Architecture as Economic Medium: A Framework of Operating In Between
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**Thesis Statement:** This thesis is intended to investigate if architecture can be a medium for economic balance. By acting as an independent agent can architecture utilize design as a means to participate in the economic context and operate in between organizations to achieve the objective of a sustainable socio-economic community? This thesis is a theoretical exploration of how architects can embed economic ideas into design to create spatial-economic actions that parallel business practices toward a goal of balance.

**Abstract:** Instead of reluctance and resistance to economic factors, architecture should participate in the economic context as a means to operate within the financial sector and manipulate the process as designers. John Rawls and Thomas Pogge put forth philosophies of justice that pertain to economic fairness, however, philosophy often lacks the ability to implement. Architecture has the potential to act as an independent agent toward an application of economic theories. By analyzing and adapting Keller Easterling’s architectural theories of medium design and extrastatecraft, this thesis will explore how architects can design architecture as a framework facilitating socio-economic value in spatial interplay.
Thesis Essay

Architecture as Economic Medium:
A Framework of Operating In Between

“There is no doubt that architecture is a discipline intimately intertwined with its social, political and economic contexts. Yet there is a distinct reluctance to harness these forces. Instead they often seem beyond our control.” Kurt Evans, Iben Falconer & Ian Mills, “Letter from the Editor” in Perspecta Vol 46: Agency

This distinct reluctance of architecture that Evans, Falconer, and Mills speak of is the abdication of the responsibility of the architect to participate within these contexts. By not participating, the profession can remove and isolate the field from the active discourse of these contexts. Keller Easterling, an architecture and theory professor at Yale University, writes, “Architecture is accustomed to telling itself that it is not invited to weigh in on official policy and so cannot bear any real responsibility for it.” By choosing to be apolitical and distanced from the factors of money, architecture can be an autonomous discipline rooted in creativity and free to design as the architect intends yet the field rarely operates in a vacuum independent of the social, political, and economic contexts.

Such a design vacuum rarely exists but there are designers who have chosen to open the container to allow for exchange. There are movements within the discipline that are attempting to change the field’s relationship with these contextual factors such as Public Interest Design (PID). PID, while the result of a longer lineage of activism in design, is a young discipline only recently defining itself as a shift from the architectural field through its distinct dedication toward designing for the public, addressing issues of the needs of underserved communities. While PID is not defined by non-profit based work, the field frequently employs non-profit models of funding such as grant based funding. In “Dissidence in Architecture”, Ines Weizman traces political dissidence in architecture in Eastern Europe during the Soviet regime. In one particular case she writes of a pair of architects Enzmann and Ettel that participate in competitions in both East and West Berlin with drawings that were politically charged, and resulted in their imprisonment for 20 months. Weizman writes in regards to their actions, “If we think of dissident practices as a rather delicate interplay between the private and the public domain, between subtle gestures of refusal, subversion and outspoken critique, the work of Enzmann and Ettel seem to have pushed this boundary… Here the rules were broken, rather than played differently.”

There is also a small subgroup within the field that have chosen to function as both architect and developer. The most notable was John Portman who co-wrote a book on his approach to architecture titled Architect as Developer. John Portman’s dual role was challenged by the American Institute of Architects as a conflict of interest. Portman’s architecture was not positively recognized until more recent times in the wake of a 2015 Harvard Graduate School of Design studio was framed around his work, a new book on Portman’s legacy (published 2017) which circulated new photos of the architecture by notable architectural photographer Iwan Baan, and Portman’s unfortunate death (Dec. 2017). There are some that think that Portman’s development and practice role was not seen favorably by the academy at the time which partially generated the negative perception of his work. There are signs that there maybe more recent interest from the profession to engage with economy such as Yale’s Perspecta journal dedicating their 45th Volume in 2012 to “Agency”, a call to action of architecture to have social, political, and economic effect, as well as the 47th Volume dedicated to “Money”. In 2015, Harvard’s GSD also hosted a discussion panel on the architect as developer model. A follow up article regarding the event ends with, ‘Combining these roles, however, is rare, and Cary admits as much. “There are very few people that are architects and developers. At some point I turned out to be the old man of this group in New York,’ he jokes. Judging by the turnout at last fall’s discussion, however, the practice model is one that is becoming increasingly appealing to both current and future practitioners.”

This recent trend of re-thinking the relationship of architect with money through development, it is still referred to as rare and “very few”.

While some within the field are open to addressing these contexts, the profession historically seems to have a particular hesitation with financial factors and the economic context. When some declare that good design will triumph over cost, it is a means to insulate...

against interacting with economy. The profession puts itself in a position where it is inevitably forced to deal with financial factors later into the process where it will have more dramatic consequences. Value engineering becomes inevitable in these cases. The profession finds itself constantly negotiating for the protection of design intent and is forced to participate in the economic system when they lose the futile fight against the bottom line. Perhaps, instead the profession can accept economy and utilize it as the business sector does toward design objectives. Instead of dissent in the form of breaking the rules as Weizman says of Enzmann and Ettel, we can find a manner of modified compliance to manipulate the rules as business entities often do and play the game differently.

This essay’s focus is to explore the potential for architecture to become a medium for socio-economic balance. If architecture as a medium can behave as it sees fit by operating in between poles then it can adjust accordingly to the rules of design that are established for it such as paralleling different models and positions of philosophy and economic strategy. First we look to some theories of economic balance and fairness and their inability to be implemented as they are contingent upon actors participating ideally. This flaw of application is how architecture can be argued as a means to have impact on economy by becoming an independent actor in the vehicle for implementation. Space is a necessity for functions of working and living and as such justifies the need for payment which puts architecture in an unique position to operate as an undefined agent in pursuit of profit, social value (non-profit), both, or neither. Then we attempt to interpret Keller Easterling’s theories of “medium design” and “extrastatecraft” as well as the notion of dissensus through operating in between. This will transition to the idea of how the medium can find physical manifestation and the architectural considerations of this course of realization.

Philosopher John Rawls’ “Original Position”, set forth in A Theory of Justice, is a pivotal work of philosophy on the idea of justice and fairness in society in regard to the decision-making logic of players. The thought experiment presents assumptions and inferences on human behavior in establishing a fair society where individuals will attempt to maximize their advantages while minimizing potential disadvantages and the subsequent balancing of those objectives based on their own rational self interests and establishing fairness. An argument can be made from my interpretation that there is a logic for players to find balance in an equilibrium point of risk and reward decision-making. The ideas should lead to a socio-economic safety net that would guarantee a fair minimum opportunity for a player in the system. By repositioning justice to include not only a moral perspective but also a rational value based perspective we can begin to look at how architecture that serves holistically, both the 2% and 98%, can shift from a place driven by one’s ethical values to economic values. In doing so, architecture can begin to participate in the economic context and become an economic actor perhaps leading to financially sustainable environments.

Thomas Pogge, another prominent philosopher in the discourse of justice, brings attention to the lack of a global responsibility in Rawlsian Theory of Justice and in turn looks toward justice and fairness through egalitarianism in a global order. Pogge argues that on an international scale, we do not operate in Rawlsian order and therefore lack global justice and fairness. In “An Egalitarian Law of Peoples”, Pogge proposes the “Global Resources Dividend” which is rooted in the idea that resource rich countries should pay a dividend when profiting off of their natural resources to offset the imbalance that is created by their consumption. That dividend is then used to help the development of resource poor countries. This is redistribution of wealth derives from Rawls’ logic of players in the “Original Position”, which leads to a fair minimum opportunity for all players. In the case of Pogge, if Rawls’ thought experiment is applied to the international stage then theoretically the countries would behave like the players in the “Original Position” and without the knowledge of their country’s natural resource wealth the global assembly should establish a fair minimum principle. We see in Pogge’s GRD an example of how a form of economic theory in redistribution of wealth can be applied to a different set of circum-

5. The thought experiment is set such that players are to participate in the creation of a set of rules in society together under a “Veil of Ignorance” in which they do not have any knowledge of dispositions about themselves or the other players which means any set of rules can apply to anyone including themselves. There is no negotiation in establishing these principles of society so players are constrained to truly consider the risks.

6. 98% is the number referred to in PID as the percentage of the population without access to architecture. The 2000 Structures For Inclusion conference was titled “Design for the 98% without Architects”.

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stances in Pogge’s case, the international community, which is perhaps something that architecture can parallel as an action to take in participating in the economic context.

Rawls and Pogge argue for shifts of economic paradigm through philosophical processes that can be critiqued for various weaknesses when viewed from implementation lenses of the real world. Two assumptions have to be made in both theories that cannot be guaranteed in real world implementation: 1- mutual cooperation of players and 2- rational players. In the case of Rawls, there are risk advocates that would forgo a minimum safety net for greater potential rewards. In the case of Pogge, the participation of countries in the GRD system, specifically the resource rich countries, is unlikely. For either paradigm shift to happen there would need to either be an entity that can force cooperation of players or a reason external to the current system that all entities will find enough value in to mutually cooperate. Instead of these actors deciding to cooperate, can we build the actions toward economic balance through the medium of space? Interaction between actors requires some realm of space whether it is physical or digital. By utilizing architecture as a means of circumventing the critiques in application of economic theory, we are not only participating in the economic context but also opening up the possibilities of changing the economic paradigm.

By positioning architecture as the medium for economy it affords the field the opportunity to operate as an independent actor in the economic context with the ability to wield business or governmental tactics while being a private agent acting as a public agent. There is advantage in the ability to operate in between identities, entities, concepts, and organizations. It is not only hybridizing between two things but being able to freely play with components and conditions accordingly as well as manipulate systems and context as needed. There is an ability to move within the system to readjust and reposition as needed. Keller posits, “Punctuating events, like crises, competitions, victories and defeats, capture the attention of the most familiar cultural narratives, but in medium design, disposition does not happen, because...”

Extrastatecraft pg 72
it is ever-present as a latent property.\textsuperscript{8} This flexibility provides benefits of resilience against events and undesired changes through built-in adaptation and malleability of the medium. This notion of operating in between will be important in allowing architecture to function as an independent agent in the scheme of our spatial-economic environment.

Operating in between is a form of dissensus within the systems of architecture, economy, and policy. With no one set of affiliations and ties to any organization or absolute organizing principles, operating in between is a form of compliance and piracy\textsuperscript{9} choosing to further its agenda by playing the game of business or policy as needed and acting in its own set of rules when needed. Easterling prompts, “Design that has any hope of effecting change manipulates the organization as well as the narrative that attends it. How else can design exploit the powers of giant macro-organization strata with moves that are potentially sneakier or more politically agile?”\textsuperscript{10} There is a level of exploitation of systems and organizations in this approach that the designer will have to accept or reject. If accepted, the designer has not put ethics aside but instead now operates in between ethical poles and views ethics as a spectrum not as a binary. Robin Hood is an example of a pirate that operates in between he has shifted the economic needs of the poor as more morally important than the moral wrongdoing of stealing in his own set of principles. Using this case we see that theft is transformed from a moral absolute to a moral extreme and an extreme position can be moved as opposed to an absolute. The world of business already operates in this manner in pursuit of profit; business organizations comply with governmental regulations but often skirt them through alternative paths such as tax havens. Architecture as a medium for economy balance then should learn and modify this method as a counterbalance to the exploitative nature of the business world.

Keller Easterling writes, “Medium design uses space to prompt productive thought about both spatial and non-spatial problems.”\textsuperscript{11} Easterling is not necessarily interested in the medium in this instance but the active and latent characteristics or “disposition” that is gener-

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10. Easterling, Keller. Extrastatecraft. 2016-
ated in the designing of the medium. If architecture is to serve as the medium for economically sustainable environment in this thesis then medium design is the design of architecture as a means to generate interplay and interrelationships between entities through the means of space and systems. The medium, in this case, will act as a prototype for demonstrating the behavioral shift to incorporate economic ideas.

In Extrastatecraft, Easterling explores the contemporary infrastructure of space and what happens when organizations start to exploit that space through the means of operating outside of the state. She writes, “these chapters dwell on an expanded repertoire of form-making, history-telling, and activism. Together they consider the art of designing interplay between spatial variables- an interplay powerful enough to leverage the politics of extrastatecraft.”\(^{12}\) One form of extrastatecraft that is discussed is the “zone” or “free zone” which is a territory that has been granted less regulation and oversight by its government in pursuit of economic growth which is directly connected with urban developmental acceleration. Shenzhen is an example of these zones. It is a “Special Economic Zone” of China that is essentially a sister city to Hong Kong that allows for the economic center of Hong Kong to have a space of unregulated business practices. Incentives in these zones generally come in the form of absolving taxes but also the zones are in between operators. “Political scientist Stephen D. Krasner calls ‘hypocritical sovereignty’ where nations operate between multiple jurisdictions with potentially conflicting allegiances and laws- or what international relations professor Ronen Palan calls ‘sovereign bifurcation,’ where ‘states intentionally divide their sovereign space into heavily and lightly regulated realms... ‘State and non-state actors use each other as proxy or camouflage as they juggle and decouple from the law in order to create the most advantageous political or economic climate.’”\(^{13}\) These cities and zones are real world examples of operating in between organizations to gain advantages. Their goal is for economic growth for the zone, its organizations, and the state that’s afforded them this special space.

The method of paralleling is having a process that shares similar characteristics and positions as another process but goes toward a different end. The zone firstly provides incentives for organizations to operate in the free economic city vs the regulated economic city. The incentives in the lack of tax and regulation is not replicable by architecture but surfaces the very basic notion that there must be beneficial value to a space. The zone tends to be a place of abusive business practices and skirting human rights violations, yet governments continue to provide these spaces and companies utilize them. By understanding what the zone does to provide economic value usually at the cost of social value, we can learn lessons of what this thesis should do differently.

In the case of United Arab Emirates and the city-state zone of Dubai, there are subzones dedicated to programmatic intention e.g. Dubai Internet City or Dubai Media City. These subzones are programmatic components within the zone and perhaps point to the diversity of program that should be available in the larger system. Easterling in discussing Dubai speaks of the emergence of zones dedicated to humanitarian, green, and education programs\(^{14}\) in response to the abusive propensity of the zone. This touches on the notion that the circumstances of the medium can possibly mutate components in balancing the zone.

If we look to the zone as a means of economy manifest in the world as the city-state we then can analyze it as a spatial condition in relation to urban design and planning. The process of urban design parallels architectural design in infrastructure, systems, and components and their composition through coordination, with the primary difference in scale. We can look to zones as not only an example of things to parallel-forward but to move in the opposite direction. Keller says, “The zone is often a place of secrets”\(^{15}\) and speaks to the ability of Jane Jacobs in finding the dispositions of urbanity in another part of Extrastatecraft. Perhaps then maybe there needs to be a level of transparency to this model such that regulation comes from societal policing external of government as “It oscillates constantly between closure

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13. Ibid
15. Ibid
and reciprocity as fortress of sorts that orchestrates a controlled form of cheating. Moreover, as the entrepot of the world’s resources, the zone despite its attempts to be apolitical, invariably ends up in the cross-hairs of pirates, terrorists, and traffickers of all kinds. It stands to reason that if this thesis is able to provide socioeconomic value then it can become the target of manipulation in favor of pure profit. A literal, architectural, or operational transparency is then needed to be built in to the overall system as a means of regulation of the concept. If we compare the zone as city to architecture as space then we can selectively parallel the zone as a means to understand what economic maneuvers are necessary to have architecture incorporate economic action in its design. A subsequent step will to be to organize these economic actions in relation to the players and the medium they operate in.

Easterling states, “The action is the form.” In the case of this thesis then the action is coordination. Architecture then is a coordinating invisible agent to facilitate and adjust the spatial-economic relationships of the players.

There is a legacy and lineage of the transformation of the role of the architect to coordinator-organizer. In Perspecta Vol. 46: Agency’s opening there is a section dedicated to the idea of defining the role of the architect with a simplified and selective time line of questioning. It ends with Rem Koolhaas’s questions of what more the field can do beyond its isolationist tendencies. In “Architect as Organizer or the Way the World Works” by Eva-Liisa Pelkonen, she speaks of the idea of the architect as organizer as exemplified by the career of Kevin Roche. In Refabricating Architecture, Kieran Timberlake dedicates a portion of their book on the repositioning of the architect from “Master Builder” to a new yet similar role of coordinator. When asked what the expertise of the architecture is in today’s world Farshid Moussavi answers, architecture is the assemblage of pieces and we have to be a little bit of generalist. Ultimately in the contemporary setting, architects are coordinators of architectural elements and organizers of space, the medium in which interplay between players happens and therefore our action is coordination. Medium design for the architectural discipline is then to design the actions of coordination and organization. The method of framework, an underlying system, allows it to design something that coordinates and organizes but does not necessarily define and allows for a level of flexibility and indeterminacy to the results of action.

Easterling is clear that there is the active form and there is the objective form in her writings. The objective form is traditionally what we think of as architecture’s form and the active form is the unseen underlying system that allows for disposition and what we do see. In this thesis there are additionally the notions of spatial form and systems form that are inherently connected to objective form and correlated with the active form. Systems form is an element within the object form that deals with the necessary structural forces and infrastructure to provide space. Spatial form is the space resultant of the object and systems forms. As a means to provide an example within the thesis’ framework, this thesis considers then the design of the objective form, systems form, and spatial form to test and investigate the thesis.

The architecture manifest of this thesis then is

Diagram by Author

a designed medium that coordinates the interplay of players within the system. The interplay will fluctuate as it will due to a myriad of factors so the medium designed needs to be flexible and resilient toward change. By taking independent and diverse players into a set environment it can then leverage the strengths and weaknesses of each for the resiliency and flexibility. This creates a community with the different players as they have a variety of relationships with each other such as spatial adjacency, marketing opportunities, spatial activity, etc. Through the space and systems provided in the architecture we can utilize the redistribution of wealth of the players to generate social value and potentially a safety net. This then becomes a sustainable community of diverse players.

The incentives provided will be the shared amenities, resources, infrastructure, and an image of value. The opportunities will be the interaction of entities through the use of shared space and engagement as well as the idea that there are ways for the community to help absorb fluctuations of the market or other stimulus in an underlying principle of rational economic fairness. The flexibility of the architecture will need to accommodate expansion and contraction of its players, economic patterns, and efficiencies of function.

The framework serves as an overall architecture to components of architecture that will be brought in by the tenants (players) as they see fit. The concept of the framework architecture needs to allow for space that is to be determined by the tenants while providing the necessary structural and infrastructural systems. So the systems form of the building should manifest in a manner that is flexible in its adaptability to the minimum or maximum requirements of the potential tenants while allowing the spatial form to be open and undefined. At a rudimentary level the framework architecture can be reduced to a structural system, an infrastructural system, and a necessary vertical circulation system not unlike many of the core and shell buildings that are developed today as office buildings. That core and shell concept can be traced back to Le Corbusier’s diagram, Maison Dom-Ino which captures the basic needs of a building.

Maison Dom-Ino is brilliant in its simplification of a building into essential elements and a reflection of systems form. The legacy of Maison Dom-Ino can be exemplified in buildings such as the Sendai Mediatheque by Toyo Ito which designs the structural and infrastructural form as one through a system of tubes that hold up the horizontal plates as well as host the circulatory and mechanical delivery systems. This investment in the systems form is intended to allow for the spatial form to be “free of walls” which is arguably true for the most part. Sendai Mediatheque is also an example of a building hosting multiple components-programs but lacks spatial interplay between those components beyond their stacked nature with the tubes connecting them. I would argue that the lack of a skin in Maison Dom-Ino physically allows for the spatial form to be not be contained and defined, perhaps an unintentional hint can be taken that as the space can expand and contract through the skin. With Sendai Mediatheque, the skin is fixed transparent glass containing the spatial form to the box of the building while it visually expands beyond it does not physically. These examples began to serve as precedence in the exploration of the thesis’ example building’s systems form and spatial forms and potentially object form.

The architectural elements in composition will be the disposition that shows the latent action of the building. “Disposition is the character or propensity of an organization that results from all its activity. The disposition of any organization makes some things possible and some things impossible… it sets the rules of the game that link and activate the components of an organization.”  The disposition of the framework will be reflective in the architectural strategies, composition, and elements of the goal toward flexibility allowing for spatial-economy interplay of players in the relationship of objective form, systems form, and spatial form. The action is coordination of pieces in the framework of architecture to allow for balanced economic environments.

Annotated Bibliography


John Rawls provides the a pivotal philosophy on the idea of justice and fairness and the thought experiment of the “Original Position” presents assumptions and inferences on human behavior in establishing a fair society where individuals will attempt to maximize their advantages while minimizing potential disadvantages and the subsequent balancing of those targets. This theory will serve a starting point toward applying the ideas of justice and fairness to the architecture explored in this thesis.


Thomas Pogge in reaction to Rawls’, criticizes the lack a global responsibility in Rawls' theories and in turn looks toward justice and fairness through egalitarianism in a global order and proposes the “Global Resources Dividend”. While flawed, this idea in combination with an extrapolation of Rawl's “Original Position” thought experiment applied to a new global society establishing rules for resources has a parallel to the ideas of this thesis.


Perspecta, Yale's Architectural Journal, takes a look at the idea of agency within the profession of architecture and the field’s involvement or lack of in political, social, and economic facets of society. The letter from the editors puts forth the ideas of relevance on the topic of agency following the economic crash of 2008-12. These simple ideas has an alignment with the thesis such that the architecture profession can do more in the realm of social and economic of our environment.


Perspecta Vol. 47 is dedicated to the idea of money in relation to architecture and the profession. Exploration of how architecture can engaged the financial component of the built environment is a valuable aspect in the idea of how architecture can function as a medium for wealth redistribution.


Bryan Bell and Katie Wakeford’s compilation includes essays on affordability and working with market forces in architecture as a medium for change.


Keller Easterling is interviewed regarding her writings in “Medium Design” and “Extrastatecraft: The Power of Infrastructure”. Of particular relevance in which medium design can be a player in the political dimension with potential for activism and change. Working between objects and the field, medium design can open opportunity to design the interplay between components. This is an idea to further explore with architecture as a medium for theory.


Easterling’s book on the theory of active forms being a means of social, political, and economic change with as apparent in the state crafted infrastructures and zones that can perhaps be re-coded by non state agents. Interpretation of this book’s concepts of the free trade zone, active form, operating in between, and infrastructure are critical to the theoretical premise of the thesis.

Easterling’s book on designing the medium to be an adaptable and fluid thing that is metaphorically compared to software code that can be updated. By designing the medium, she suggests there are alternate methods to solve problems.


Easterling’s article on the various methods of dissent which are aligned to this thesis’ notion of piracy, and compliance while the concept of operating from between is directly derived from this text. The participation and manipulation of architecture as business-economy shares ideas with these previous methods. The ability to work fluidly between entities and organizations is a major idea in this thesis.


Easterling’s article discussing architecture’s relationship with money and her architectural entrepreneurship course of “Launch” at Yale.


Article about John Roche and his process and method as an organizer within the field that would further support the idea that architects are organizers and coordinators which relates to the design of interplay and relationships between player-components.


Article regarding the politically influenced actions and works of Eastern European dissidents and how architects worked through dissenting methods using architecture as a means of agency in relation to the governments at the time.


John Portman’s co-written book on his work and mission to create architecture for the person and the hybridized role with development to have greater control over what is built as a means toward his goals. The idea of having more say in the development process is an engagement of architecture and economy that is part of the objective of this thesis. The motivations and method of combining architecture align with the thesis as well although they branch off as Portman’s particular focus is the person and space whereas the thesis is focused on the socio-economics of space toward sustainable communities.


John Mackney, founder of Whole Foods, co-writes this book on the intrinsically good spirit of capitalism and their tenets toward this “conscious capitalism” that has been mis-characterized through a myriad of reasons such as “crony capitalism” and the myth of the capitalist goal of maximized profits. The book puts forth the notion that capitalism has done more good for society than bad and that capitalism is a voluntary action toward collective value generation. While many of the ideas in this book are dubious to the thesis, there are some takeaways such as the mutually beneficial relationship of economy and social value and the integration of stakeholders as a means to better the business and profits.


Medina’s interview with Jack Portman, John Portman’s son, and Mohsen Mostafavi regarding the legacy of John Portman. They discuss various things such as Portman’s
values and the book Mostafavi edited on Portman.


Denny’s article on the history and reception of John Portman and the recent change in perception of the architect’s work from excessive and unrecognized to more positive notes of grandeur and innovation of space.


Gil and Peiser’s follow up article to a GSD discussion panel regarding the architect-developer practice model with invitations to 3 professions employing the hybrid role. The panelists point to their desire to have greater control over what is built, profitability beyond the limitations of the architect, and risks.


Journalist Naomi Klein’s book on branding and the global setting with the tendency of corporations’ abusive behaviors. The continuation of research in the zone, in this case the EPZ, export processing zone, and its border if not actual violations of human rights as governments cater to the manufacturing contracting power of large corporations like Nike. Klein makes clear the point that corporations have abdicated their responsibilities in production by shifting to branding as their actual export not products themselves. The spatial and social abuse as described by Klein in the zone further elaborates on the negative impacts of the zone that Easterling notes. These are lessons to learn of how space should not be used against people.
Precedent: Inspiration
DDBC3 is a design build project that was positioned to demonstrate how to lower cost of affordable housing through construction to both nonprofit and for profit entities, this project shows a consciousness for the economy of building while creating social value.

1111 Lincoln Road is another legacy of Maison Dom-Ino that serves primarily as a parking structure but also includes multiple programs such as retail, residential, and event space.

A large scale project like Sendai Meidatheque serves as a precedent but also as an imaginative base of what happens when we begin to insert small scale socially oriented projects into the larger architectural system.

Smoke House is the first Rural Studio project that started a legacy of socially conscious building of communities.

VitraHouse’s formal and symbolic reorientation and re-structuring of the house as a typology through its use of juxtaposition begins to show the possibilities of interplay between components to create spatial relationships.
The concept of providing space for users to complete or "fill in" the architecture allows for a sense of spatial ownership and place-making. There are also notions of investment and equity in the architecture for the users from a design perspective.

In the case of Delft Diagoon Housing, Herman Hertzberger leaves tenants to determine the relationship of their balcony spaces adjacent to their neighbors. The conceptual lineage proceeds to the work of ELEMENTAL’s "Half a House" concept where social housing provides half a house that is occupiable with the necessary infrastructure and an incomplete half that is available to the tenant to complete. These are undetermined exterior designs which contrasts the idea of the open floor plan and Le Corbusier’s Maison Dom-Ino which depicts a house reduced to its structural components of plate, columns, foundation, and circulation needs of a stair. The open floor plan usually contains space to the interior; containing flexibility to the building. Maison Dom-Ino, however, never depicts a skin or container element leaving the open floor plan to further possibilities. The two schematic strategies are opposites but fall under the overarching sensibility of space as to be determined.
Case Study: Sendai Mediatheque

Toyo Ito, “CASE: Toyo Ito, Sendai Mediatheque”, 2002

“sendai mediatheque features slabs and vertical tubes as its fundamental, and almost only, structural elements, creating spaces that are distinctively different from conventional cultural institutions in that they do not define the use of enclosed spaces, rather allowing its users to define mediatheque organically.” - Sendai Mediatheque Website (www.smt.jp)

The Sendai Mediatheque is an institutional piece of architecture that accomplishes multiplicity of program and flexibility of space by concentrating its structural system into dynamic “tubes” that also function as building systems or circulation. Through this dedicated integration of systems and structure this allows for an open floor plan and space to behave as needed. The floors do have dedicated programs, however looking at the gallery floors and lobby there is actual transformation of the plan to accommodate specific events.

The “tubes” are architecturally captivating, however they were designed as systemic framework to allow for the space to be freed of walls and constraints. This is relevant to my thesis as I explore how architecture can be a framework for not only space but as a medium of economy theory. The Sendai Mediatheque provides an open floor for each function and the building itself overlays multiple programs bringing layers of activity and diversity of users to the building.

Diagramming the space of each open floor as solid mass begins to show that there is unavoidable programming due to public vs private functionality as well as systems integration. It also removes the “tubes” captivating effect conveying the conceptual importance of space. The building functions as intended and can be traced in its lineage of the open floor plan and Maison Dom-Ino.

Toyo Ito, drawings from https://en.wikiarquitectura.com/
Case Study: Centre Pompidou

Centre Pompidou is an iconic building that captures the eye with its exposed infrastructural systems on the exterior that is color coded. The structural system is a metal framework that loads trusses outwardly to a series of columns, gerberettes, and lateral tie rods. Amongst, the exterior systems is also the exterior circulation pathway ascending the longitudinal elevation of the building.

Like the Sendai Mediatheque, the building captivates with its articulated structural and infrastructural systems. The building’s open plan allows for a freedom of space similarly to Toyo Ito’s, but arguably more unrestrained by loading the skeletal systems to the exterior. The selected images of the project are focused on the spaces created by the framework including original concept section drawings from Richard Rogers and Renzo Piano. The sections depict interior activity and spatial quality afforded by the building design, the systems form and spatial form. The photograph of the physical model highlights the spaces beyond the exterior frame.

The physical analytical model is reduction of the project into its structural system that then allots the open floor plan to work. It is a diagram of the relationship that allows for space to be uninterrupted showing that the framework is in service to the space.
"The Coop Housing is a jointly developed and administered project. Its mission is to harness its location’s unique potential to create a socially just, economically stable and environmentally responsible urban building block."

The project is mixed use and mixed income with communal amenities of: laundry, fitness, guest rooms, rooftop terraces, and the music and youth room. The ground floor includes carpentry workshop, catering kitchen, studios, daycare center, and co-working space. There is subsided housing included as well. The cluster units are a series of private rooms that are clustered around the shared communal living spaces such as the living room and kitchen as opposed to the standard flats which are fully private units.

This project serves to show how multiple uses and incomes can come together and function within a piece of architecture.
Baugruppen or “building group” is the idea that a collective of users can come together and be the client of a housing project that they will then live in. This model provides the client-user with a level of control over the parameters and factors of building design. Baugruppen engages architects and contracts so it is not completely “self build” but cuts out the middle man of developer-landlord.

This model offers the ability for the users to work with the architects on the final product and the ability to re-adjust the different facets of the design as needed when confronted with the challenges of building.

R50 is a housing project that demonstrates this model as initiated by the architects that would also be the users.
Re-development of an existing Hackney estate of 438 homes to 925 units with a mixture of housing types and income levels leveraging high cost housing vs affordable housing.

Masterplan Mixed tenure:
42% Social Rent, 10% Intermediate, 48% Market Sale.

Phase 3 of the development includes two towers designed in collaboration with David Chipperfield for 198 private units to cross subsidize 450 affordable homes.

"Phase 1, Bridport House (Development Zone B), was completed in 2011 and provides 41 new social rented units.

Phase 2 (Development Zones Ct, E and F) provides 209 mixed-tenure units and is due for completion in late 2018.

Phase 3 occupies the site of Harwood Court, an existing 12 story tower block in the South West corner of the estate. The OPA identifies Phase 3 (Development Zone D) as 2 tall buildings for Market Sale, to help to cross-subsidize the construction cost of the remaining Social Rent dwellings. This phase of the master plan was completed in 2018"

"As Glanville says, it’s the shared spaces between buildings that make the difference between the kind of dumb brick boxes that are now the routine form of developers’ housing and the creation of enjoyable and sociable places to live" - http://karakusevic-carson.com

images from http://karakusevic-carson.com
J.L Hudson’s Department Store in downtown Detroit has been closed since 1983. With a centrally located site in downtown Detroit, the owners of the site selected SHoP Architects from an invited competition on a redevelopment project of the vacant lot to revitalize the surroundings and generate productive activity.

The project is 1,500,000 SF total with a residential tower of 58 stories for over 300 housing units and an adjacent 12 story mixed use building.

The mixed use building will include: civic, events, and a variety of commercial spaces eg office, retail, market.
Precedent: Lessons in Disposition

The Metabolist Movement argued for the evolution of architecture in the potential to organically grow as megastructures. The ideas of growth and interchangeability are central, however the materiality of the time did not facilitate those ideas as successfully as the theory would intend for. Concrete and steel would allow for the possibility of size of megastructures but not the adaptability that theorists imagined.

In reading the "Plan for Tokyo" by Kenzo Tange and Associates we can see the object form of the horizontal volumes hint at the potential of expansion through the modular facade pattern. The vertical cores establish themselves as perhaps the fixed component which allows one to read the horizontal component to continue to move beyond the core until it has spanned to the next fixed component.

The lessons learned from Metabolism for this thesis are in the disposition of the work which demonstrates the idea that there are the fixed elements and the flexible elements, the former allowing the latter to be successful and it is in the design to find the right balance of feasibility and visual reading. This can apply to the interrelated elements of materiality, architectural composition, and programmatic coordination. The objective form is the primary expression of the active form and disposition of the building.
Plug-In City by Peter Cook, printed in Archigram, is a megastructure concept that was part of the conceptual work of the group toward their goal of accelerating architecture to become more radical. Archigram sought to challenge what they saw as the compliancy in the established Modernist Movement of architecture through their fantastical drafts. Believing that architecture can have more agency in advancing the world they used architecture and drafting as a means to predict the future.

In reading the “Plug-In City”, we see similar to the “Plan for Tokyo” the element of the vertical core however the architecture here is primarily structural and mechanical frameworks for the ability to interchange pods. Part of the radicalism in Plug-In City that may no longer be relevant is that the pods are simply thrown away as single use components.

The lessons learned from “Plug-In City” are similar to Metabolism the duality of fixed and flexible, here we see the infrastructural framework that allows for the action of replacing pods represent, the Archigram sensibility of the future of technology and the built environment. In contrast to Metabolism, the infrastructural form is the one that is more expressive as opposed to the object form. Disposition lies with the mechanism that allows for the active form.
Skyscraper is a dedicated section and topic for Rem Koolhaas in Delirious New York: A Retroactive Manifesto for Manhattan. The skyscraper typology has the ability to essentially layer unrelated and distinctive programs stacking on each floor creating an architecture of realized fantasy. One main example that Koolhaas uses to illustrate this is the Downtown Athletic Club that houses golf courses, swimming pools, and more. Koolhaas’s argument here is to demonstrate the idea of Manhattanism which is the idea that the reality of Manhattan is a fantasy realized from what can be considered logical and efficient real estate development processes.

The lesson in disposition is the capacity for each floor to be something vastly different and perhaps an unrealized potential in the building: the ability to vertically connect this programmatic and spatial diversity. The legibility of the programmatic diversity is not fully available to the user of the skyscraper as the elevator becomes a mechanicism for only transporting users from one program to the next. The infrastructural space is simply absent from the Downtown Athletic Club.

A lesson to take from Manhattanism and concept of the book is that what is beyond the realm of feasibility that we think of being fantasy can and does occur in the built realm when the economic and spatial demand exists. Architecture and the built environment can find agency toward the fantastic through the
Atrium-Spaces for People is my own combination term of John Portman’s built work and the concepts he puts forth in his book Architect as Developer as Portman does not articulate the relationship between his spatial design and his conceptual process. The most prominent architectural component of Portman’s work is the grandiose atriums and spaces he has created. Portman argues that his work is driven from the idea that he wants to provide people and the public with better spaces and these spaces, that others interpreted as excessive, are what he finds spatial value in. Portman is also unique in that he was able to achieve his goals of realizing these spaces through his position as architect and developer making a case that he found more agency in built impact than the more famous theorists of megastructures.

In contrast to the Downtown Athletic Club we see the Westin Bonaventure as variation of spaces and spatial connections through centralized atriums as well as a multistory ceiling in the ground level interior plaza. The Westin Bonaventure however lacks any disposition of an adaptable active form. The building is diverse in its spaces and perhaps dynamic in its interior spatial experience but the disposition reads as static. It is as if Plug-In City lost all mechanism for its framework for interchangability and the spaces left over were tweaked and realized.
The concept of the thesis is to for architecture to act as a medium to operate in between player-components to leverage their strengths and offset the weaknesses typical of those organizations. The player-components, for this thesis, are abstractions of tenant entities to compartmentalize them as pieces in contrast to their relationships within the space. This concept is inherently built upon a mixed use program to get a variety of different organizations and players to the same space so that they reach a sustainable equilibrium as a whole while acting as individual components with offsetting agendas. For example a business program component will seek to provide a productive space for its goal of profit while also looking for marketability value to add to its image. The financial value of the business component can then be utilized to offset the financial burden of affordable housing that is intended to provide social value in housing lower income residents. The social value of the affordable housing component will help to offset the image of the business component toward a socially conscious practice.

Each individual program will have its own set of values to contribute to the project. I have reduced these benefits to three categories: financial value, social value, and spatial value. Spatial value is the value that player-components will bring to the project by enriching the space for users and visitors such as providing diurnal activation of the space, making the project a desirable destination, adding amenities or resources that can be shared, etc. If the agenda of the thesis is to find a balance then the basis of program will likely start with 3 tenants that achieve a moderate to high value in all three categories when assembled. Then the fourth program should address community needs that may be beyond the 3 category values. This is where the potential of the proof of concept comes in, by allowing a flexible and intentionally undetermined program in proof of concept then architecture can engage in the needs of the community beyond the basic values.

The individual programs should also be flexible to adjust to the changes of the economy, spatially expanding and contracting as needed for each organization’s growth or degrowth as appropriate. This is geared toward sustainability of the whole as to maintain reliability in the project, however, should there be a loss of an entire component then the program framework should have a method of interchanging programmatic components or finding a transitional and temporary use.

With a mixed use program and mixed income due to the spectrum of financial and social assets, then the user group will also be a mixture of demographics. The challenge will then be to design the framework of interplay and spatial relationship between the different users such that it is perhaps an egalitarian atmosphere such that the different entities understand that they are mutually benefiting from each other through different contributions of value. It is awareness that all players are different and not equal but that there is a redistribution of financial and social capital toward a collective benefit. If the three base programs are to provide the three categorical values then there will likely be a consistent group providing economic capital i.e. a wealthy user group and a consistent group providing social capital e.g. non-profit groups.

The project’s reliance on a variety of program to balance each other and share the benefits of each push the project toward a large scale architectural structure as well as mixed use zoning that has potential for variances.
Program-Spatial Relationships_Plan

Players_Plate

Expansion_Contraction

Direct Interstitial

Primary Spatial Interplay

Secondary Spatial Interplay

Spatial Overlaps
Speculative diagram of player-components in sectional-spatial relation with each other and flexibility of the object form to accommodate expansion and contraction. By author.
Program-Vertical and Horizontal Connections
Program as Components

Office  Hotel  Co-Working  Retail  Grocery  Food + Beverage  Recreation

Luxury  Market Rate  Affordable  Artist

Studios  Workshops  Light Manufacturing  Makerspace

Public  Amenities  Proof Of Concept

Example of player-components

Collective value of player-components
Program Mixed Use Stacking vs Components
Zoning

Commercial  Residential  Industrial  Varying

Program

Office  Hotel  Co-Working  Retail  Grocery  Food + Beverage  Recreation

Luxury  Market Rate  Affordable  Artist  Studios  Workshops  Light Manufacturing  Makerspace  Public  Amenities  Proof Of Concept

Site Properties

Mixed Use Zoning: C-R-M
Multiple Programs: Large Scale Project
FAR Requirements: High
Transportation Needs: High user quantity- Public Transit
Development Bonuses: Inclusionary housing bonuses, Transit Oriented Development bonuses, Business district bonuses
Site_Potential Locations
Potential alternate sites: 625 Fulton St

625 Fulton St. is currently a vacant plot that is under the ownership of Rabsky Group that has development rights to build a 770,000 SF tower. Early reports are that there is the intention for two floors of retail, one of which will be ground level. The site is situated next to 9 DeKalb a resident tower and BAM (Brooklyn Academy of Music) Cultural District on the other.

Potential alternate sites: 225 Duffield St

225 Duffield St. is now a vacant plot as the structures previously on the lot have been demolished. Plans are for an underground parking garage with an acre of green space on top. Previous plans included a 65-story, 620 unit mixed-use tower.
Potential alternate sites: 800 Pacific/615 Dean

615 Dean Street is proposed to be a 26-story development with 245 condos. The developments on either end of the block are almost new residential developments. 615 Dean Street falls in the planning project known as Atlantic Yards next to the Atlantic Ave rail yards and down the street from Barclay’s Atlantic Terminal.
The project will need to demonstrate an architectural manifestation of the concept to be convincing of its plausibility and objective. The thesis is intended to be a conceptual framework and not a universal design process so site specific responses by the designer will be necessary in each specific case.

The prototypical site for this iteration of the concept will look toward a series of factors and constraints such as:

- **Business-Economic Center**: if part of the ultimate goal in utilizing architecture as an economic medium is to balance the social value of projects like affordable housing and socio-economic interventions in the built environment then the site must be a catalyst or have the potential for business and other non-residential economic activity.

- **Urban/High Density**: a higher density population will have a larger spectrum and strata of demographics including a larger wealthy population that can be a financial resource to the balancing of social value oriented endeavors.

- **Mixed Use Zoning**: an obvious constraint of the project's site will be its need for mixed use zoning allowing for the variety of program.

- **Variety of Use and Activity**: similar and yet slightly distinct from mixed use zoning, the community and neighborhood of the site should be diverse in the existing uses and activities as opposed to homogeneous areas. Homogeneous zones introduce another set of issues that will deviate the thesis toward addressing a different spatial issue.

- **Scale+Size**: the project will need a substantial lot size and high FAR to amass benefits from multiplicity of value through multiplicity of program/components. Scalability of the thesis is another major component of hypothesis and a position will need to be taken when the base hypothesis has been produced further content to be analyzed; until then the site is biased toward a large scale urban area.

New York City is an economic center that is high density with social issues of gentrification and displacement as the city continues to grow. Sunset Park was selected as the site satisfies the criteria listed. It fits the criteria as the arguably underutilized waterfront has suffered the loss of a once prominent industrial-manufacturing economy and the size of the thesis intervention is facilitated by the industrial history of the area. The advantages of the waterfront and access to the N and R public subways incentivizes growth. On-going redevelopment proposals such as Industry City which seeks to create an "Innovation Economy Hub" in the area is evidence of the potential future of the neighborhood to be injected with an influx of business. The community has been historically an enclave for Hispanic and Chinese immigrants who have long provided commerce and activity to the area. The voices of the community are telling in the evaluation of benefit and risk in new developments. There is a strong sentiment from the community for negating displacement and the need for jobs that are better than basic service positions such as industrial-manufacturing jobs.

This site sets the stage for the thesis to address the balance of economy and social considerations.
Industry City
On-going Redevelopment Proposal: "Innovation Economy Hub"
Project Size: 6.57 Million SF

5801 2nd Ave (Thesis Site)
Block: 853
Lot Size: 140,233 S
Current Zoning: M1-2
Current FAR: 2.0

Proposed Re-zoning by author: M1-5/M1-6
Rezoned FAR: 5.0/10.0
Max SF Build: 700k/1400k SF

Block 861 (Potential Expansion Site)
Mixed use block of residential, industrial and vacant properties.

2605 8th Ave
On-going Redevelopment Proposal: Mixed Use Complex
Lot Size: 240,000 SF

2608 8th Ave
On-going Redevelopment Proposal: Mixed Use Complex
Project Size: 1,292,920 SF

5801 2nd Ave
On-going Redevelopment Proposal: Mixed Use Complex
Lot Size: 1,292,920 SF
Site_Aerials
The proposed site has a singular building occupying the entire 700’x200’ lot. The building is subdivided into various tenants. Select portions are vacant and a portion long the 3rd avenue was acquired by NYU Lagone Medical Center as part of an expansion.

The building extrudes down as the ground plane of the site slopes downward in the direction of the water transitioning from a single story on the 3rd avenue side to 3 stories on the 2nd avenue side.

The monolithic mass is positioned adjacent to townhouses but not necessarily out of place when contextually expanded toward the water and in relation to the greater neighborhood.

At the street level the exterior elevations of the building seem to read as appropriately contextual to this portion of the city as industrial uses line this corridor. This may have potential for design sensibility at this level or potentially even retention of the exterior as a means to maintain the vernacular relationship with the neighborhood. However, the current building acts as a fortress spanning the entire block as pedestrians walk along a disconnected wall that only grows in size as they move toward the waterfront.

3rd Avenue operates a means of vehicular thoroughfare and while bringing people from beyond the immediate area to the site it can be a physical disconnect for pedestrians. Pedestrians must cross the street at the traffic light intersection at 60th street and 3rd Avenue; there is no crosswalk at 59th street. The visual disconnect created by 3rd Ave. and the highway is a site consideration but not necessarily a burden. The building could have the potential to be a visual connection for the larger portion of Sunset Park on the East side of 3rd Ave back to the industrial-waterfront side of the neighborhood.
In the case of the “Industry City” development

### Site_Voices of the Community

#### Real Estate
- **Developer**
  - Jamestown Properties.
  - redevelop and re-tenant the Industry City complex with a mixed-use project containing manufacturing, commercial, and community facility uses that would, in combination, establish “Innovation Economy Hub”
- **Economic Benefit**
  - “The 450 current tenants include design, media, fashion, and tech firms... The developers claim since 2013, Industry City has brought thousands of new jobs into the neighborhood, employing approximately 6,500 people, up from approximately 1,900”

#### Resident
- **Artist**
  - Ms. Zahaykevich.
  - “creative class priced out of Industry City’ ‘renting a 300 SF space for 3 years and paying $2 per square foot to NARS Foundation which was subletting its space to 50 artists since 2006”
- **Evidence of displacement**
- **Local**
  - Aru Apaza.
  - “outraged and deeply saddened’ by Industry City’s proposed development which would drive people like her out of the neighborhood.”

#### Politics
- **City Council (Dis. 38)**
  - Carlos Menchaca.
  - “Our residents need access to programs that give them the relevant skills to meet the new wave of jobs... and the Innovation Lab has the potential to do just that.”
  - “called industrial jobs ‘the lifeblood of Sunset Park’... He urged the Department of City Planning to broaden the geographic area of a required study about the environmental impact of Industry City's proposed development. And the possibility of residential displacement should be studied as well, he said, because if industrial uses are pushed out of Sunset Park, the residents who rely on industrial jobs will also be pushed out of the neighborhood.”

#### Business
- **Blue Marble Ice Cream**
  - Jennie Dundas.
  - “We are not hipsters. We are conscious citizens of the world,” added Jennie Dundas, CEO of Blue Marble Ice Cream. ‘Here in New York City, we are committed to employing a staff that reflects the diversity of our home city.’ According to Dundas, eight of her ten employees are minorities; six are women.
- **Fodera Guitars**
  - Jason DeSalvo.
  - “It was a really downtrodden area,” said DeSalvo, of the early years. “It made it very difficult to attract top talent.... It was unsafe to be in the buildings after dark, there was no place to get something to eat, and there were days in winter when the space was literally so cold that employees could not do the intricate woodcarving that's required of them because their hands were too cold.”

#### Community Groups
- **UPROSE (non-profit)**
  - Elizabeth Yeampierre.
  - “they favor using the industrial waterfront for businesses that produce environmentally friendly building and construction materials that would help structures withstand the effects of climate change.
  - “Commercial jobs just turn young people of color into a servant class for the privileged,” she said.”

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Site_Land Use: Industrial
The land use mapping shows the local organization of building program across the neighborhood with the industrial waterfront transitioning to commercial and mixed use corridors and nodes and then to heavy residential. The project site is situated in between the waterfront and the residential zones further providing it with opportunity to act as a space that bridges programs and engages the diversity of users in the local and economic community.
The Brooklyn Army Terminal is a massive adaptive reuse project that provides affordable operating space for those seeking light industrial and work place rents that are with a smaller budget. Local community groups advocate for the project in contrast to projects like Industry City. The stunning atrium space and access to the waterfront have made the building a worthwhile destination to visit, however it lacks the continual activation and pedestrian traffic that it has the potential to merit.

The proposed project becomes a piece to further establish the 58th corridor and complements the concentrated light industrial and affordable office spaces of the Brooklyn Army terminal in breaking the corridor down with an additional place for the public.

On 59th street a new multistory public school is already under construction. This adjacency also becomes a factor as a concentration of specific users will be part of daily routine of the community.
Subway Station
Brooklyn Army Terminal
Waterfront Corridor
Waterfront Ferry Pier
Thesis Site
New Elementary School - In Construction
Subway Station
The process of design in this thesis is a feedback loop of testing and learning how the theoretical manifests into a physical building. The iterations of design provide opportunity to further distill the architectural ideas of the thesis into a proposal. The proposal becomes part of the process.

The first major iteration of the design leaned closer to the design of the infrastructural and object forms and left the active and spatial forms to fill in responding to the theoretical market economy. The architectural components of design focused on were:

- Core
- Central Atrium
- Side Atrium
- Plate
- Envelope-Container

It lacked a sense of the programmatic composition that would lead to demonstrating the spatial interplay and programmatic interdependencies that the thesis seeks. The inefficiencies of the leasable space were questioned.
The second major iteration of the design looked to be more efficient as well as a more developed facade system as a means of tying the disparate programs together and mediating the hybridity of the architecture. It also reinforced that the program components need to be separated into fixed and flexible.

This iteration still lacked a legible disposition of the flexible shared spaces between components.
Proposal As Process: Diagrams to Design

architecture / Medium

Object Form

Systems/Infrastructure Form

Spatial Form

Active Form

Players

Players

Players

Players

Players

Players

Players

Players
The translations of the concepts as seen in the abstract diagrams into a building led to a duality in design process of the infrastructural form (the architecture) vs the active form (the program).
Proposal_As Process
The process of designing the components and systems within the infrastructural form begins to inform the spatial form. The infrastructural system has the capacity to allow for an unrestricted spatial form.

The cores are a means to centralize the flows of people and infrastructure. There is also opportunity for informal social condenser spaces for the floor. Residential program forces circulation inward as access to light and air for living spaces takes a higher priority while office circulation is positioned along the facade as a method of providing access to all users in the office program as oppose to private offices occupying the primary means of light and air.
The facade utilizes a grid system that braces back to the structural floors of the stacked program allowing for a variety of functions through component based inserts such as: fixed glass along the office circulation to provide an enclosed envelope, residential guard rails on balcony spaces, and bi-fold windows for shared spaces to physically open to the exterior.
The interstitial space shared between the office and residential programs generate a space of multiple functions and activities. This becomes a space with a multiplicity of value through the synergy of the adjacent programs. In this instance the shared space allows for the users to bleed into the space with a spectrum of ratios of user.
Program: Office
Program: Residential
Adjustable Bench-Counter
Facade Frame
Operable Panels
Communal Furniture
Garage Doors

Launch Party

Family Gathering
Proposal As Prototype

The final proposal is a learning prototype of the thesis to synthesis the design paths of the infrastructural form and the interstitial program composition. The architecture resulted in three atria that allows light to reach the public plaza and also creates visual connections of the disparate programs across the building. The seven cores offer distribution of circulation and infrastructure across the building as equal entries to the upper floors for the mixed income residential and office spaces. The lower floors are commercial retail, food and beverage, light manufacturing, and semi-public amenity spaces.

The existing building facade is retained and deconstruction from the fortress like structure it once was on the site through apertures of light and access as well as creating a transition space between the new and old building that creates a more generous sidewalk. Trees and pedestrians weave in and out of the portals inevitably intersecting with the main pass through entries of the public plaza.

Proposal in Urban Context
Proposal As Prototype

Typical Stacked Mix Use

Vertical Adjacency Shifts

Interstitial Space Shifts

Residential Program

Office Program
Proposal As Prototype

Interior Public Plaza

Local Communal Space
Event Space and Exhibit-Flex Space
Appendix_Pro Forma

The thesis is an argument for the participation of architecture with economy as a means toward more socio-economically sustainable spaces and thus warrants an understanding of what the proposal will mean in terms of real estate business factors such as cost of investment, return on investment, funding, profitability, etc. A pro forma is appropriate in testing method to see the economic viability and weakness as well as demonstrating the potential of the thesis.

**Residential Program**

- 68 Units Market Rate (35% of units)
- 34 Units Low Affordable (20% of units)
- 51 Units Very Low Affordable (30% of units)
- 16 Units Condo Sales (15% of units)

Residential Revenue: $1,938,000
Building Revenue Percentage: 10%
Residential Area: 26% of building area

**Commercial Program**

- Office Area: 160,830 Sq Ft
- Retail/Food + Beverage: 23,878 Sq Ft

Commercial Revenue: $13,853,100
Building Revenue Percentage: 76%
Commercial Area: 34% of building Area
**Community Program**

- Public Space Area: 72,600 Sq Ft
- Amenities Area: 42,820 Sq Ft
- Light Manufacturing Area: 95,300

**Industrial Revenue $1,429,500**

Building Revenue Percentage: 8%

Commercial Area: 18% of building Area

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**Building Information**

- Total Occupiable Area: 531,428 Sq Ft
- Estimated Cost of Construction: $160,999,600
- Estimated Year 1 Revenue: $18,070,688
- Operating Expenses: $2,181,041
- Debt and Loans: $11,909,623

**Free Cash Flow**

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