Scopic Operations in Military Theatre

Abstract: The project entails transforming a former military fort into a theater. The scopic parameters native to both fort and theater can provide a field of operation for an architecture that simultaneously mobilizes and exposes the machinery of spectacle. In tandem, amplifying and distorting existing conditions of the fort and repurposing them for a theatrical program can provide catalytic parameters for design that are typically absent when designing from a clean slate.

Manifesto:

Site_

About one kilometer south of Manhattan, Governors Island is a world unto itself. A diametric opposite to the dense urban constrictions of New York City, Governors Island is an open, foliage-saturated, hilly terrain populated by quaint 19th century masonry buildings and virtually no occupants outside of the summer months. Aside from its otherworldly quality, choosing Governors Island was a first instinct as a site for the project purely out of the desire of providing New York's 'West End' with its very own 'South Bank.'[1] At that point, the project was going to start from a clear site and produce a theater catered toward experimental performance as an alternative to the musical-theatre focus of Broadway. The decision to instead renovate Fort Jay came with the discovery that Foster and Partners Architects will be renovating Castle Williams into what will be the New Globe Theater, based off of the original plans for Shakespeare's Globe in London. Castle Williams and Fort Jay are the two oldest structures on Governors Island, built originally for the War of 1812 and undergoing various modifications since then. This project presents the forts as candidates for a Theatrical War of 2012 where Britain could indeed arise the victor. Upon visiting Governors Island, the monumental, iconographic quality of Fort Jay exhibited strong potential for re-visioning into a major performance venue. Some of its key features include:

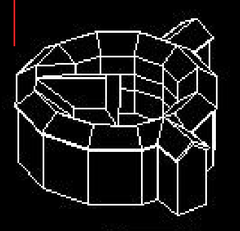
- the highest point on all of Governors Island
- surrounded by open field
- some of its walls extend forty feet below ground
- its five-pointed star plan is an opportunity to reinterpret stage, audience, or both[2]

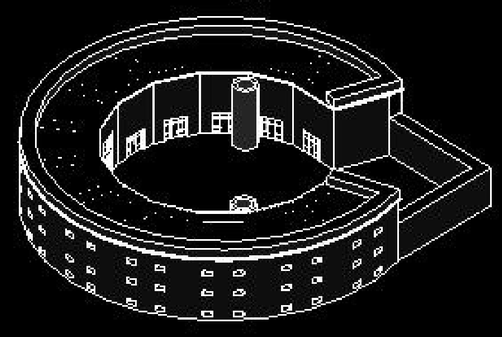
Methodology_

Renovation has been approached from numerous pragmatic necessities and theoretical dispositions. The one this project most directly reacts to (specifically, against), is Rem Koolhaas' re-vision of the Arnhem panopticon prison.[3] Here, an outdated prison ideal is maintained only iconographically, while a completely new diagrammatic ideal is grafted on top of it. It is the contention of this project that something both more precise and architecturally provocative would have come out of amplifying the existing architectural qualities, taking a step back, looking at it through different programmatic eyes, and distorting the result for the production of particular effects. Ultimately, this case study led to a prison even more dangerous, isolationist, and self-policing than the original design. Taking a step back, however, yielded that the relationships of power made for an excellent rock concert venue after only minor distortion.

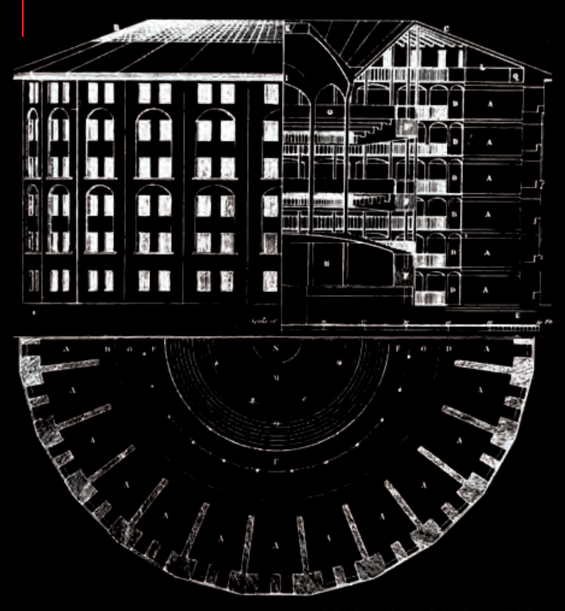
This methodology yields a more charged architectural proposition than merely superimposing a new program on top of the existing one. Thus, in approaching Fort Jay, it became clear that the design process would span two phases: 1) amplify the inherent militant qualities to make it even more fort-like in its defensive capabilities, and 2) distort the results to optimize theater operation while maintaining its scopic traits. A key result of this would be an inversion of the 'military theater'[4] from outside the fort, to be completely contained within. The goal of the first phase would not be to make a fort that could withstand modern warfare, but rather be a stronger fort for the time it was built, thus enhancing the characteristics it already contains. The goal of the second phase would be to distort this 'enhanced' fort as necessary to make a modern theater capable of housing performances and an audience.

FORT JAY'S CONTEXT





SHAKESPEARE'S GLOBE IN CASTLE WILLIAMS



BENTHAM & FOUCAULT'S PANOPTICON

LONDON'S SOUTH BANK

Amplify- The following steps were taken to amplify the 'fortness' of the site:

- dropping the central courtyard and its buildings to sea level. This provided an alternative means of entering and exiting the fort which did not risk penetrating the outer wall.
- tunneling through Governors Island and up to Fort Jay. A submarine would provide transportation.
- extending the outer walls with holed masonry and strengthening them. This provided for another layer of defensive protection while providing small holes that give the defenders of the fort a hidden view to the outside as well as a means to fire smaller caliber artillery before the cannons. The moat then serves as a catch for any destruction without damaging the next layer of wall.
- raising the starpoints containing cannons to extend firing distance, should the first wall be breached.
- enclosing the top of each pair of converging walls in order to create a rigging system that allows for extra walls to be brought down should areas of the fort need to be contained, such as after a section is breached.

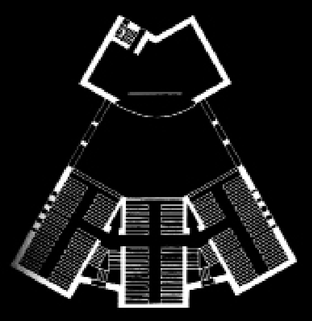
Distort- The following steps were taken to distort this 'ultimate' fort to claim optimal usage as a theater:

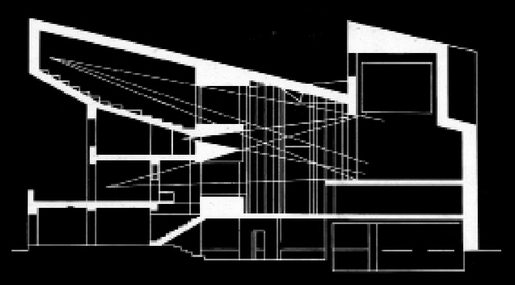
- adjusting the rake of the starpoints to allow audience members situated on the level interior to see the entire stage while making it a readily occupiable space for performers. Each of the five starpoints becomes a separate stage. The perimeter geometry stays the same to allow for the already-present effect of forced perspective.[5]
- modifying the interiors of each of the four existing buildings in order to house the program necessary to running a theater.
- adjusting the containment rigging system to function also as flytowers and to handle lights.
- inserting interior cameras among the rigging systems to provide the audience with alternative means of viewing performances.
- allowing the submarine to not only dock at the bottom of the central atrium, but to travel to the top of it so as to provide the submarine audience with a panoptical view of all five stages.[6]

The distorted result, in fact, continues to use military technology to achieve many of its ends. The thousands of cameras inhabiting the theater are only possible by means of advanced mobile microcamera technology developed by the military.[7] The submarine is able to raise to the top of the atrium using a system based both on hydraulic pumps developed for the military, as well as missile silo design. The resulting theater maintains many of the fort's characteristics that mask the outside of the structure, only to leave the workings of the interior entirely exposed. Typically in a theater, this would be hidden by wing space and placing rigging much higher up. This project, however, is interested in maintaining the quality of epic spectacle without masking its incarnation.[8]

Experience_

Like its military incarnation, the submarine approach provides a dramatic event unlike anything most of the audience will have experienced. Rather than simply *waiting* for their arrival at the theater, the audience directly causes it. The usual passive qualities of transportation are lost as it is up to the collective audience to work together with their pedal strokes (as in the cooperation required for a kayak or paddleboat) toward the goal of ultimately viewing a performance; yet this in itself *is* a performance. This alternative mode of engagement establishes for the

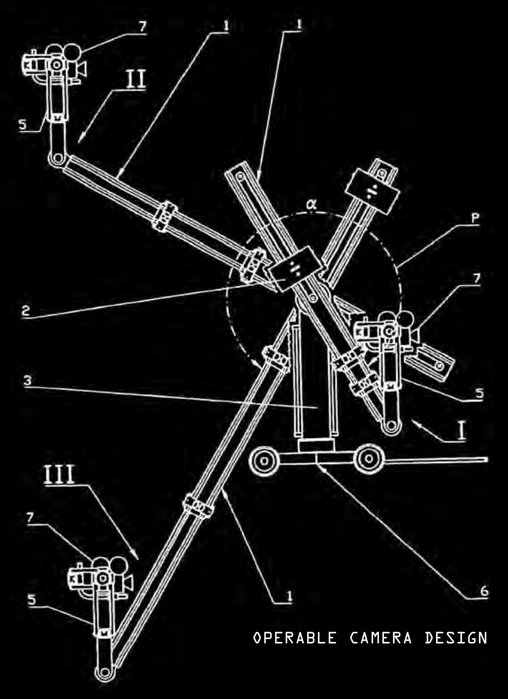




RUSAKOV WORKERS CLUB, AN INVERTED DIAGRAM

WYLY THEATRE, ALTERNATE SPECTACLE

SERLIO FORCED PERSPECTIVE SET DESIGN



OPERABLE CAMERA DESIGN

APPROACHING THE BLUR

1 The city of London contains two primary theatrical districts. The West End is similar to New York City's Broadway, populated entirely with conventional theaters. London's South Bank, across the River Thames, provides more varied theatrical experiences. It includes: the London Eye, the Royal Festival Hall, the Royal National Theatre, and Shakespeare's Globe.

2 The star-shaped plan of the fort evolved out of the age of gunpowder and cannons. Under heavy siege and a simultaneous army attack, forts confronted the need to always be able to fire on a target from at least two directions. The star shaped fort eliminated the dead zones existing in traditional square fortresses as well as in turret design, which always provided a tangent point that made an approaching army invulnerable to attack. In the design approach, beyond the strong unconventional nature of the natural site geometries, the occupant/onlooker roles of attacker, defender, spectator, and performer became strong catalysts

3 The panopticon is a prison model designed by Jeremy Bentham in 1785. The concept of the design involves a central guard tower that provides a view of all encircling prison cells. Due to the distance and a mediating visual factor in the tower (such as blinds), prisoners are unable to tell if they are being watched or not. Rather than exploiting this powerful optical relationship, Koolhaas labeled it as an obsolete ideal and fashioned a renovation of the Arnhem prison ostensibly devoid of an optical hierarchy.

4 'Military theater' is a term used to describe a specific area of conflict bordered by areas of no conflict. In Fort Jay's initial incarnation, the military theater would be the exterior of the fort during war. In Fort Jay's realization as a theater, the exterior becomes 'demilitarized' and the conflict is contained to the interior.

5 Sebastiano Serlio (1475-1554) was an architect, theoretician, and set designer who pioneered such stage effects as: colored lights, mechanical rigging, and using forced perspective to produce the illusion of a greater depth than that which actually exists on the stage. The star-plan geometry of Fort Jay allows for five stages employing extreme forced perspective thanks to the convergence of its walls instead of the standard backwall.

6 A reinterpretation of both 'periscope' and 'panopticon,' the submarine audience sacrifices the close view of an individual stage for the power of seeing all five stages without being seen themselves.

7 Currently, high definition cameras smaller than a microchip exist. They have wireless feeds of up to one kilometer. (http://www.thaindian.com/newsportal/health/microchip-sized-digital-camera-to-provide-vision-for-us-militarys-insect-sized-aircraft_100196080.html). In this theater, the cameras are large enough to have a physical presence in theatrical space and become active performers.

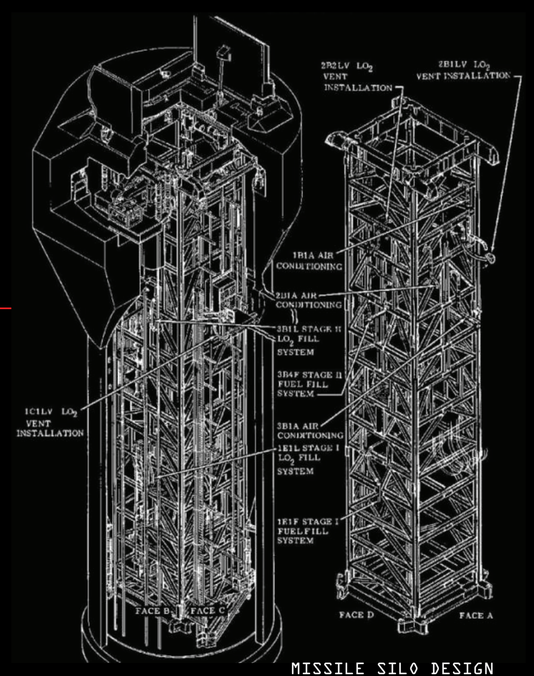
8 Bertolt Brecht (playwright) advocated for epic theater that evaded suspension of disbelief. Guy Debord (filmmaker) advocated for spectacles to contain 'detournments' which call out attention to its falsehood so as not to be drawn into them. This theater provides grandly scaled spectacle while also displaying all the mechanics behind it. This will craft a visual conflict to induce a state of hyperawareness similar to the effect achieved by architects Diller and Scaffidio's Blur building, a pavilion made entirely of steel and fog. There, the obscuring of vision heightens the participant's awareness. Here, the level of exposure and control of vision achieves a similar level of focus, but through engagement instead of exclusion.

audience a sense of what they are to experience within the theater, where numerous scopic variations await them. As the submarine finds itself directly under the site and needs to turn upright, it begins to be aided by a massive hydraulic pump churning out nearly forty-thousand gallons of water per minute to aid the audience in their approach. When they break the surface, looking directly into the exposed sky above the theater, the audience may exit the submarine at the dock to find standard seating, or remain onboard for the next phase. Spiraling up the circulation ramp like a missile silo, the submarine comes to rest at the top of the atrium. Here, the shell is lifted off by fly wires from each of the five theaters, exposing the submarine audience to the grand theater that surrounds them. Able to rotate fully in their seats, this new incarnation of the panopticon 'tower' allows for viewing of any of the five theaters without even getting up.[9]

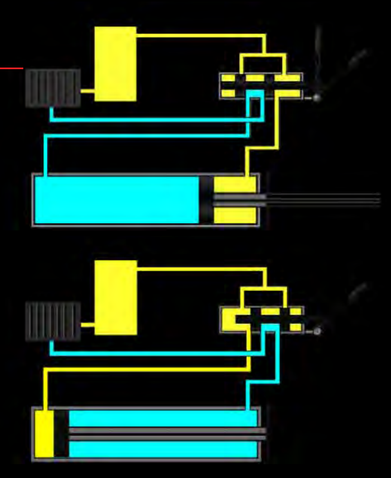
However, despite clear sightlines, each of the stages are at a great distance. Even if you are seated on the edge of the submarine, the closest stage to you will be over two hundred feet away. How is this remedied? More decisions requiring group cooperation. The base of the submarine shell situated twenty feet above will at this point begin projecting a video feed on each of the five sides. What of? The submarine is linked to five cameras, one in each of the theaters. A joystick controller is already present in front of five submarine members' seats, each with the ability to control one camera. For the duration of the performances in the various theaters, it is up to the submarine audience to negotiate how the cameras will be controlled. Will they take turns? Will they shout out requests? Will they wrestle the control away from someone focusing on the receding hairline of an ensemble actor instead of the primary action? Just as in the approach, teamwork is key. Echoes of platoons and war committees abound.

So what of the audience members in 'standard' seating, confined to one theater and one stage? Sure, they may be able to see one, maybe two of the other stages, but they could be as far as seven hundred feet away. These audience members find themselves in a unique position of power. Sacrificing the panoptical view of all five stages, every audience member has access to a small screen on the back of the seat in front of them which directly links to a video feed. Unlike the committee setting inside the submarine, this video feed comes from a camera that each audience member has direct personal control over. However, their camera is not located in the same theater as them; it is located in one of the others. This allows an audience member the power of experiencing both object (directly in front of them), and image (that of a different object they can barely see with their naked eye). Each of these cameras has the exact same controls as the submarine cameras, allowing for panning, zooming, and rotating, often resulting in a cluster of cameras fighting to obtain particular prized views. As the cameras are objects, they now become part of the performance. Imagine one camera snaking its way onto the stage to get a supreme close-up of the lead actor, which then prompts fifty other cameras to attempt the same view. An occurrence involving so many objects would not go unnoticed by the audience. Also, because of the competitiveness of these views and no camera able to occupy the same space as another, there needs to be some element of strategy which allows an audience member to anticipate the views of their 'enemies' and make a preemptive strike. Thus, each screen can see up to five views at once. Again, they can only control their one camera, but by spying on the views of others, they have opportunity to enjoy others' views as well as interfere with them.[10]

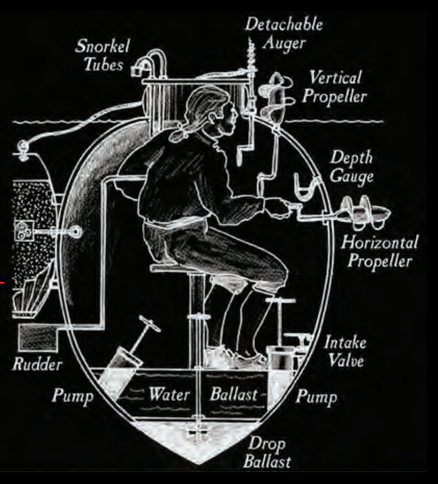
Again, we see power put in the hands of an audience member not to directly affect an event, but rather their experience of that event.[11] In the submarine, it was



MISSILE SILO DESIGN



HYDRAULICS 101



ONE OF THE FIRST SUBMARINES, USED AT GOVERNORS ISLAND IN THE WAR OF 1812

EXISTING COURTYARD

GOVERNORS ISLAND

how quickly they arrived at the theater. Inside the theater, it is how they view the performances. All such strategies work together toward creating a more heightened awareness of the theatrical experience as well as the very act of viewership itself.

Significance_

What has arisen out of this unorthodox design methodology is a theater unlike others, yet entirely based on existing practices seen in the military, theaters, or both. Some are used to new ends, like providing audience members with personal cameras. Others are simple inversions, like peripheralizing the audience to raked stages to provide audience members with the most powerful view. The guiding interest in the design began as a desire to craft a theater that provided not only spectacle, but transparently exposed all machinery that allowed for that spectacle to take place. The amplify/distort design methodology was a means to that end. However, many implications arose out of the final product. The importance of optics and sightlines took center stage, and Virilio's war-central argument on the image versus the object strongly influenced the final positions of power at which the audience arrives at. Should such a theater ever be built, it would provide an audience member with both an enlightening, hyper-aware spatial experience as well as a dramatic sequence unequivocally describable as 'super fun.'

Capstone_

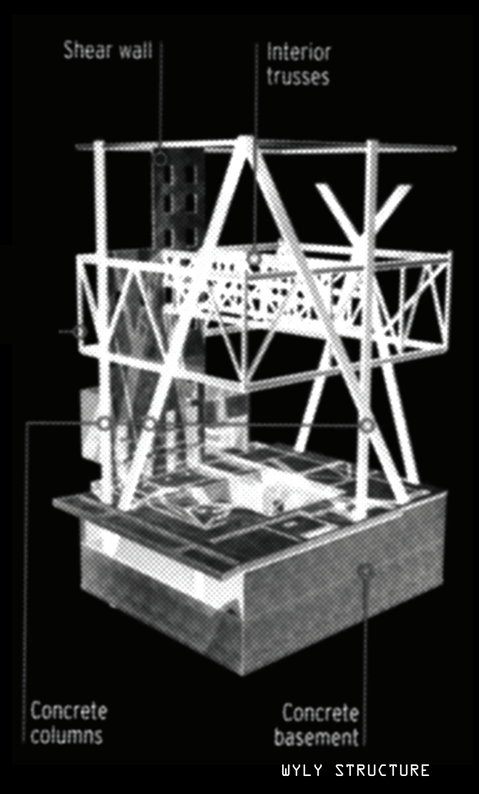
Deviating from the traditional path for architecture students at Syracuse University, this Honors Capstone is crafted as a project complimentary to the architecture thesis project, but individually complete: an original play. Though the intention is to continue working on this play after graduation, for the purposes of the B. Arch. thesis project, a single scene has been crafted that focuses the unique production capacities of the theater's design. The writing of this play has been overseen by David Feldman, playwright, on recommendation from Kyle Bass of the SU Drama Department. David was also an adjunct professor in the Drama Department

The play's entire plot has been outlined during frequent correspondence with David, providing a professional playwright's perspective. The setting is a Dubai architecture firm. It is a time in the not-too-distant-future when buildings are constructed and demolished within months, instead of decades. This temporal quality—focused on aesthetics and form over function or pragmatism—is due largely to a desire in companies to maintain an image of freshness, of being on the cutting edge. Architecture, thus, finds itself subject to the constant flux of fads and trends usually reserved for fashion, art, and cinema. The two opposing characters provide the conflict of architectural theory that drives the play forward: what does it mean to design and build architecture in the 21st century? On one side we have the iconically named 'Filip', a 'starchitect' who favors beautiful architecture above all else. On the opposing side stands Rory Wren, a former classmate of Filip's who is out of work due to her steadfast desire to design and build purely out of a utilitarian desire, completely unsympathetic to aesthetics. Hilarity ensues. The key features of the play that make it specific to the theater include:

- the use of multiple stages
- simultaneous action
- controlled demolition
- subtle elements worthy of a focused camera

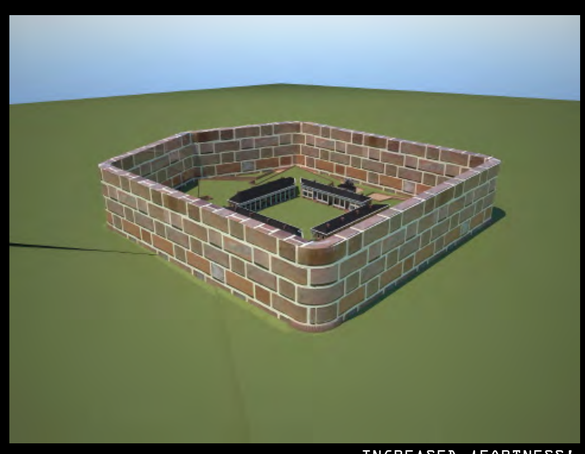
The scene I have written is Rory's confrontation with Filip when she suspects that he is demolishing her buildings prematurely. Here in Filip's office, after ten years of no contact, the audience bears witness to characters who struggle to define the future of architecture out of irreconcilable theoretical differences. True to the characters' personalities, Filip directly engages individual audience-controlled cameras that may venture into his reach, while Rory avoids the cameras at all costs (which is still in itself an interaction). Also, in tandem with the image versus object debate central to the design of the theater, news broadcasts take place 'live on the scene' out of the various stage points. Some are genuine and some are manipulated, but only the submarine audience—privileged by their view of all five stages—will be able to tell the difference.

This scene, along with the entire play's outline, is included as part of the thesis book and fulfills the Renee Crown University Honors Capstone requirement.



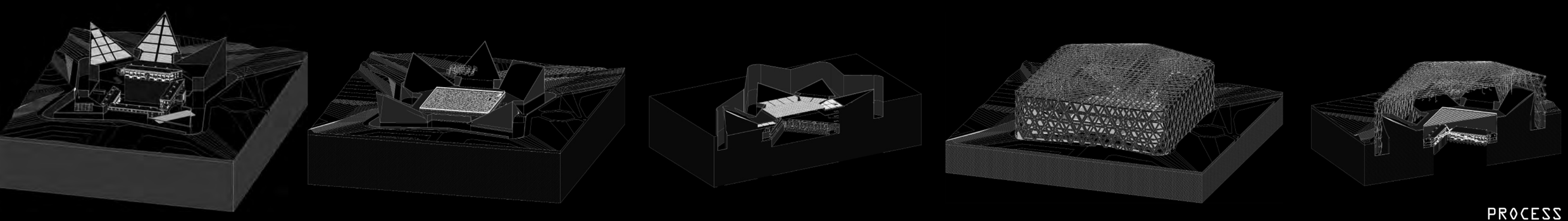
WYLY STRUCTURE

KOOLHAAS PANOPTICON



INCREASED 'FORTNESS'

FORCED PERSPECTIVE CIRCUS?



PROCESS

9 Paul Virilio (cultural theorist) presents the notion that sight is a weapon, and if you can see something, you can expect to destroy it. He goes on to discuss how images have replaced objects as the catalysts for war, and their inherent power should not be underestimated. At first, the audience members seated in this new incarnation of the panopticon tower may not feel the exhilarating sense of power that a guard in the prison model would have felt because they do not seem to be have any effect on what they are watching. However, the notion of providing highly maneuverable cameras not only makes the performances more visually accessible, but also becomes a part of the performances, like the sub ride itself. The cameras are physical objects visible to both audience members and performers, and they have the ability to influence a production. With the camera's feed acting as live image and the performance as live object, what happens when both are accessible? This is a test of Virilio's assertion. Does the image entirely replace all concern for the object? This theater provides a battleground for the debate.

10 If you can see what your enemy sees, you can counter it. This notion, ever-present in military intelligence interception, will be more readily relatable to participating audience members as a common quality of war video games. When playing on a single, split screen, a common tactic utilized by players to find or avoid their enemy is to spy on their division of the screen. The fort's forced-perspective-ready geometry enables this potential by funneling the actions of cameras and thus creating inherent conflict between those competing for deeper stage views.

11 This is an alternative to the Jumbotron solution to providing closer live views to distant audience members. In a Jumbotron scenario, the audience is at the mercy of the professional camera crew and editor behind the booth. This experience is far more personalized, and caters to the active, multi-tasking nature of the younger generations. Control your own camera, interfere with others, experience two or more theaters at once, this theater thrives in hyperawareness; it is not a theater in which you sit in reverential silence, nor is it a mere gimmick. These physical cameras and their rigging provide both their own viewable performance, as well as the capacity to affect the on-stage performance. Imagine an acrobat who swings from one moving camera to another, an actor who directly speaks to different cameras, or even an actor who grabs and throws them.