Defining the Relationships of Authority

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Dedication:

I would like to dedicate this book to those who have contributed to my journey through architecture school and have inspired me to accomplish my goals.

Firstly, I would like to thank my family and the sacrifices that they had to take to make this a possible reality.

Secondly, my studio classmates who supported me through all the light nights

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This thesis explores the “disciplinary mechanisms that define individuals in space. The formation of tactics into a strategy galvanizes an individual into what Michel Foucault describes as a “docile body” (Foucault 1978, 135). These tactics find traction in the classification, coding and organizations of bodies in space and time, through repetition, observations and documentations. The dynamic between these tactics form the strategies to create docile bodies.

In the end, discipline mechanisms are used everyday subversively and/or subliminally. However, good or bad, we are byproducts of our environment and under a system of control that coerces us to act and behave in certain manners that define who we are, the main question asks has the system of authority failed its people?

By understanding the constructs within space that define who we are, it is suggested that there is a clear line dividing citizen under authority. Specifically there are tactics in the interactions between our police officers and communities, that I argue are creating a clear line dividing us from them. The very space that is supposed to serve and protect, has become a symbol of a force of power... when actually it has the opportunity to heal. To be a symbol of our community, an agent of change, breaking down barriers and uniting communities. My thesis asks a simple question, are the constructs of the built environment that facilitate order and peace, actually dividing us. Can better spaces create better societies?
Fig 2. Ledoux
THE PLAGUE
Great Plague of London 1665-1666

Michel Foucault wrote about the plague in London and its impact on the system of control.

In the 1665, London was hit with the great plague that killed thousands. To eradicate the disease, the city underwent “a strict spatial partitioning”. The town closed and the “outlining of districts” began. “The division of the town into distinct quarters, each governed by an intendant. Each street is placed under authority of a syndic, who keeps it under surveillance; if he leaves the street, he will be condemned to death” (Foucault 1978, 195).

This event created a few advancements in mass control and human discipline. 1: The power of documentation and surveillance, allowed full record and correction of every citizen. If a person was to disobey the order of things, the record of an offense would last forever on record. 2: The fear of the plague, created personal and internal paranoia that any decision made would cause “risk of his life, contagion or punishment” (Foucault 1978, 195). This created a feeling of no action could go unpunished, making people feel under constant observation, an “omnipresent and omniscient, in his or her “fixed point” The importance of creating a “fixed point” through different means of observation, location, documentation, and failure to comply a cause of punishment, created strict discipline for each and every citizen to easily follow (Foucault 1978, 197).
The Plague gave rise to disciplinary projects. Rather than massive, binary division between one set of people and another, it called for multiple separations, individualizing distributions, an organization in depth of surveillance and control, an intensification and ramification of power.” (Foucault 1978, 202).

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The division of the town into distinct quarters, each governed by an intendant” (Foucault 1978, 195).

Each street is placed under authority of a syndic, who keeps it under surveillance; if he leaves the street, he will be condemned to death” (Foucault 1978, 196).

This enclosed, segmented space, observed at every point, in which the individuals are inserted in a fixed place” (Foucault 1978, 197).
“Bentham’s Panopticon is the architectural figure of this composition; the mechanism of power which, even today, are disposed around the abnormal individual, to brain him and to alter him, are composed of those two forms which they distantly derive.” (Foucault 1978, 200).

The panopticon can be observed as the physical representation of the disciplinary mechanism. “The principle on which it was based; at the periphery, an annular building; at the centre, a tower; this tower is pierced with wide windows that open onto the inner side of the ring.” (Foucault 1978, 197).

In the exterior ring, “the peripheral building is divided into cells, which extends the whole width of the building with two windows, one facing to the outside of the building looking out to freedom, and the other ‘corresponding to the windows of the tower’. Light from the outside ‘cross the cell from one end to the other.’ (Foucault 1978, 200).

“They are like so many cages, so many small theatres, in which each actor is alone, perfectly individualized and constantly visible” (Foucault 1978, 200). This causes a direct connection between the mental and physical connection between the inmate and the tower that “he is seen, but does not see” (Foucault 1978, 197). “In short, it reverses the principle of the dungeon; or rather of its three functions - to enclose, to deprive of light and to hide - preserves only the first and eliminating the other two”. The inmate is in full lighting and “the eye of a supervisor; thus making visibility the trap” (Foucault 1978, 200). This physical reality is engraved into an individual’s mental by the “major effect of the panopticon; to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power” (Foucault 1978, 201). The inmate is suspended in its cell unable to hide from the physical and mental feeling of constant supervision. The power of this effect strips away any form of antonym or independence for the individual, thus creating the constant observation, an “omnipresent and omniscient, in his or her ‘fixed point’” (Foucault 1978, 197).

The power of the panopticon is in its efficiency to in-act its principles of “conscious and permanent visibility that assures the automatic function of power.” The power to control what is and what is not seen ultimately shapes the one who is and who is not in control (Foucault 1978, 201).
In the analysis of the Panopticon the strategies and based intent is understood, but the importance of this study is the display the spatial tactics and its relationship to form and effect. To create organization during this study, the analysis will be broken down into four step analysis in scale, starting with the site, secondly how the site is broken into programmatic zones, third the qualities of form and space, and finally the quality of personal experience.

**SITE SCALE**

Central Composition with all regulating lines converging at one focal point.

The Exterior resembles the Interior a window for seeing nothing, but remembering its existence.

**PROGRAM ZONES**

Axial Composition to the Tower

Scale brings attention to what is at the center

**QUALITIES FORM AND SPACE**

The degree of enclosure corner subjects into there own personal cell

What is open and public is at the center of people with choices and people watching in this case no people are necessary.

Scale brings attention to the separation of what is seen and not seen.

**PERSONAL EXPERIENCE**

Only window of freedom is under the gaze of the tower.

The form and space embodied the emotional experience with the need of a person.

The Tower is never out of sight, always reminding of its watchful existence.
The Panopticon is a “machine for dissociating the see/being seen” (Foucault 1978, 197). This is an important mechanism because it “automatizes and dis-individualizes power” (Foucault 1978, 202). The power of the panopticon was in its mechanism to transform man into the “docile body”, thus becoming the ‘disciplinary mechanism” (Foucault 1978, 209). But the schema of discipline is not isolated to the built form of a prison. The achievement of such a form and perfect prison came from the strategy itself.

The difference is that in the seventeenth century, the ideal soldier could be “recognized form afar; he bore certain signs; the natural strength and his courage.” (Foucault 1978, 135). However in the late eighteenth century, the ideal soldier had become “something that can be made; out of formless clay”. “In short, one has ‘got rid the peasant’ and given him ‘the air of a soldier’. (ordinance of 20 March 1764). This changed the industry of creation when adapting the mechanism of discipline with its power to transform an individual into a final product. Man’s value was no longer based on natural characteristics but the efficiency of the discipline. (Foucault 1978, 135).

Michel Foucault defined “A body is docile that may be subjected, used, transformed and improved” (Foucault 1978, 136). Also, “Foucault brought up the relationship between docile body and discipline. He argued that discipline creates ‘docile body’ and he used soldier as an example of a docile body” (Phan 2016, “Docile Body vs. Activist Protesting Body.”).
MICHEL FOUCAULT

"Is it surprising that prisons resemble factories, schools, barracks, hospitals, which all resemble prisons?" (Foucault 1978, 307).

Michel Foucault in his book *Discipline & Punish* explains the transformation of the disciplinary mechanism into the society. The relationship between the individual to the whole of society becomes starting point for the introduction of the disciplinary mechanism. “In effect the offense opposes an individual to the entire social body; in order to punish him, society has the right to oppose him in its entirety. It is an unequal struggle: on one side are all the forces, all the power, all the rights. And this is how it should be, since the defense of each individual is involved. Thus a formidable right to punish is established; since the offender becomes the common enemy. Indeed, he is worse than an enemy, for it is from within society that he delivers his blows—he is nothing less than a traitor, a "monster." How could society not have an absolute right over him?" (Foucault 1978, 90)

This effect establishes a bond as the whole, the will of the whole, and well-being of the whole of society. “The exercise of discipline presupposes a mechanism that coerces by means of observation” from all the eyes of society in its many forms (Foucault 1978, 170). Think of all the ways society is under constant surveillance and ask yourself, when are you not being watched? Fundamental questions like these are produced from the many tactics used to observe, record and correct forces acting against society as a whole.
THE DISCIPLINARY MECHANISM

Panopticism is the general principle of a new "political anatomy" whose object and end are not the relations of sovereignty but the relations of discipline (Foucault 1978, 200).

To the left is a visual breakdown (matrix) of the general principles of the disciplinary mechanism derived from Michel Foucault in his book Discipline & Punish. The "system of control" moves from left to right starting with the system as a whole. Man is placed under a system that exercises upon him "subtle coercions" and he goes through "the scale of control" becoming manifested "at the level of mechanism itself - movements, gestures, attitudes, rapidity; an infinitesimal power over the body" (Foucault 1978, 137).

The system of control begins with the classification, coding, and organization the "art of distribution" of man (Foucault 1978, 141). There are three main principles to "the art of distribution" (Foucault 1978, 142). 1. The breakdown of cells within cells that distinguish 2. a system of units supported by 3. a ranking between them. These principles find aim in the manifestation of coercion upon the sense of one's body, time and in activity. But this manifestation of this system upon body, time, and activity requires the repetition of observation and documentation under strict "means of correction." It is the dynamic of the strategy to the tactics that inform the system of control and its effect.

Strategy:
An adaptation or complex of adaptations (as of behavior, metabolism, or structure) that serves or appears to serve an important function in achieving evolutionary success (Merriam-Webster).

THE SYSTEM

THE SYSTEM OF COMMAND
- This carefully measured combination of forces requires a precise SYSTEM OF COMMAND. By injections whose efficiency rest on brevity and clarity...it must be triggered off the required behavior and that is enough (Foucault 1978, 166).

INDIVIDUAL BODY BECOMES AN ELEMENT
- THE INDIVIDUAL BODY BECOMES AN ELEMENT that may be placed, moved articulated then others. Its bravery or its strength are no longer the principle variable, but the place it occupies. (Foucault 1978,164).

THE VARIOUS CHRONOLOGICAL SERIES
- THE VARIOUS CHRONOLOGICAL SERIES - that discipline must combine to form a composite time are also pieces of machinery (Foucault 1978, 164-165).
MEANS OF CORRECTION

OBSERVATION
1. HIERARCHICAL OBSERVATION – a mechanism that coerces by means of observation an apparatus in which the technique that makes it possible to see induce effects of power clearly visible. (Foucault 1978, 170-171).

CORRECTION
2. NORMALIZING JUDGMENT (Foucault 1978, 177).
   - They must correct themselves honestly and discreetly. Anyone absent is MPEGED DOWN. (Foucault 1978, 178).
   - The solicitor commits an offense whenever he does not reach a level required – INABILITY TO CARRY OUT A TASK. (Foucault 1978, 179).
   - CORRECTIVE – the disciplinary system favors punishment that are exercised – intensifies, multiplied forms of training, several times repeated. (Foucault 1978, 179).
   - The teacher must avoid as far as possible the use of punishment, or the contrary he must endeavor TO MAKE REWARDS MORE FREQUENT. (Foucault 1978, 186).
   - The distribution according to ranks or grade has a double rate. IT MARKS HIERARCHIES QUANTITIES, SKILLS, AND ATTITUDES. (Foucault 1978, 183).

DOCUMENTATION
3. THE EXAMINATION – Normalizing gives a surveillance (Foucault 1978, 184).
   - The examination transformed the ECONOMY OF VIABILITY INTO THE EXERCISE OF POWER. (Foucault 1978, 187).
   - Disciplinary power on the other hand, is exercised through the invisibility – IMPOSES IT SUBJECT WITH COMPULSORY VISIBILITY. (Foucault 1978, 187).
   - The examination also introduces indivisibility into THE FIELD OF DOCUMENTATION. The examination that places individuals in a field of surveillance also situates them in a network of writings. 389 The examination, surrounding by all its documentary techniques makes each individual a case. Object for a branch of knowledge and a held for a branch of power (Foucault 1978, 190).

BODY
   - THE BODY – OBJECT ARTICULATION discipline defines such relations that the body must have with the object that it manipulates. (Foucault 1978, 151).
   - EXHAUSTIVE USE: the principle that underlies the timetable is its traditional form essentially negative, it was the principle of non-illusions. It is a question of extracting, from time over ever more available moments and from each moment ever more useful forces. (Foucault 1978, 154).
   - REVISED DURATION INTO SEQUENCE OR PARALLEL SEGMENTS – Isolate the period of training and the period of practice. Do not mix the institution of recruits and the veterans. (Foucault 1978, 157).

TIME
   - THE TIME TABLE: establish rhythms, impose particular exceptions, regulate cycles of repetitiveness, were soon to be found in schools, workshops, and hospitals. (Foucault 1978, 189).
   - EXAMPLE: The following timetable was suggested for the École Mutabilis (Foucault 1978, 196).
   - THE TEMPORAL ELABORATION OF THE ACT: The general framework for an activity, obligatory rhythms, imposed from the outside. It is a programming it imposes the elaboration of the act itself it controls its developments and its stages from the inside (Foucault 1978, 151-152).

ACTIVITY
   - DECREASE THESE TEMPORAL SEGMENTS – decide on how long each will last and conclude it with an examination. (Foucault 1978, 158).

ART OF DISTRIBUTION

CELLULAR
Discipline organizes an analytical space. In these too it encountered an old architectural method. The disciplinary space is always cellular. (Foucault 1978, 152).

UNITS
The unit is, therefore neither the territory (Unit of domination), nor the place (Unit of residence): The organization of cells, places, roles, the discipline creates complex spaces that are one are architectural, functional, and verificational. Its spaces that provide the fixed positions and permit circulations (Foucault 1978, 142).

RANKS
In discipline, the elements are interchangeable. Sure each is defined by the place it occupies in a series, and by the gap that separates it from others by rank (Foucault 1978, 142).

CHARACTERISTICS OF DISTRIBUTION

DISTRIBUTION
Discipline proceeds from the distribution at individuals in space. (Foucault 1978, 143).

ENCLOSURE
Discipline sometimes requires enclosures, the specifications of a heterogeneity to all others closed in upon itself (Foucault 1978, 145).

LOCATION
The principle of closure is neither constant, nor indispensable more sufficient in disciplinary machinery. This machinery works space in a much more flexible and detailed way. It does the first at all on the principle of elementary location or partitioning. Each individual has its own place and each place its own individual. (Foucault 1978, 183).

PARTITION
This machinery works space in a much more flexible and detailed way. It does the first at all on the principle of elementary location or partitioning. Each individual has its own place and each place its own individual. (Foucault 1978, 145).
Fig 13. Brasilia Brazil

Fig 14. Beyond Scary Police Headquarters
URBAN SCALE ANALYSIS

The significance of analysing the urban scale of a city is because the System of Control is used to coerce the city as a whole, as well as the used to breakdown the city as a whole into more manageable cells.
Lincoln Memorial  
Architect: Henry Bacon

White House  
Architect: James Hoban

Washington Monument  
Original Architect: Dr. William Thornton  
North and South Wing: Benjamin Henry Latrobe  
Finished the Design: Charles Bulfinch  
Designed the Dome: Thomas U. Walter

Washington Monument  
Architect: Robert Mills

Fig 16. all images above
Washington DC is zoned, partitioned, and sectioned off with clear markings of power and alignment to that power. But the uniqueness and success of Washington DC is the ability to be free in the space. When a people are given the ability to gather, free from the constructs of others, independence is able to be exercised. Symbols of democracy surround its outer core, but the public space provided creates potential on grounds where the power dynamics can easily shift to the people of enough was to gather. The public space creates a balance of numbers and power, almost being an literally representation of the qualities of democracy. This space gives people the opportunity.
Fig 18. All images above

ARCHITECT OSCAR NIEMEYER
Brazil offers the structure and alignment of elements on axis to the figures of power. The conclusion in the studies, is that there is a scale missing. On a large scale the lines of symmetry and axis create regulating lines that define different zones and space. However the space created is within the buildings it out of touch with the human scale. The disconnects resembles similar to Ledaux Saltnine. That there are positions in time for the people to occupy and when an individuals is out of place within the system the individuals is easily displayed like on a stage with eyes to see watching. Whether there are or are not eyes to gaze, the architecture reinforces this feeling by just its presence.
Government buildings are symbols of the institution of power that inhabits its walls. The characteristics of this symbol interacting with society embodies many elements of Foucault’s System of Control.

Fig 20. Morphosis Courthouse Plaza
The entrance of the Courthouse sit apart from the rigid ordering system of the courthouse. The entrance is characterized by a large cylinder that connects to the side of a grid like rectangular box that houses the courtrooms. The two different shares become identifiable differences to the individuals that one space is for the public, but the moment you enter the court of law, you will under go a rigid system of structure and form.
The space created is a repeating sequence that gets smaller in scale the closer you get to the court room floor. The sequence begins with a large space for assembly, a long corridor that gets narrower, and finally a pivot point or threshold that will either allow you to continue the same sequence of events but at a small scale.
The structure of this courthouse reflects an inverted relationship on the larger urban scale as seen in the previous courthouse. The first floor is characterized by a rigid ordering system of 90 degree angles and straight lines. However the same can not be said as to the upper levels. As the individuals gets closer to the courtroom, the form of space takes on a sculptural and organic shape moving along the floor of natural circulation and views.
The combination of simple square forms and sculptural spaces find a focus point that converge on the symbol of power. This is made clear by the regulating lines that converge on the position where the judge would sit. The form of the building as it moves throughout the path for an individual from entrance to seat at the foot of the judge, becomes a slow coercion of understanding that all things under the structure of law and nature of man and life come to the focus of the one who judges all things in the seat. Whoever sits in the seat is automatically given the power of judge, without question.
SALT LAKE CITY COURTHOUSE
PHIFER - THOMAS PHIFER

Tall and bright the form stands as a symbol of authority that is not governed by the systems of its surrounding.
The detailing of each element is bright, clear, and unopposed by unnecessary details. Keeping to a modern clean design of glass and steel being the primary elements of construction and wood being the primary element that sees human contact, every moment reflects the identity of the nature of law and man.
The nature of this form stands out beyond all others of surround by both form, material, and function. The exterior is class and steal creating the illusion of transparency and openness. But the moment you step foot into the building, you are faced by the large foundations of straighten and stability that is literally holding the building in place and narrow cuts and slices are made into the interior as pathways for circulation.
At every moment you are reminded of the very heavy presence of concrete. Every corridor is mainly lit by the ambient of light. Light and movement appears to breathe into the building forming moments and pockets that observe both interior and exterior activities form its vantage point. The nature of the building starts organically and sculpture but become more structured and rigid the higher the building gets.

Section Cut Through Main Lobby & Daycare

Fig 51. Site

Fig 52. Lower Level

Fig 53. Second Level

Fig 54. Third Floor

Fig 55. Section

Fig 56. Office Floor

Fig 57. Section
The regulating lines of the architecture building converge to a reoccurring focus point just outside the Department Office, bringing attention to the authority in power.

Many spaces have prescribed functions during specific moments of time that identify to the individual his or her place of authority. The rigid structure of time and place creates a clear understand that the individual is subjected to a system of control and observation, and if the individual was outside the construct of its position in place and time, this would result in abnormality.

Similar characteristic are found in the Ecole studio classrooms and heavily mirror the nature of the modern day studio. Each student has his or her place and is put to a task under the gaze of the instructor. Each student is separated from one another and put aligned to put his or her view focused on the task at hand but unable to see the eye that watches over them. This technique resembles the technique of the anticipation. Seen but is unable to see, an “omnipresent and omniscient, in his or her “fixed point”. See everything but is unseen. Depending on your position of this construct either gives or takes the ability to see, which in a way gives or takes the the position of power (Foucault 1978, 197).

The glass factory is a perfect example of the relationship between the individual and the system. The success of the system in return rewards the individuals as successful. It takes a sequence of events to make the final product. The system of production takes on a literal physical form that an individuals if he or she wishes to see success, must adhere to the system.
Each worker has his or her position with the production of salt mining and the position is given a place and time to report. The beauty of the system is that at any point of time, any individual can be located based on the position assigned. And the position is easily located within the framework of the larger scheme of the mining town. Similar to the cellular nature of constructing frameworks from simple to complex constructs, the identity of a position is easily located by simply performing a top down approach. Firstly each building has its own identity and function. Within a building there are specific functions assign to each space. And within each space there is an assign physical location during a specif time to perform a service. The structure of the system is easily broken down into basic elements and more detailed models as the system becomes more and more complex.
The detailing of every moment reinforces the cognitive understanding of the form and function. Just as the built world reflects the function it serves, so should the individuals that inhabit the space. This characteristic creates notions of action into the mind of the individual. The bottom up approach only sees the details and accepts it for its momentary value, but whether aware or not aware the sequencing of coding of tactics within a strategy is at work.
As a facilitator of order and discipline, police officers undergo a difficult task of serving and protecting the people and the system of peace and control. The question this thesis asks is, are police stations design with the intent of allowing communicates to flourish or facilitate a nature of control of punishment?
Fig 66. Oakland Police Department Headquarters

Fig 67. Atlanta Police Station Zone 2

Fig 68. Lenox Police Station

Fig 69. Oakland Police Department Headquarters

Fig 70. PHOENIX POLICE DEPARTMENT, AZ

Daniel Martí & Natàlia Ferrer
The nature of police men and women are viewed different in different countries. In Japan, police officers are regarded as parts of the communities. In a study done looking at building types, the question was asked, which station would you feel more comfortable going to ask, where you can buy a gallon of milk. It was discovered that the size of the station greatly effects the answer. Suggesting that the small the size of the station, the more friendlier it is. Materiality and symbolism is largely overlooked or under valued within the design of police stations. In Spain, Police Station and Multipurpose Space in Xixona and designed by Daniel Martí & Natàlia Ferrer has a modern aesthetic to a police station. However there is a disconnect in the human scale. The building becomes a steel fortress with critical bars that represent subconsciously as prison cells. The Size of the station as discussed previously greatly effects the quality and curb appeal into the communities hearts and minds. Most commonly noted in American design, police station commonly have large building massing with little no direction of the entrance.
In Atlanta, Georgia, three building typologies were found: Satellite, Urban, and Suburban. Within a satellite station, the entrance is commonly difficult to identify and usually found away from public traffic. In the Urban Typologies, most stations are hidden in the buildings surrounding. Police cars will be housed in parking lots but the stations themselves are difficult to locate from the entrance. However, this is not the case for many suburban police stations. Most stations re-frame from too large of a building footprint and have signage and clear view of the entrance door. A characteristic found in all typology types is that there is little to no program from individuals to gather as more than one. The construct of the facility distributes and partitions individuals to become isolated or confined to narrow spaces within the station. This shifts control and power to the officers as a means of protection but great effects the negative feelings towards the facility. The roles are clearly defined between civilian and officers creating a power dynamic that individuals are at the mercy of the officers. Again, this is beneficial to the protection of the officers but creates no opportunity for community to happen, thus widening the gap between two people.
DESIGN METHODOLOGY AND INVESTIGATION
STUDYING AUTHORITY IN ARCHITECTURE

The research focused on 4 different architectural scales, Site scale, program zones, form and space, and finally the individual's experience. The relationship of authoritarian architecture and its influence on a community revealed three main tactics to the discipline of an individual in space, the observation of man, the documentation of man, and finally the repetitive nature of a tactical framework of a strategy. The translation of these tactics to formal space and the outcome began with the analysis of a familiar and existing construct. The subject matter under investigation became the Studio floor located on the 3rd floor of the Architecture Building at Kennesaw State University in Marietta, Georgia. The main characteristics under investigation are as follows, formal and spatial arrangement, types of circulation, levels of thresholds, and volumes of space visually and physically accessible from any given point in space. The question asked is "can you quantify quality?"
QUALITY OF THE SUBVERSION OF POWER

After receiving the data from the design decisions it was important for the study to understand the quality. This required investigation in sketches and models to find the expressive language of the data driven design.
Analysis of spatial characteristics

After analysing the effects of authority in space, the next step was to subvert the power in the space by changing the tactics of form and space. The diagrams to the left are different spatial designs to test the characteristics of visual and physical presence. A program utilized in this process was the Isovist.org program titled Isovist. This program provided the technical data of the relationship of one point to another. After analysis, a better understanding of proportional relationships were acquired furthering the design intent to find at least 4 different designs that achieve dramatic outcomes.

Elements that are in red show a higher intensity of the tested characteristics. While elements in blue show a lower intensity.
**Strategy**

*Definition:* an approach or a principle of action that a person or group follows or employs to achieve a specific purpose or goal.

**Tactics**

*Definition:* the act of deploying force.

**Spatial Verbs**

*Identifying the spatial qualities into specific configurations.*

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**System**

*Means of Correction*:
- From the initial analysis and quantified data, back the decision towards the network for implementation.
- Using the feedback, refine the specifications and testing methods determined the desired outcome.

**Repeat Until Satisfied**:
- Compare the findings against the initial assumptions to determine the feasibility and effectiveness of the system.
Create a framework for the integration of spatial verbs into model blocks based on the characteristics of the strategy.

Identify the key characteristics from each plan, using the data to be the driving force for the spatial verbs.

Begin with a three step approach starting with the main base form, then identify the relationship between studio space and desks, finally express the nature of the studio desk spatial quality.

Finally create a final model that is an expression of the spatial quality of a data driven design approach.
FINAL DESIGN OUTCOMES
The research called for the investigation of multiple different arrangements of the 3rd floor studio space to ask the question “what happens when you subvert power”? The criteria are established, retain the same number of programmatic needs and remain within the floor plate boundaries. The different iterations revealed multiple different outcomes of the overall questions: “How does space connect people?” “How does architecture empower a person?” “How do you create influential experiences in space?”

After quantifying quality, the tactics are designed into 3D spatial form to show the quality of the quantifiable measures from the different iterations of subversions of power. The final question asking, “is it possible to rate the quality of space across the different iterations and what could the characteristics of these measures be designed into.

"The intent of this study was to understand the quality of the established system of control."
The intent of this study was to take the linear studio groups and curve them to create layers within layers of studio spaces. This creates internal and external studio groups depending on the location with the curve.

The intent of this study was to stick to the same original layout but move the main circulation corridor to the center and reinforce the center with the collaborative pin-up spaces.

The intent of this study was to create circulation around the perimeter and through the center.

The intent of this study was to prioritize as much open space to the center and place the pin-up spaces at the center.
The final step in the design is to take the characteristics of the chosen 4 plans and push the relationships into a 3D space.

The 4 were chosen based on the dramatic characteristics revealed in the testing of the plan in a 2D isovist investigation.

**PRINCIPLE RULES**

“How does space connect people”? “How does architecture empower a person”? “How do you create influential experiences in space”?

By utilizing an Isovist program from Isovist.org, multiple difference visual and physical measures could be taken and analyzed. However the combination of the measurements, Michel Foucault principles, research from Zaha Architect’s research methodologies in the relationships of distance and connectivity, and work from Michael J. Oswald on spatial organizations and path thresholds.

**TYPES OF CIRCULATION**

Programs along primary paths of circulation typically have higher levels of connective engagement.

**LEVELS OF THRESHOLDS**

The Levels of thresholds are characterized by the relationship between one movement from the other and its connection to other pathways.

**DISTANCE BETWEEN ELEMENTS**

Distances no longer than 8 meters in traveling distance is considered an acceptable connective experience. Distances longer than 8 meters creates occlusion.

**FORM & FRAMEWORK**

The spatial organization of space has the ability possess a sense of authority of the formal arrangement matches the social organization.

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**MEAN METRIC DEPTH**

The average total of visual steps from the point to all locations.

\[ \text{Mean Metric Depth} = \frac{1}{n} \sum_{i=1}^{n} d_{i} \]

**CONTROL**

The visual linking dominance of any location; the degree of choice each space represents for its immediate neighbors as a space to move to.

\[ X = \frac{1}{nA} \sum_{i=1}^{n} A_i \]

**CONTROLLABILITY**

The potential for any location to be visually dominated in an ‘overlooking’ manner, or where movement may provide access to an expanded visual field.

\[ Y = \frac{1}{nA} \sum_{i=1}^{n} A_i \]

**VISTA LENGTHS**

The longest single view available at each location.

\[ L_i = \max(0, r_i - |r_i - v|) \]

**RADIAL LENGTHS**

The mean view length of all space visible from a location.

\[ Q_j = \frac{1}{n} \sum_{i=1}^{n} |r_i - v| \]
**QUANTIFYING QUALITY**

Seven iterations were designed and tested to reveal the outcome of tactics subverting power. 4 are selected for displaying fundamental principles to design.

**SPACES TO CONNECT**

Multiple spatial characteristics take place at give point, the graph displayed is the defining characteristic in the relationship between a subject’s ability to connect.

**SPACES TO EMPOWER**

Multiple spatial characteristics take place at give point, the graph displayed is the defining characteristic in the relationship between a subject’s ability to control or empowered.

**SPACES TO INFLUENCE**

Multiple spatial characteristics take place at give point, the graph displayed is the defining characteristic in the relationship of a subject being controlled or influenced.

**DESIGN ITERATIONS**

An interpretation of existing studio configurations and rated based on the combination of isovist.org program and additional mathematical formulas.
The characteristics of connectivity are inhibited by the long linear path of each studio. There is limited to no entry into a neighboring studio causing little to no collaboration between studios. Within the space, the linear studio arrangement stretches a distance of 18 meters. This distance causes the studio to be broken up into 3 segments of acceptable connectivity, according to Zaha Hadid's research methodologies. With narrow primary circulation and segmented collaborative space outside the studio space, the opportunity for collaboration or connection is negatively affected.

The Architecture Building at Kennesaw State University Marietta Campus has two floors dedicated to the studio environment. The primary strategy for the arrangement on the studio floor primarily focuses on grouping rows of desks in order of studio classes. This causes for each row to represent a studio class taught by an individual professor. This strategy enforces a social ideology for each student's position within the institution. Any step outside of this framework renders an individual out of place and in the wrong place. Prioritizing this arrangement created the following qualities below.

1. **Carve Existing Cell**
2. **Nest Cells Within Cells**
3. **Lodge Path Between Cells**
4. **Intersect & Singular Path**
5. **Taper Linear Paths**

**Social Ideology**

The floor is separated in two main segments with a narrow corridor of circulation between the segments of studio space and pin-up spaces. After entering the studio space, there is only one narrow corridor of circulation allowing little to no opportunity for agent meetings as it will disrupt primary flow for the studio. Each student is given his and her location within the linear cell of a studio class. The 18 meter distance creates an uncomfortable disconnect between students on one side and the other.

The 3D form started with two shell frameworks similar to the spatial arrangement of the original studio space. Cells within cells are nested in suspension. To reflect the disconnect of students on frameworks of the outer cells to represent at their desks, volumes are nested in the nature of a social ideological being the dissolution on the edge of the cell and structure that holds everything together. Disconnects from one and another.
The linear corridors allow for a clear line of sight for individuals to stand in the red-locations and have the best view of individuals.

The suspended walkways cause an individual to have clear visibility to one another on each catwalk, but limits the individuals ability to create an improvised path.

The long linear path with only one entry limits the connectivity of space, but increases the control and controllability.

For individuals to move between one studio to another an individual has to travel a distance of 9 threshold levels. The more levels the more disconnected or secluded programs can inherit.

The narrow corridor and its thresholds into each studio becomes the hotspot for connectivity.

The transition between one space to another signals the individual he or she is moving into a designated area. Thus characterized by change in ceiling and floor structure and a literal threshold.

With a high average of visual depth, controllability of individuals is slightly increased but is limited by the long distance of travel when moving from studio space to studio space.

The linear corridors allow for a clear line of sight for individuals to stand on the red-locations and have the best view of individuals.
The floor is separated in two main segments with a variation width corridor. Allowing for unprompted gathering spaces for more than one or two.

Studio class are now spread out in undefinable clusters. Allowing for increased possibility between studio groups and increasing collaboration with neighbouring classes.

Groups are cluster into grouped of three and at these intersections larger space is created to allow group collaboration. Distance between groups are reduced by the cluster shape and rotating orientation.

The 3D form is developed from a ribbon. Large ribbon cells act as the intersection geometry reflecting the flow of circulation of individual spaces.

The quality in the space between the intersecting clusters tapers down to more intimate spaces.

The larger cells becomes a gathering point for small groupings and also the intimate spaces and connecting intersecting flows.

3 smaller ribbon cells curve to cave like forms to represent the individual cells within the larger intersecting cell.

By utilizing the moves above, the once linear narrow corridors are now webs and flows of variation spaces that allows gathering points and priority passage. Line of sight is increased 4X and physical travel distance is dramatically reduced by 26% allowing a single individual to be closer to others. With the balanced fragment of clusters the social ideology creates a sense of balance equality with open space and each individual acting as an agent of watchful eyes.
The linear corridors are broken down into multiple intersections and paths increasing the visual and physical connectivity between individuals.

The spatial groupings are created by the flow of circulation and programmatic needs. The intersection for gathering are given more space based on the number of people at the node of intersection.

Nodes and intersections are grammatically interconnected between neighboring nodes and intersections. The increased intersection and porous partitions allow for multiple points on the plan to obtain views of the studio floor. This visual space that is easily visible takes place along the intersection between studio and collaborative pin-up space. This creates a focus and open space for such programs it inhabits.

With increased intersection and porous partitions, an increase of vista lengths allows for multiple points on the plan to obtain views of the studio floor. The transition between one space to another signals the individual he or she is moving into a designated area. This characteristics are characterized by the curve nature of fluid boundaries moving and defining spaces.

For individuals to move between one studio to another an individual is able to travel as little as 4 meters to neighboring studio spaces.
MORPHOLOGY OF SPACE

Created a central focus requires a relative balanced division between space and at the division create a focal point for all eyes and bodies to experience at different natural physical positions. The natural progression becomes the symbolic nature of growth from one space to another. These spaces moving from place to place have limited but pre-ordained physical connection and visual connectivity to be reminded by the element that sits at the center point in this case, collaborative and pin-up spaces find itself at the intersection.

The floor is separated in two main segments with studio spaces are divide at the center, a releasing corridor. Allowing for unprompted gathering spaces for more than one or two. The division of space between individuals is dramatically reduced with reduced corridor depth and intersections between studio and corridors.

The 3D form is created from the central form as the focal point and remain programs take residence at the edge spaces. As individuals move away from the central focal point, space is tapered into more intent spaces.

The backbone of this form is supported by the interior circulation flow of multiple intersecting and visual connectivity limited by the programmatic strategy.
The linear corridors are broken down into multiple intersections and paths increasing the visual and physical connectivity between individuals.

The spatial grouping are created by flow of circulation and programmatic needs. The intersection for gathering are given more space based on the number of people at the node of intersection.

The distance between nodes and pathways are reduced by 25% and the primary flow of circulation and collaboration is localized at the center of the programs.

With increased intersection and porous partitions, an increase of vista lengths allows for multiple points on the plan to obtain views of the studio floor.

The transition between one space to another signals the individual he or she is moving into a designated area. This characteristics are characterized by reducing the threshold space and contrasting it with a larger collaborative space.

The levels of thresholds is reduced in its linear repetition and connected by a strong central circulation spine supported by group collaborative spaces. For individuals to move between one studio to another an individual liable to travel as little as 4 meters to neighboring studio spaces.

The visual space along the intersection between studio and collaborative pin up space is prioritized to allow visual connectivity. This creates a focus and open space for such programs it inhabits.
The dramatic contrast between the main cell and the individual space creates a strong physical presence from all locations. This spatial form takes a similar characteristic to the Panopticon, but the roles are reserved in the appropriation of power. The central space is visible for all to see the coming and going of individuals but the outer cell’s circulation are hidden from the view of others creating a sense of undocumented watchful eyes. The forms on the exterior space becomes watchful eyes and the central focal point becomes the controlled.
The prioritization of the central space being reserved for collaboration only dramatically increased the direct visibility of individuals on space. This creates a strong sense of being watched.

Every smaller cell along the edge of the primary cell becomes possible eyeballs watching the dramatically smaller individuals in comparison to the space occupied.

By pushing programs to the edge, there is a dramatic distance between the other 2/3rds of neighbouring space being separated by the central void occupied by collaborative space.

The position of control is spread throughout the space giving wither the feeling of control or empowerment depending on the subjects inhabiting the space.

The dramatic transition creates individuals to feel small under the structure of the institution.

While levels of thresholds are greatly interconnected, the nature of the form dramatically dominates the old aesthetics of quality in the space.

With eyes along the edges the center space is highly controllable and under heavy influence by the direct visibility.

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EXTERNAL FIGURES


Figure 2 Claude Nicolas Ledoux, "http://www.artnet.com/artists/claude-nicolas-ledoux/loeil-r%C3%A9fl%C3%A9chissant-le-th%C3%A9%C3%A2tre-de-besan%C3%A7on-pIl13-G3sMO0h202siMBCWFdGw2

Figure 3 A street during the plague in London with a death cart and m. [Wood engravings]. Retrieved from https://library-artstor-org.proxy.kennesaw.edu/asset/24835167

Figure 4 Cruikshank, George. A cart for transporting the dead in London during the great plague. Watercolour painting by or after G. Cruikshank. [Watercolors]. Retrieved from https://library-artstor-org.proxy.kennesaw.edu/asset/24835171

Figure 5 Johnson, Ben. "Plague Pits in London: Interactive Map." Historic UK, Historic UK Ltd., www.historic-uk.com/HistoryMagazine/DestinationsUK/London/PlaguePits/.

Figure 6 Ceremony Celebrating End of the Plague, Marseille. (1720). Retrieved from https://library-artstor-org.proxy.kennesaw.edu/asset/ARTSTOR_103_41822001871324

Figure 7 A street during the plague in London with a death cart and m. [Wood engravings]. Retrieved from https://library-artstor-org.proxy.kennesaw.edu/asset/24835167

Figure 8 Cruikshank, George. A cart for transporting the dead in London during the great plague. Watercolour painting by or after G. Cruikshank. [Watercolors]. Retrieved from https://library-artstor-org.proxy.kennesaw.edu/asset/24835171

Figure 9 Panopticon, Cuba https://www.nytimes.com/2018/01/02/travel/cuba-isle-of-youth-isla-de-juventud.html

Figure 10 Creation of Man by Prometheus (3rd century CE). Creation of Man by Prometheus (Relief, dit La Création de l'homme par Prométhée). [Relief]. Retrieved from https://library-artstor-org.proxy.kennesaw.edu/asset/AWSS35953_35953_30932728

Figure 11 Image of Office Space httpfortfrey.blogspot.com201402docile-bodies-by-michel-foucault.html

Figure 12 Michel Foucault Portrait Michel Foucault. (AFP / Getty Images)

Figure 13 Brasilia Brazil Urban Planning Architecture Design https://www.curbed.com/2019/6/7/18657121/brasilia-brazil-urban-planning-architecture-design

Figure 14 Beyond Scary Police Headquarters http://plazaperspective.com/beyond-scary-police-headquarters/

Figure 15 Planning DC. https://planning.dc.gov/

Figure 16 Planning DC. https://planning.dc.gov/

Figure 17 Planning DC. https://planning.dc.gov/

Figure 18 Brasilia Brazil Urban Planning Architecture Design https://www.curbed.com/2019/6/7/18657121/brasilia-brazil-urban-planning-architecture-design

Figure 19 Brasilia Brazil Urban Planning Architecture Design https://www.curbed.com/2019/6/7/18657121/brasilia-brazil-urban-planning-architecture-design

Figure 20 Morphosis Architecture, Courthouse Projects