization.

Running counter to Hardin’s article is the book *Governing the Commons* by Nobel Prize laureate Elinor Ostrom. In it Ostrom covers a number of successful commons that are self-

managed by a relatively small number of interested users who protect and safeguard the sustainability of these commons through locally established rules and regulations.

It's this understanding of commons that holds promise for redevelopment efforts in disadvantaged communities. By introducing architectural interventions that physically create common space to be self-managed by those who are immediately connected to those spaces, those actors are empowered to manage their own redevelopment.

TABLE OF CONTENTS

THESIS BOOK	1
BIBLIOGRAPHY.....	56
ACADEMIC VITA.....	59

Social Infrastructure:
Creating Commons in San Juan Favela

Table of Contents

Research Summaries

The Second Machine Age	4
Basic Income and the Future of Work	5
The Next Big Thing...	5
Favelas and Social Housing...	6
P2P Urbanism	6
Tragedy of the Commons	8
Governing the Commons	10
The Social (Re)Production of Architecture	12
10 Stories of Collective Housing...	15
A Pattern Language	18
Urbanization Without Cities	20
Elemental...	22
Knowledge and power...	22
The Oregon Experiment	24
Architecture and Utopia...	24
Collision City...	26
Radical Cities	26
La Perla, 100 years...	28
Listen to what they say	28

Abstract

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Research Summaries

The Second Machine Age

Brynjolfsson and McAfee

In 'The Second Machine Age', the authors look at current trends in the advancement of technology and attempt to make predictions for its effect on our changing lives. They argue that the our present situation is different from past technological revolutions in that many jobs that were traditionally safe; skilled, white collar job, are also at risk. Accounting is a prime example. The program TurboTax is a tax preparation program that is produced by Intuit, and it is powerful enough at present to prepare most Americans taxes and is putting millions of accountant jobs at risk. One of the most troubling statistics is the U.S. labor share, the proportion of gross domestic product that belongs to income in the form of compensation for work. This figure was thought to be regularly stable, a testament to the idea that rate of new jobs closely followed the rate of jobs that became obsolete. This proportion has been dropping in the last twenty years, meaning that capital, income earned from passive ownership, is getting a greater share of economic growth. Put simply, the kinds and quality of new jobs aren't keeping pace with jobs lost to automation. The authors are somewhat optimistic, believing that the market will eventually self-adjust, but they predict that there could be a lengthy adjustment period.

Basic Income and the Future of Work

Roar Mag, Issue #2 - Daniel Raventos and Julie Wark

The authors describe the possible social effects of the implementation of a universal basic income. They discuss the distinction between 'remunerated' vs. 'unremunerated' work, or paid vs. unpaid work. They discuss the paradox of domestic work, in that if you take care of your young children it's not work, but if you take care of someone else's children it is work. The authors argue that universal basic income could change this relationship to work and could change society's relationship to domestic work. They are careful to qualify that they are not suggesting that this would completely change gender inequality in relation to domestic work, but that it may remove some of the barriers. They discuss the importance of 'autotelic' work, or volunteerism. This type of informal civic participation would be more commonplace as less people would be dependent on wage labor for survival. They also discuss political participation as a form of autotelic work that would be more accessible.

The Next Big Thing Will Be a Lot of... Small Things

The Nation, Sep 2017 - David Bollier

The article offers a critique to current left wing reactions to the Trump administration. The author argues that the mainstream liberal reaction to Donald Trump's election is to resist, and to cling to the dream of Democratic control of the capitalist machine. He then goes on to describe a different kind of resistance, one rooted not in the impeachment of an unpopular president, but anchored in the establishment and expansion of grassroots organization. He discusses how the distribution of the means of production by the way of makerspaces and DIY fabrication labs are giving people more opportunities for participatory democracy. This commons model of production has the ability to disrupt the traditional economy state or corporation control.

Favelas and Social Housing: The Urbanism of Self-Organization, Brazilian and Ibero-American Congress on Social Housing 2006

Nikos A Saligaros, David Brain

In this paper, the authors address the ongoing competition in Latin American affordable housing between top-down government sponsored social housing projects, and grassroots self-built informal favelas. The top-down approach has the benefit of providing much needed infrastructure, but often lacks the community promoting nature of informal neighborhoods. The article discusses Christopher Alexander's work and his suggestion that these two approaches can be synthesized. Instead of the tabula rasa development that was prominent in the post-war era, utility and sanitation services should be woven into existing neighborhoods. New development should follow urban 'patterns' as discussed by Alexander in 'A Pattern Language' to promote the social and cultural character of the city. The article goes on to describe a design process and methodology that considers resident participation to be a core principle, one that sees openness of the system to be as important as the system itself.

P2P Urbanism

Nikos A. Salingaros

This paper explores the physical manifestation of the 'Peer-to-peer' (P2P) framework that has cropped up in the digital realm. In its native context, P2P refers to a networking structure that relies on direct connection of end-user nodes as opposed to centralized connection to a server mainframe. The term began to be used in context of filesharing with the creation of Napster, and has since become synonymous with other forms of industry-disrupting networks such as Uber, Ebay, and Etsy, as well as open-source communities such as Wikipedia, Linux, and Blender. It's in this open-source model that the authors are drawing their inspiration, urbanism that is not controlled by central bureaucracies or corporate development, but by individuals and cooperatives in the public interest.

The P2P-Urbanism model:

- Relies on modularity of scale, breaking the project into manageable pieces.
- Adheres to a model of biological growth based on patterns, yet open to adaptation.
- Is open-source, and is participatory by nature.
- Learns from vernacular and informal development rather than views it with condescension.

Their framework has five foundational principles:

P2P Urbanism defends the fundamental human right to choose the built environment in which to live.

Individual choice selects from amongst diverse possibilities that generate a sustainable compact city those that best meet our needs.

All citizens must have access to information concerning their environment so that they can engage in the decision-making process. This is made possible and actively supported by ICT (Information and Communication Technology).

The users themselves should participate on all levels in co-designing and in some cases building their city. They should be stakeholders in any changes that are being contemplated in their environment# by governments or developers.

Practitioners of P2P-Urbanism are committed to generating and disseminating open-source knowledge, theories, technologies, and implemented practices for human-scale urban fabric so that those are free for anyone to use and review.

Users of the built environment have the right to implement evolutionary repositories of knowledge, skills, and practices, which give them increasingly sophisticated and well-adapted urban tools.

In the chapter entitled 'Beyond Left and Right: Peer-to-Peer Themes and Urban Priorities for the Self-Organizing Society', Salingaros argues that P2P falls outside of the standard political spectrum. It's neither right nor left because it only offers a method for discourse not a political position.

There is a section that discusses spatial-temporal rhythms of the city; the relationship of human-scaled spatial development as well as the temporally ordered measurements of distance. The width of your outstretched hands, The distance that you can comfortably walk on a fifteen minute coffee break, and the extent of a relaxing thirty minute commute by train, are all examples of measurements that are frequently disregarded by contemporary planners.

Tragedy of the Commons

Garrett Hardin

Garrett Hardin published Tragedy of the Commons in Science in 1968. Hardin addresses what he sees as an irreconcilable problem with the concept of commons; that if each person logically acts in their own best interest, they will deplete the commons to the point that they will no longer be sustainable. His argument goes like this: There's a group of cattle farmers who pasture their cows on communal land. Each time a herdsman adds an additional cow, the benefits of that cow go directly to that herdsman, while the environmental costs are distributed to everyone. It stands to reason that a herdsman will add as many cows as possible to maximize their own gain. If all of the herdsmen do the same, the commons will quickly become eroded and completely covered with weeds.

Hardin's essay has been applied to a wide array of commons based problems. His simple example has been used as the justification for the "closing of the commons" through privatization.

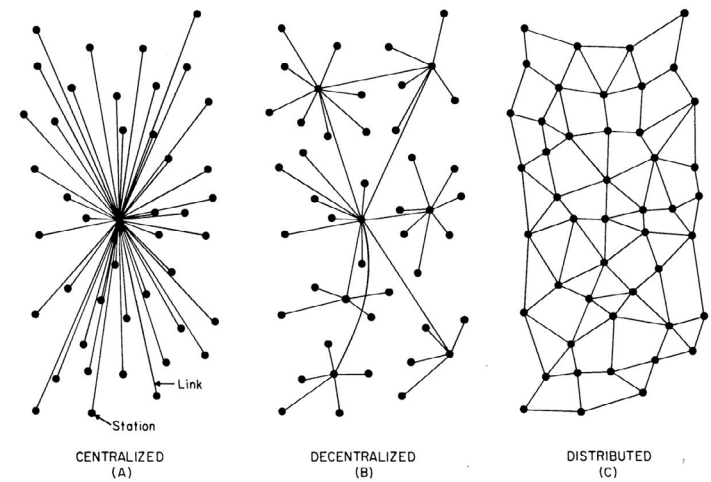


FIG. 1 - Centralized, Decentralized and Distributed Networks

Centralized

Decentralized

Distributed

Diagram demonstrating the differences in network types. P2P is an example of a distributed network.

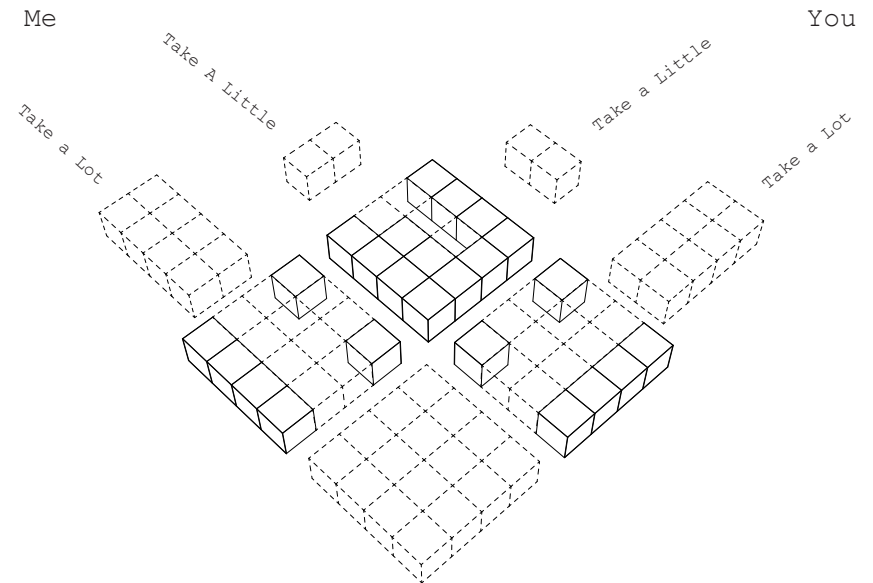


Diagram of Tragedy of the Commons.

Governing the Commons

Elinor Ostrom

In 1990, Elinor Ostrom responded to Hardin's theory in *Managing the Commons*. Her argument, which ultimately won her the Nobel prize, is that self-managed commons (CPR or Common Pool Resource) can and do occur as long as the management framework follows certain principles.

In the book she first analyzes existing long-enduring CPR models in Japanese mountain villages, Swiss Cantons, and Spanish Huertas in Valencia. In each case Ostrom describes how the various users, whom she calls 'appropriators', established rules and self-management systems to overcome the issues of 'shirkers' (those who do not fulfill their maintenance responsibilities) and 'free riders' (those who use the CPR without contributing to its upkeep). She argues directly against Hardin's assertion that these issues can only be addressed through coercive authoritative state action or commons enclosure through privatization. Her analysis yielded the following framework:

1. Define clear group boundaries.
2. Match rules governing use of common goods to local needs and conditions.
3. Ensure that those affected by the rules can participate in modifying the rules.
4. Make sure the rule-making rights of community members are respected by outside authorities.
5. Develop a system, carried out by community members, for monitoring members' behavior.
6. Use graduated sanctions for rule violators.
7. Provide accessible, low-cost means for dispute resolution.
8. Build responsibility for governing the common resource in nested tiers from the lowest level up to the entire interconnected system.

In the following section, Ostrom examines CPRs in a contemporary context with the water allocation disputes in Southern California. She discusses how a modern governmental institutional framework was established to address the area's groundwater

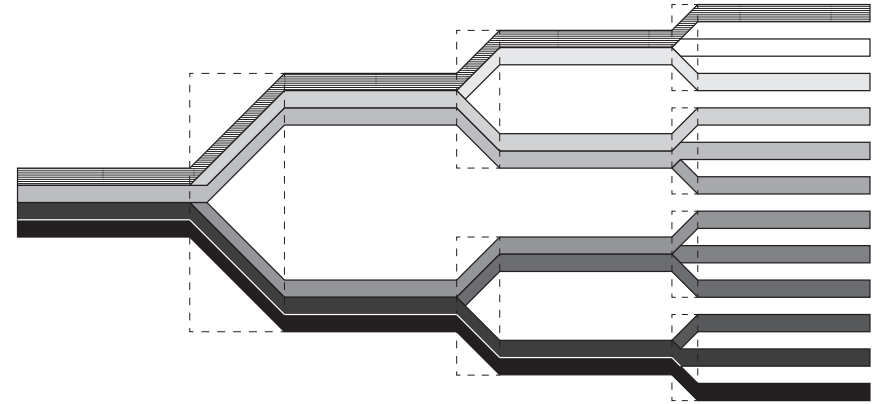


Diagram of Ostrom's Nested Councils. Each intersection is a council, some members move on to the next council in the line.



Torbel Switzerland.

overdraft issue. These examples are important because they establish the role of outside technical experts and mediators as 'change agents' who assist in forming the rules of the CPR.

Ostrom then analyzes failed and fragile CPRs to determine the potential missteps that could affect emerging CPRs. She believes that failure to adhere to the aforementioned eight part framework led to the poor health of the CPR. It is important to note that Ostrom doesn't believe that CPR are inherently effective, they require a particular set of circumstances to be applied to a problem at an appropriate scale. It is also noteworthy that Ostrom does not believe that CPRs necessitate a complete disconnection from the larger political system, only that proper deference be allocated to the CPR in its own regulation.

The Social (Re)Production of Architecture - Politics, Values, and Actions in Contemporary Practice
Edited by Doina Patrescu and Kim Trogal

3 - Making Places, Building Communities, Empowering Citizens: Participatory Slum Upgrading in Thailand, Supreeya Wungpatcharapon

Wungpatcharapon begins the article by giving succinct description of Henri Lefebvre's 'right to the city' (1996):

For Lefebvre, the right to the city is a principal right for inhabitants, permitting them to make decisions about the production and design of urban space. Lefebvre maintains that the production of urban space should be restructured, by fundamentally shifting the control of decision-making to all urban inhabitants and it should not be limited to the state's decisions. He points out two principal rights for inhabitants, namely, the right to participation and the right to appropriation. The right to participation maintains that inhabitants should play a central role in any decision that contributes



Slums before upgrading.



Participatory mapping in Baan Makong project.

to the development of urban space in their city. The right of appropriation is not only the right of inhabitant to access, occupy and use urban space physically, but is also the right to produce urban space to meet their need and desires.

The article goes on to analyze the Thai slum upgrade program Baan Makong that took place in the early 2000's. It outlines the participatory-based approach to that began with community 'mapping' that served as a catalyst for dialog about the existing site conditions and the most important needs. The architect served as arbiter and lent legitimacy to the process.

In the section entitled Participatory Slum Upgrading as a Political Process, Wungpatcharapon addresses how the participatory process helped disrupt the system of paternalistic clientelism that was the *modus operandi* for the community's political empowerment, in which the poor have generally been relegated to a client status that is dependent on politician for support, who are in turn dependent on the poor for votes. By disrupting this cycle it has enabled the residents to be more self-determined.

10 - Diverse Economies, Space and Architecture: An Interview with Katherine Gibson

In this interview Katherine Gibson discusses what she calls 'community economies' and their architectural implications.

Community economies are what Gibson describes as 'being in common', that people are interdependent for survival. The connection to architecture is based on the idea the architecture is essentially the 'framework for living'. The built environment could be designed in such a way as to promote interdependence or to restrict it. She gives collective housing and kibbutzim as examples of built works based around the notion of collective ownership.

Gibson feels that Doina Petrescu's (the interviewer) work with atelier architecture autogérée (aaa) is trying to address some of the issues of

interdependence that shows up in Gibson's work. She notes the prototypical nature of aaa's projects and how they are not particularist but universal in their potential. This is an important aspect of ensuring that interventions fit into the larger context.

In response to a question about ways in which community economies are part of the construction of buildings, Gibson describes the informal construction process in the Philippines and elsewhere. Acquisition of materials through informal markets and community construction through volunteer labor contribute to the diversity of economies embodied in the final building. This 'value' is then inherited by the next generation and is built upon, reappropriated and repackaged for the next generation after that.

Gibson discusses the issue of co-option, particularly by the Conservative 'Big Society' movement in the UK, who see community-based initiatives as a way of defeating aspects of the social safety net in that country. Her response is that the tools of community organization are neutral and that co-option does not always occur. In order to fight co-option activists need to be constantly aware of what is going on, and not to assume that there is a one-size-fits-all solution to every problem. They need to be analytical and be aware of the ways that their tools can be used against them.

10 Stories of Collective Housing, Graphical Analysis of Inspiring Masterpieces

A+T Research Group

Story 02, The Sinking of the Social Condenser

Story 02 is about the Narkomfin Dom-Kommuna building in Moscow. The project was constructed between 1928 and 1932, and was intended to be part of Russia's reconstruction. It was to be part of a new effort to house the swelling urban population as workers moved from the countryside as the nation began to industrialize. The most interesting feature of the building was the reorganization of the domestic sphere in order to support the change of traditional gender

roles in society. The kitchens in the apartments were intentionally small and a large cafeteria was provided encouraging communal eating and supposedly freeing women from the confines of their kitchens. The eventual failure of Narkomfin had less to do with the building itself and more to do with Lenin's death and Stalin's rise to power.

Story 09, Building Moods

Story 09 features the Byker Regeneration Project by Ralph Erksine, constructed from 1969-1982 in Newcastle-on-Tyne, UK. This project is notable for the intense participatory process that was used in its design. Instead of a Master Plan Erksine created a 'Plan of Intent', a framework that would guide the participatory process. The results of this process were mixed; many residents were not able to be housed in the renovated project due to delays in construction and a decrease in housing density, but the ones who were housed in the new renovation greatly benefitted from the process. A studio was erected on site and care was taken to work with residents to provide them homes that they wanted to live in. Materials were selected that could be maintained by the residents themselves although this led to problems in times of economic recession.

Story 10, My Terrace, In Front of My House, Over Yours

Story 10 is about the Jeanne Hachette Complex by Jean Renaudie built in Paris between 1970-1975. This project illustrates Renaudie's feelings that social architecture should not be repetitive, but diverse and organic. The building consists of a series of fractal-inspired forms that are stacked to create a cascade of terraces. Renaudie believed that creating structural complexity allows for the complexity of social interaction.



Model of Narkomfin Dom Kommuna building.



Photograph of the Byker Regeneration Project BuRalph Erksine.

A Pattern Language

Christopher Alexander

A Pattern Language sets out to define a set of 'patterns' of design for everything from a region to a front porch. The most useful part at this point are the patterns associated with urban design, the most useful ones will be described.

Pattern 8 - Mosaic of Subcultures

'The homogenous and undifferentiated character of modern cities kills all variety of life styles[sic] and arrests the growth of individual character.'

In this pattern, Alexander argues for the importance of cultural enclaves in the city. This correlates to the 'tossed salad' rather than 'melting pot' form of assimilation of different cultures into the urban fabric. Ethnic or cultural neighborhoods create variation in a city and give a richer character. He carefully warns against the creation of ghettos, economically and socially depressed areas of forced segregation.

Pattern 9 - Scattered Work

'The artificial separation of houses and work creates intolerable rifts in people's inner lives.'

Alexander argues for the decentralization of the workplace, advocating for shops, studios, and workshops to be scattered throughout the city. As more people telecommute, work on flex-time, and participate in the 'gig economy', the geographical separation of work and home becomes less sustainable. This fact, and the changing dynamics in the manufacturing, are making this pattern more practical

Pattern 25 - Access to Water

'People have a yearning for great bodies of water. But the very movement of the people toward the water can also destroy the water.'

Pattern 29 - Density Rings

'People want to be close to shops and services for excitement and convenience. And they want to be away from services for quiet and green. The exact balance

of these two desires varies from person to person, but in the aggregate it is the balance of these two desires which determines the gradient of housing densities in a neighborhood.'

In this pattern Alexander calls for a variation in building density to allow for a varied experience as one travels through the city

Pattern 30 - Activity Nodes

'Community facilities scattered individually through the city do nothing for the life of a city'

This pattern describes the importance of grouping activities, allowing again for areas with higher densities of activity and areas of lower densities of activity.

Pattern 35 - Household Mix

'No one stage in the life cycle is self-sufficient'

Pattern 35 explains the importance of inclusion of people of different ages in the community. Areas with only one age group such as student housing or retirement communities deprive residents of contact with people in another phase of life.

Life phase segregation also leads to temporal issues. In an affluent neighborhood that consist exclusively of one bedroom apartments, most of the residents would presumably be young professionals who would commute to work each morning and leave their neighborhood empty.

Pattern 36 - Degrees of Publicness

'People are different, and the way that they want to place their houses is one of the most basic kinds of differences.'

Like pattern 29 - Density Rings, Alexander expresses the need for variation in the degree of privacy that each resident requires.

Pattern 37 - House Clusters

'People will not feel comfortable in their house unless a group of houses forms a cluster, with the land between them jointly owned by all the householders.'

Elemental: Incremental Housing and Participatory Design Manual

Alejandro Aravena

In 'Elemental', Aravena chronicles his work designing and building incremental social housing in Chile. The projects were funded by the Chilean government and follow what Aravena refers to as the 'Half a Good House' philosophy. The idea goes, that in order to save money, space must be limited. But rather than build a small house, they should build half a house. Essentially they build a foundation, a roof, and a service core that houses all of the things that would be difficult to self-build. Then, residents can finish their homes and add value through sweat-equity. This appreciation of value forms one of the central arguments for this project, and is intended to be the economic vehicle to help lift the residents out of poverty.

The book goes on to describe a series of participatory workshops that helped form the basis of the design.

In the 'Collective Space Workshop', Aravena focuses on the creation of 'Value' through community space. Unfortunately, the word 'value' was intended to be defined as the economic evaluation of the residents individual properties, and not the 'value' of the social capital generated by such spaces. It is in this narrow view of that problems begin to arise with Aravena's philosophy.

Knowledge and power in regenerating lived space in Treasure Hill, Taipei 1960s-2010: from squatter settlement to a co-living artist village

Mee Kam Ng

This article explores urban regeneration of the Treasure Hill neighborhood in Taipei. In 1980 the site was slated to be cleared to make way for a public park but due to resistance by residents and some 'key stakeholders' it was decided that the site

would be redeveloped into an artist's community through a series of interventions. Ng describes the project as urban regeneration rather than renewal and gives the following rationale:

Urban regeneration is different from urban renewal. Instead of a physical change led by the market or the state or both, urban regeneration represents a wider process in which 'the state or local community is seeking to bring back investment, employment and consumption and enhance the quality of life within an urban area'. In the Greek language, there are two different words for 'new': *neos* and *kainos*. *Neos* means new 'in the sense of young' but *kainos* means new 'in the sense of renovated'. *Kainos* describes a qualitatively different or new regeneration process. If space contains the extenuation of our social relationships, the amazing thing is that, given time, we can all endow this magical property to a place. As argued by Alexander and his team, 'most of the wonderful places of the world were not made by architects but by the people' through a generic process of understanding and tackling the forces shaping a particular context in the course of design and construction.

The article goes on to describe the issue of grassroots democracy as a "tripolar transaction between the three conflicting legitimacies of 'political representation, activist participation and expert knowledge'" and states that architects, as technical experts become 'social intermediaries' that act on behalf of the disenfranchised.

Ng argues that the most important contributions was the 'decoding of the lived space' and the 'reproblematizing' of the political discourse. This process involves taking a detailed inventory of the existing social and cultural resources, and then redefines the problem as an issue of conservation of those resources.

The plan was in some ways successful, but in the end ultimately failed. Due to the lack of squatter rights the original tenants lacked legitimacy and many

were displaced by incoming artists. The conservation plan involved formalizing the existing tenements by establishing their historical significance and protecting them as such. This led to an arrested state of development which did not allow the buildings to adapt to the new residents, leaving many of them unsatisfied with their new homes. The project does demonstrate an effective strategy for designer-led negotiation of an urban regeneration project.

The Oregon Experiment

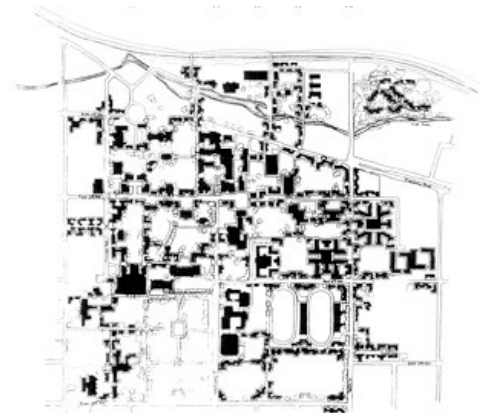
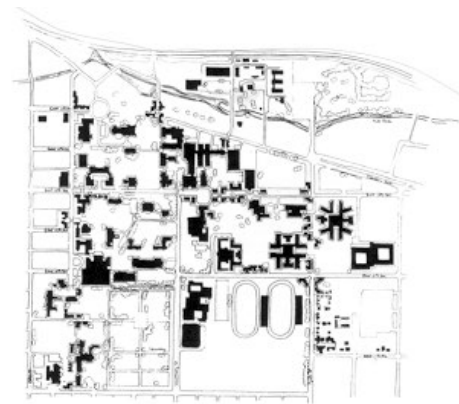
Christopher Alexander

In 'The Oregon Experiment', Christopher Alexander reviews the Master Plan for the University of Oregon in Eugene. It includes an honest self-assessment of the application of the Patterns that Alexander identified in 'A Pattern Language' to a Master Plan. He describes the difficulty in creating 'global order' through a series of smaller disparate interventions. He likens a possible solution to the characteristics of an organism. Its basic structure is embedded in its DNA, it grows in seemingly predictable ways, but at the same time it adapts to its environment. This model is really what 'A Pattern Language' is really about, determining a set of guiding patterns that allow local variations to lead to global harmony

Architecture and Utopia: Design and Capitalist Development

Manfredo Tafuri

This book discusses the failures of 20th century Modernist architects to realize the Utopia that they were trying to achieve. He critiques them for their heavy-handed approach to Urbanization, and he discusses the cooption of modern architecture for capitalist gains. Absolute control corrupts absolutely. At the same time Tafuri dismisses Frank Lloyd Wright and the Regional Planners of America Association in their 'dissolution of cities' movement for their ignorance of the complexity of industry and the inevitability of its control.



Plans for growth at the University of Oregon in Eugene.

Collision City and the Politics of 'Bricolage'

Colin Rowe and Fred Koetter

In this chapter, the authors present the parable of the hedgehog and the fox. The hedgehog is one with a singular unifying vision (Versailles), the fox is concerned with a multitude of criteria (Hadrian's Villa). This metaphor relates to architects and their views on planning. They discuss the oppression of the hedgehog, with its authoritarian stance vision, but they also give warning in relation to the fox. Populism can lead to what the James Madison referred to as the 'tyranny of the majority'. They go on to warn against the inherently futile 'scientific' systemization of planning and that there is no 'solution', just discourse that leads to workable alternatives.

Radical Cities: Across Latin America in Search of a New Architecture

Justin McGuirk

In Radical Cities McGuirk covers a range of projects revolutionary projects throughout Latin America. Among the projects he describes two examples of urban acupuncture:

Urban Think Tank (U-TT) designed a project for Caracas Venezuela called the Vertical Gym, which takes multiple recreational sports field and essentially stacks them on top of each other, and places it on a former soccer field. The running track is located on a mezzanine level which allows for double height space over most of the basketball court. The project is very dense and works well in an urban environment. It has been replicated as an open-source project at several sites throughout the world.

U-TT also designed a cable car system in Caracas that connects the hillside barrio with the city center. The cable system was determined to be the least disruptive way ensuring that residents would be able to get to their homes.



Photograph of the Vertical Gym Project in Caraca by U-TT.



Photograph of the Metro Cable project in Caraca by U-TT.

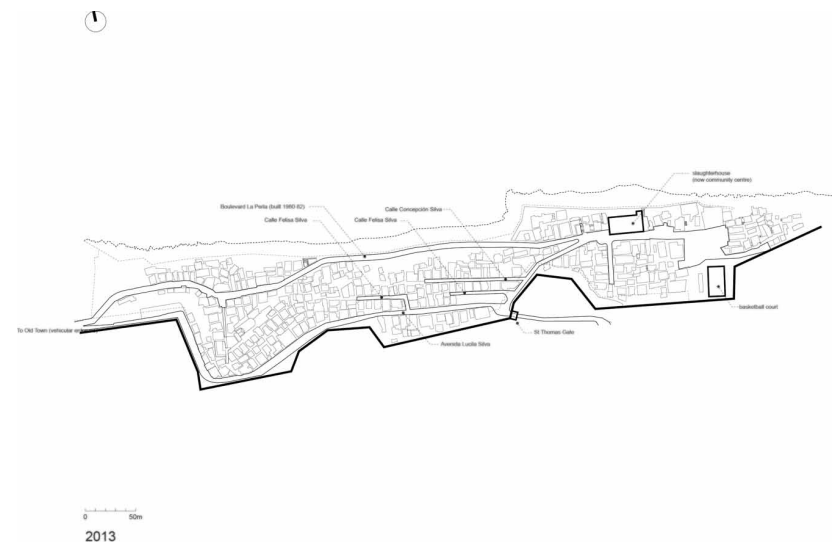
Florian Urban

Listen to what they Say: Planning and Development in Puerto Rico

Listen to what they say covers Lucilla Fuller Marvel's work in community development in Puerto Rico. Fuller Marvel (Buckminster Fuller's niece), along with her husband the late Thomas S. Marvel, founded the Taller de Planificacía's Social (Social Planning Workshop) in 1973 in order to redevelop La Perla. The primary intervention in the neighborhood was an infrastructure project. Formal streets were cut through the neighborhood with the intention of bringing tourists into the neighborhood. Sewer lines were installed and a pump house was built at the bottom of the neighborhood to pump sewage up to the city system. Fuller Marvel mentions that the competition plan for the neighborhood included a series of economic and social interventions that were ultimately scrapped by the local government.



Photograph of La Perla neighborhood in San Juan, Puerto Rico



Plan of La Perla neighborhood in San Juan, Puerto Rico.

How did we get here?

It's no secret that there is a growing discontent in the world. The post-recession economy has seen most of the recovery gains go to the top 10% while the rest of the socio-economic ladder flounders. Off-shoring of U.S. jobs has been a recurring theme for the last 20 years, and the looming spectre of automation threatens to upend what is left of the U.S. labor market.

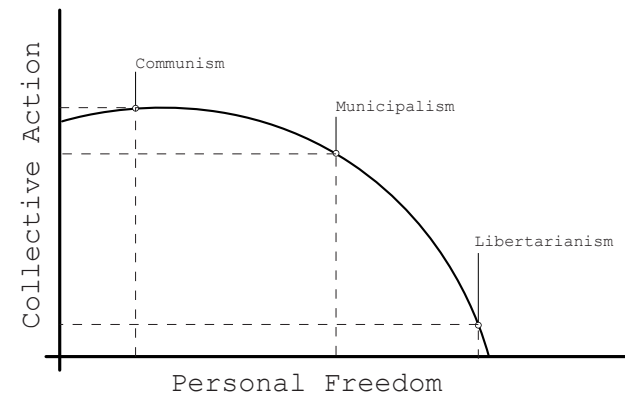
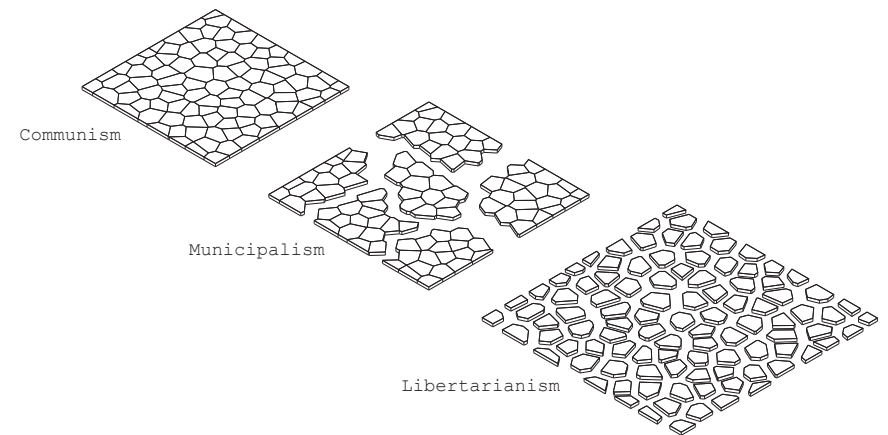
The last ten years has seen increased tribalism. The Occupy Movement, The Tea Party, Trumpism in the U.S., and The Brexit Movement in Europe all have one thing in common, a feeling of powerlessness. Whether it be shadowy multinational corporations or oppressive central governments, there is a growing feeling that the game is rigged, and that we need a new way forward. Donald Trump capitalized on these feelings of discontent, promising to 'drain the swamp' of politician-lobbyists who use their power for personal financial gain.

What about Architecture?

In many ways we as architects and planners are complicit. Over the 20th century architecture has become a commodity. Modernism is not the realization of the Utopian dream of equality through technology, but a dystopian reality of capitalist control. The social experiments in housing and urbanism were deemed failures and demolished to make way for luxury apartments. Vast greenfields were paved over and arrayed with little boxes to aid in the pursuit of the neo-liberal 'American Dream'. Architecture's role in the solution is yet unclear, but it is obviously part of the problem.

'Municipalism'

Bookchin wrote of a system called dual-power, one in which new grassroots methods of organization arise within the existing power structure. This system is based on the municipality being the unit of organization and is meant to promote participatory democracy.



Top: Diagram of Municipalism illustrating the importance of scale.

Bottom: Diagram of Municipalism illustrating inverse relationship between potential for collective action and personal freedom.

Slum-Upgrade Projects

Throughout the developing world various slum-upgrade projects have attempted to address the issue of informal squatter settlements. In the beginning, their tactics revolved mostly around slum-clearing rather than slum-upgrade.

The next development focused mostly on infrastructure. Sites and services was a tactic advocated for during the 1970's and involved the 'planning' of informal developments by providing a building site with basic infrastructure such as roads and sewers. The neighborhoods were often placed far from city centers and made them difficult to live in. Other projects involved bringing infrastructure improvements into existing neighborhoods.

Most recently the trend has moved towards urban acupuncture to deal with informal settlements. Carefully selected projects are inserted into the existing neighborhood to cause positive change for the entire neighborhood. The two projects by U-TT presented earlier are examples of this tactic.

There is also a growing trend towards architect-lead projects as a way of dealing with social problems particularly in the global south. The work of U-TT, aaa, and Alejandro Aravena are demonstrative of this trend. In Aravena's 'Half a Good House' project, Aravena petitioned the Venezuelan government, developed the project and raised the funds for its completion. The result is social housing development that blends a formal structural base with informal components.

The Flaw in 'Half a Good House'

Although his attempt is commendable, what was missing in Aravena's project was the collaborative environment that builds strong communities. He held a number of workshops to design the project, but when it came time to design the communal spaces, he focused on how the care of communal spaces reinforced the financial value of the individual homes. This is a very capitalistic



Top: Collage illustrating Alajendroe Aravena's 'Half a Good House'

Bottom: Collage illustrating an alternative with variation based on need and featuring communal spaces that are shared.



way of viewing a neighborhood, and frankly, is anti-community because it pits homeowners against each other to preserve their own property values. The result is a very conventional, but self-built housing development.

Commons-based Approach

Ostrom’s work has clearly shown that it is possible for self-governing bodies to effectively manage a limited commodity in a common-pool resource (CPR). This challenges the commonly held belief that heavy-handed top-down solutions(i.e. government regulation or privatization), are necessary to manage growth in a sustainable way. In the context of architecture and planning, these concepts might possibly be applied to self-managed redevelopment with the intention of maximizing the potential benefits of growth, while preventing full blown gentrification. It is the intention of this thesis to explore that possibility.

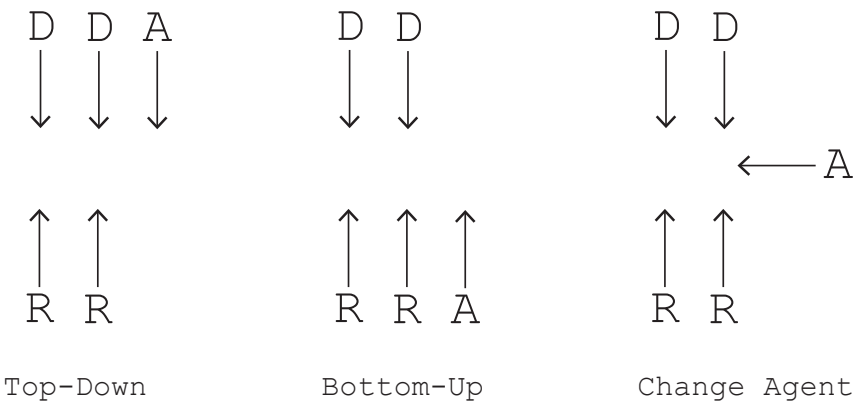


Diagram of Architect (A), Developer (D), and Resident (R) Relationship Models.

La Perla Regeneration Project

The La Perla neighborhood in San Juan that was recently devastated by hurricane Maria. Care must be taken to salvage as many of the existing structures and to respect the traditional neighborhood composition. As a low-income neighborhood, economic sustainability of the neighborhood is of paramount importance, therefore commercial and industrial areas must be incorporated.

At the same time, the neighborhood is experiencing spreading blight, in part because of the storm, but also due to the dwindling population in Puerto Rico as a whole. If left unchecked these blighted areas will spread and destroy the neighborhood. This blight must be addressed.

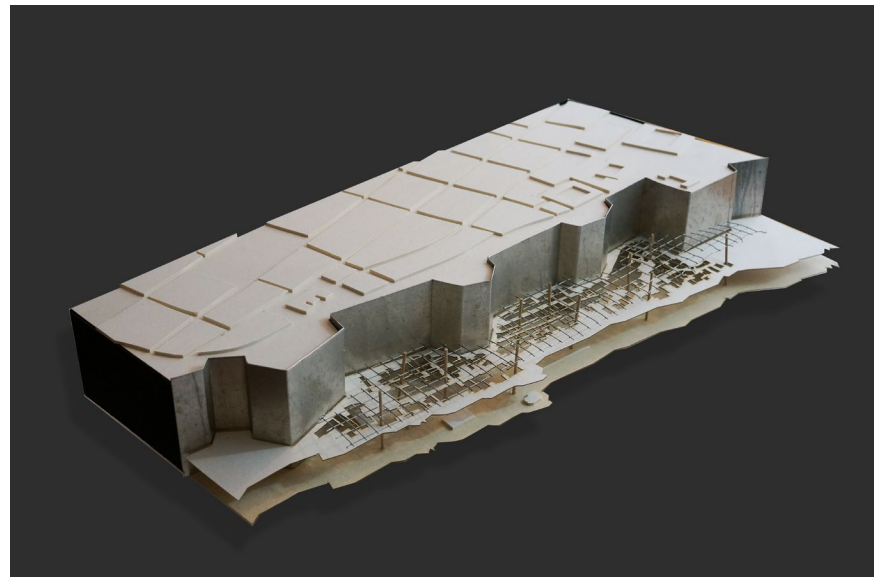
If post-disaster redevelopment is allowed to be lead by outside developers and governmental agencies, they are likely to use the opportunity to exploit the neighborhood and commandeer valuable real estate while destroying the distinct culture of La Perla.

To prevent this, there is another option...

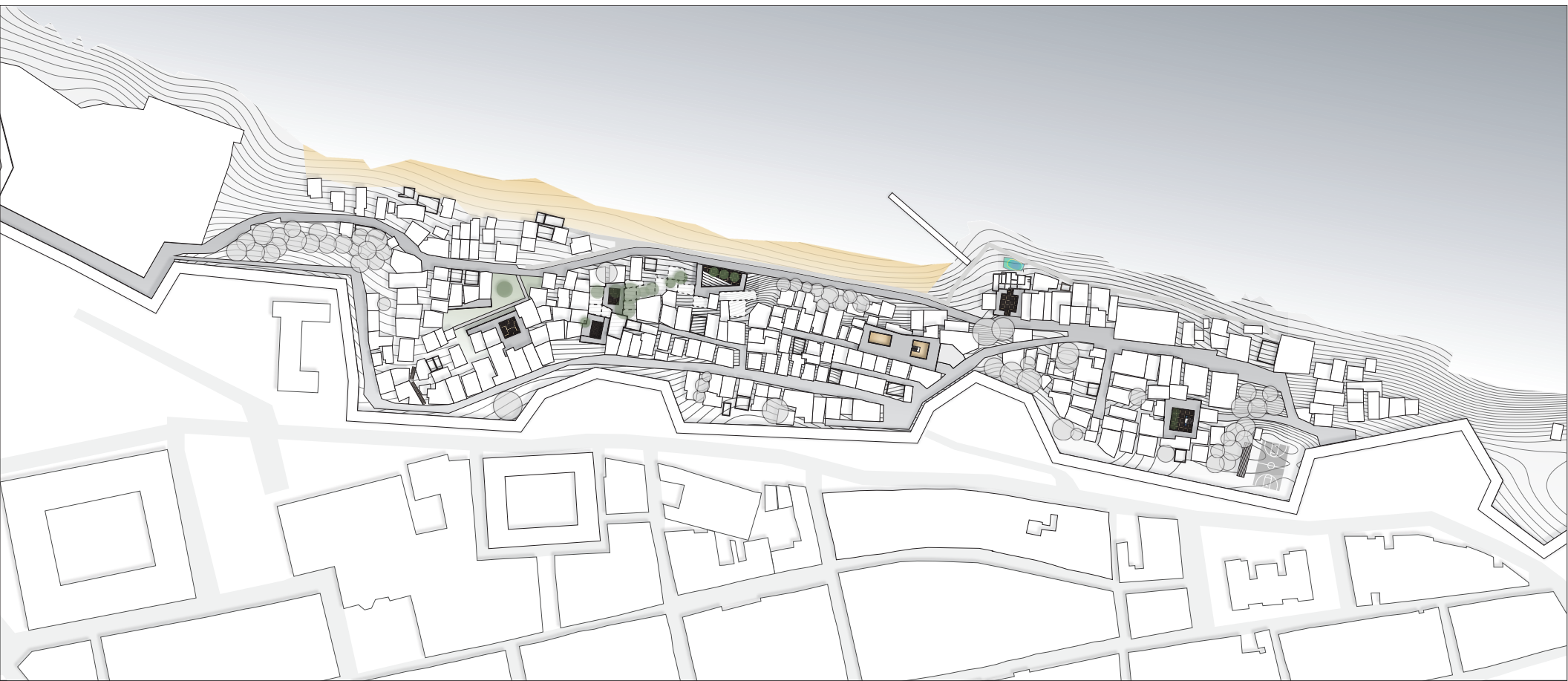
The creation of commons as the fundamental social infrastructure for La Perla is one way that can ensure that the community will have the tools that it need to manage it's own redevelopment. By borrowing the contextual architectural language from old San Juan (namely plazas, courtyard, colonnades, and cloisters) we can utilize proven precedents.



Plan of La Perla neighborhood in San Juan, Puerto Rico.



Conceptual Model

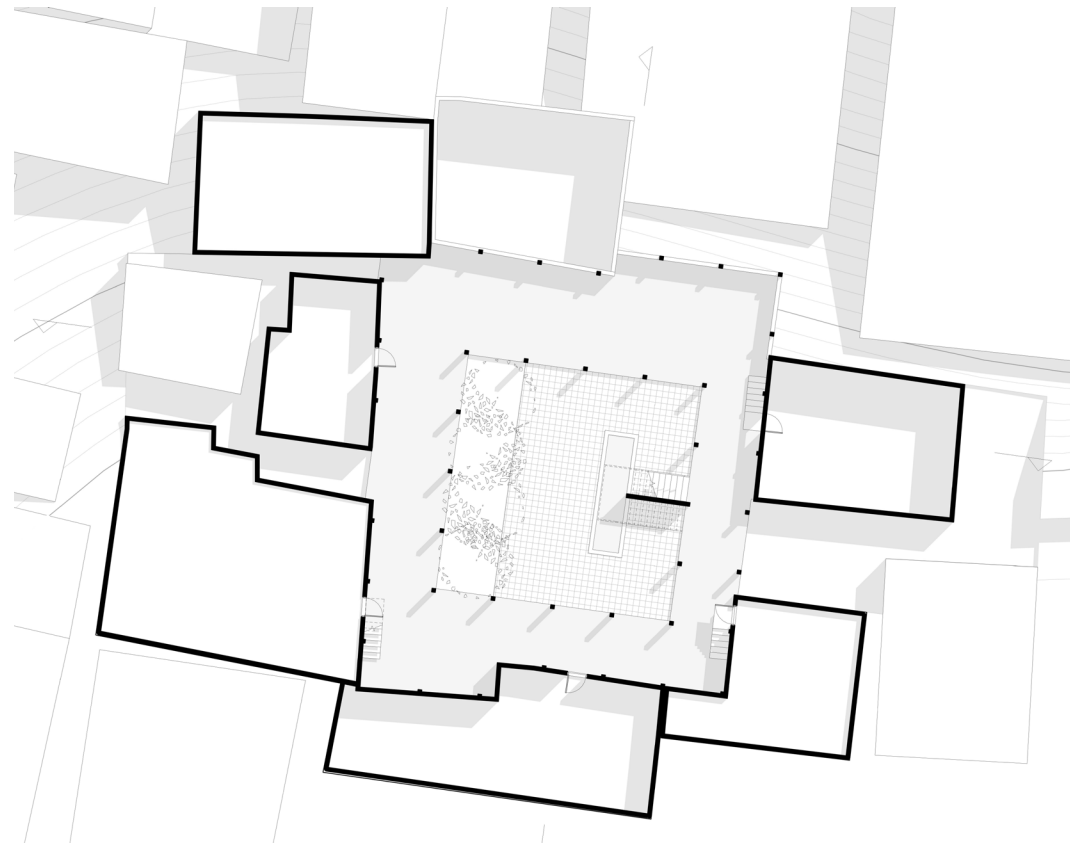


La Perla Master Plan



Courtyard

Courtyard is a domestic intervention that removes a blighted area in the residential portion in eastern La Perla, and replaces it with a communal courtyard to be used by the adjacent residences. It creates a gradation of social space; public space in the nearby Placita, semi-public space in the common courtyard, semi-private space in the clonades that create front porches to the private dwellings. The colonnades also include semi-public communal areas to be shared by the residents and can be used as needed.



First Floor Plan

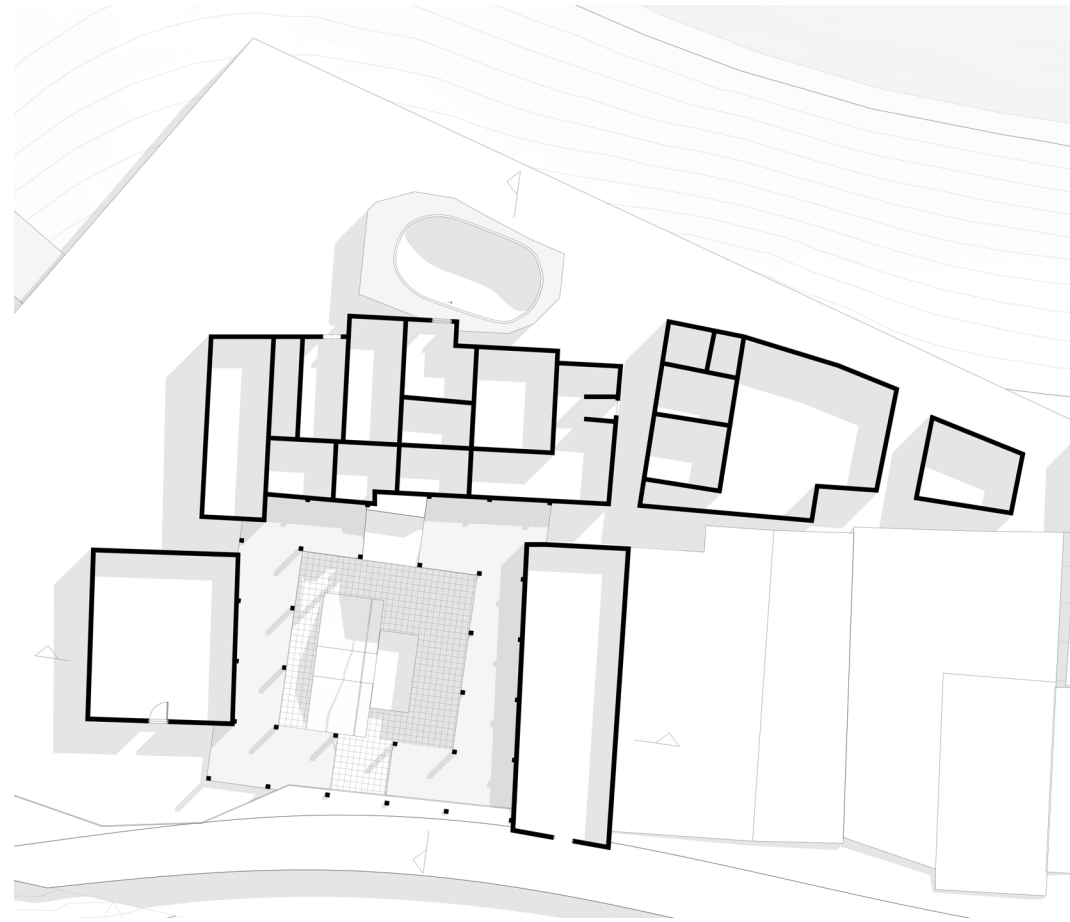
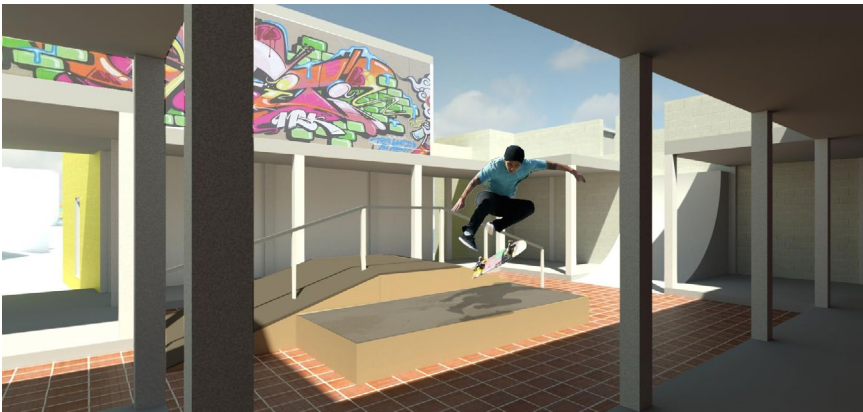


East/West Section

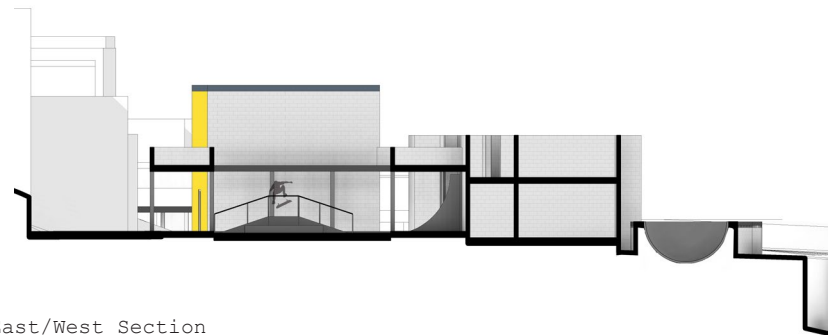


Gallery

Gallery creates a connection between the proposed open-air street art gallery and the skate pool, and the main commercial street in La Perla. It is an open plaza that can be used as a sculpture garden, a skate park, and a venue for live music. This area is intentionally unpainted and is intended to be covered in graffiti by local artists.



First Floor Plan

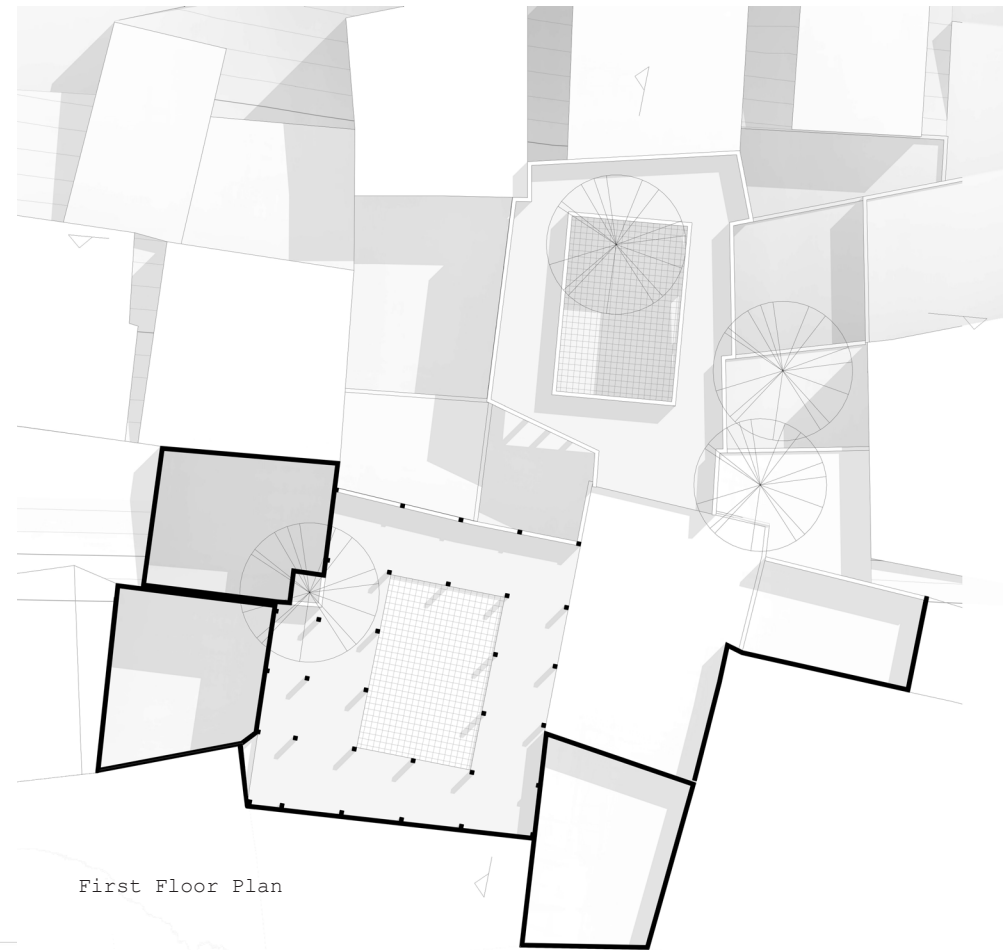


East/West Section

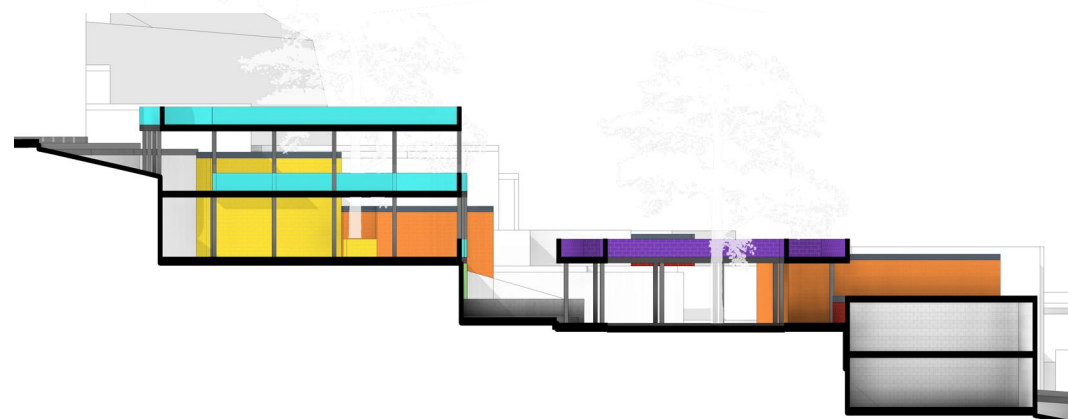


New

New is a series of colonnaded courtyards that are constructed in an area that is currently in ruins. The courtyards themselves serve as the social foundation for the housing that will grow around them. Their form is influenced by the remnants of houses that were demolished long ago, and help to define the apportionment of property for future use. New creates the necessary social infrastructure in anticipation of the community that will follow, and managing that development architecturally.



First Floor Plan

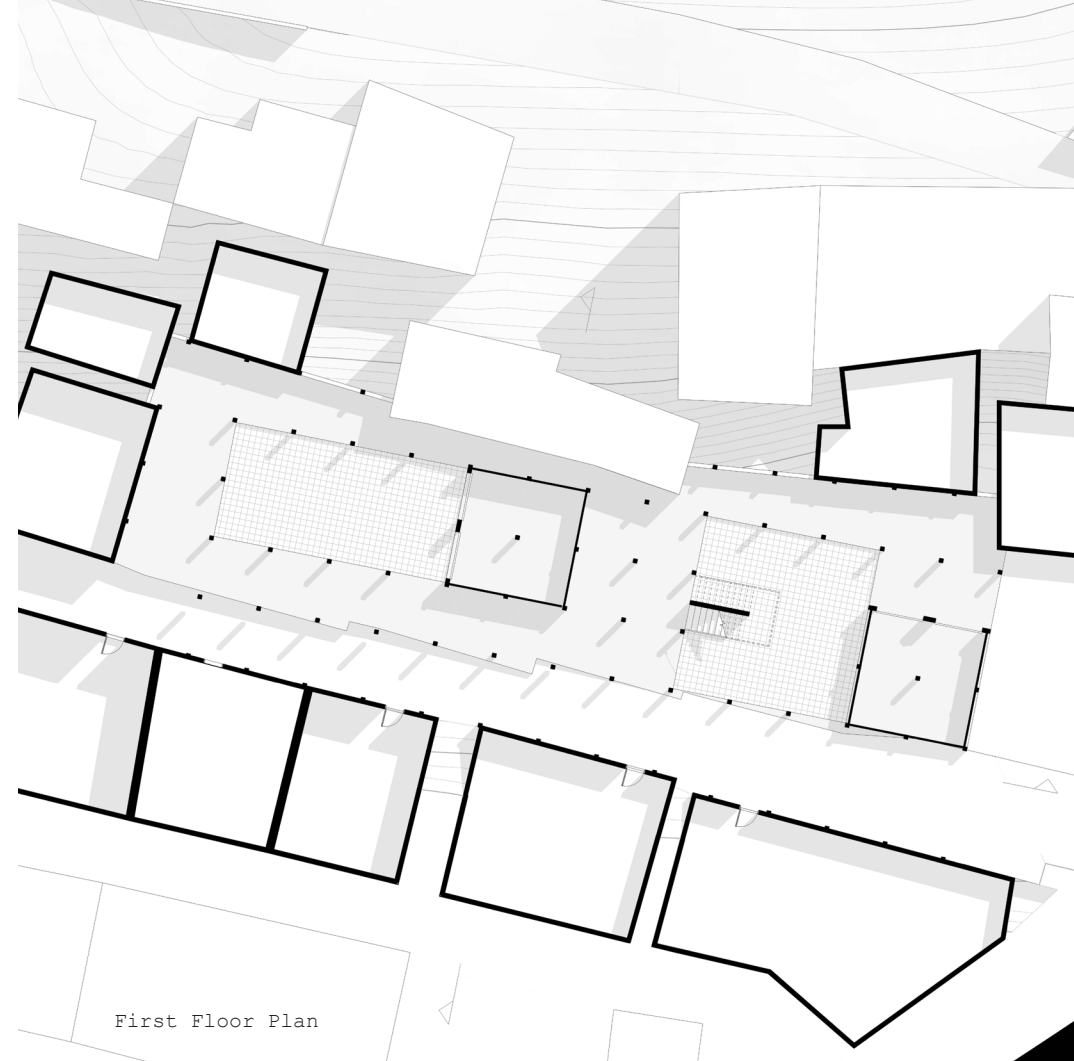


North/South Section

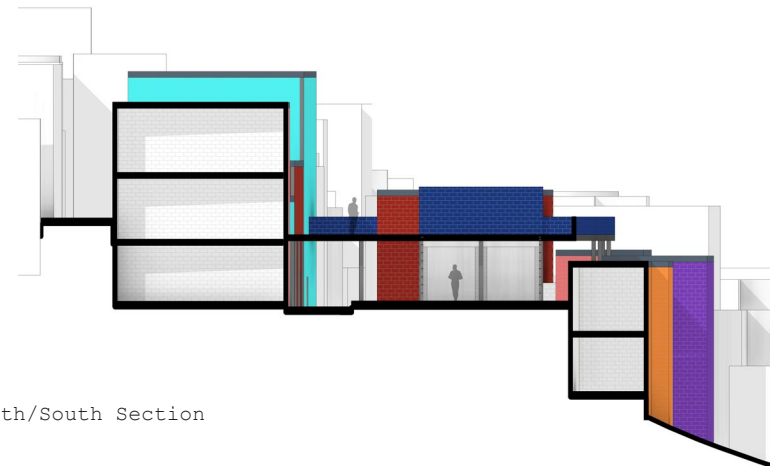


Workshops

Workshops converts a section of abandoned building in the heart of the neighborhood into a series of covered work spaces. The structure covers the existing road and creates a more private neighborhood beyond. The two courtyards allow light and air into the building and closed 'rooms' provide a secure location to store tools and supplies. The space is intended to be used as a maker-space and will provide much needed economic activity to the area.



First Floor Plan

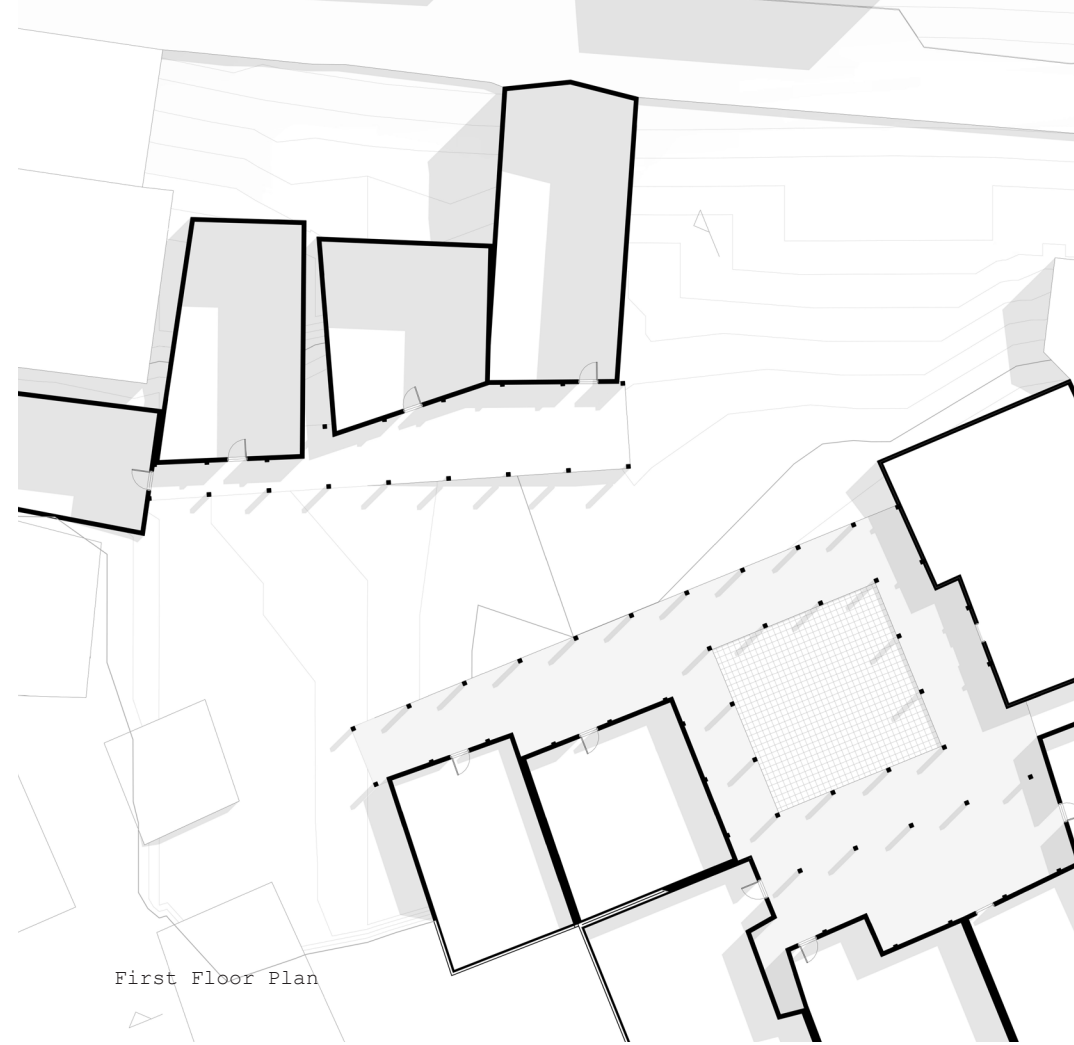


North/South Section



Market

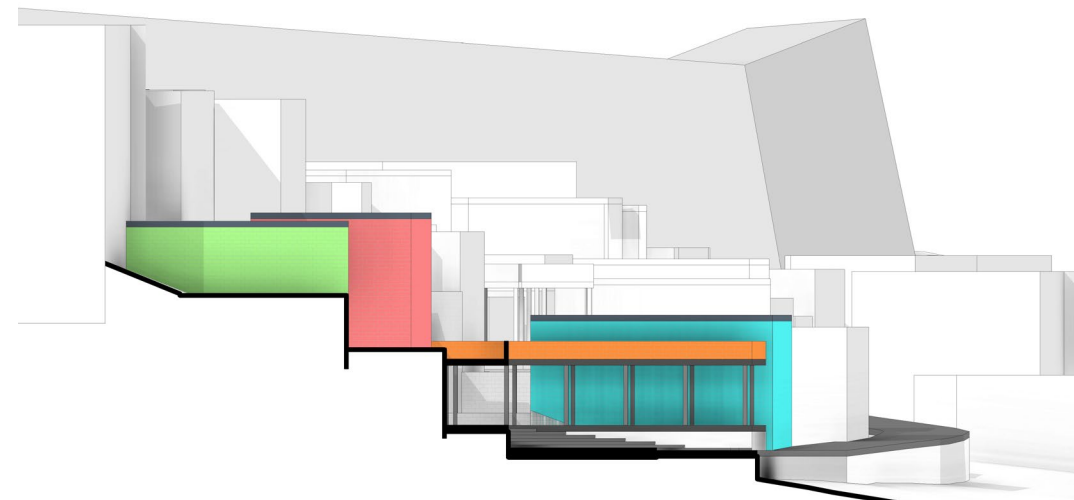
Market borrows form from the Greek agora. Open colonnades line are inserted in the existing open space in the west side of the site. It provides a buffer space between the proposed market and the existing dwellings and provides a coherent edge to the otherwise ambiguous space. Two existing blighted properties are removed to provide a semi-permanent market space separated by a communal courtyard.





Plaza

Plaza is public space that is flanked by a U-shaped colonnade. It provides a central focal point for the neighborhood and is most likely to be used by visitors to the area. The stairs provide seating that can be used to enjoy the view of the Atlantic. It would make an excellent venue for street musicians and performers.



North/South Section

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