KLAXON

Luis Efrain Salinas
GSAPP AAD 2022–2023
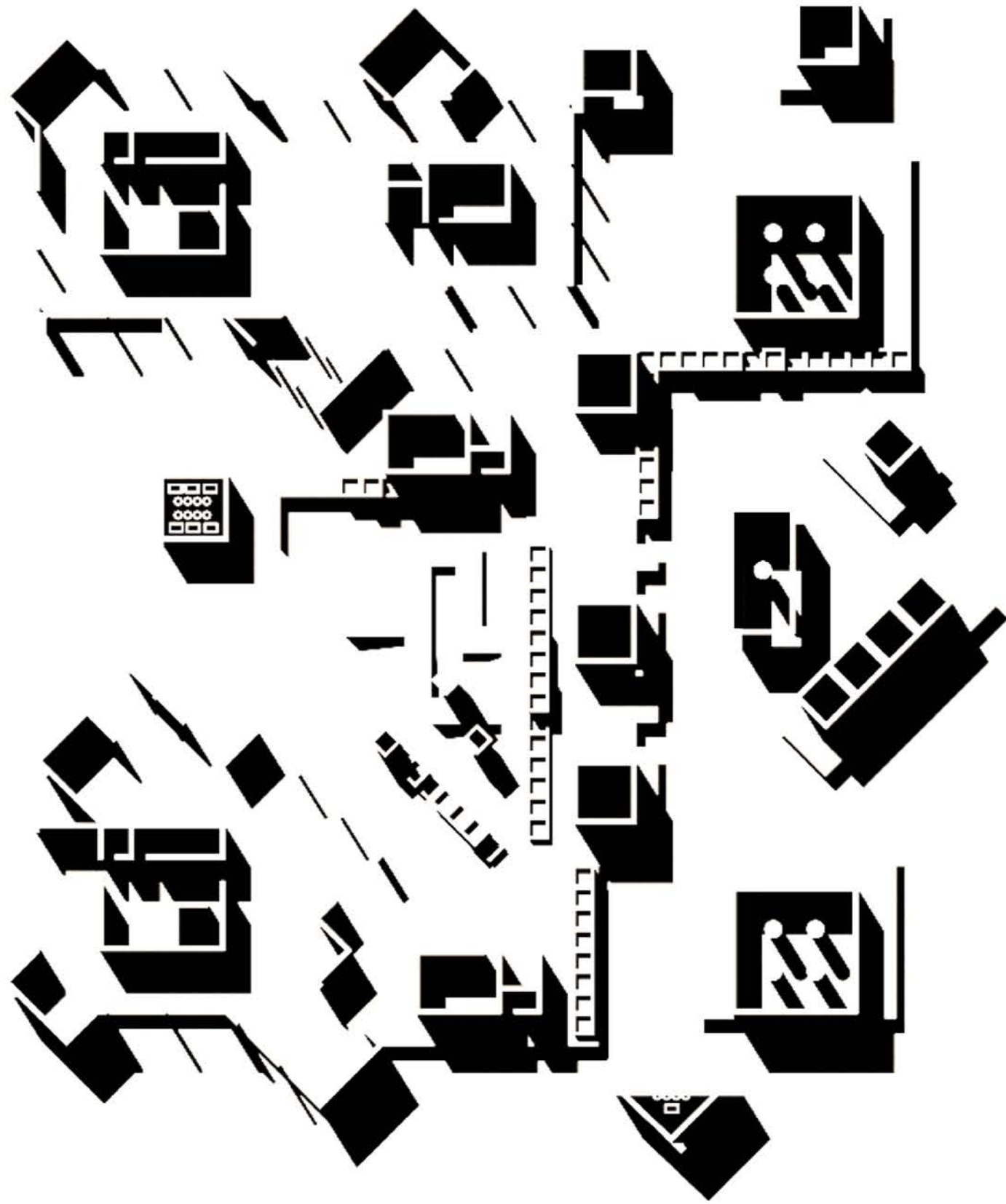
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Reenvisioning The Micheal C. Rockefeller Wing

"'We find ourselves opposed by forces that operate in the shadows without a flag, with powerful weapons that are placed in a wide range of influential positions'."

-Salvador Allende 1973

Reenvisioning: The Micheal C. Rockefeller Wing

Advanced Studio
Summer 2022

Professor Cruz Garcia
Professor Nathalie Frankowski

The short film seeks to present the footprint of Nelson Rockefeller and the United States in Latin America while simultaneously capturing the trajectory of the Latin American objects in the Rockefeller Wing of the Metropolitan Museum.

Using collage and film techniques the footprint is shown through a visual narrative. The short film seeks to transition between the different mediums utilized by the CIAA through the use of found footage from propoganda films, radio broadcasts, interviews, and more. These found elements are then interwined into the narrative and collages. The use of the "found image" is not only a visual means but an auditory one as well. This bombardment of visuals and audio displays the intensity in which the CIAA staff of 12,000 intervened in Latin America.

The Reenvisioning of the Michael C. Rockefeller Wing shows the exhibition space after the repatriation of the artifacts has occurred.

Short Film and Website

Rockefeller Estate Exterior

Roefeller Estate Interior

Lake Maracaibo

CIAA Office

Opening Transition
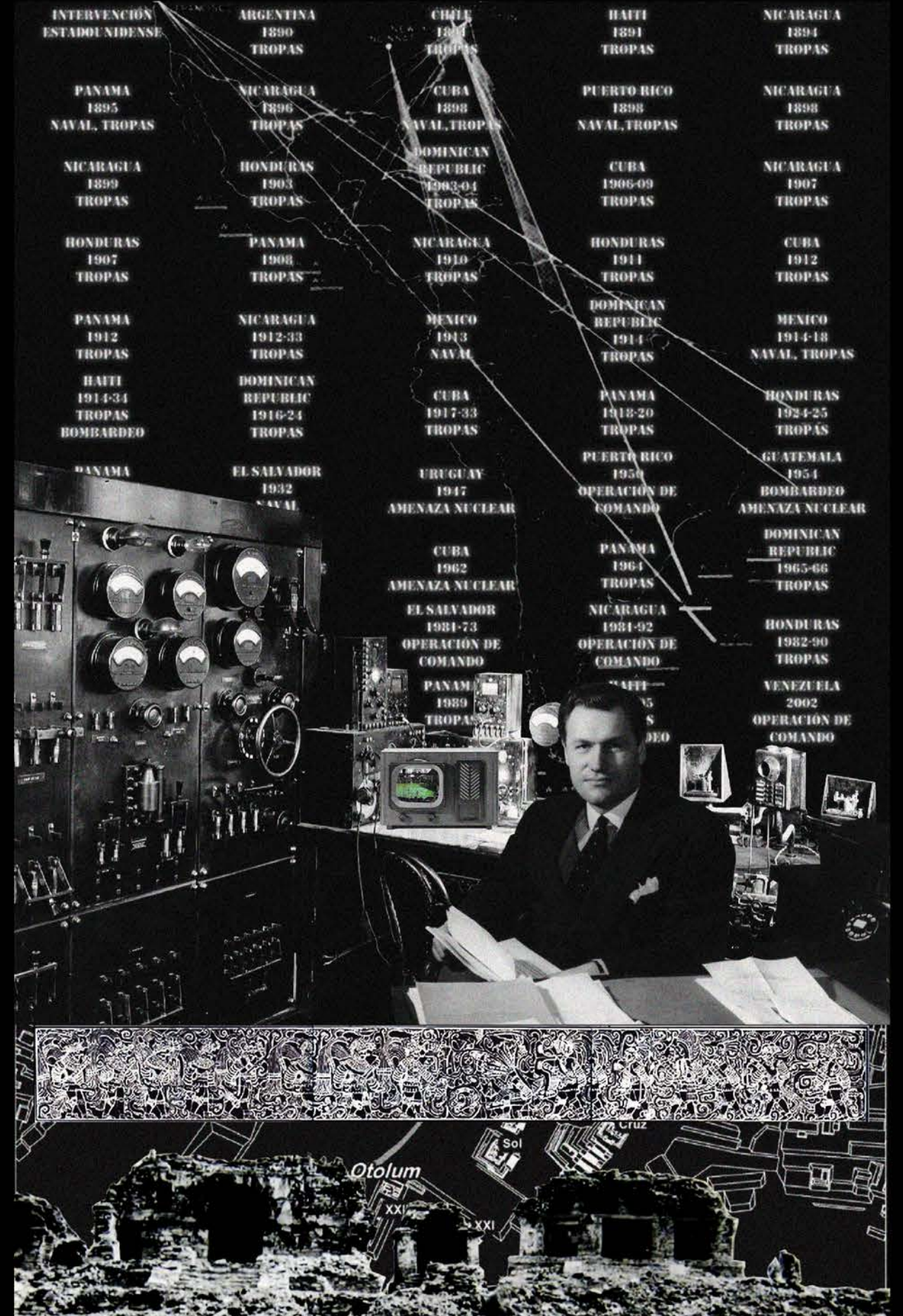
Poster

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Alberto Ruz Lhuiller, an archeologist who had excavations at the Mayan site of Palenque

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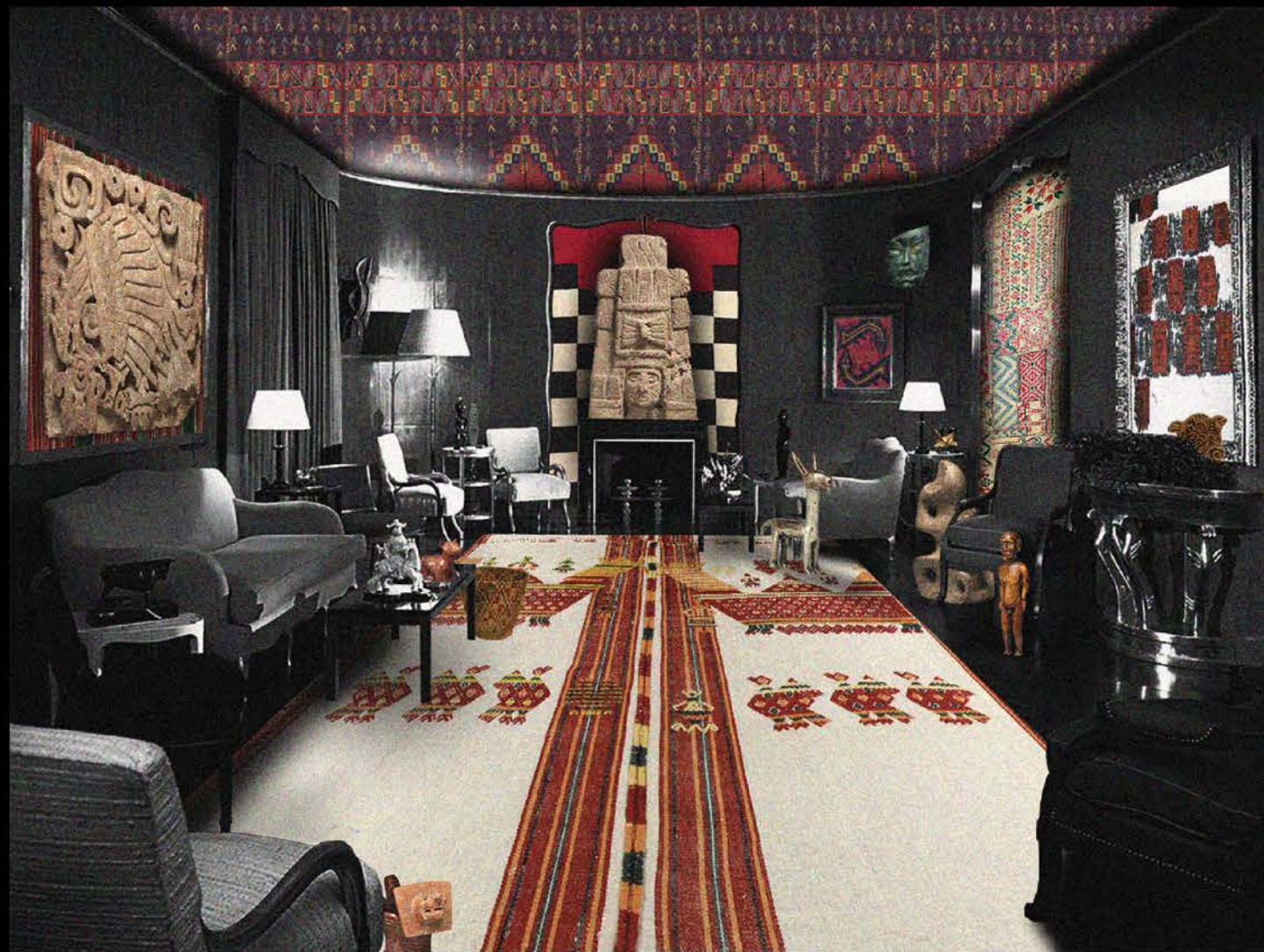
Rockefeller Estate

Rockefeller Benefactors

Archeology Site to Creole Petroleum Corporation Found Footage Transition
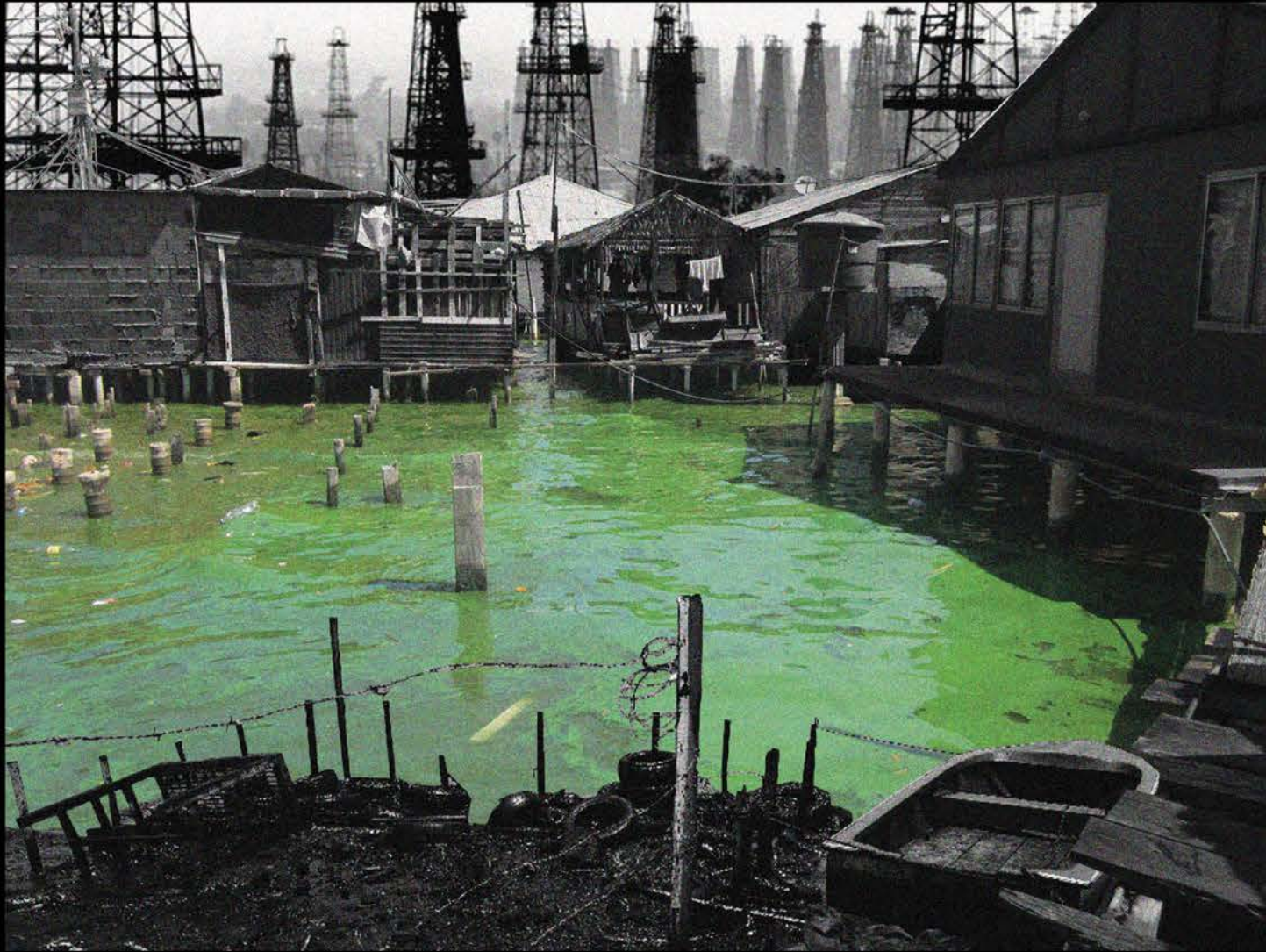
Lake Maracaibo
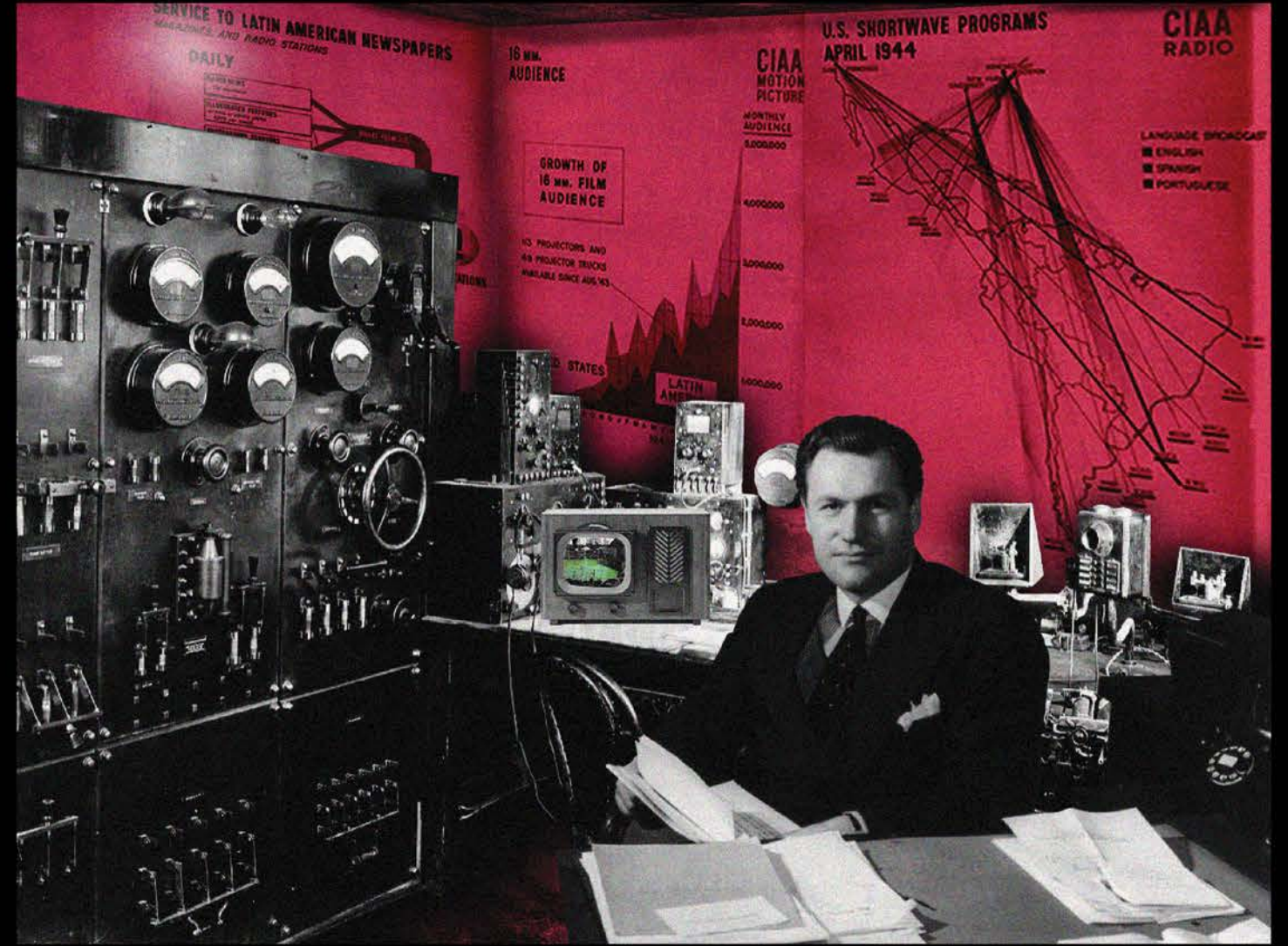
CIAA Office

Primitive Arts Museum

Footprint Video Installation
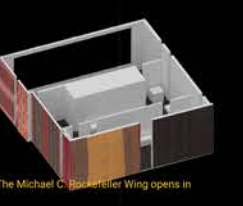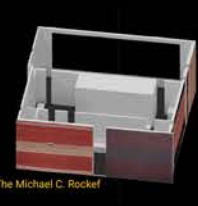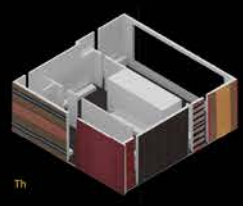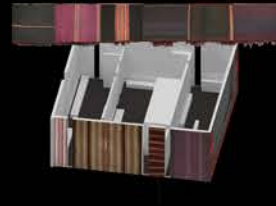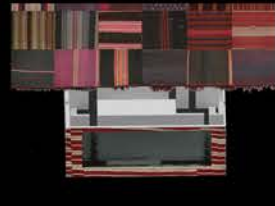
Michael C. Rockefeller Wing

Rockefeller Estate

Metropolitan Museum of Art

Nelson Rockefeller
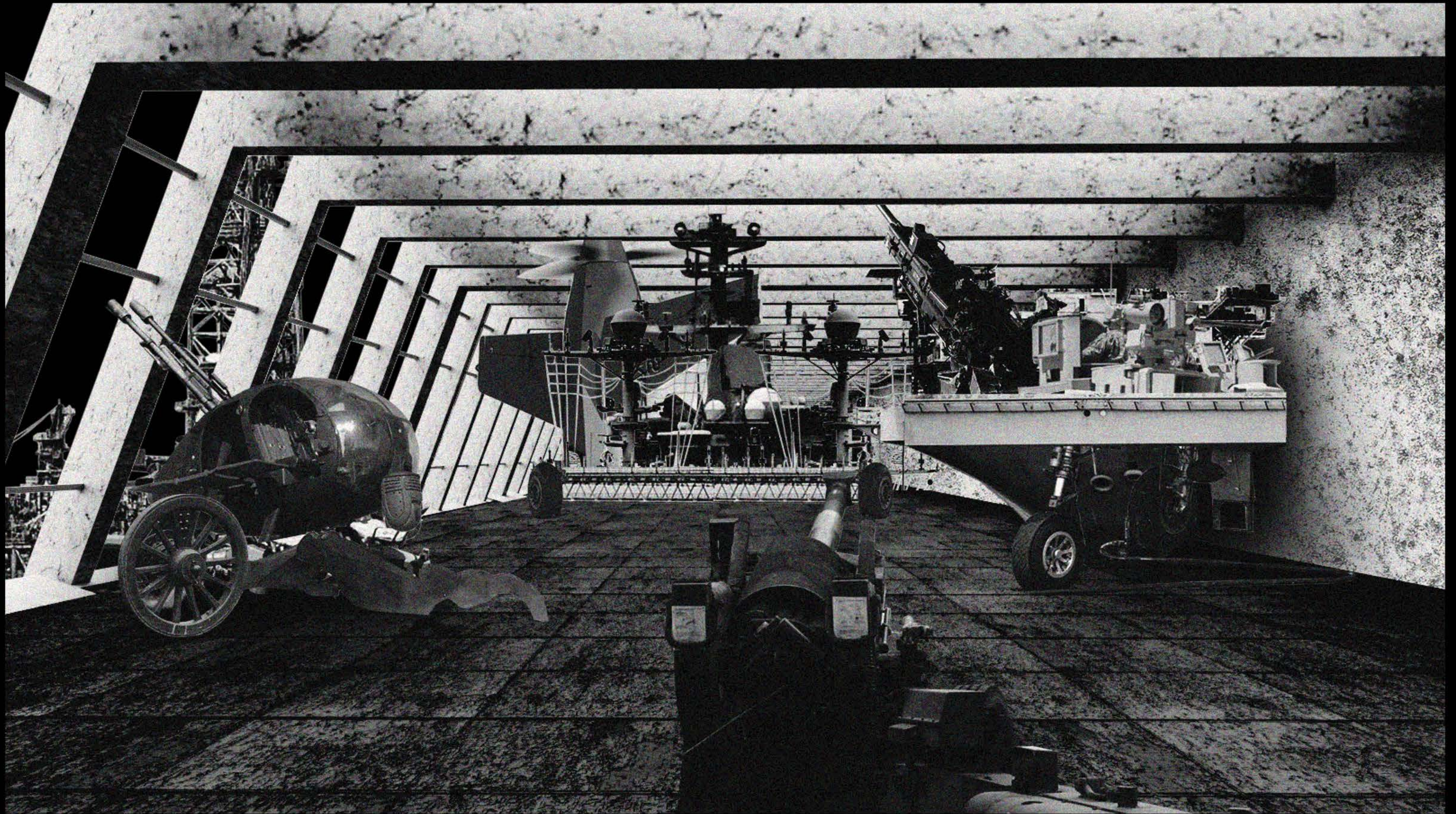
Reeinvisioned Michael C. Rockefeller Wing

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Horizontal Design, Construction, and Data Transfer in the Popular Unity Party

"According to the science of cybernetics, which deals with the topic of control in every kind of system mechanical, electronic, biological, human, economic, and so on, there is a natural law that governs the capacity of a control system to work. It says that the control must be capable of generating as much "variety" as the situation to be controlled."

-Anthony Stafford Beer

Horizontal Design, Construction, and Data Transfer in the Popular Unity Party

Architecture and Socialism
Spring 2023

Professor Reinhold Martin

Construcción Edificio Unctad III-Gabriela Mistral-CAP-Maestranza Cerrillos en 1971 [Fotografía], colección Jack Ceitelis
Fotógrafo, 1971, Archivo Enterreno (https://www.enterreno.com/moments/construccion-edificio-unctad-iii-gabriela-mis-
tral-cap-maestranza-cerrillos-en-1971-0ea307cb-395f-41b5-bd58-55b77181c3fc). Reconocimiento - No Comercial (by-nc)

On September 4, 1970, Chile went through a competitive presidential election. Salvador Allende became the first Marxist president in Latin America with a 1% lead in the popular vote against his opponent Jorge Alessandri, a former president. Throughout his presidency, he faced economic blockades from the US, assassination attempts, and strikes paid for by the opposition. During his three-year Presidency, Allende pushed the development of various built projects. The two most ambitious were UNCTAD III, which was to hold the Third session of the United Nations Conference on Trade Development, and Cybersyn, an early version of the Internet.

The UNCTAD III was to become a symbol of the socialist ideals of the Popular Unity Party. President Allende sought to show Chile's rising status and achievable work under a socialist structure. Through horizontal design, it could be built on time in 275 days. This was crucial so as not to miss the deadline to be able to host the United Nations Conference. After this conference, the building returned to the worker as a cultural center. Yet its time as the Gabriela Mistral Metropolitan Cultural Center was cut short by the coup on September 11, 1973. The Palace of the Moneda, where the president resides, was bombed by the Chilean airforce as President Salvador Allende refused to resign from his office. It was proposed to him that he should leave with his loyal forces and return with a counter-attack. Still, President Allende rejected this proposal citing that it was his constitutional obligation to remain in office. He gave a final speech to the nation from within the Palace of the Moneda that day, rendered unusable after his murder. A brutal seventeen-year dictatorship backed by the CIA and the Nixon office led by Augusto Pinochet Ugarte, a former general, followed. [1]

The UNCTAD III that had become the Gabriela Mistral Metropolitan Cultural Center (named after a famous Chilean poet) would be renamed the Diego Portales (named after a conservative 19th-century politician). Its program would shift from the intended public space to become the main administration building for the dictatorship. This was due to the destruction of the Palace of the Moneda. UNCTAD III would host offices for legislative power, whereas the tower would become the center for the defense ministry.

UNCTAD III was transformed not only in the program but in aesthetics. The once-open cafeteria meant to be a collective space for students, the public, and workers was closed. The red ventilation was instead painted with military green. All the art pieces commissioned for the various spaces were removed; some have been lost

[1] The Battle of Chile. Part 2: The Coup D'etat. Equipo Tercer Ano, 1976.

forever. Any trace of the building back to the Presidency of Salvador Allende was "sanitized." [2]

After seventeen years, UNCTAD III would be the building where the plebiscite in which Chileans voted "No" to the continuation of the Dictatorship in 1988 was held. In 2006 it went through a fire, and after a national debate on its role in the city and its fate, it was renovated and functions as a cultural center again.

This history and radical transformation in program and image bring to question the identity of the building as a socialist piece of architecture. If the UNCTAD III could be subverted to a polar opposite use so quickly, what does this mean regarding the socialist ideals UNCTAD III aspired to? The image and public perception were twisted to the point where some believe the building was built under Pinochet. Although the socialist ideal is not represented in its design, it was expressed in the design process, construction, and integration into the city, qualities that can not be transformed or altered.

From its inception, UNCTAD III was to be a symbol for the Popular Unity party and its mission to empower the workers. It was built to showcase on the global stage the revolutionary ideals of the movement. The location for UNCTAD III set it to become a cultural center amongst other cultural and public institutions. It was situated along the Alameda, the main avenue of the capital city. The scheme connected the space to the Parque Forestal, Museum of Fine Arts, National Library, Municipal Theatre, and Universidad Catolica. Its original design would incorporate a new and vital train station beneath the building, making it a new central stop in the city, although ultimately, only access was built. The nearby residential project of San Borja at this time went through a renovation. The building was connected to the Parque Forestal, making a continuity between residence, cultural center, and plaza. This aspiration where not only to integrate the residents of the immediate nearby area but to connect the city to the site through the use of the train stop.[3]

Although this was the most prominent cultural center in Santiago, Chile, the timeline for its completion to hold the United Nations conference was tight. When President Allende met with the Chilean Engineers and Architects Association, they calculated it would take two and a half years. They factored how long it would go to competition, bid, and construction.

Architects at CORMU had already worked with President Allende in his first year when he sought to build 100,000 houses for the working class.[4] Architects Miguel Lawner and Jorge Wong were the head executives at CORMU and informed the President that they could build UNCTAD III in time for the conference. Miguel Lawner quickly assembled a team of architects Jose Covacevich, Juan Echenique, Hugo Gaggero, Serrgion Gonzales, and Jose Medina. Miguel Lawner would personally work as the coordinator of the project. This team of architects broke away from the notion of the lone genius. Instead, they began the design of UNCTAD III from its inception as a horizontal and socialist project in which the collective worked to achieve the goal.

Jose Medina had worked under the American architect Kevin Roche in the1960s. During this time, Medina had seen the design for the Associates' Veterans Memorial Coliseum and Knights of Columbus tower in New Haven, Connecticut (1968-1970). The horizontal shopping center, colosseum, and parking lot supplemented by the tower strongly resemble the final design of UNCTAD III's main horizontal building and office tower. [5]However, Jose Medina and Miguel Lawner did not mention another project from Kevin Roche, the Ford Foundation Headquarters (1968) which featured an impressive use of the relatively new material Corten Steel, for UNCTAD III's facade. It would not be unlikely that they we

The use of Corten Steel as the facade of the building comes after a historic nationalization of natural resources by President Allende. On July 11, 1971. Copper was the nation's main resource and was among those nationalized despite the aggression of foreign interests, such as American corporations, who were pushed out by this legislation. For years companies such as Kennecott Copper Corporation had immense profits from the Chilean resource. These immense profits did not make their way back into the Chilean economy, becoming a tool of colonial extraction. These corporations would later support coup attempts and terrorist attacks on the country. President Allende stated in his first speech to the Chilean Parliament, "Chile has begun the definitive recovery of our most fundamental source of wealth - copper. The nationalization of our copper is not an act of vengeance or hatred directed towards any group, government, or nation. We are, on the contrary, positively exercising an inalienable right on behalf of a sovereign people - that of the full enjoyment of our national resources exploited by our national labor and effort..." Nevertheless, the US continued to blockade Chile from outside resources forcing the Architects to use

[2] Talesnik Daniel, "Monumentality and Resignification: The UNCTAD III Building in Chile," in Patricio del Real and Helen Gyger, eds., Latin American Modern Architectures: Ambiguous Territories (New York: Routledge, 2012), 135-152.
[3] Allende, Matias, Christian Bartlau, and Carol Illanes. 2014. Trabajo En Utopia Monumentalidad Arquitectonica En El Chile De La Unidad Popular. Adrede Editora.

[4] Maulen, David. "An Exceptional Trajectory Civic Integration and Collective Design in the UNCTAD III Building." Sci Elo Chile. ARQ (Santiago), 2016. https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0717-69962016000100008&lng=en&tlng=en.
[5] Jordy, William. "In Memoriam: New Haven Arena, Connecticut, USA, by Kevin Roche John Dinkeloo and Associates (KRJDA)." Architectural Review, July 26, 2020. https://www.architectural-review.com/buildings/in-memoriam-new-haven-arena-connecticut-usa-by-kevin-roche-john-dinkeloo-and-associates-krjda.

national resources. The Tower was built with 94% national materials. [6]Nationalizing these raw materials also expedited their use in the construction process through a command economy.

Despite this, Lawner and Medina state that using Corten Steel was not symbolic. The architects chose the copper alloy due to its structural characteristics and "zero maintenance." [7] Another reason for its use was the estimated cost of using paint on the facade and interiors, which would have taken the building over budget. The architects defended the oxidization of the material as an aesthetic quality giving the building an orange tint that would transform over time into darker shades. This oxidized layer also works as weather protection. Later after the fire of 2006, it was discovered that the corten steel was only used in the visible portion of the building as other hidden steel members were not corten steel. Copper was used not only as a material for the facade but also for the thick windows, which were given a copper bath. The bath would give the glass "a beautiful beige tone and only allow 40% of the exterior temperature to pass".[8] Although perhaps not intended to be symbolic, the use of a uniform material, corten steel, throughout the building gives the project a sense of unity.

Another inspiration cited by Miguel Lawner was the Tokyo Metropolitan Festival Hall or Tokyo Bunka Kaikan by Kunio Maekawa in 1961. The exposed concrete and stark forms resemble Le Corbusier's work, whom Maekawa had worked under for two years before his return to Japan. Tokyo Bunka Kaikan is across from Japan's only Le Corbusier building, The National Museum of Western Art. This inspiration manifests in UNCTAD III through the striking horizontal exterior, the monumental concrete pillars, and their finishing. The interior of UNCTAD III and Tokyo Bunka Kaikan's lobbies resemble each other through the roof raised by the massive columns and modular spaces within the structure. [9]Maekawa's cantilevered forms may also have made their way to the tower in UNCTAD III, as it featured a cantilever on every floor to maximize its floor area.

The pillars or columns, which share characteristics of the modern and classical movements, had various design intentions. The most immediate choice is their rotation to 45 degrees. This rotation reinforces the connection of the building not just to La Alameda, which runs parallel to its horizontal roof but to those going perpendicular to La Alameda. The concurrent streets are Av Bernardo O Higgins, Namur, Jose Victorino Lastrarria, and Villavicencio. The capitals of the pillars differ from classical columns as they do not expand as they reach the roof. Instead, they form a triangular form that

diverts the force to a singular point of contact. The point of contact symbolizes the exchange of force and technical prowess. It also aligns with the precise organizational methods in construction and daily data transfer. The 16 points of contact between the vertical and horizontal members support the roof.

These pillars allowed for a flexible modular design throughout the building. Modular rooms occupy the space between the pillars and beams. The construction methods enable these flexible elements and envelopes to be modified if needed. This is due to their ability to be "removable" under the "table scheme" superstructure.[10] The flexibility provided by the modular system would have greatly benefited its intended program as a cultural center as it would be able to hold several different events or activities. Another benefit of this modular approach was to begin building construction before the architects had fully designed the interior. Since the architects had been aware of Kunio Maekawa's work, perhaps they had also seen some of the Japanese Metabolist's work with flexible and modular architecture. Sadly this feature was later exploited by the dictatorship in which the spaces recalibrated to their needs.

This table scheme in which the roof structure was to be raised by the pillars separating the construction of the interior and roof space allowed for the split of the construction process into three fronts. The horizontal building would have parts built downward hanging from the steel structure, the modular interior built from the ground up, and the tower built separately. The architects also split into working in parallel, Hugo Gaggero and Jose Medina worked on the horizontal building, and Juan Echenique and Jose Covecevic worked on the Tower. At the same time, Sergio Gonzales would be the coordinator and correspondent between the architects, suppliers, and laborers. This effort to collaborate in pairs would further the notion that this was a collective work not belonging to a singular author. As not one individual worked on the tower, and not one worked on the horizontal but instead, collaborative pairs. [11]

The construction company selected to work on UNCTAD III was DESCO, which had previously worked on Tower 12, the remodeling project in San Borja, and the Ministry of Labor building. Through those projects, they achieved a reputation for being efficient with production. Part of this reputation was the discussions in which workers and directors would participate. These assemblies would find critical decisions in the construction process. In this way, for UNCTAD III, the laborers could relate as equals to academics, architects, and artists. The architects would produce plans on the fly, on the

[6] Guzman, Andres 1972 "Asi nacio el Gigante" Suplemento especial UNCTAD III, El mecrucio, Editorial El Mercurio
[7] Talesnik, Daniel, 139
[8] Guzman, Andres 1972
[9] Team, ArchEyes. "Tokyo Metropolitan Festival Hall (Tokyo Bunka Kaikan) / Kunio Maekawa." ArchEyes, May 28, 2020. https://archeyes.com/tokyo-metropolitan-festival-hall-tokyo-bunka-kaikan-kunio-maekawa/.

[10] Talesnik, 149
[11] Maulen, David. "An Exceptional Trajectory Civic Integration and Collective Design in the UNCTAD III Building." Sci Elo Chile. ARQ (Santiago), 2016. https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0717-69962016000100008&lng=en&tlng=en.

construction grounds, which would then be evaluated by engineers and executed by the workers. "A productive symphony that, more than following the pattern of the Fordian series (Where the systemization of the machine changes force and work), worked under the collective desires and joint labor." [12] There was a national sentiment and sense of camaraderie amongst the workforce. The magazine En Viaje N.460 would compare the project to the biblical Tower of Babel. However, here, everyone was equal, part of the same nationality, language, and class. Comrade Allende or Compañero Allende, as the workers would call the president, would come to the construction site daily, sometimes early in the morning, to ensure the project was completed on time and to raise morale amongst the workers.

This morale carried throughout the project as the workers recognized the importance of the project symbolically to the nation. The second and perhaps more important reason is that they were able to participate in the construction process not just through their labor but also through their voice, being able to discuss how to carry out the process in various assemblies. This democratization of the workplace in the productive and administrative management of the project empowered the workers and, in turn, increased their productivity despite attempts by the opposition to thwart the construction. The opposition parties paid workers to strike against building construction, but most workers carried on with the project.[13] Another strike by professionals prevented the architects and engineers from entering the building. Despite this setback, the construction continued after a site manager took charge and kept the schedule. This is a testament to the coordination and organization of CORMU.

Part of the intense organizational capabilities of CORMU to head the construction was the work of engineers such as Hellmuth Stuven, who created the predictive software PERT. This software was able to trace a Gantt chart calculating 100,000 activities simultaneously. It could also signify a series of activities and their most productive order. PERT was used previously to map out the actions needed by CORMU during President Allende's project to build 100,000 houses. In UNCTAD III, Stuven trained around 75 site managers to feed information daily into the program using IBM information cards. The builders could input data and follow weekly and daily activities instructions. "This software was able to work in all scales of the project from the bolts, to the temperature, and even to the general mood of the workers- anything could be a variable." [14] On Wednesdays, a chart would be sent to CORMU to evaluate the

construction process. PERT allowed the workers to receive immediate feedback as to their progress and the work that would be needed.

After 275 days, 4200 hours of work, 12000 sq meters of reinforced concrete, and 2920000 kilos of Iron, the construction of the building would be over. (Carol Illanes 75) The building's plack commemorates the tremendous effort by stating, "This building reflects the spirit of the worker, the creative capacity and labor of the pueblo of Chile. Represented by its workers, technicians, artists, and professionals. It was constructed in 275 days and finished on April 3, 1972, during the Popular Unity party of Comrade President of the Republic, Salvador Allende G." This plack equalizes all members of the construction of UNCTAD III. There is no name of any individual authorship; the only person individualized is President Allende. He would say in his address, "The popular unity government is the result of the workers' effort, of their unity and organization. But also of the workers of his unit and organization. But also of the strength of the current institutional regime". In this speech, he highlights not just the labor of the workers but also the political institution that had propelled various projects forward. Only when these two conditions were met could projects such as UNCTAD III be achieved.[15] (Christian Bartlau 49). During the opening ceremony, the names of every individual who participated in the process were read alphabetically with no distinction or reference as to their role. In this way, the part of individuals as authors were removed in favor of having the Chilean society be the author. Detrimentally this also allowed for "historic confusion" to arise as some believed Pinochet's government had constructed the building.[16] Yet the idealogy that this project was created by and for the collective was apparent through every step of 275 days.

During the speech at the United Nations Conference, President Allende would defend the nationalization of natural industries, speak of the conditions of the workers in the country, and condemn the foreign intervention of blockades and coup attempts by the US, saying, "We find ourselves opposed by forces that operate in the shadows, without a flag, with powerful weapons that are placed in a wide range of influential positions.". He also mentioned the assassination of General Rene Schneider Chereau, the Commander in Chief of the Army and one of the last loyalists to the President. It was revealed that the Telegraph and Telephone Company had suggested to the CIA this intervention. "Last July, the world learned with amazement of different aspects of a new plan of action that ITT had presented to the US Government to overthrow my Government in six months. I have with me the document, dated October 1971, that contains the 18-point plan that was talked about. They wanted to strangle us

[12] Allende, Matias, Christian Bartlau, and Carol Illanes. 33
[13] Allende, Matias, Christian Bartlau, and Carol Illanes. 39
[14] Talesnik, 139

[15] Allende, Matias, Christian Bartlau, and Carol Illanes. 49
[16] Allende, Matias, Christian Bartlau, and Carol Illanes. 36

economically, carry out diplomatic sabotage, create panic among the population, and cause social disorder so that when the Government lost control, the armed forces would be driven to eliminate the democratic regime and impose a dictatorship." [17]

UNCTAD III's time as a cultural center was brief. It would host two dining areas, shops, bank branches, travel agencies, post offices, communication rooms, and other minor services.[18] The cafeteria was self-serving and would hold around 600 to 200. Workers did not need to show an ID to enter the UNCTAD III and could use its various amenities. At the end of the project, the worker was both the builder and the client, as the President had intended.

Gui-Bon Siepe and students (Alfonso Gómez, Fernando Schultz, Guillermo Capdevila, and Rodrigo Walker) designed the signage for UNCTAD III's various amenities and the signage for the project CyberSyn created by the English engineer Stafford Beer and CORFU.[19] This project was similar to the PERT software used in constructing UNCTAD III.

Cybersyn was an early version of an internet-like system that would work on a network of 500 telex machines. This version of the internet, like the other projects of the Popular Unity, was highly organized. Cybersyn differed from the early American internet ARPANET, which would receive a vast amount of unfiltered information and manage it in post. The telex machines were distributed to factories and other economic centers and transmitted specific data such as production output, energy use, and labor levels to two mainframe computers in a control room. The telex, a typewriter hooked to a phone line, would send text across telecom wires to a telex in the control room. Then that data would be entered into one of two computers, forming an analysis of the best course to address any problems. The viable system model to address these problems was to identify a space for the decision of an individual or group, the environment to be intervened, and the technology that establishes the relationship between both. Through these three sets of answers, one could develop the best course of action. [20]

Stafford Beer would describe his meeting with the President to explain the viable system model "Allende was a doctor, a medical doctor, as you may know, and therefore it was very easy to explain the model to him in terms of neuro cybernetics, as the way of controlling the body. And then I went into the business of controlling the state. And so I said to him, let us suppose that these elements of the state are the big departments of state, like foreign affairs and the economy and home affairs, so on. And then we will have those and the following things will happen and then we must have a system too. And I built it up on a piece of paper lying on a table between us and a system three and a system four. And I got that far. And then I got to System five, and I drew a big histrionic breath. And I said, I was going to say, "This, Compañero Presidente, is you". Before I could say it, he suddenly smiled very broadly, and he said "Ah, system five at last, the people." That was a pretty powerful thing to happen" [21]

The sentiment of President Allende became expressed in the diagram created for the project, which features societal and information structures organized from the bottom up inverting the typical capitalist hierarchy. This system envisioned a society where orders came not from the President or a higher power but from the worker. One of these diagrams features the worker at the center and various organizations radiating outward until it reaches the entire nation at its furthest layer.

After receiving information from the 500 telex machines, you could use collaborative and decentralized technology horizontally. In this way, information from the worker is used in decision-making on a national scale. The rapidness this afforded to the flow of information was drastic, as receiving an overview of one corporation to the government would have taken months traditionally. There was real-time financial information, a first in the world. Stafford Beer would say, "Information was a national resource." This system, in turn, became a grand-scale version of CORMU's assemblies where workers could have a voice in the construction process.

The analysis provided by Cybersyn and the 150 nationalized companies was translated into the signage designed by Gui Bon-Siepe. These displays were mounted around a circular room that became an economic simulator and featured seven fiberglass swivel chairs arranged facing each other. These rooms were intended to be used comfortably by workers and bureaucrats alike as the chairs featured elements such as ashtrays, a place for your whisky glass, and controls for the various monitors. Although these displays were more manual than the design would lead you to believe, operating on premade key cards. [22]

In 1972 the opposition and the truck industry owners organized strikes and blockades meant to sabotage the socialist economy and cause food and supply

[17] Allende, Salvador. "Third Session of the United Nations Conference on Trade Development." In UNCTAD III. Stockholm: Handelsdepartementet, 1972.
[18] Talesnik, 138
[19] Maulen, David. "Interfaz y Heterarquía: Diseños De Interacción Locales Para La Independencia Colaborativa Descentralizada." Thesis, Revista Chilena de Diseno, 2016.
[20] Vehlken, Sebastian. 2022. "Operative Communication: Project Cybersyn and the Intersection of Information Design, Interface Design, and Interaction Design." AI & Society 37 (3): 1131–52. doi:10.1007/s00146-021-01346-2.

[21] D'Amico, John. "There Were Almost Two Internets. Then, the CIA Destroyed One." Mashable. Mashable, February 12, 2022. https://mashable.com/article/project-cybersyn-chile-kernel-panic.
[22] Espejo, Raul. "Cybersyn, Big Data, Variety Engineering and Governance." AI & Society. Springer-Verlag London LTD, January 4, 2022. https://link-springer-com.ezproxy.cul.columbia.edu/content/pdf/10.1007/s00146-021-01348-0?pdf=openurl.

shortages. After other methods were attempted to stop the strike, Cybersyn was deployed to provide real-time data to combat the crisis. The cybernetic system allowed for the organization of active truck drivers to bring specific supplies to where they were needed and to receive information on how to get around the blockades. Through the use of Cybersyn, they were able to break the strike. The system made communication possible between industries, enterprises, and the government at large". (Cybersyn big data) Stafford Beer later lamented that the success of Cybersyn had raised the danger of a coup. [23]

President Allende had been so impressed by the project that he ordered a version built at the Palace of the Moneda. It was finished on September 10, 1973, and was destroyed during the coup the following day. "Workers of my country, I have faith in Chile and its destiny. Other men will overcome this dark and bitter moment when treason seeks to prevail. Keep in mind that, much sooner than later, the great avenues will again be opened through which will pass free men to construct a better society. Long Live Chile!" President Salvador Allende would exclaim in his final broadcast speech from within the Palace of the Moneda.

UNCTAD III became the central space of governance for the dictatorship. The team behind Cybersyn had a protocol in case of a coup where the project data was wiped from the system. Stafford Beer escaped for England as well as other members of the project. He moved out to the countryside as far from capitalism as possible. Stafford would come to live a self-sufficient life, even creating his furniture.

"Now, what I think would have happened if things had been left to evolve, it would have created, shall we say, a third way. It would not have been the traditional market economy, and it wouldn't have been the traditional socialist economy. The opportunity for a more just structure, inequality is something that is very strongly connected to the kind of industrial economic system that we know...I haven't lost my dreams in this case. I think it may happen that as time goes by, we will learn better how to manage complexity and handle big data in ways that are more conducive to justice and respect." Raul Espejo, Operation Director of Cybersyn, would speculate in an interview. [24]

The horizontal design, construction, and organizational practices of the Unity Party's projects mark them as socialist in a way that no physical element could. Although the products of these three factors can be subverted, the actual organizational and ideological quality of the project's construction can not. The innovative managerial attributes found in the UNCTAD III and Cybersyn and their employment of a command economy through direct worker input provide an example of a unique model for the nation-state. CORMU's democratization of the workplace through assemblies and implementation of PERT in many ways was a smaller-scale version of Cybersyn's national ambition. Although UNCTAD III's image was tainted and project Cybersyn was lost, they expressed the emergence of technology as a tool for workers to improve their living and work conditions.

CyberSyn Control Room 1972- Photograph from Liverpool John Moores University Library

[23] Vehlken, Sebastian. 2022
[24] D'Amico, John. 2022

After Lights: Passage to Opacity

"This same opacity is also the force that drives every community: the thing that would bring us together forever and make us permanently distinctive. Widespread consent to specific opacities is the most straightforward equivalent of nonbarbarism.

We clamor for the right to opacity for everyone."

-Edouard Glissant 1997
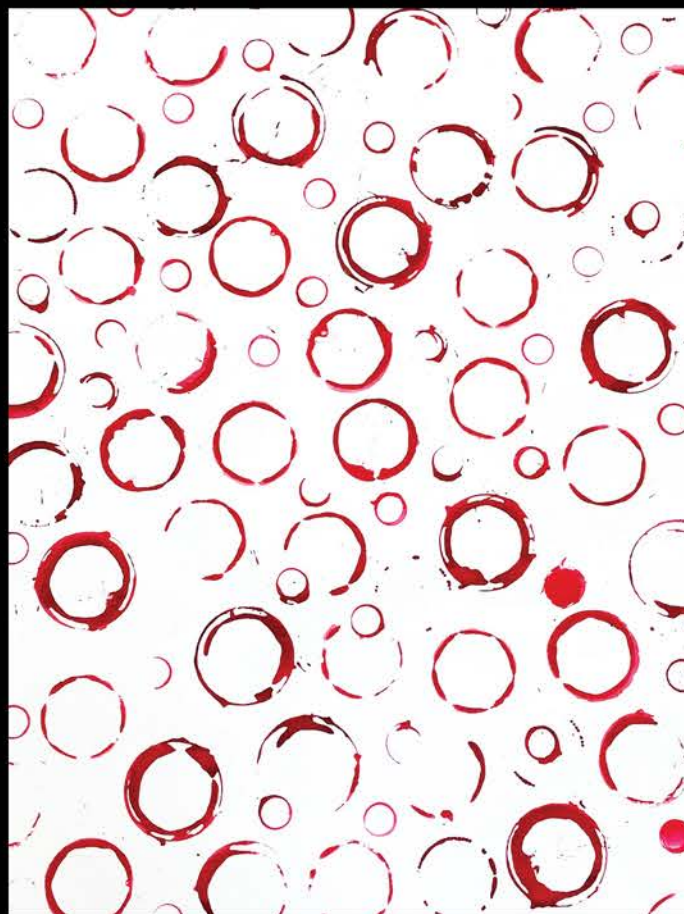
After Lights:
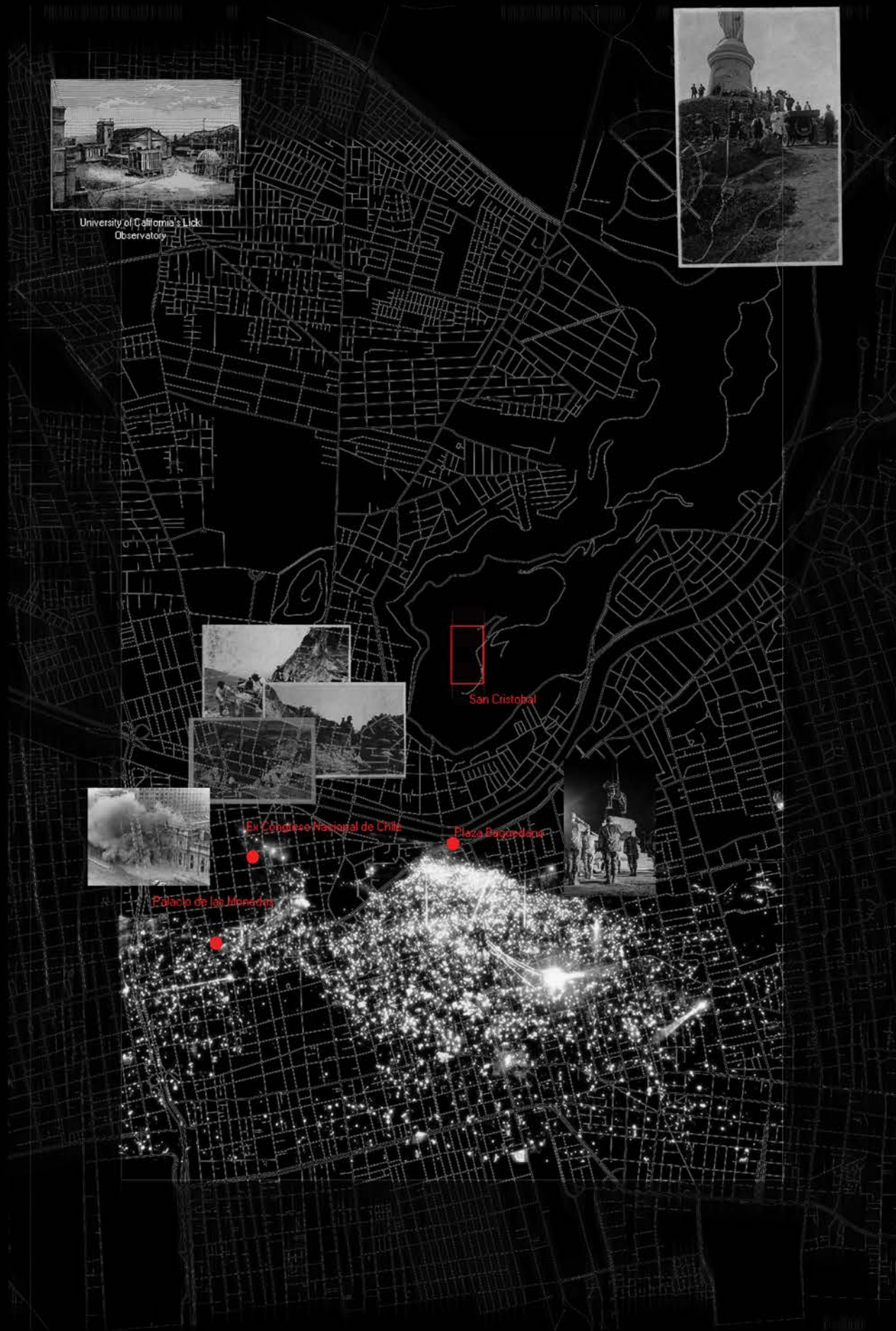## Passage to Opacity

Advanced Studio
Fall 2022
Professor Mario Gooden

In Collaboration with
Karen Wang

Tapuhue (Place of the Gods)
of the indigenous people, has
witnessed the expansion of Santiago
since the early Spanish colonization.
The mountain which was renamed to
Cerro San Cristobal by the spanish
conquistadors is now the largest
metropolitan park in South America.
The project proposes that part of
the mountain remains opaque to
the tourists and give agencies to
the Mapuche and other indigenous
groups.

The two environments, one forum
and one sanctuary, are two typologies
for different events of gathering,
interactions, and healing/learning
practices. They are connected
with a path that begins with the
obsolete observatory and follows
the moon cycle. In light of the recent
protests in Chile that have led to
the writing of a new constitution,
the project envisions how
indigenous epistemology, especially
cosmological knowledge, informs
political and social decisions.

The research into indigenous
epistemology is a start that allows us
to challenge the current notions of the
global . Rather than offering solutions,
we intend to use architecture as an
opportunity to imagine the identity of
the other. Recognizing the irreparable
wound of colonialism and to imagine
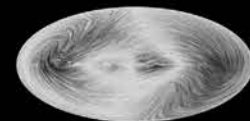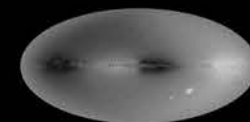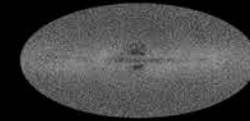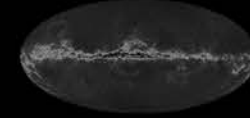the world in terms of opacity as a
chaotically resonating whole.

University of California
Lick Observatory
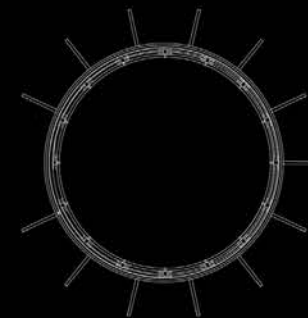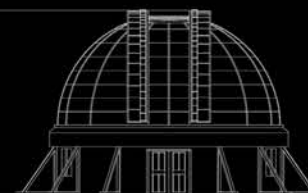
The Column of Immaculate Conception
1777 Rome, Italy

70'

22'

Santiago Chile City Plan

Manuel Foster Observatory and Immaculate Conception

San Cristobal

Ex Congreso Nacional de Chile

Plaza Dependencia

Palacio de los Monstros

University of California's Lick
Observatory

40

41
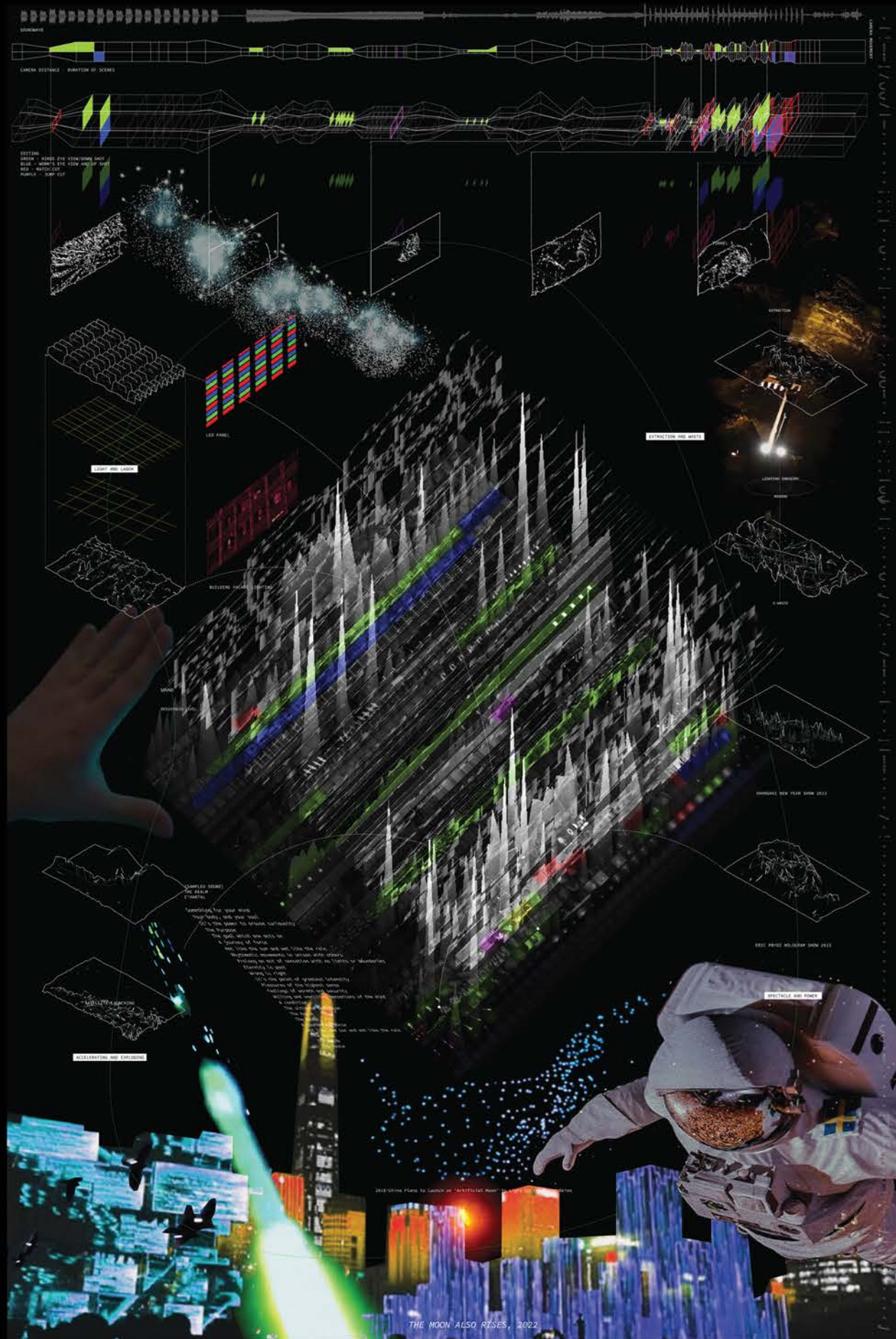
The Moon Also Rises Short Film Analysis
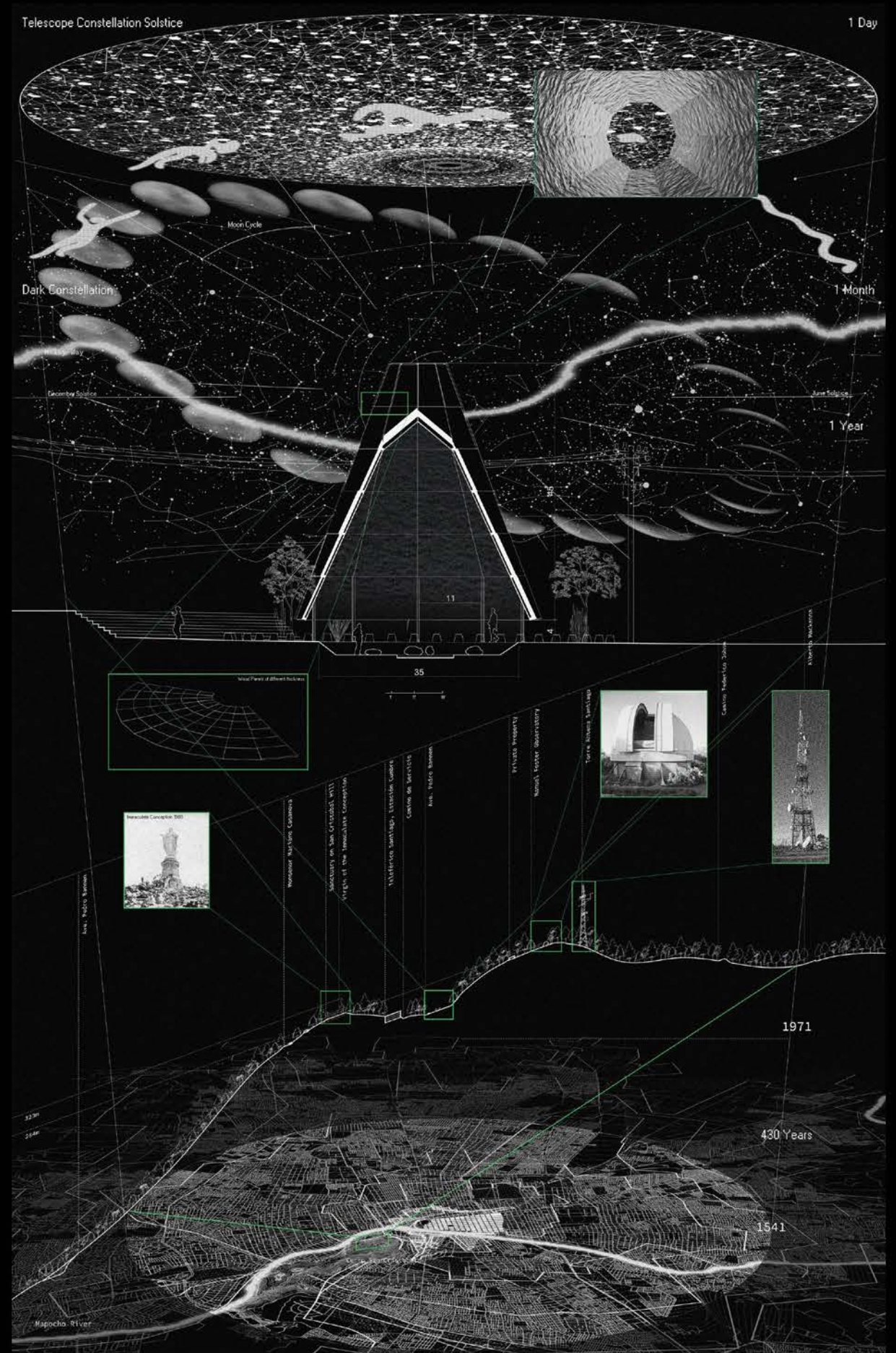
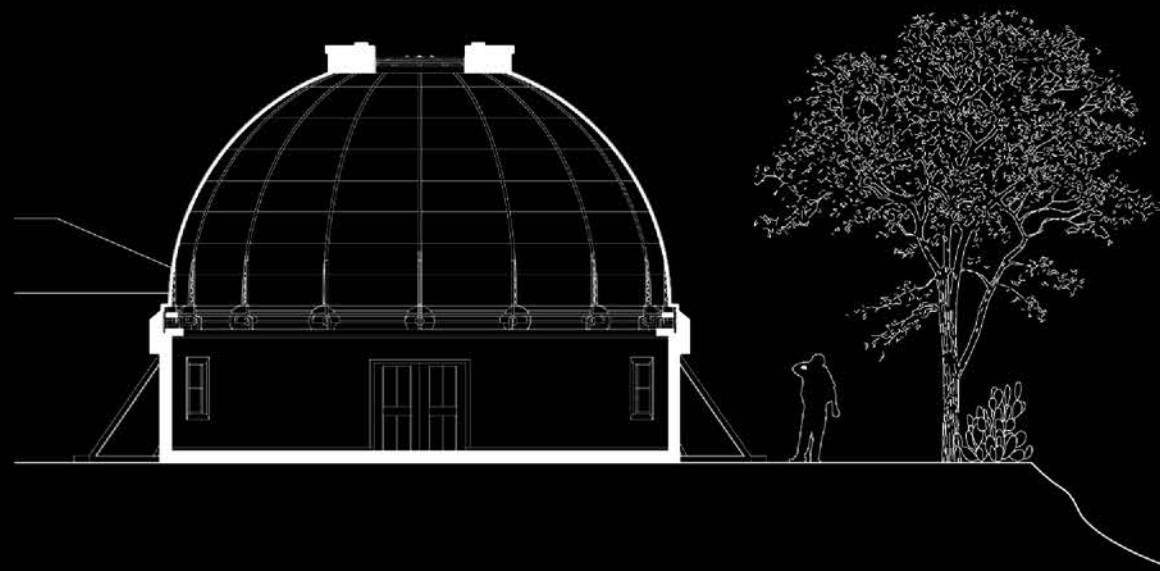Night Oculus Section and Site Analysis

Manuel Foster Observatory Renders
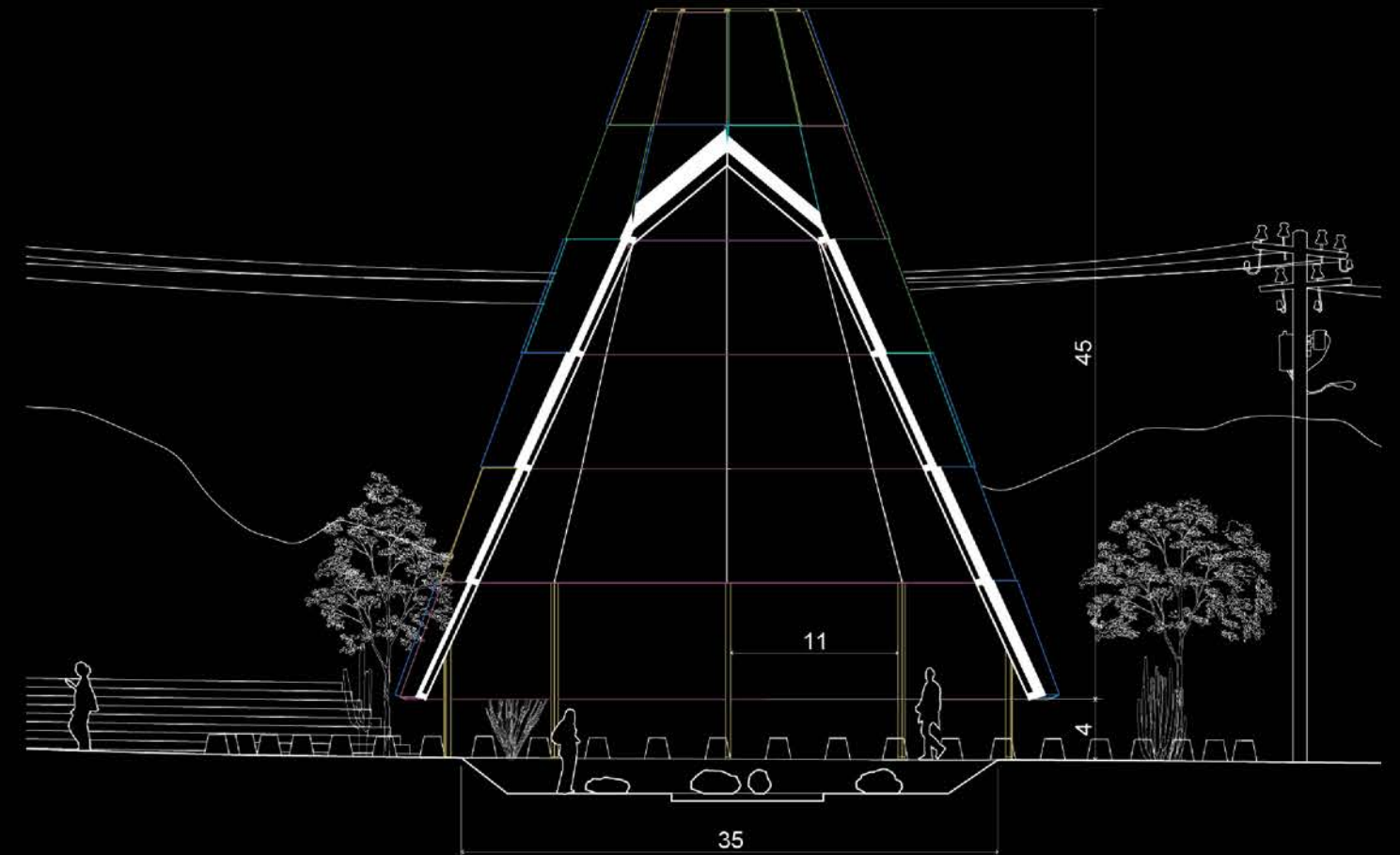
Night Oculus Renders

Night Oculus Render

Night Oculus Render

Manuel Foster Observatory Section

Night Oculus Section

{Event} June 21, 2024
Machitun (Healing)
On a sunny June morning on Tapuhue,
an older non-Mapuche woman arrived
at the Sanctuary.

{Event} November 30, 2024
Research Consultation Assembly
Guests partake in meal and activities
provided by the Machi.

Section L2

Section S2

Mutual Insect Rd.

Av. Pedro Bannen

Arrival

{Event}
The Pewutun
Healing rite that
aims to
communicate
with the divine

{Event}
Lukutun
Symbolic act where
a grandfather
gives his name
to a grandson

Plaza de Mexico

Section L1

Section S1

{Event} March 2023
Nguillatun
Every four years there is the ceremony of
gratitude and petition where guests gather
around a bonfire.

{Event} June 21 2023
Wetripantu
Winter Solstice Celebration
where members of the community
join in dance and elderly share stories.

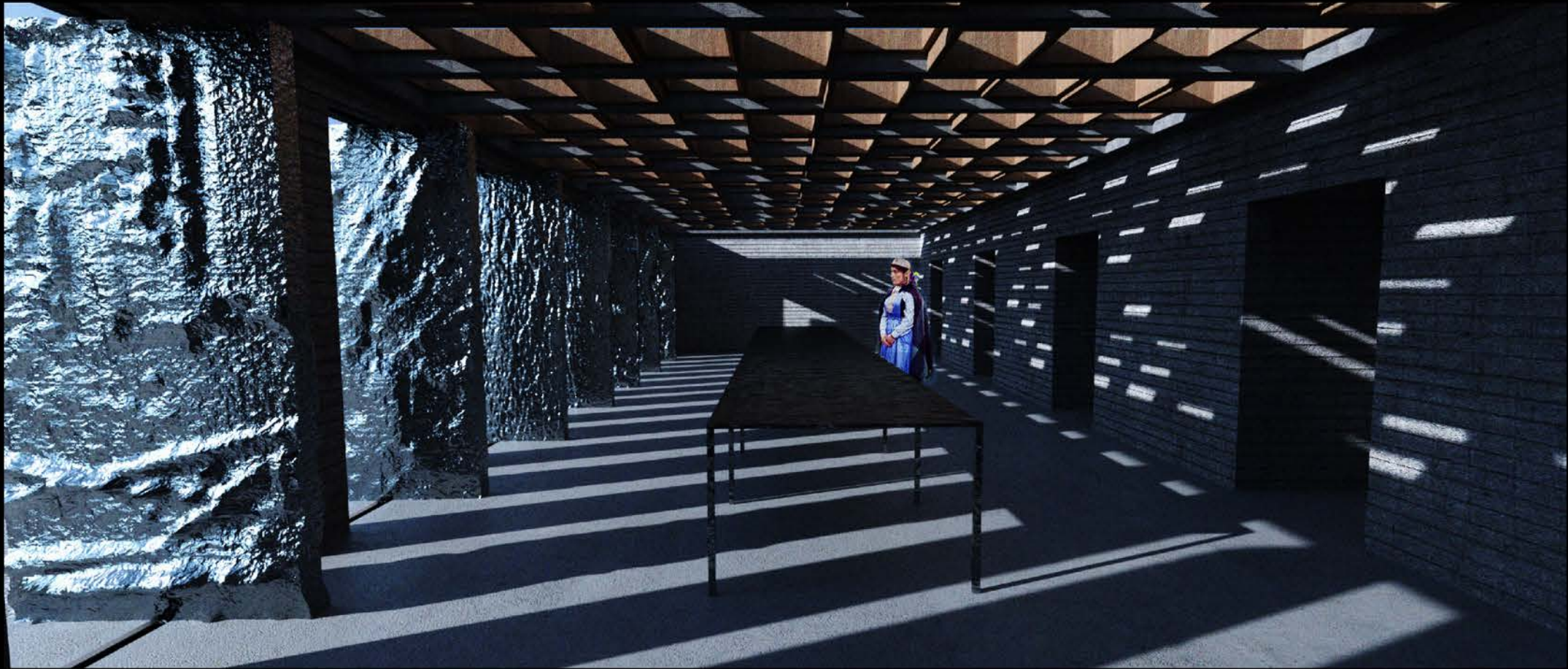Site Plan 1/32"=1'
Sections 1/16"=1'
Plans 1/16"=1'

830M

0M

850M

850M

849M

842M

835M

820M

810M

805M

800M

Section S8

Section S8 - City Point

Section P8

Section S7

Total Lunar Eclipse
March 3 2026
7:31 AM
Orientation: South East

Section P9 - Under Path

Arrival

Section S6

Section P6

Section P4

Section S5

Section S4

Section S3

Section S2

Section S2 - West Facing Step

Section P1

Section P1 - Wood Path

Section S3 - Fire Pit

Section P4 - Under Path

Section S5 - Above Path

Penumbral Lunar Eclipse
March 25 2024
4:12 AM
Orientation: North West

Partial Lunar Eclipse
September 17 2023
11:44 PM
Orientation: North West

Partial Solar Eclipse
October 2 2024
5:25 PM
Orientation: West

Section S6 - Sunset View

Section S7 - Gathering

Partial Solar Eclipse
October 14 2023
4:34 PM
Orientation: West

Path Plan Scale 1"=1/16"
Path Section Scale 1"=1/8"

Forum Morning Render

Forum Night Render

Sanctuary Entrance Render

Sanctuary Exit Render

Sanctuary Exterior Render

Sanctuary Exterior Render

Montage of Movement: Lyubov Popova

"An attraction in our diagnosis of theatre is any aggressive movement in theatre, any element of it that subjects the audience to emotional or psychological influence, verified by experience and mathematically calculated to produce specific emotional shocks in the spectator in their proper order within the whole"

-Sergei Eisenstein 1924

Montage of Movement: Lyubov Popova

Architecture Apropo Art
Fall 2022

Professor Steven Holl
Professor Dimitra Tsachrelia

Although Popova was famous for her textiles and paintings, she also worked on various stage constructions from 1920-1923. The most famous was the set design for the Magnanimous Cuckold, which featured industrial components such as wheels and an air mill. Having worked in Vladimir Tatlin's cooperative studio, The Tower, in 1912, she had experience with sculpture and relief. The wheels and air mill on the stage set would be operated manually, allowing for different speeds and directions. They were moved according to the action of the play. This is similar to Tatlin's Tower's movement, where the three rooms spun at different speeds.

Sergein Eisenstein was a student of Popova for a stage construction class. Eisenstein's theory of montage described how specific calculated movements, actions, or set pieces would affect the audience in certain ways. He called these attractions. Here the stage would rotate at a fast or slow speed in relation to the drama becoming an attraction. Popova's stage designs were meant to bring the stage not as a background object but as an actor or attraction that participates in the play and in which the actors can inhabit fully. Eisenstein's theory which he developed after being a stage and film director, correlates well with the stage design of Popova.

Stopmotion

Lyubov Popova, Mentors, Peers, and Students Collage

Lyubov Popova
1889-1924

Male Model
Lyubov Popova

Lyubov Popova joins
Vladimir Tatlin's
Cooperative Studio

Counter Relief
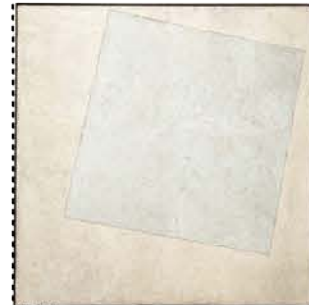Vladimir Tatlin

Still Life
Lyubov Popova

Glinkas Ivan Susanin Stage
Vladimir Tatlin

Painterly Architectonic
(Instrument Still Life)
Lyubov Popova

Lyubov Popova joins staff
at the Vkhutemas

White on White
Kazimir Malevich

Space Force Construction
Lyubov Popova

Tatlin Tower
Vladimir Tatlin

Magnanimous Cuckold
Lyubov Popova

Death of Taralkin
Varvara Stepanova

Magnanimous Cuckold
Sergei Eisenstein

Funeral of V.I. Lenin
Alexander Rodchenko

Sergei Eisenstein is
Assistant Director for
Vsevolod Meyerhold

1910   **1912**   **1914**   **1916**   **1918**   **1920**   **1922**   **1924**

1911   **1913**   **1915**   **1917**   **1919**   **1921**   **1923**   **1925**

Trees
Lyubov Popova

Relief
Vladimir Tatlin

Anatomical Study
Lyubov Popova

Black Square
Kazimir Malevich

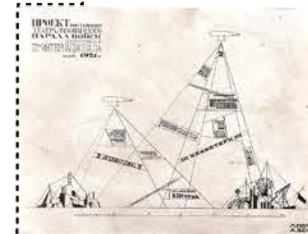The Jug on the Table
Lyubov Popova

October Revolution

Pictorial Architectonic
Lyubov Popova

Beat the Whites
with the Red Wedge
El Lissitzky

Stage for Mass Demonstration
Vesnin Brothers and
Lyubov Popova

Sergei Eisenstein joins Lyubov
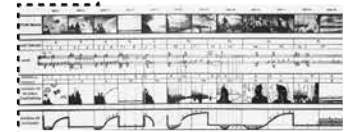Popova's Stage Construction
Class

Montage of Attractions Essay
Sergei Eisenstein

The Man Who was Thursday
Vesnin Brothers and
Lyubov Popova

Zemia (Earth in Turmoil) Stage
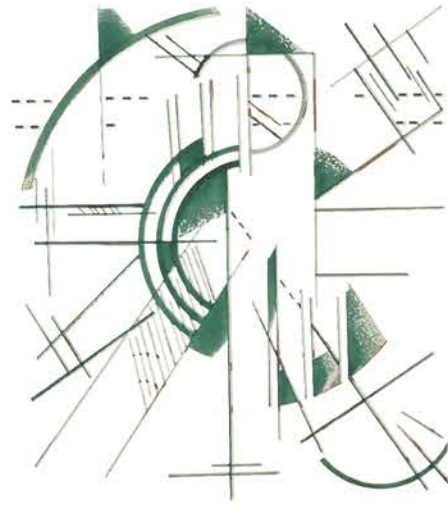Lyubov Popova

Battleship Potemkin Film
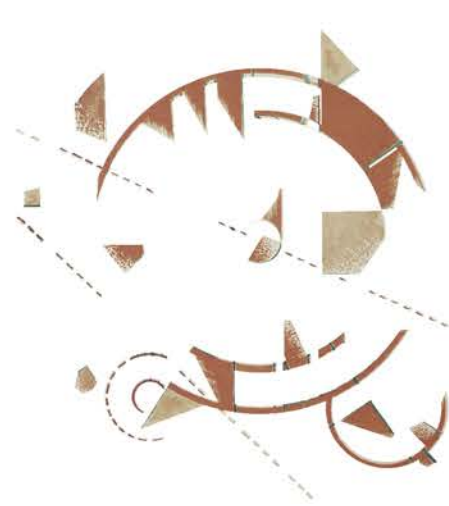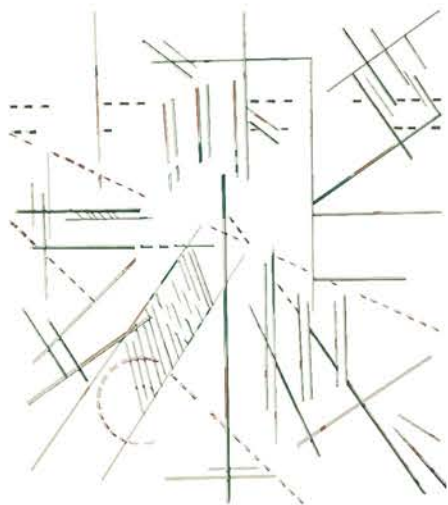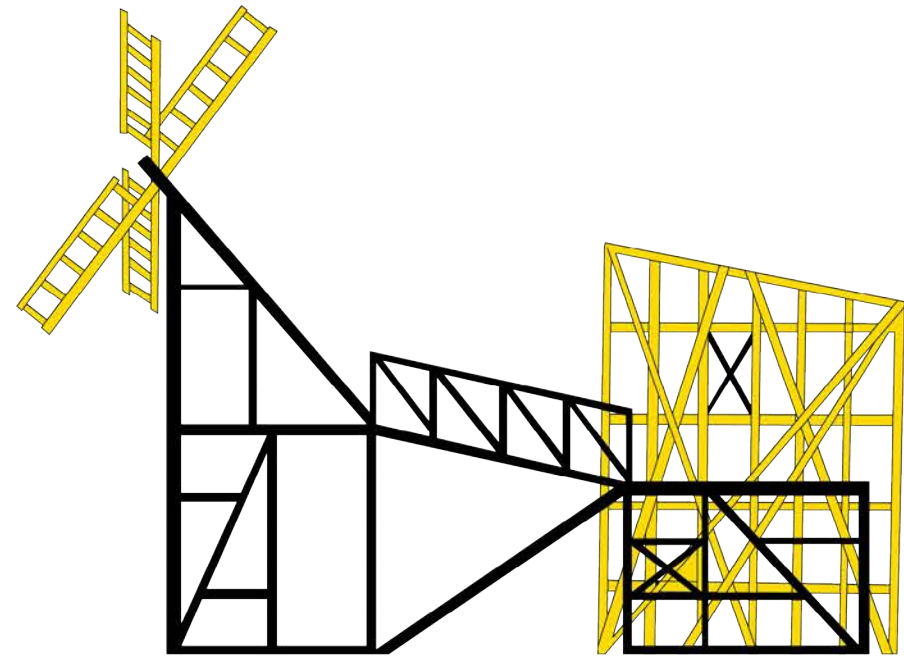Sergei Eisenstein
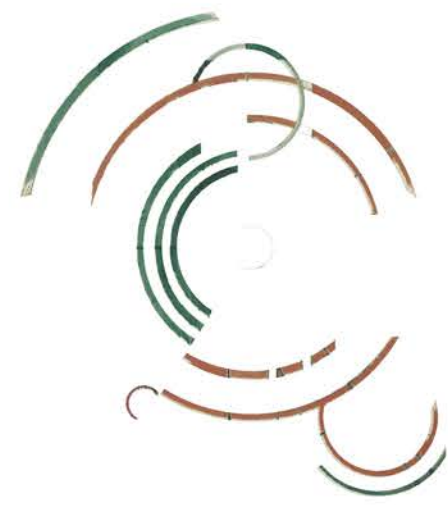
Zemia (Earth in Turmoil) Stage
Lyubov Popova

Timeline

Original Painting

Green

Red

Lines

Circles

Shapes

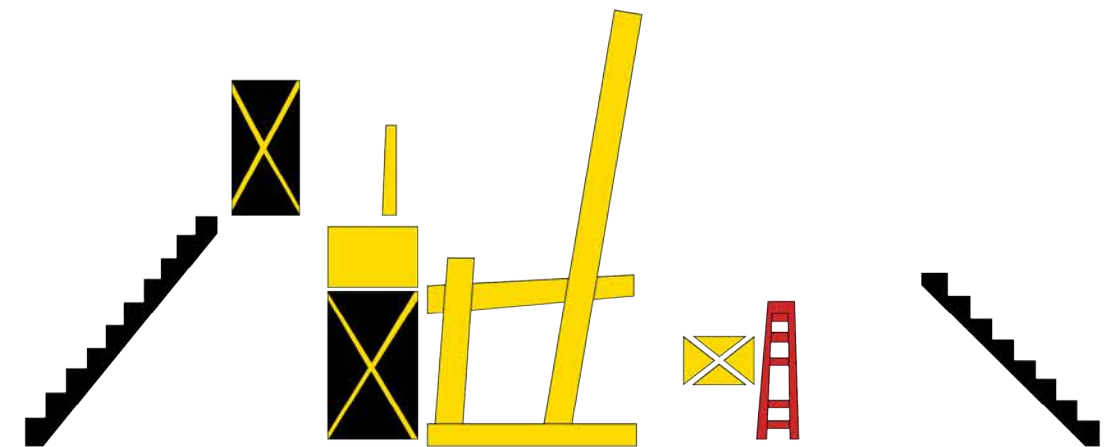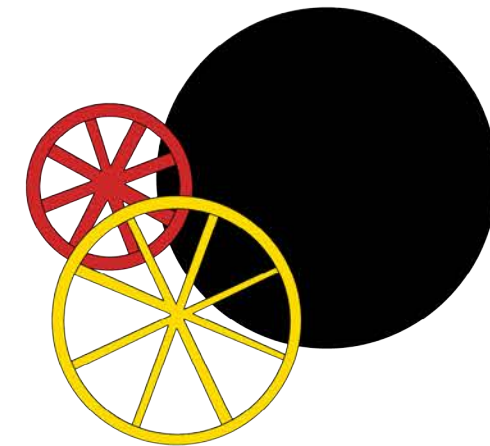Space-Force Construction- Lyubov Popova 1921-1922

Magnanimous Cuckold- Lyubov Popova 1922

Magnanimous Cuckold- Lyubov Popova 1922

Magnanimous Cuckold- Lyubov Popova 1922

The Underground

"I had certain things I wanted to do to send a message, and it had more to do with social progress, because you had mixed economic groups. Now that I was very interested in. You had people from all sorts of different backgrounds, cultures, whatever. No matter how much money you had in your pocket or how much didn't have in your pocket, when you paid that $3, paid that $5, to get in, you got the same as anybody else."
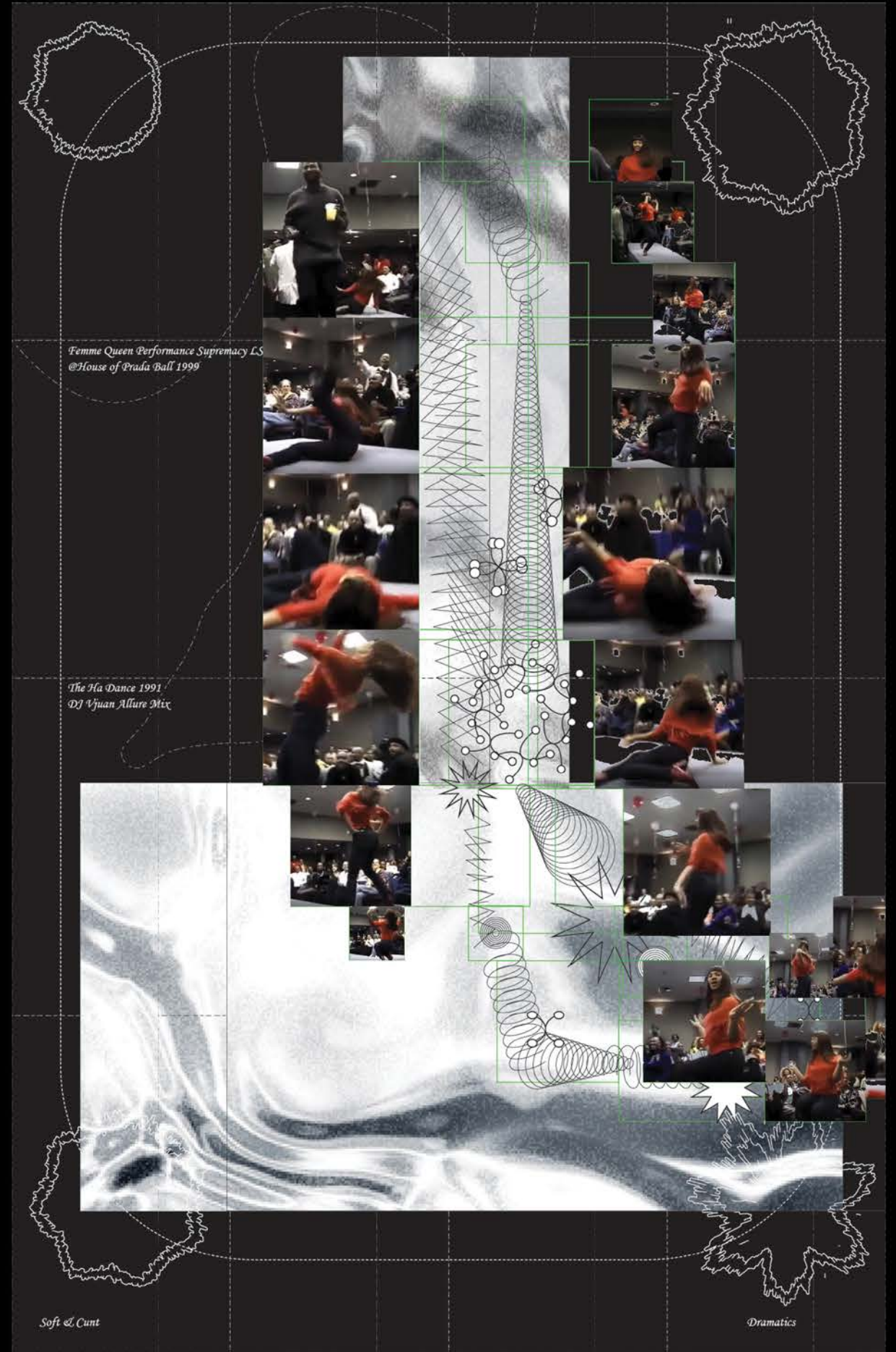
-David Mancuso 2016

The Underground

PowerTools
Spring 2023
Professor Jelissa Blumberg

In Collaboration with
Karen Wang

The model and drawing express the underground dance and music scene of New York City throughout time, with a particular focus on Harlem. Since the house scene of the '70s, sampling became a staple for DJ sets and music with artists such as David Mancuso and Larry Levan. The models express this collage mode as they are not a recreation of a singular space but instead a combination of multiple elements from underground scenes such as Paradise Garage, The Loft, Studio 54, and the Sound Factory.

The model is transformed from an architectural to a more cinematic form as a set for creating images. The portable stage within the model and drawing references the vogue music scene in which dancers use these sampled tracks to coordinate their movement. Every fourth beat labeled a crash, they would perform poses. These underground spaces were not just for dance and performance but for fashion, pageants, and art shows. During an economic struggle, they provided a recreational environment for various minorities and propelled cultural innovation.

Femme Queen Performance Supremacy LS
@House of Prada Ball 1998

The Ha Dance 1991
DJ Vjuan Allure Mix
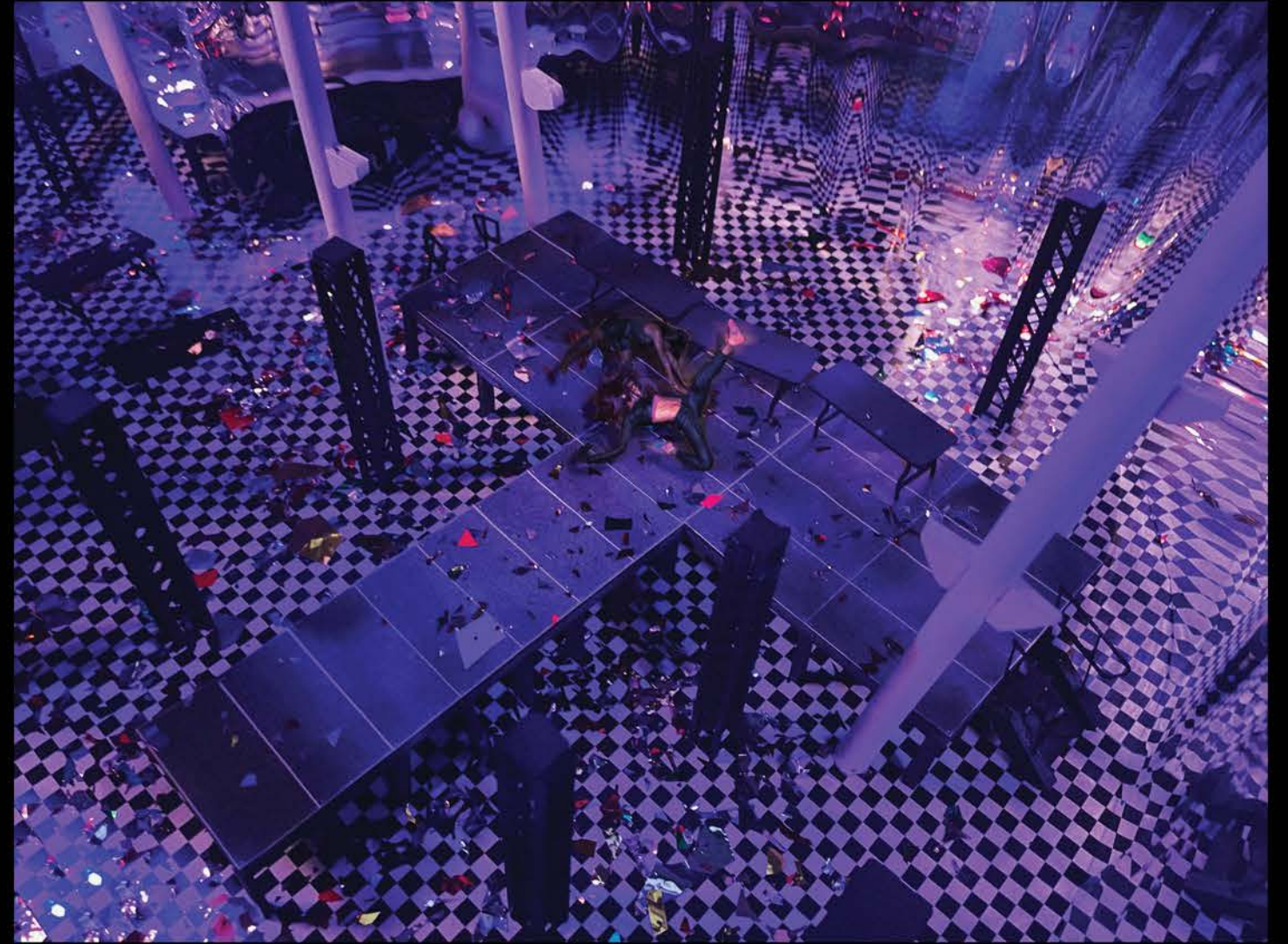
Soft & Cunt

Dramatics

Pageant

Stage

Night Club and Ballroom

Crash Pose

Infinity Room

"I like darkness and confusion and absurdity, but I like to know that there could be a little door that you could go out into a safe life area of happiness."

-David Lynch

Infinity Room

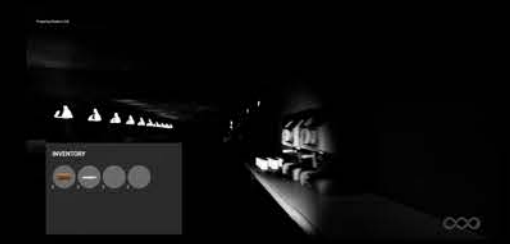Virtual Architecture
Spring 2023

Professor Nitzan Bartov

In Collaboration with
Maxine Gao
Yiyi Gao

You find yourself in the middle of a diner. It has an ordinary diner objects, but the space contains a sense of strange dissonance. It appears to be daytime. But there is nothing outside the window. What is this place?

Infinity Room throws the player into a confusing and never-ending loop. The linear space propels the player to move forward through the diner. Yet when one reaches the infinite mirror at the end, they are teleported to the same space but with different lighting, sounds, and items. Each level contains a unique item only found within. The player is trapped until he can discover through a memory puzzle that three items are the key to escaping the never-ending space. The player must use his flashlight, inventory, and ability to shift in scale to locate these items. The final level being the most difficult to find the clear glass object with in the darkened black and white setting.

Once they solve the puzzle, the room will self destruct, allowing the player to escape the imprisonment of infinity.

Playthrough Video

Game Stills

LEVELS	MISSING ITEM	UNIQUE ITEM	OTHER ITEMS							
LEVEL 3										
LEVEL 2										
LEVEL 1										

Answer Key
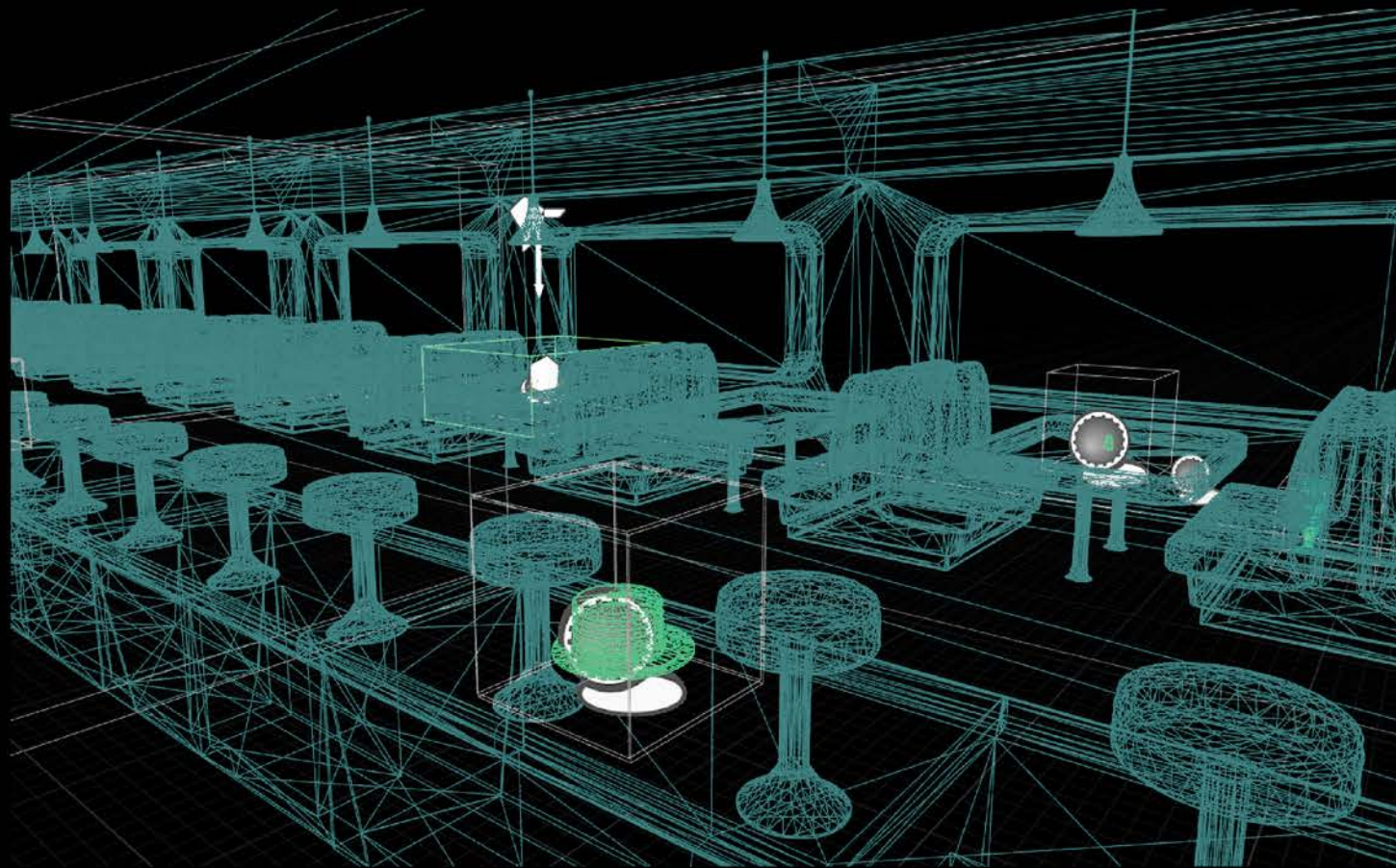
Objective Table and Trigger Boxes

Level Traveling System

Three Levels
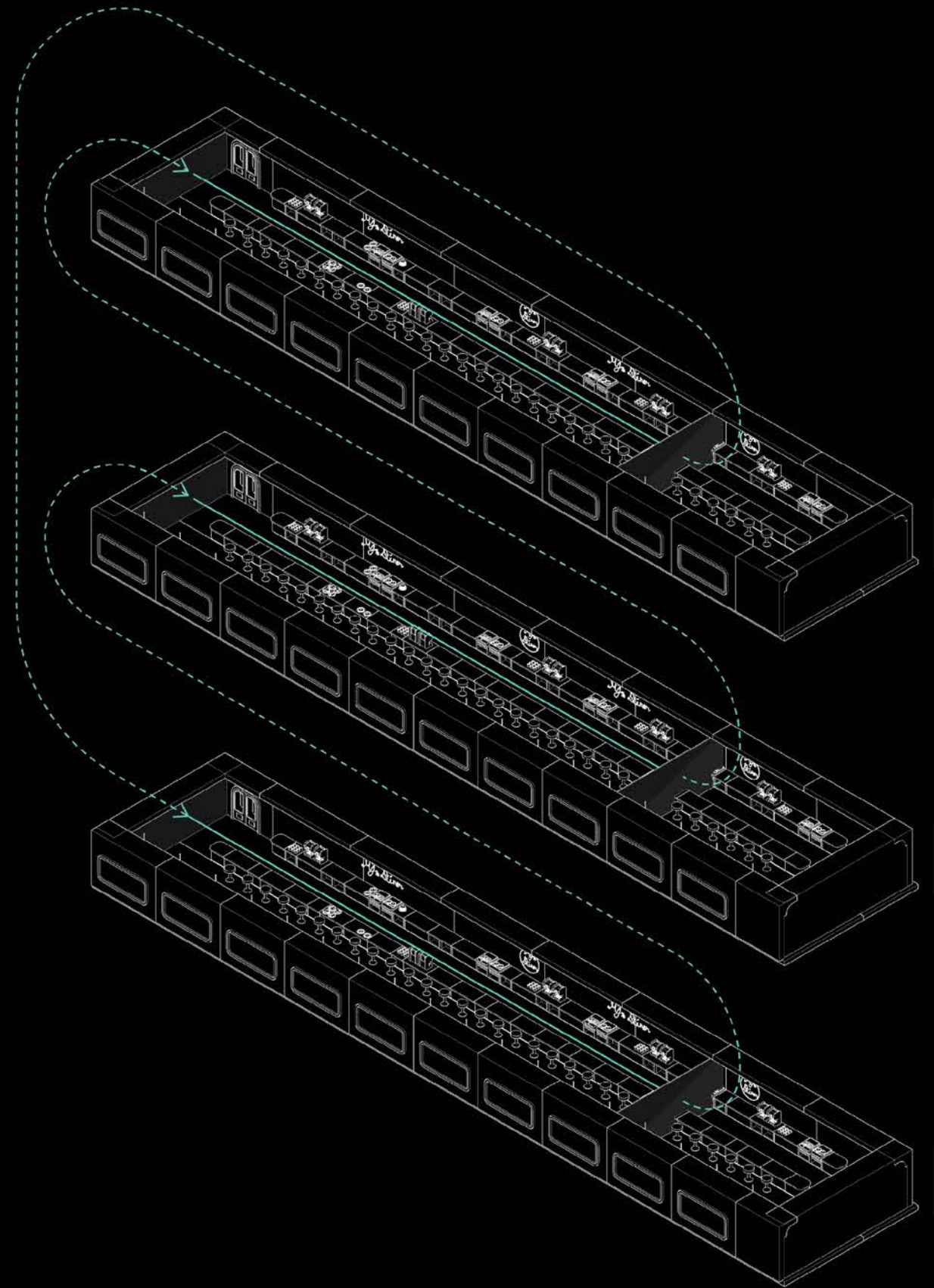
Destruction Animation
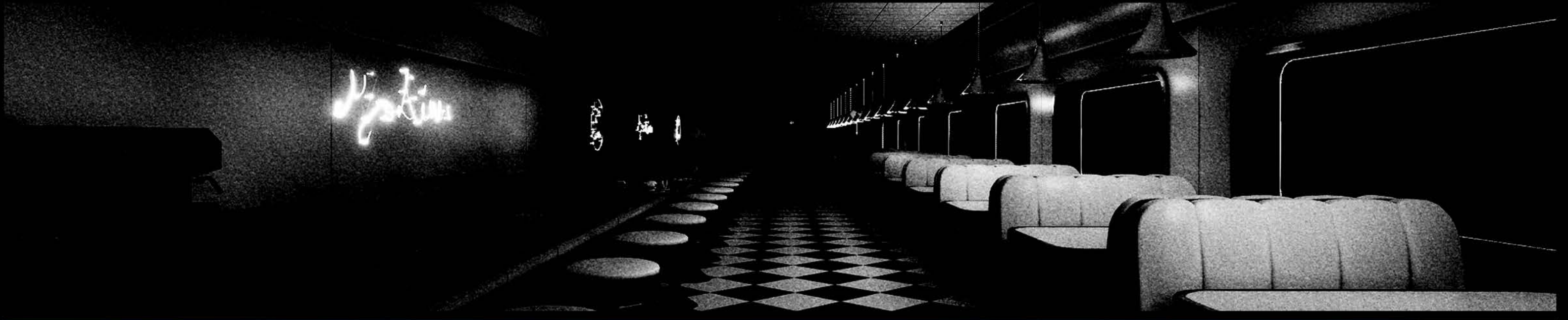
Destruction Animation

The Wired

"The Wired is just a medium of communication and the transfer of information. You mustn't confuse it with the real world. Do you understand what I'm warning you about?

You're wrong, the border between the two isn't all that clear. I'll be able to enter it soon. In full range. Full motion. I'll translate myself into it."

-Serial Experiments Lain 1997

The Wired

Ultra-Real
Fall 2022
Professor Phillip Crupi

In Collaboration with
Ruiqi Li
Margy Bozicevich

Creating an image through rendering software such as 3ds Max is powerful enough to produce lifelike images. These images can simulate lighting, material, form, and camera qualities in their production. With new technologies such as AI-made images, there is the question of the final destination images reach. Now that images on the internet are a source of extraction for these technologies, what does it mean for their usual production? Now more than ever, images can be connected and transformed to fill the prompts of users. What happens if the images are broken before they ever reach the outside world?

The raw data of these three images were converted to raw sound data, and after a series of musical manipulations using Audacity, they were transformed back into an image. What was produced is nearly incomprehensible to anyone who did not see the original architectural image. The building with the wires flowing through is now interconnected to the distortions applied and images layered.
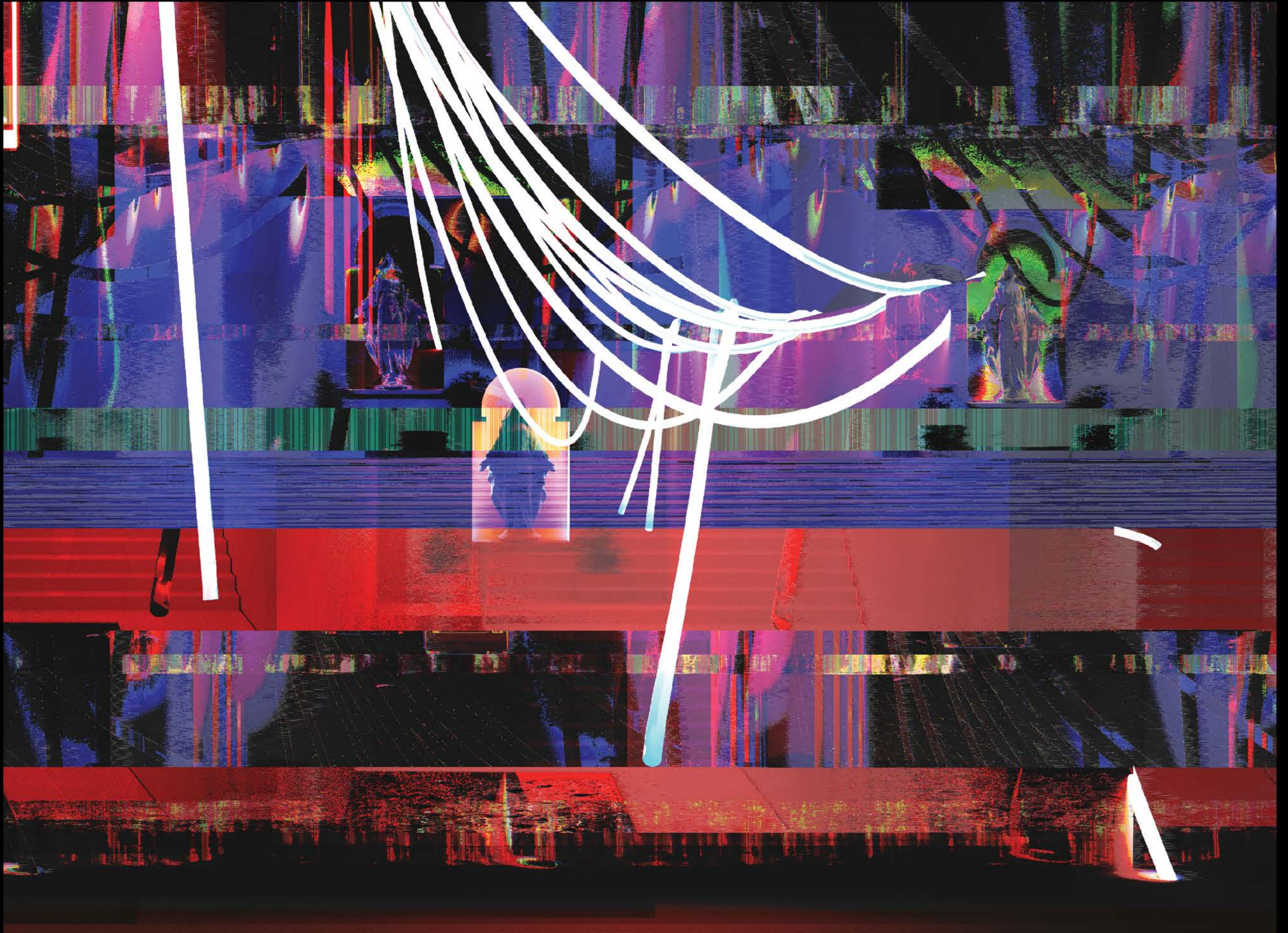
Courtyard

Front View

Aerial View

Japan Photography

Japan Photography

Advanced Studio
Spring 2023

Professor Eric Bunge

On the Kinne Trip, we traveled to
Japan. We mainly stayed in Tokyo
and took side trips to Naoshima,
Takamatsu, Kyoto, and Sendai.
Through this trip, we experience
canonical and contemporary works
of architecture and public spaces.
The focus of the trip was on civic and
cultural buildings, as well as urban
spaces, that provided frameworks,
analogs, or models for re-envisioning
spaces of governance.

Throughout the two weeks, I visited
the buildings and spaces of Kenzo
Tange, Kengo Kuma, Junya Ishigami,
Hiroshi Sambuichi, Ryue Nishizawa,
Sou Fujimoto Architects, SANAA,
Toyo Ito, Tadao Ando, Fumihiko
Maki, Kunio Maekawa, and Kisho
Kurokawa. I sought to capture these
works through photography as well
as the contemporary and traditional
architecture of Japan.

Photography
Booklet

Ueno Onshi Park

Fushimi, Kyoto- Fukakusayabunouchicho

Red Pumpkin- Artist Yayoi Kusama

Higashiyama, Kyoto - Giommachiminamigawa

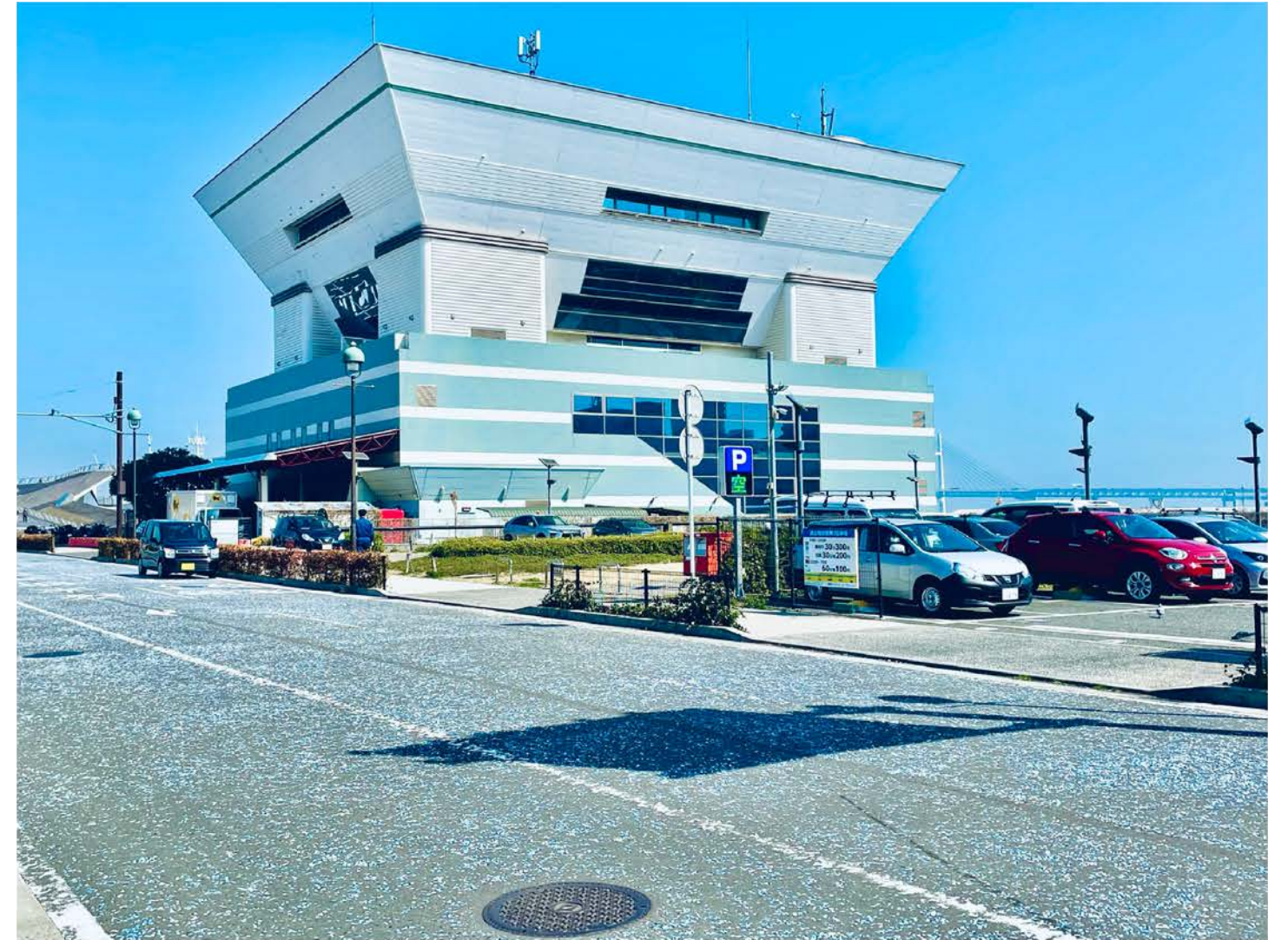The Miiyagi Museum of Art - Architect Kunio Maekawa

Teshimaieura

Sendai Media Tech - Architect Toyo Ito

Fuji TV Headquarters - Architect Kenzo Tange

Osanbashi Pier Building

Plaza of Kanagawa Institute of Technology - Architect Junya Ishigami

Workshop of Kanagawa Institute of Technology - Architect Junya Ishigami

Sixth Borough City Hall: Living Laboratory

"With the shift from the second industrial age to the digital age, the accelerating flows of population, materials, and information within the global network have fundamentally changed conceptions about "permanence" and "transience." As a result, cities are transforming dramatically as the emphasis of urbanism is shifting from concrete structures to more complex and flexible organizations as well as "soft" digital and ecological infrastructures."

-Zhongjie Lin 2010

Sixth Borough City Hall: Living Laboratory

Advanced Studio
Spring 2023

Professor Eric Bunge

In Collaboration with
Ruiqi Li

Climate Change brings new challenges. The increasing temperature, sea level rise, storm surges, and sporadic changes in salinity do not just threaten the wildlife but will come to threaten the area's residents. This City Hall seeks to merge governance, research, education, and recreation, which allows the public, organizations, and governments to become a collective force to build resilience against Climate Change.
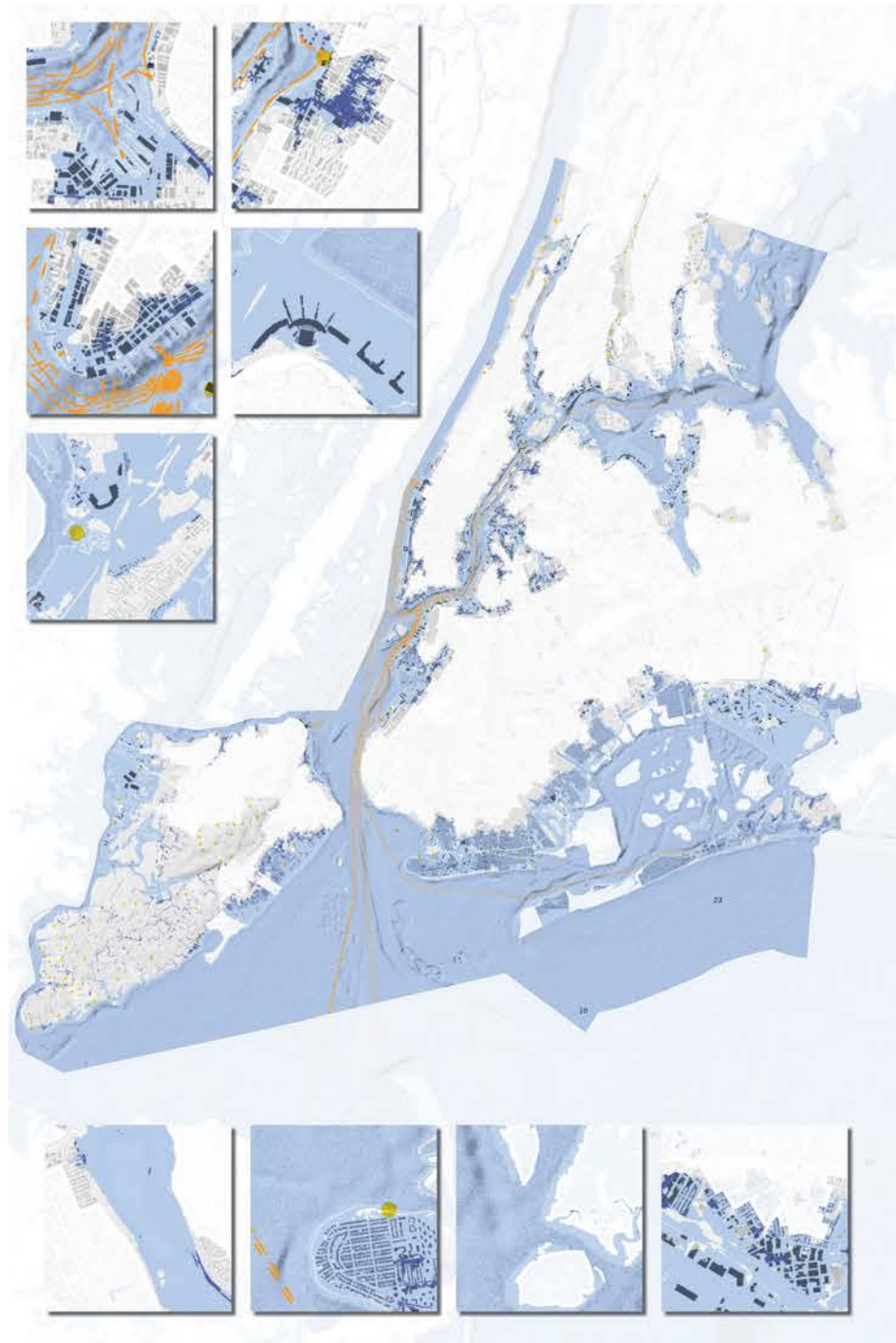
Governors Island hosts many groups that deal with ecological issues, such as the Billion Oyster Project, Hudson River Foundation, Earth Matter, LES Ecology Center, Climate Museum, Grow NYC, and the proposed climate solutions center. It also belongs to no Borough, making it an ideal site to represent the waterways and all of New York.

The City Hall is builit through a series of Cores. They act as structural elements raising the CLT structure above the future sea level rise. They also break away from the monumentality of City Halls through these rotating grids, which allow the various programs to interact and light to break in. The facade integrates cladding through reclaimed materials from Governors Island that will either be in danger of rising sea levels, future construction plans or have been abandoned and unused.

The wetlands beneath the City Hall act as a soft shoreline providing an area for research on the state of the Hudson River Valley and its ecology, becoming a living laboratory. It also provides a space for education and recreation for the public.
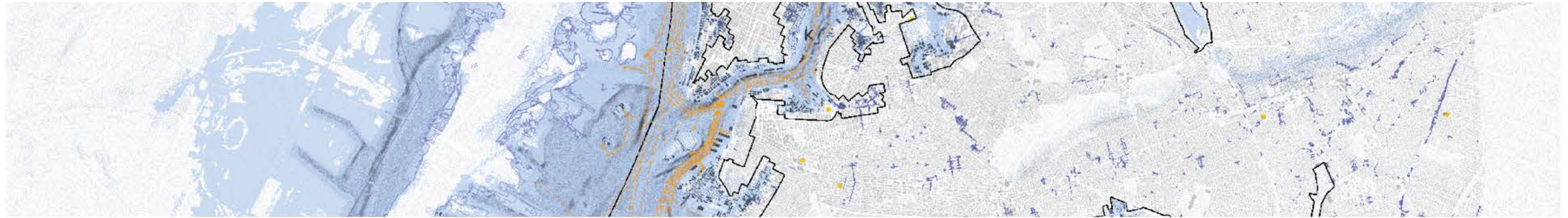
Hudson River Valley

New York City Coastal Zoning Map
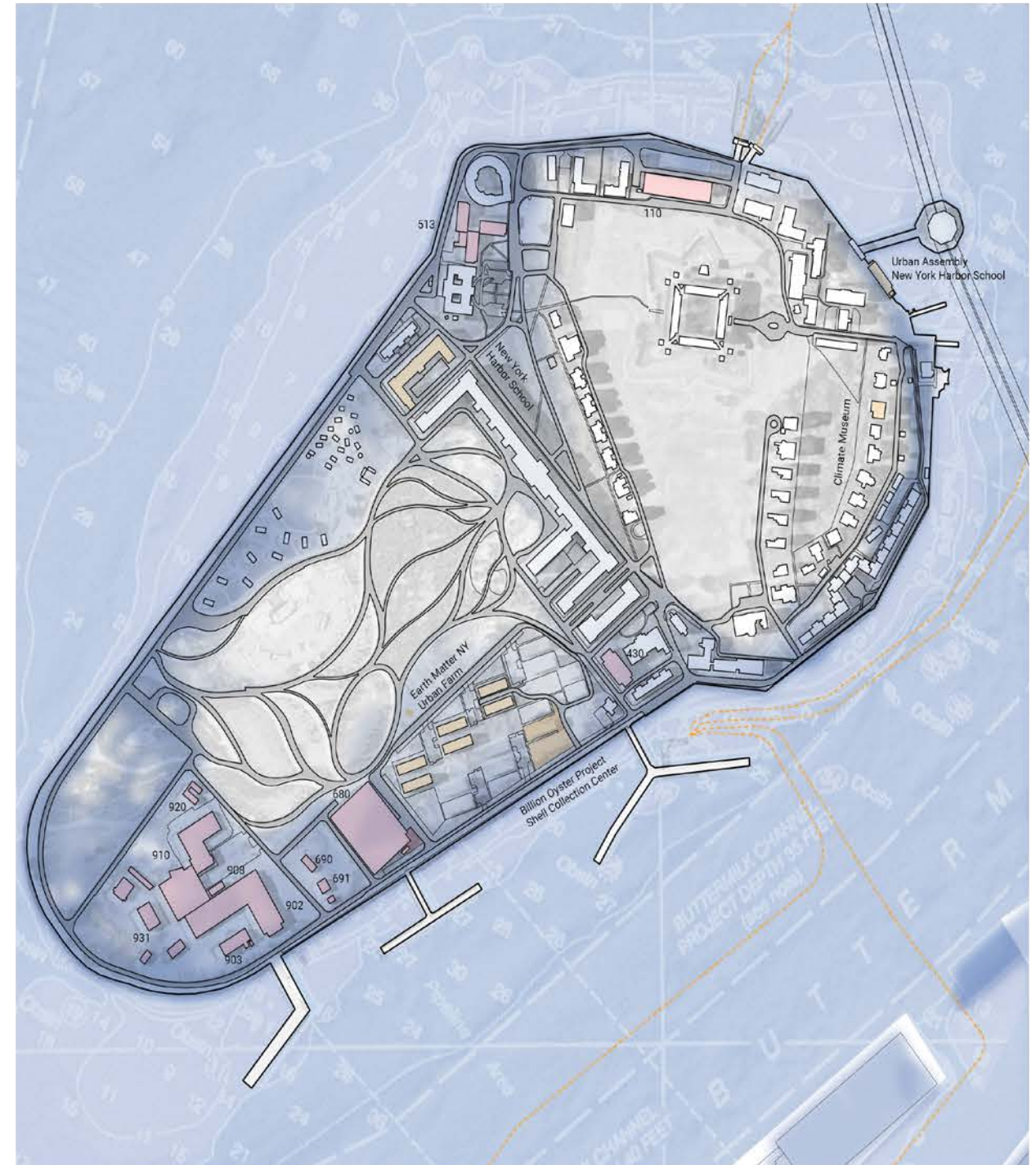
Governors Island Sea Level Rise

Site Context

Ground Level Elevation

Material- Bricks
Buildings 510, 920

Material- Bricks
Building 110

Material- Tabby Concrete
Oyster Shell Collection Station

Material- Tabby Concrete
Oyster Shell Collection Station

Roof Tiles
Building 110

Material- Corrugated Metal
Buildings 930, 903, 908, 937

Material- Miscellaneous
Buildings 600, 910, 915

Sandy Fill

Upper Clay

Native Sand

Lower Clay

Stiff Clay

BedRock
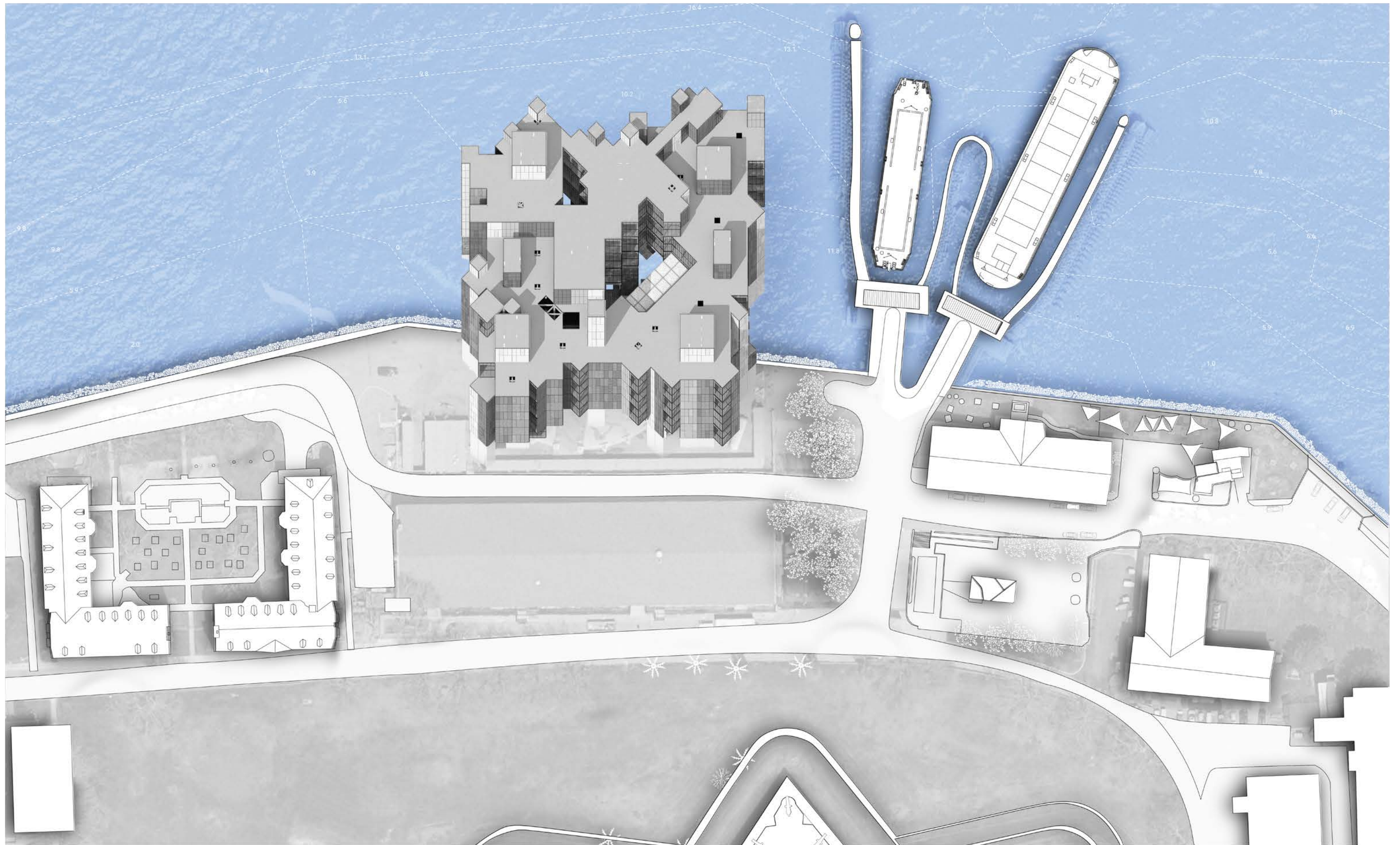
Elevation from Manhattan View

Section

Supralittoral Zone

Red Knot
Calidirs Canutus

Intertidal Litoral Zone
(Irregularly Flooded)

Clapper Rail
Rallus Longirostris

Intertidal Litoral Zone
(Regularly Flooded)

Blue Fish
Pomatomus Saltatrix

Sublittoral Zone

Wetlands

Ground Floor Plan

Second Floor Plan

Interior Office

Ground Floor Kayak

Conferance Hall

Living Laboratory

Horizontal Design, Construction, and Data Transfer in the Popular Unity Party

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