MARIA BERGER

Skills

Digita

3d Printing, 3DS Max, Adobe AfterEffects, Adobe Illustrator, Adobe InDesign, Adobe Photoshop, AutoCAD, Bluebeam Revu, Grasshopper, Laser Cutting, Lumion, Microsoft Office, Revit, Rhinoceros, Sketchup, Vray

Hand

Ceramics, Collage, Drafting, Model Construction, Photography, Sketching and Woodworking

Language Spanish [advanced]

Recognitions

2023

GSAPPX+ Participant GreenSAPP Participant

2023

AIA Member
The Architecture Lobby Member

2020-2021

Co-Founder of The SAID Lobby
[UC working chapter of The Architecture Lobby]

Publications

incoming

Pastoral Militarism

incoming

[Re]inventing Vecindades

Education

202/

Columbia University
Master of Architecture

2021

The University of Cincinnati Bachelor of Science in Architecture [BSA]

2014 - 2015

Centros de Estudios de las Americas

[Attended as a Rotary Youth Exchange student - https://6690exchange.com/]

Experience

Fall 2019

Architectural Student Intern

HOK | Saint Louis, MO

Concentrated on BIM modeling, conducted design studies, and delivered client-oriented presentations on a large-scale residential project in St. Louis. Generated renderings and graphics for an award submission of a wellness and transit center located adjacent to the Saint Louis airport.

Spring 2019

Architectural Student Intern NBBJ Design | Columbus, OH

Aided on the grading and paving details for the landscape design of an urban square in Cambridge, MA. Contributed to the schematic design process of a mixed-used building in Columbus, OH.

Summer 2018

Landscape Architectural Intern MKSK | Columbus, OH

Implemented digital modeling and renderings with Lumion for a new metro park in Central Ohio. Created schematic design reports with AutoCAD and Sketchup for a sports facility. Prepared visual presentations and proposed placement for a salvaged portico on the Ohio State University campus.

2021 - 2023

Team Lead / Ambassador Jeni's Splendid Ice Creams | Columbus, OH

Managed and supervised shifts at busiest shop location nationwide. Simultaneously handled customer service by scooping and serving ice cream while efficiently managing the shop, overseeing cash management, and maintaining a supportive demeanor and hustle in a fast-paced environment.

To my friends and colleagues who shared laughter with me amidst the pain.

34-W AEROSHIP BATHS

GSAPP | Fall 2021 | Core Studio 1 | Professor Thomas DeMonchaux

ii 283 STUDIOS: RETHINKING ARTIST HOUSING

GSAPP | Fall 2022 | Core Studio 3 | Professor Chris Leong

III PROJECT[ING] THE GREAT OUTDOORS

GSAPP | Fall 2021 | Measuring the Great Indoors | Professor Violet Whitney

IV REINVENTING VECINDADES

GSAPP | Fall 2022 | [Re]Inventing Living : Modern Experiments in Latin American Housing | Professor Luis E. Carranza

∨ RETHINKING WASTE

GSAPP | Fall 2023 | Speculative City | Professor David Eugin Moon

VI TARGETED DESTRUCTION OF UKRAINE'S CULTURAL SITES

GSAPP | Spring 2023 | Conflict Urbanism | Professor Laura J Kurgan

VII CABINET OF PERFUMES

GSAPP | Spring 2023 | 1:1 Crafting and Fabrication of Details | Professor Zachary E. Mulitauaopele

viii THE SHAPE OF TOUCH

GSAPP | Spring 2022 | ADR2 | Professor Lorenzo Villaggi

IX PASTORAL MILITARISM

GSAPP | Spring 2023 | Advanced Studio 4 | Professor Nahyun Hwang

X EXTREMOPHILES

GSAPP | Spring 2024 | Advanced Studio 5 | Professor Ruth Mandl & Bobby Johnson

XI THE RIPARIAN INSTITUTE

GSAPP | Spring 2024 | Advanced Studio 6 | Professor Juan Hererros

i. 34-W AEROSHIP BATHS

+ Design Concept

Retrofit zeppelin as a public bathhouse and embed in the basement of the Empire State Building

+ Abstract

Not so far below the streets of Manhattan lie the remnants of a lost river. Once one of the island's historic waterways, t'Oude Wrack, used to wind through farmland and colonial estates in Lower Manhattan. And though it was paved over during the 19th century, signs of the brook can still be found underneath the most iconic skyscraper in the city today - the Empire State Building.

Systematic plans to build an extensive drainage infrastructure in the city were slowly integrated - not only to bury these brooks but to also encourage cleanliness and health amongst its habitants. The public bath, in effect, gave rise to the urban swimming pool movement, drawing people into carefully monitored water environments. But despite these infrastructural changes, pumps beneath the iconic 1931 skyscraper work nonstop to keep the water from accumulating. Instead of working against the tides, allowing the basement of the Empire State Building to completely flood could renew the typology.

Systematic plans to build an extensive drainage infrastructure in the city were slowly integrated - not only to bury these brooks but to also encourage cleanliness and health amongst its habitants. The public bath, in effect, gave rise to the urban swimming pool movement, drawing people into carefully monitored water environments. But despite these infrastructural changes, pumps beneath the iconic 1931 skyscraper work nonstop to keep the water from accumulating. Instead of working against the tides, allowing the basement of the Empire State Building to completely flood could renew the typology.

+ Studio Critic

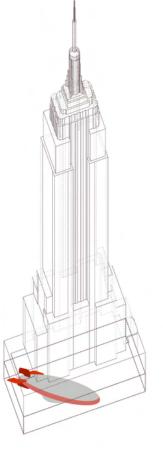
Thomas DeMonchaux

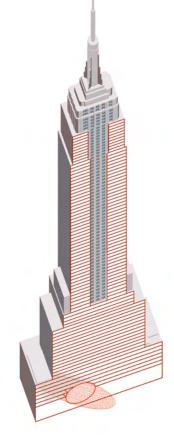
Core Studio I | Fall 2021

+ Summary

Beneath Manhattan's streets, the remnants of the lost river t'Oude Wrack, once winding through Lower Manhattan, can still be found beneath the Empire State Building. Despite historic efforts to bury such waterways, the possibility of allowing the basement to flood beneath the iconic skyscraper suggests a potential renewal of public bathhouses.







1



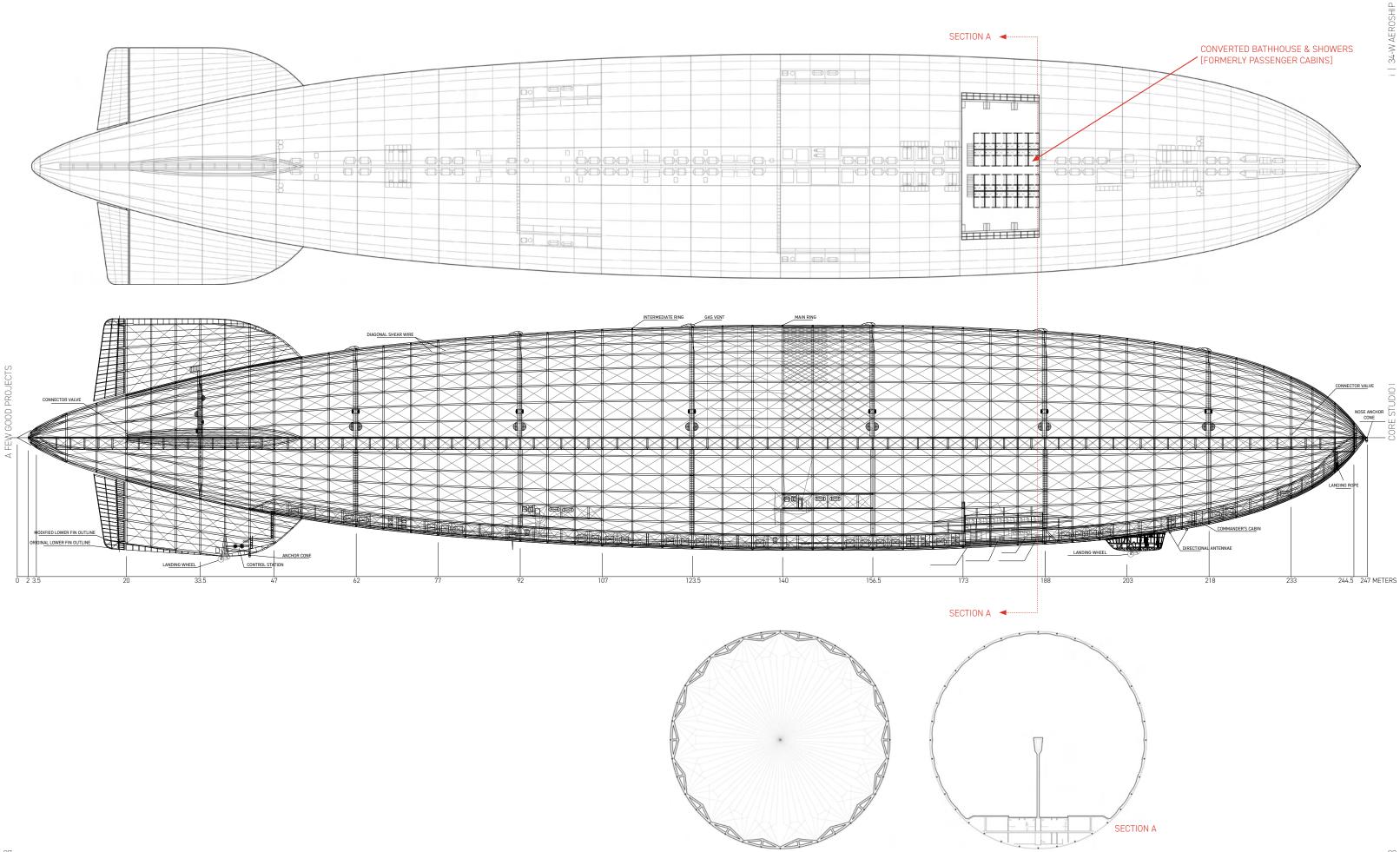




[34-W NATURAL SWIMMING POOL IN THE EMPIRE STATE BUILDING MANHATTAN, NY]

CORE STUDIO I





ii. 283 STUDIOS: RETHINKING **ARTIST HOUSING**

+ Design Concept

Integrate cultural and artistic production within the context of low-rise, high-density housing

+ Abstract

Housing creates the city. Our project tests architecture's ability to act as a culture producer and record keeper. Architecture is understood as a frame for the development of specific social attitudes, relational norms, and cultural production on a sitespecific basis. How can architecture act as a frame for impromptu meetings that produce permanent monuments and cultural shifts? If public space is not a pre-constituted entity, how can it emerge through a practice by users? Through organization, circulation, partitions, entries, overlaps, double dips, and open ends, this project rearticulates attitudes towards cultural and artistic production alongside living.

The design aims to promote the shaping of communities both inside the building and within the local area, through public programming spaces and 'incubator' operations. Our project imagines mat housing set on top of layers of space for artistic production, exhibition, and record-keeping, including an auditorium, gallery, archive, public waterfront, and specialized workshops. Additionally, an incubator space for small businesses run by Bronx residents, offers below market rate storefronts, administrative space, and educational opportunities. Residents and visitors will serve as a steady stream of customers and users and the businesses, whether restaurants, vendors, emerging clothing brands, or barber shops will also serve as community gathering spaces.

The misrepresentation of the Bronx stems from an outbreak of fires that ravaged the borough in the 1970s, leaving much of it in rubble and many homeless. But, in that mess, kids found a way to achieve some measure of normalcy, remaking the landscape through a culture they would come to call hip-hop. Creating beautiful funky graffiti and dances, these young innovators revealed how one can use abandoned and disintegrating urbanscapes as a backdrop for political and cultural revolutions. [see flyers to the left]

From the mid 70's through the late 90's, one hip-hop innovator after another found a receptive audience for their work in this historic Bronx neighborhood, whose capacity for nurturing musical talent miraculously survived the often tragic economic and cultural upheavals that accompanied hip-hop's emergence as the voice of inner-city youth. These impromptu and often pervasive gatherings prompted us to consider and envision a space that fosters community and facilitates as a culture producer.

+ Studio Critic

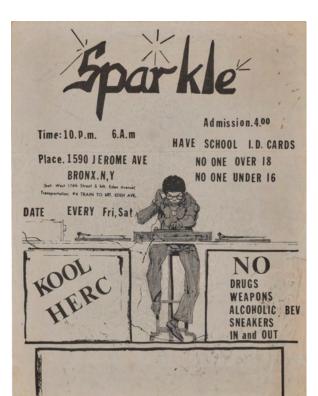
Chris Leong

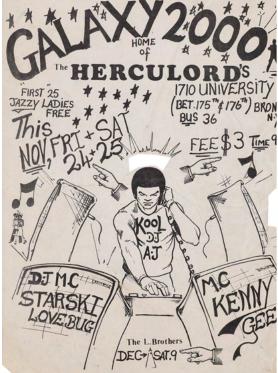
+ Collaborator

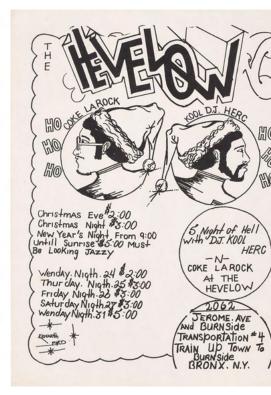
Julia Vais

Core Studio III | Fall 2022

Housing creates the city. Our project tests architecture's ability to act as a culture producer and record keeper. It imagines mat housing set on top of layers of incubator space for artistic production, exhibition, and record-keeping.

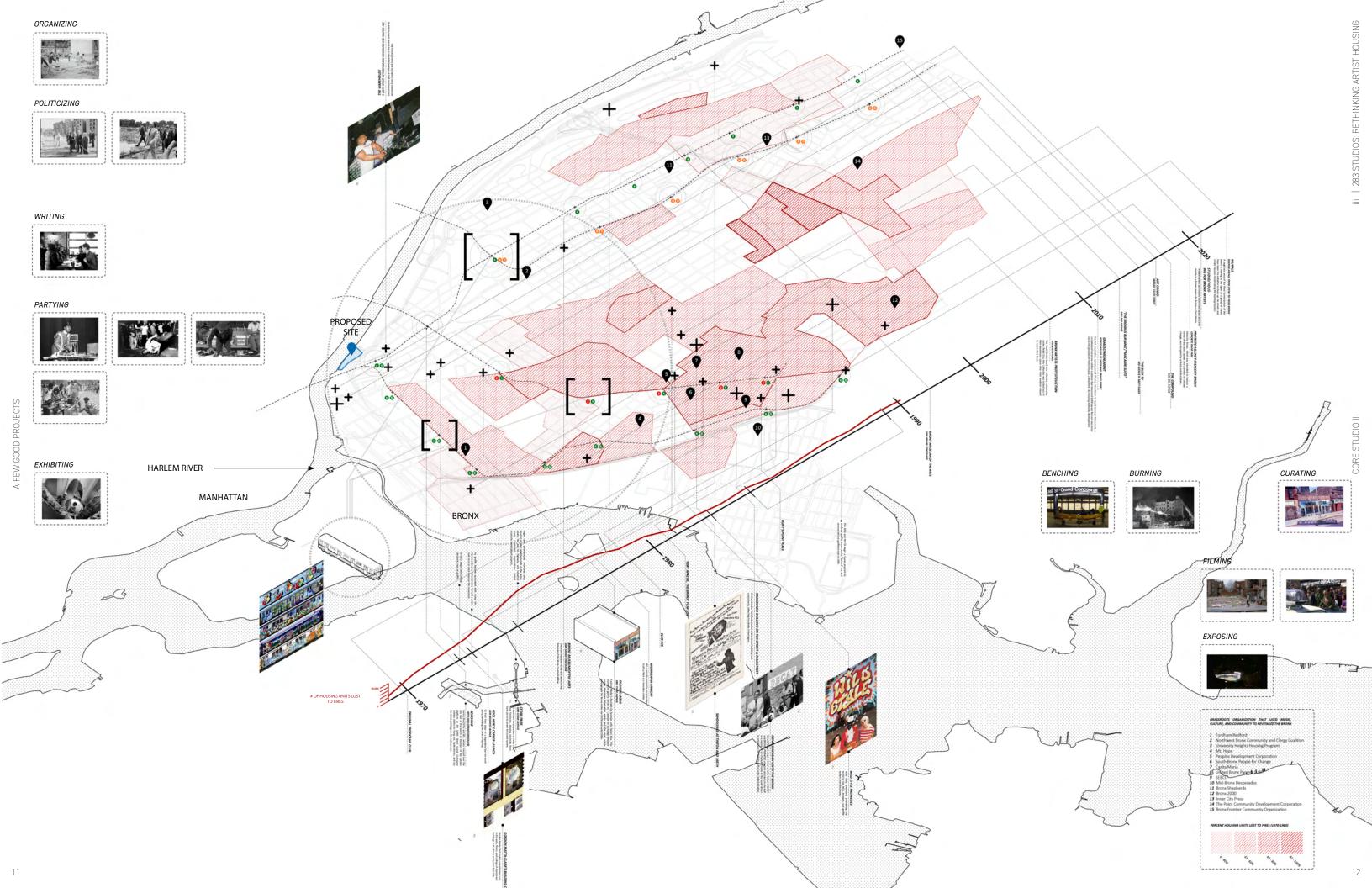


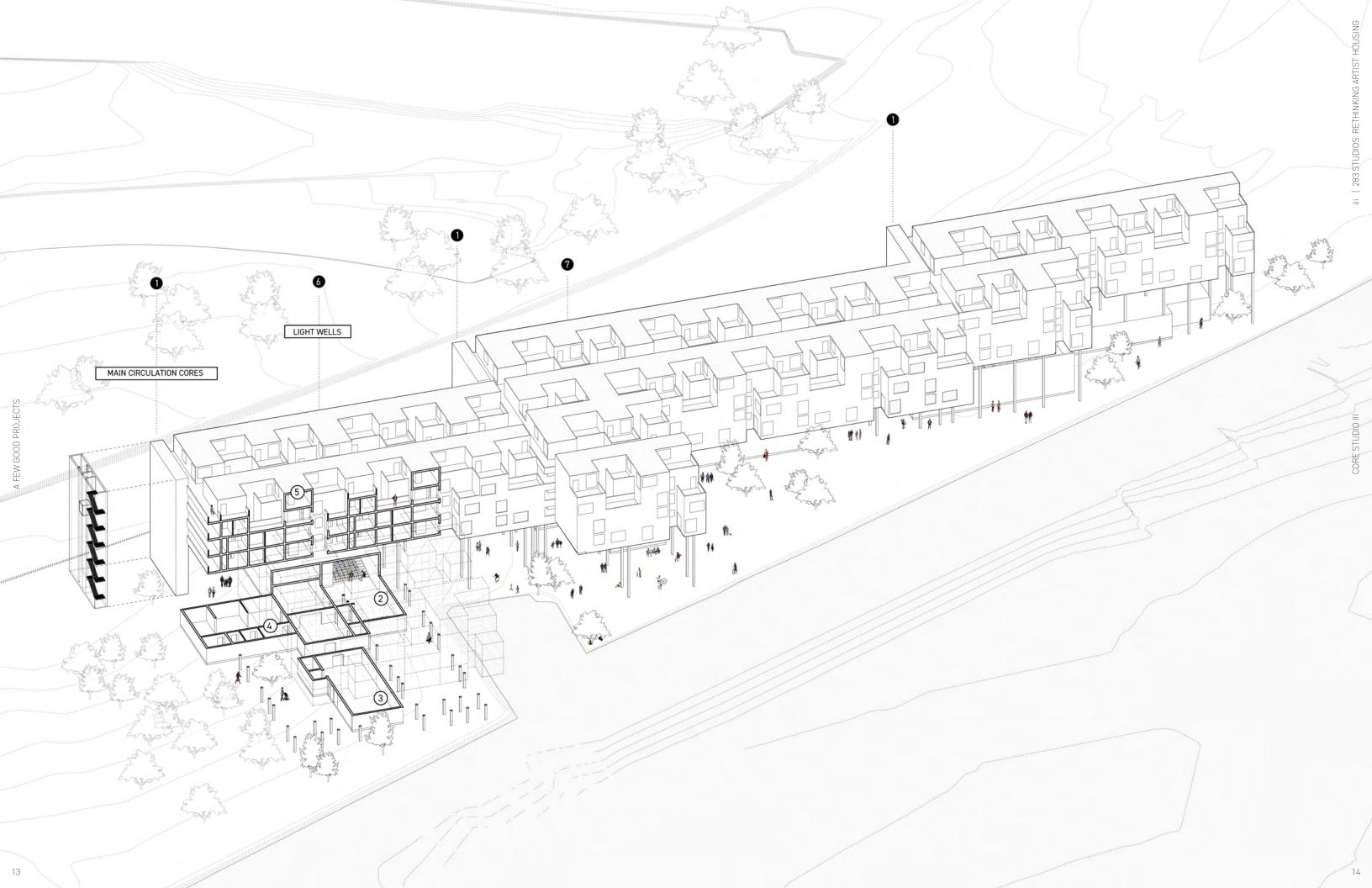


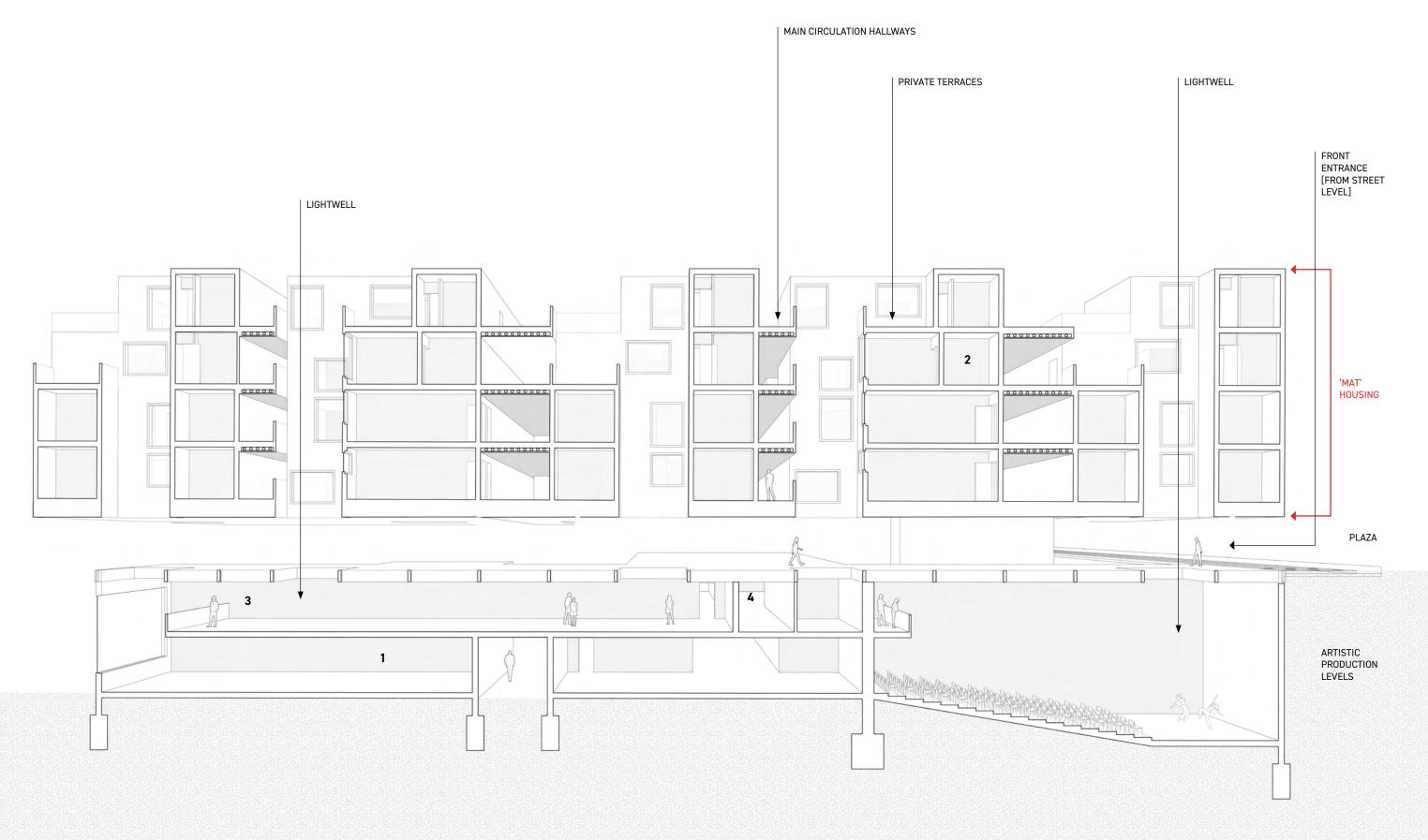


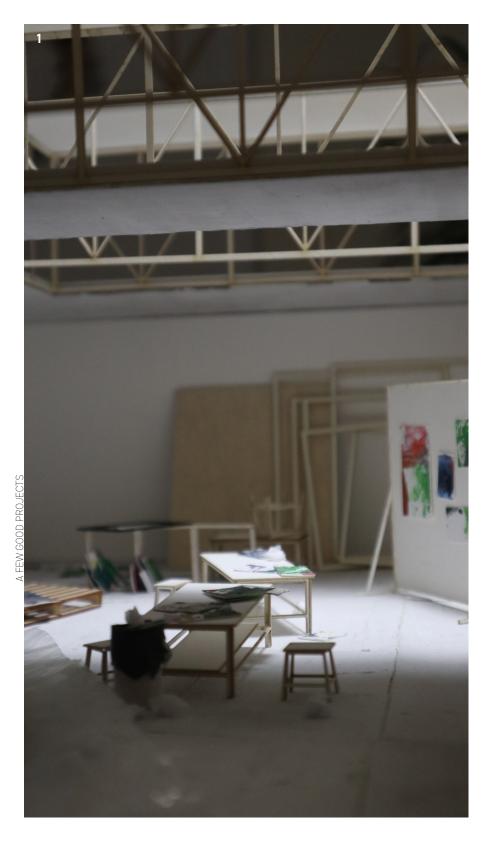
+ Bronx Hip-Hop Advertisement Flyers

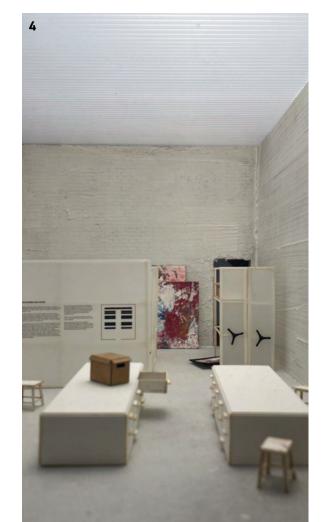
A FEW GOOD PROJECTS

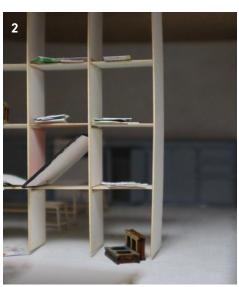


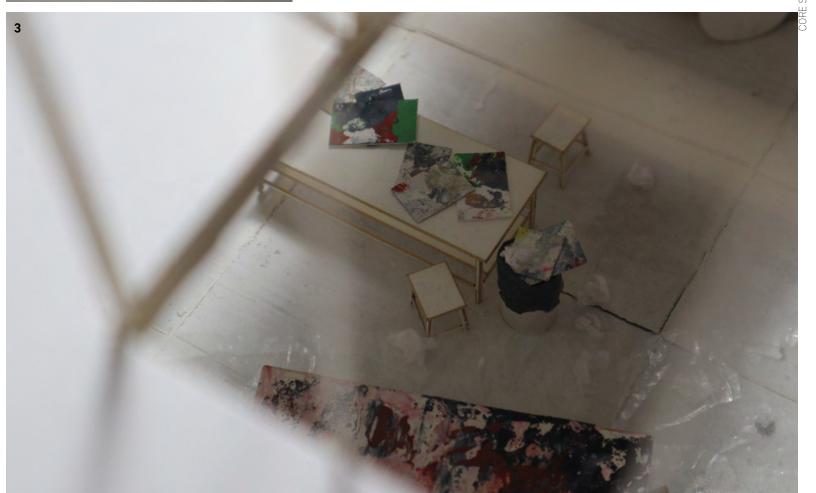












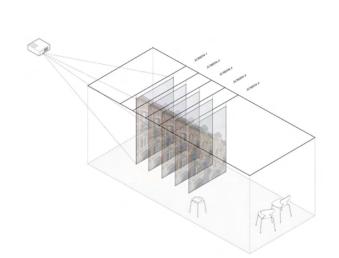
iii | 283 STUDIOS: RETHINKING ARTIST HOUSING







To watch full video, click here.





iii. PROJECT[ING] THE GREAT **OUTDOORS**

+ Design Concept

A virtual tour of international cities controlled through API interaction code integrated with Zoom

+ Abstract

Set within the turbulent, yet strict backdrop of the 2020 pandemic and within the context of hybrid learning environments, this project is a reaction to the existential gap felt by those affected by isolation from an important place of origin, and will likely resonate with those who have experienced the pangs of being unable to return someplace that has helped shape you as an individual. The selected cities featured in the video are three such locations that each of the artists have a connection with.

By bringing images of the city into the domestic space, the installation blends memory and nostalgia with new experiences. Using a sequence of code and an API interaction, the parameters for the projected intervention are first set within the designated coordinates available to the digital space accessible by Google Street View, and again by the dimensions of the physical space the installation takes place in. The stream introduces the observer to a series of diverse, automated views, fluctuating between familiar and unfamiliar without fully taking them out of their actual space, balancing on the threshold between present and foreign in a manner suitable for the hybrid identities embodied by the artists.

Project[ing] the Great Outdoors not only aims to generate fresh perspectives of beloved locations, but also convey an indescribable feeling that is only exacerbated by

isolation.

+ Studio Critic Violet Whitney

+ Collaborator

Tianyu Yang & Alec Harris

Measuring the Great Indoors | Fall 2021

```
at lat = random(19.4116711,19.4236579);
at lon = random(-99.1551683,-99.1630353);
                                                                             streetview?&source=outdoor&size=1000x1000&heading=180&fov=20&pitch=0&location=" + lat + "," + lon + "&key=" + api_key'
webImg = loadImage(url, "jpeg");
oid draw() {
  //draw the image to thimage(webImg, 0, 0);
roid mousePressed(){
  MyThread myThread = new MyThread();
  myThread.start();
ublic class MyThread extends Thread {
   public void run(){
   System.out.println("MyThread running");
     while (true){
   System.out.print("MyThread running");
            while (true) {
    float lat = random(19.4116711,19.4236579);
    float lon = random(-99.1551683,-99.1630353);
    String url = "https://maps.googleapis.com/map
    webImg = loadImage(url, "jpeg");
                     hread.sleep(1000):
                  catch(InterruptedException ex)
                       read.currentThread().interrupt();
```

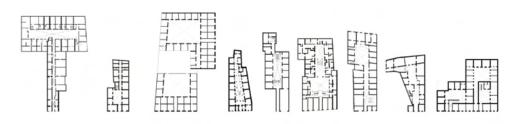
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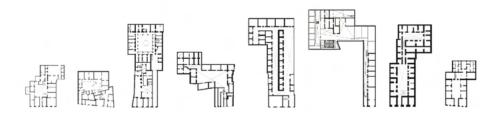
iv. [RE]INVENTING VECINDADES

+ Summary

A FEW GOOD PROJECTS

Our research investigates modern interpretations of **vecindades** in Mexico City, tracing the typology from its colonial origins to architecturally and socially progressive housing for the working class in the 20th century.





+ Floor Plans by O'Brien VanderSteen Workshops

+ Design Concept

Investigate vecindad typology and its interpretations over the years

+ Abstract

Our research investigates modern interpretations of vecindades in Mexico City, tracing the typology from its colonial origins to architecturally and socially progressive housing for the working class in the 20th century.

To situate vecindades within the historical context of housing for the Mexican working class and understand how the typology helped establish a national identity, we will use cinematic imagery and modern literary depictions as a lens to interpret these intimate spaces of dwelling. Films like Los Olvidados and The Children of Sanchez helped frame the characteristic social profile of the vecindad and its inhabitants, and in turn, the national image of urban life in Mexico City during the twentieth century. The spatial peculiarities of the vecindades depicted in these films suppose "a tightly knit community where hardworking laborers, family matriarchs and kooky personalities formed a community that fought, loved and supported one another — and often dreamed of eventually leaving", however, these appropriations soon became synonymous with a culture of poverty where misery, moral decay, betrayal and even crime emerged.

Many of the stories and familial relationships that were depicted in these fictional vecindad communities helped form how Mexico visualized itself in the twentieth century. These attitudes and perceptions carry over to today.

We will give an overview of the origins of vecindades, the architectural characteristics of vecindades, and how progressive architects have reinterpreted and adapted the vecindad typology.

Nuestra investigación investiga las interpretaciones modernas de vecindades en la Ciudad de México, trazando la tipología desde sus orígenes coloniales hasta la vivienda arquitectónica y socialmente progresiva para la clase obrera en el siglo XX.

Para situar vecindades dentro del contexto histórico de vivienda para la clase obrera mexicana y entender cómo la tipología ayudó a establecer una identidad nacional, usaremos imágenes cinematográficas y representaciones literarias modernas como lente para interpretar estos espacios íntimos de vivienda. Películas como Los Olvidados y Los hijos de Sánchez ayudaron a enmarcar el perfil social característico de la vecindad y sus habitantes, y a su vez, la imagen nacional de la vida urbana en la Ciudad de México durante la década XX. Las peculiaridades espaciales de las vecindades representadas en estas películas suponen "una comunidad muy unida donde los trabajadores, las matriarcas familiares y las personalidades descabelladas formaron una comunidad que luchó, se amó y se apoyó entre sí y a menudo soñaba con salir", sin embargo, estas apropiaciones pronto se convirtieron en sinónimo de una cultura de pobreza donde surgió la miseria, la decadencia moral, la traición y hasta el crimen.

Muchas de las historias y relaciones familiares que se describieron en estas comunidades vecindad ficticias ayudaron a formar cómo México se visualizó a sí mismo en el siglo XX. Estas actitudes y percepciones se extienden hasta hoy.

Daremos una visión general de los orígenes de las vecindades, las características arquitectónicas de las vecindades, y cómo los arquitectos progresistas han reinterpretado y adaptado la tipología vecindad.

+ Studio Critic

Luis E. Carranza

Julia Vais

+ Collaborator

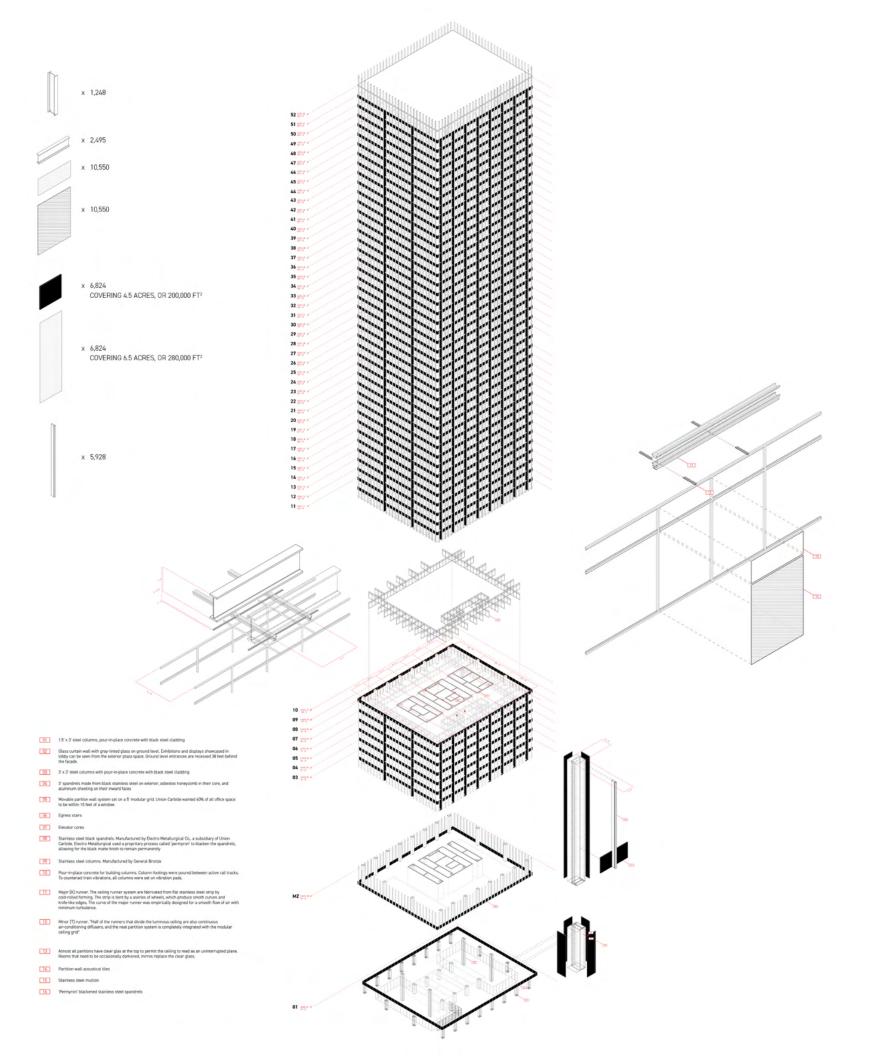
[Re]Inventing Living : Modern Experiments in Latin

American Housing | Fall 2022

23



A FEW GOOD PROJECT



v. RETHINKING WASTE: MATERIALS PASSPORT OF THE UNION CARBIDE

+ Design Concept

Examining ways to optimize the reuse potential of materials from a recently demolished modernist skyscraper

+ Abstract

Our society relentlessly depletes the world's invaluable, limited resources at an escalating pace. Buildings undergo frequent stripping and demolition, only to be replaced by structures crafted from hard-won, virgin materials. Amidst the looming threat of the climate crisis, there exists a crucial imperative to reduce the demand for raw materials and mitigate the waste stemming from the construction and demolition industries.

Current demolition methods prioritize the quick removal of old structures, leading to the majority of materials being downcycled due to the limited demand for reused components. In the bustling heart of New York City, the annual production of a staggering 6 million tons of construction and demolition debris underscores the urgency to minimize raw material consumption and manage waste more effectively within these industries.

Embracing a new paradigm, exemplified by "The Handbook to Building a Circular Economy," representing a resounding call for change, urges for the departure from the current linear economy. This linear system charts a one-way trajectory for materials: from extraction, through production and use, to eventual disposal. Instead, it advocates for a transition toward a circular economy focused on resource preservation and value retention, offering a promising model for sustainable growth. Within this transformative shift, waste undergoes a fundamental redefinition, evolving from its conventional perception into a valuable resource in its own right. The book emphasizes that this shift in perspective necessitates systemic changes within the industry. Initially, building design must facilitate material reclamation by embracing concepts like deconstruction and disassembly. Furthermore, meticulous cataloging of building materials becomes imperative, enabling the calculation of residual value and the creation of new markets for recycled components. We must ask ourselves... how can the built environment move towards a circular economy, and in turn, reimagine how valuable materials are tracked and recycled?

Looking to address this issue, material passports are one idea that involves rethinking how materials are recovered during renovation and demolition for reuse. When a building is ready to be demolished, it becomes a storage bank for useful materials. The material passports would contain a detailed inventory of all the materials, resources, and components of a product or building, as well as detailed information about their location.

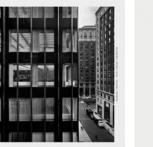
While many different entities are developing their own 'materials passport', there is currently a lack of a unified approach. Therefore, my project aims to bridge this gap and establish a comprehensive solution. To exemplify this upcycling technique in practice, let's examine the newly demolished Union Carbide Corporation Building situated at 270 Park Avenue, a former landmark skyscraper marked as the "world's largest voluntary demolition".

+ Studio Critic

David Eugin Moon Speculative City | Fall 2023





















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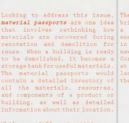




















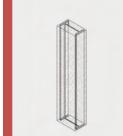














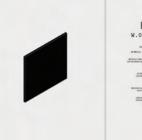
















TO TURN WASTE INTO A RESOURCE, "...BEING ABLE TO CATALOGUE AND IDENTIFY MATERIALS IS A KEY STEP TOWARDS EFFECTIVE URBAN MINING."

- The Handbook to Building a Circular Economy by David Cheshire, 112.



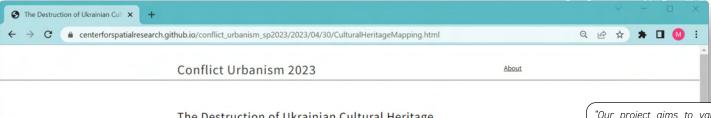












The Destruction of Ukrainian Cultural Heritage

Anna Kim, Maria Berger and Verena Krappitz

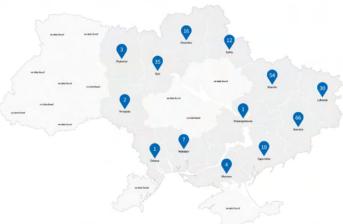
Investigation

With Ukraine at the forefront of the international geopolitical discourse, our team has committed to investigate the continued conflict, examining more closely on how the Russian invasion has systematically targeted Ukrainian

It has meticulously destroyed hundreds of Ukrainian cultural heritage sites - to its museums, monuments, places of religious and spiritual worship, libraries, and buildings of historical and/or artistic interest. These cultural artifacts manifested through art, literature, music, dance, religion, and other forms - archive a people's beliefs, customs, mythology, knowledge, traditions, and perspectives on the past, present, and future. As Robert Behavn said in his book, The Destruction of Memory, "every nation legitimizes its existence through its creativity - when evidence of this creativity is suppressed, piece by piece, the very identity of a nation is gradually lost." The continual destruction of Ukraine is a colonialist strategy embraced by Russian President Vladimir Putin who has vehemently denied Ukraine's legitimacy as a sovereign nation, even stating that a distinct Ukrainian history, language and culture "do not exist". Our project aims to validate Ukrainian culture and communicate the narrative of how it is being fought on the front lines of the brutal war through forensic and visual investigative work.









demorial House - Museum and Estate of Чернігівський

House of Prayer of the Second Chernihiv no data found Church of Christian Baptists

Ivankiv Historical and Local History

Voznesens'ka Tserkva, Church of the

Petro-Pavlivska Church

літературно-меморіал музей-заповідник Михайла

Іванкі вський районний

історико-краєзнавчий музей

Свято-Вознесенська церква

Храм Святої Софії-Премудрості Божої Куіу

"Our project aims to validate Ukrainian culture and communicate the narrative of how it is being fought on the front lines of the war through forensic and visual investigative work."

Druzhby St. 33A, Ivanivka, Chernihiv

Kotsvubyns'koho St. 3. Chernihiv

Vulytsya Shevchenka, 15, Ivankiv

Oblast, Ukraine, 14000

Ivankiy, Kyiy Oblast,

C100107, Luk'yaniyka,

Kyiv Oblast, Ukraine, 07511

Oblast, Ukraine, 08129

Zavorychi, Kyjy Oblast,

Zelenvi Hai St.

no data found

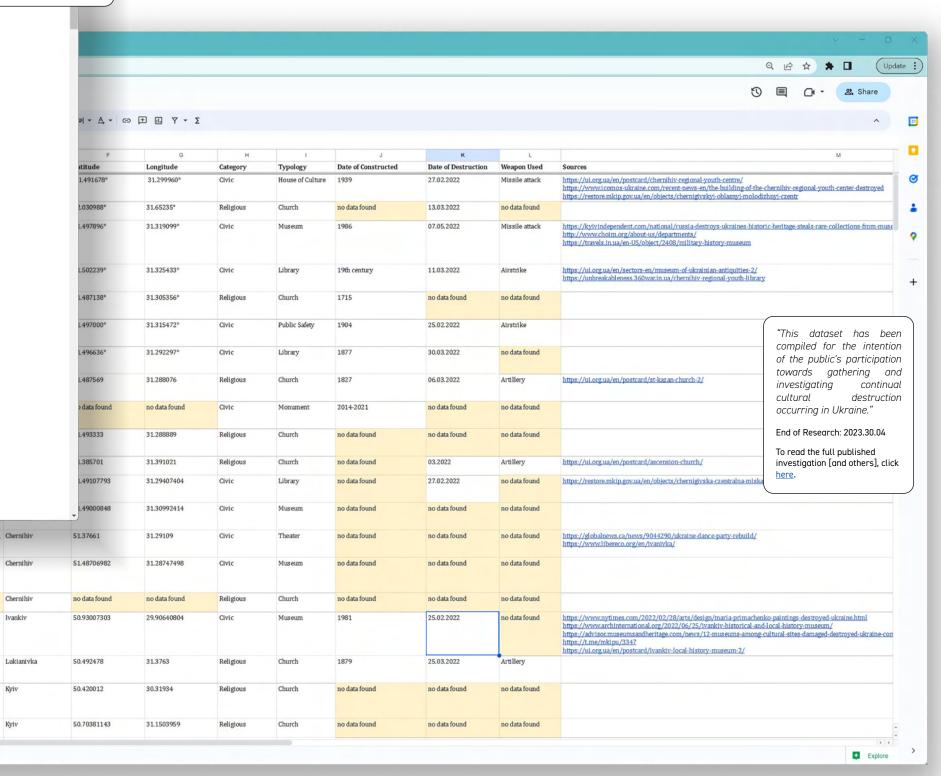
Chernihiy

vi. TARGETED DESTRUCTION OF UKRAINE'S **CULTURAL SITES**

+ Studio Critic Laura Kurgan

+ Collaborators Verena Krappitz & Anna Kim

Conflict Urbanism | Spring 2023



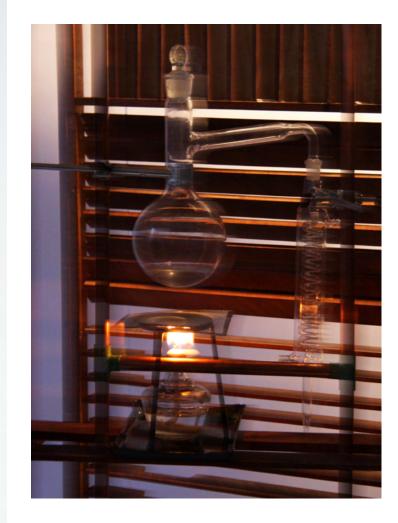
Total: 241 verified damaged sites [as of 2023.30.04]

+ ≡ Damaged Cultural Properties ▼

Old church (Tserkva Heorhiyivs'ka) in Церква Георгіївська







vii. CABINET OF PERFUMES

Zachary R. Mulitauaopele + Studio Critic

+ Collaborator Rajvardhan Balasaheb Thorat

1:1 Crafting and Fabrication of Details | Spring 2023





ix. PASTORAL MILITARISM

+ Design Themes

"post-military" terrain, sentinel landscapes, nationalism vs. naturalism

+ Abstract

19th century Hudson River School landscape painters such as Thomas Cole and Frederick Edwin Church explored the wilderness of the Hudson Valley Highlands, depicting heroic, idealized scenery as a resource of spiritual renewal and expression of national identity. As the Hudson River School is considered the first distinctly American school of painting, our research surfaced the entanglements of nationalism and naturalism projected across the Hudson Valley.

West Point Military Academy recurrently appears in Hudson River School paintings, standing sentinel amid a panorama of mountains. Several printing companies in the United States published postcards depicting pastoral scenes of upstate New York, celebrating, in hand painted pastels, West Point's militaristic and operational transformations of the land. These postcards are prime examples of militarism being pastoralized - rendered virtually indistinguishable from the wilderness itself.

Despite the bucolic depiction of Hudson Valley as a peaceful countryside, there is a long legacy of military history and landscape intervention.

Considered to be an important strategic location due to its elevated position and ability to control navigation along the Hudson River, early attempts to fortify the Hudson River Valley focused on Constitution Island and Fortress West Point followed by the occupation of other fortifications, armories, arsenals, batteries and redoubts distributed along the river. To meet the demands of the emerging technological intricacies of warfare, a more formal system of military training led to the establishment of the West Point Military Academy. The infrastructure constructed for the new military academy allowed for silent impacts on the land, some include the erection of barriers which disrupt wildlife corridors - for example, a fence encircles the perimeter of West Point, cutting this land off from state parks directly to the north and south. In addition, the introduction of species, where fish and game such as pheasant are artificially stocked for recreational fishing and hunting, and the soil, plant, and wildlife being violently disrupted by weapons testing.

+ Studio Critic

Nahyun Hwang

+ Collaborator

Julia Vais

Advanced Studio IV | Spring 2023

+ Summary

as a "post-military" terrain. Our aim is to reincorporate this landscape into Storm King State Park to the north, connecting to existing recreational hiking trails. Scientific outposts scattered along the trail host research into the military ecology relationship, the history of Crow's Nest impact zone and take readings that contribute to the study of current remediation efforts, with space for archives of West Point's historic munitions.

Our intervention frames West Point Military Academy

#69 NEW YORK STATE MILITARY MUSEUM AND VETERANS RESEARCH CENTER #29 CAMP VAN SCHAICK #34 US ARMY SENIOR OFFICE #69 WASHINGTON AVENUE ARMORY

#22 OLD ORCHARD AIRPARK - 2NK9

#27 CONTINENTAL VILLAGE

#16 KOBELT AIRPORT - 45N

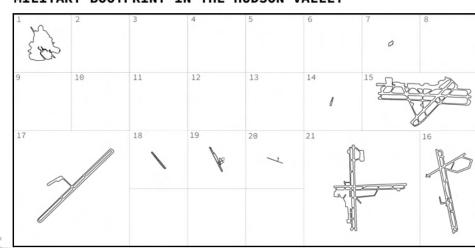
#8 STEWART INTERNATIONAL AIRPORT

LAFLIN & RAND POWDER CO. AT ORANGE MILLS

#56 FORT PUTNAM #4 WEST POINT MILITARY ACADEMY

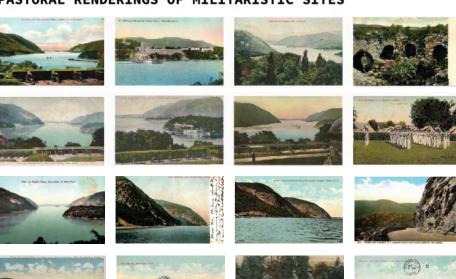
#1 IONA ISLAND

MILITARY BOOTPRINT IN THE HUDSON VALLEY



* The use of parallel line drawing first came into wide use for the design of military fortresses. The engineers and architects of the military did not simply prepare plans and sections as would typically be provided for buildings, bridges and the like. For fortification design, they had to understand trajectories of the cannon and other articles of war.

PASTORAL RENDERINGS OF MILITARISTIC SITES



Several printing companies in the United States published postcards depicting pastoral scenes of upstate New York, celebrating, in hand painted pastels, West Point's militaristic and operational transformations of the land. These postcards are prime examples of militarism being pastoralized - rendered virtually indistinguishable from the wilderness itself.



#17 HUDSON VALLEY REGIONAL ATRPORT

#5 STORMVILLE AIRPORT N69

#9 WEST POINT FOUNDRY

#63 FORT CONSTITUTION

#14 WATERVLIET ARSENAL

#15 HPN WESTCHESTER COUNTY AIRPORT

THE GREAT CHAIN

#26 FISHKILL BARRACKS

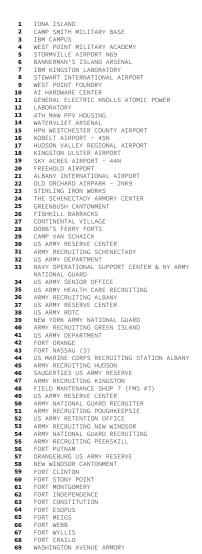






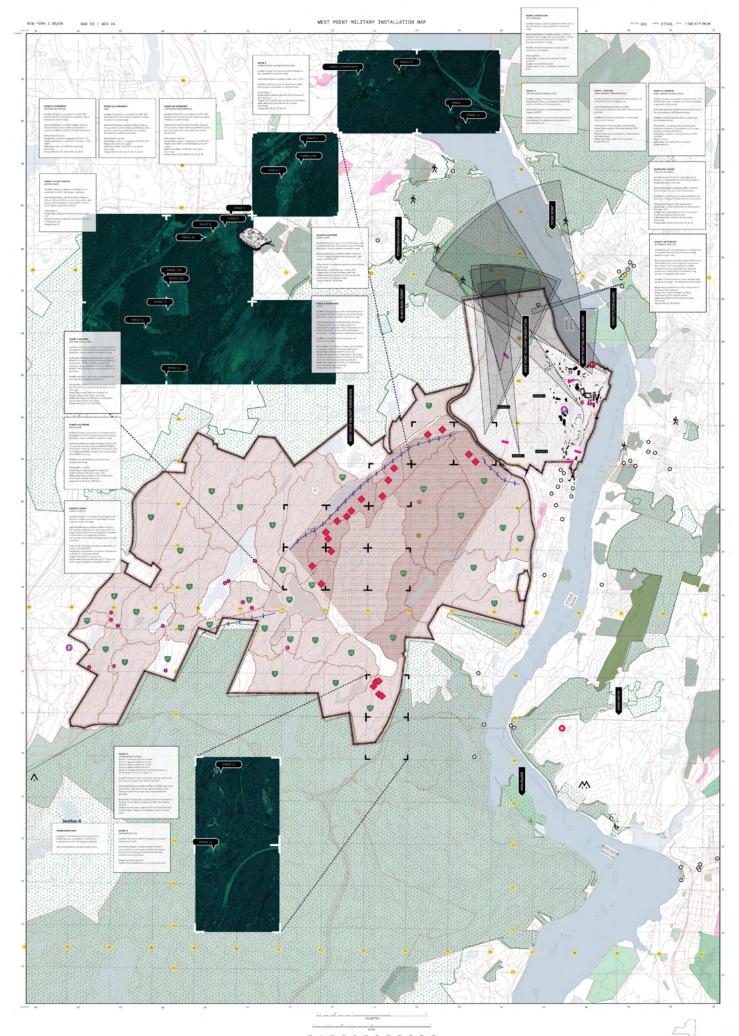


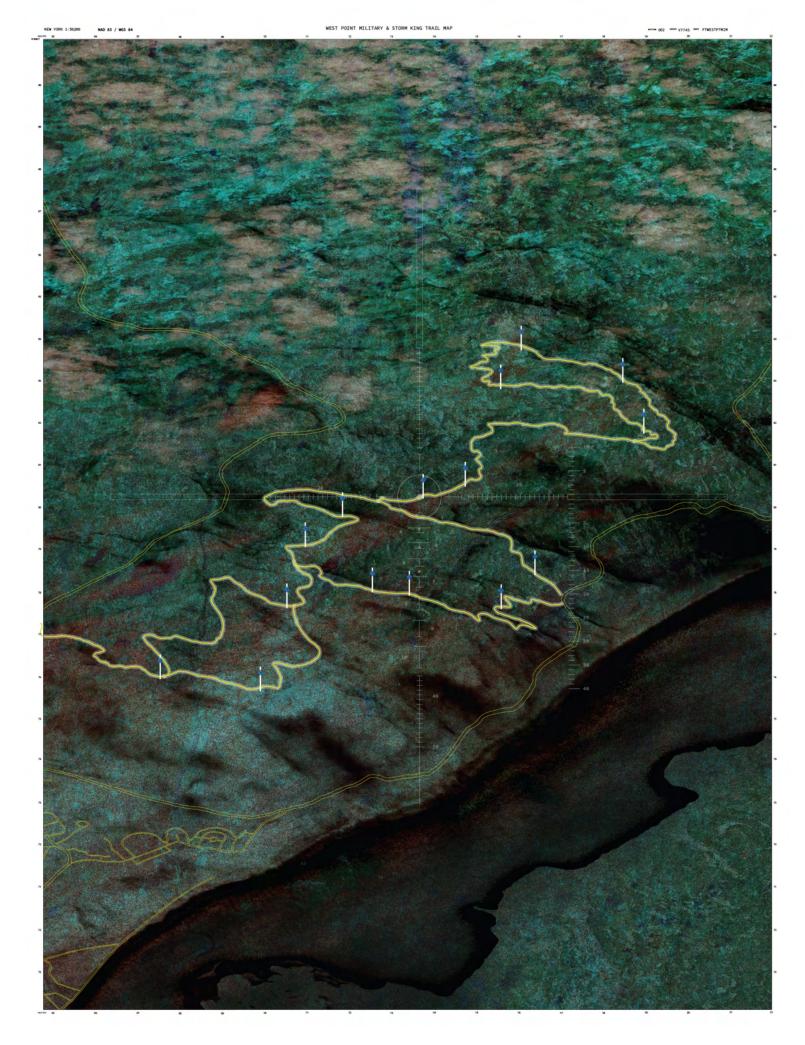




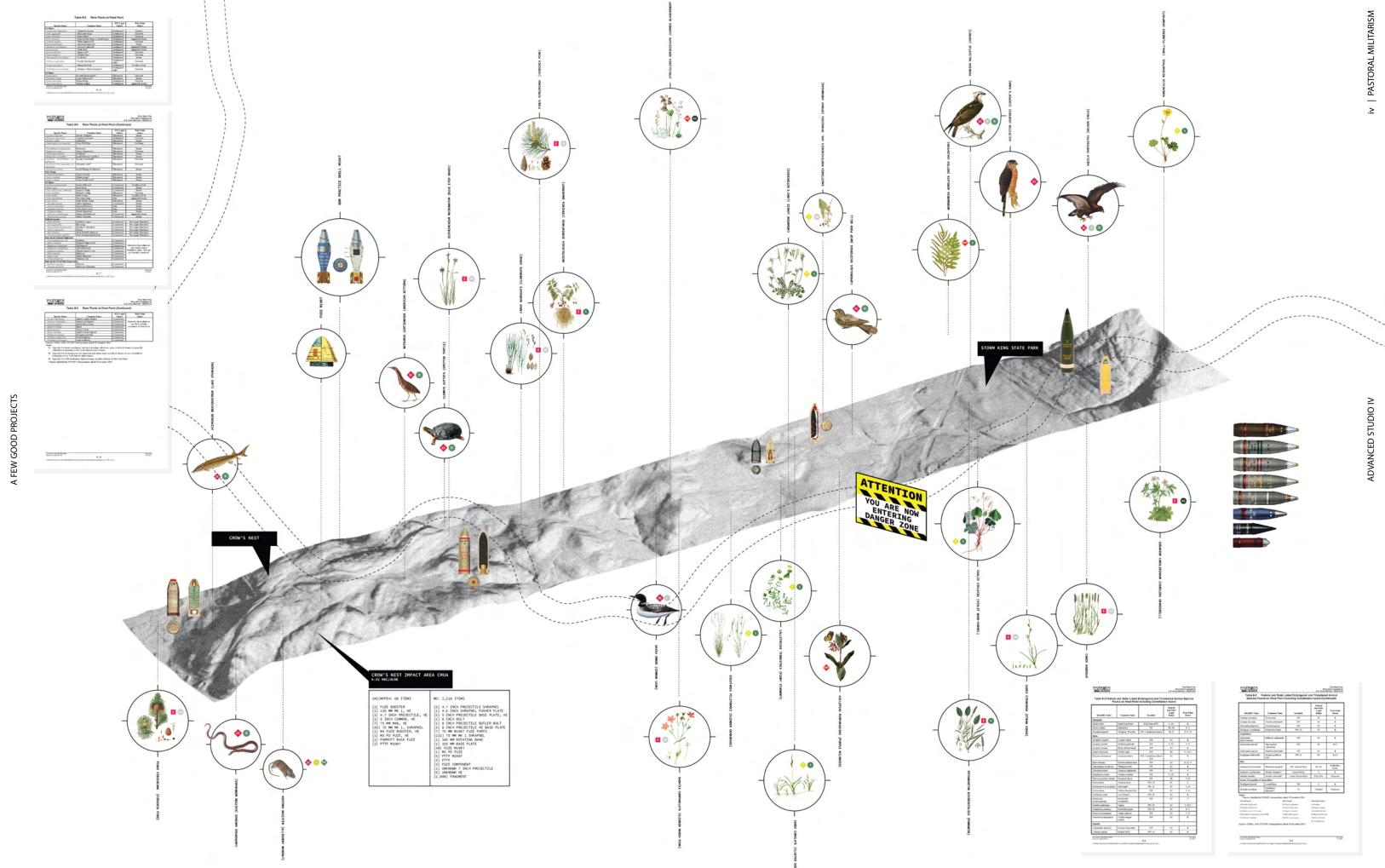
'VIEW FROM FISHKILL LOOKING TO WEST POINT': NO.15 OF THE HUDSON RIVER PORT FOLIO. PUBLISHED BY HENRY I. MEGAREY NEW YORK. PAINTED BY W.G. WALL.

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A FEW GOOD PROJECTS





x. EXTREMOPHILES

+ Design Themes

environmental microbiome, bioremediation, field recordings of toxic sludge, scientific investigation

+ Abstract

Fueled by industrialization, Red Hook swiftly transformed into a bustling maritime community. New York's vibrant trade hub provided thousands of jobs in waterfront factories, leading Red Hook to solidify itself as one of the busiest and most critical shipping ports in the city. Positioned within the city's expanding urban landscape amidst a backdrop of industrial and manufacturing facilities stands the grain terminal - once serving as a vital component in supporting the city's developing canal system.

The rapid commodification and urbanization of New York's waterways posed challenges to its ecological and civil infrastructure, however, - leaving behind a material, economic, and social legacy of toxicity and pollutants. Years of industrial dumping, contaminated run-off and sewer overflows have transformed this area and its surrounding neighborhoods into one of New York's most notorious toxic hotspots. As a former industrial conduit, the Red Hook area has now been heavily polluted with PCBs, heavy metals, pesticides, sewage solids, and other volatile organic compounds - earning the colloquial term "black mayonnaise"

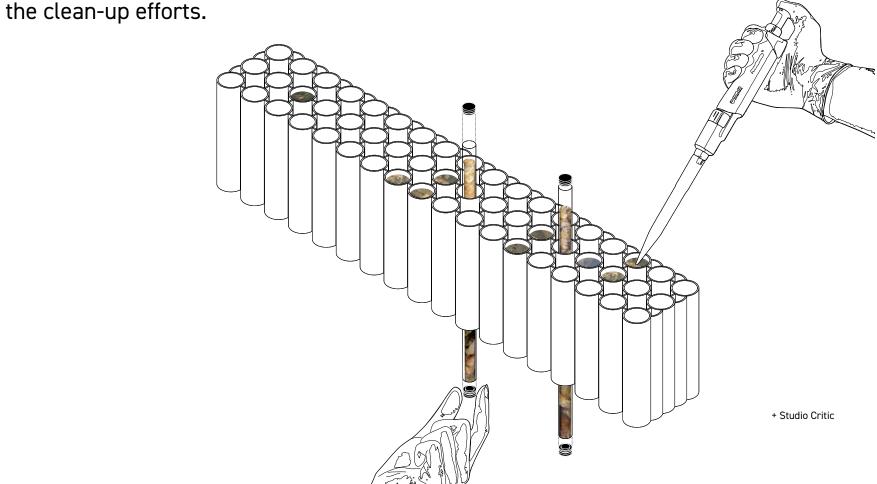
Community-driven demands for rehabilitation prompted several government-led cleanup initiatives, commencing in 1999 with the dredging and capping of the canal bottom. These efforts even compelled divers to navigate through the hazardous toxic sludge in an attempt to address the contamination. Regrettably, despite concerted efforts over the decades, the effectiveness of these endeavors was limited, and the canal remains under constant assault. With each contamination clean-up, illegal dumping counteracts progress; for every marine species that returns to the canal, a toxic overflow from the local CSOs disrupt the ecosystem.

As teams of scientists and trained ecological researchers collected sludge, soil, and water samples throughout the area, they made an intriguing discovery: the canal is now home to a diverse community of extremophiles, a class of microorganisms capable of thriving in extreme conditions, including temperature, acidity, or high chemical concentration. Remarkably, these microorganisms not only survived in this hazardous waste but have also evolved at an astonishing rate with the miraculous ability to break down the canal's putrid substances into less toxic components. Furthermore, cultivated bacteria may harbor medicinal potential, suggesting possible applications in treating conditions such as dementia and cardiovascular disease.

The presence of extremophiles - both microbes and humans that have adapted to survive in highly toxic environmental conditions, raise inquiries into the potential for trans-species collaboration and

Ruth Mandl & Bobby Johnston Advanced Studio V | Fall 2023

Through the lens of collaborative survival between humans and microbes, my project frames the grain terminal as both "probe" and "preserver" of memory - actively exploring deeper into bioremediation and retaining the historical narrative of the area's toxic contaminants. Absence of community spaces aiding ongoing reactivation advocacy, coupled with the bioremediation discoveries positions the Grain Terminal as an ideal candidate for conducting environmental health sampling, bioinformatic analysis, and field recordings of the toxic environment in hopes to expedite

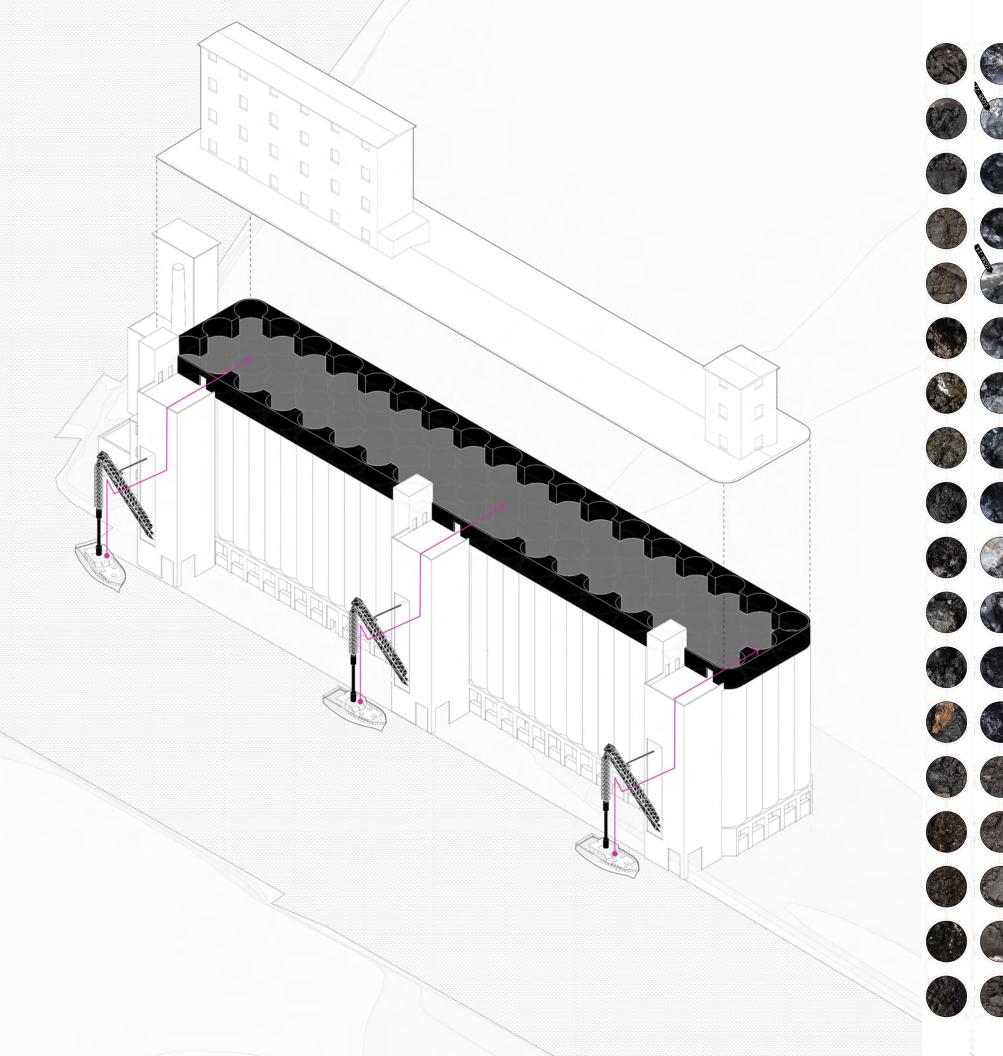








Utilizing the equipment and mechanisms integrated within the grain elevator-collected soil, water and dredged sludge samples, transported by a small fleet of barges, will be conveyed upward through the marine leg to the research and laboratory facilities situated on the top floor for further analysis and investigation. Working with community advocacy groups, researchers and scientists will use integrative investigative techniques to isolate strands from the microbial colonies for antibiotics and other medicinal treatments.



A FEW GOOD PROJECTS

xi. THE RIPARIAN INSTITUTE

+ Design Themes

water infrastructures, water scarcity, collaboration between researchers and artists

+ Abstract

Our project reimagines the Hydrographic Institute, inaugurated in 1963 with a dedication to the study and commitment to building robust water infrastructure throughout Spain. Spain's deep-rooted water tradition, entwined with its history of constructing numerous dams, reservoirs, and water towers, was profoundly shaped by the Franco dictatorship. Franco's ideological mission to modernize Spain, aiming to transform it into a hydro-efficient powerhouse, left a lasting mark on the country. Despite political propaganda depicting Spain as a "water power," the reality belied significant water stress during this era.

The Spanish government established the Hydrographic Institute headquarters along the Manzanares river, strategically located near significant cultural landmarks like the Royal Palace and la Casa de Campo. However, this industrialization and modernization of the river, along with the construction of the hydrographic headquarters, led to the isolation of neighboring communities from the river

The architectural layout of the Hydrographic Institute building reflects the political climate of its time. Designed by Miguel Fisac, known for his ties to Opus Dei, a religious organization intertwined with politics, the building's imagery projected austerity and prestige. Fisac's innovative use of precast concrete beams, known as "bone beams," allowed for efficient water drainage and structural integrity, crucial for hydrographic research. Despite its functional purpose for hydrographic research, the building's design also served as a symbolic representation of scientific progress. However, the need for physical testing models was minimal, emphasizing a "show of science" rather than scientific advancement.

Our proposal seeks to honor the historical significance of the Hydrographic Institute while repurposing it for contemporary needs. We envision a three-fold approach: reconfiguring the building's existing materiality to preserve its historical significance, creating a new topography that fosters cultural enrichment, and integrating a visible water pipe system that emphasizes efficient water management.

The Riparian Institute will serve as a cultural center, fostering dialogue and interaction among diverse communities. By reclaiming the inaccessible riverfront and incorporating elements of Miguel Fisac's architectural legacy, our proposal aims to address the complex challenges of water management, environmental degradation, and social inequality. Through innovative design, ecological restoration, and technological innovation, the Riparian Institute will promote resilience, sustainability, and community cohesion in the face of a changing climate and evolving social dynamics.

+ Studio Critic

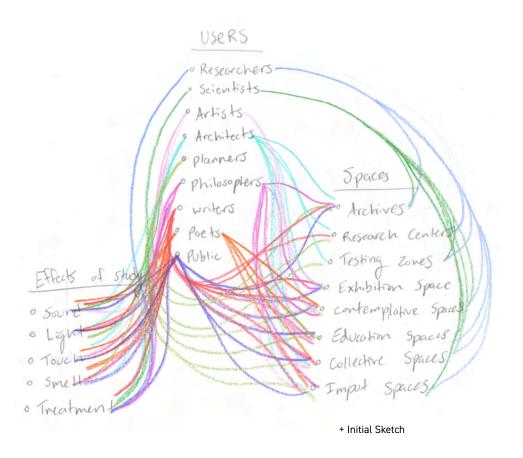
Juan Herreros

+ Collaborators

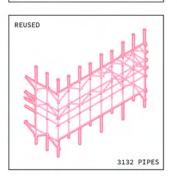
Ahad Ibrahim & Jillian Katz Advanced Studio VI | Spring 2024

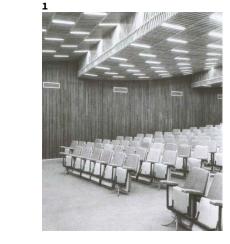
+ Summary

By reclaiming the inaccessible riverfront and incorporating elements of Miguel Fisac's architectural legacy, our proposal aims to address the complex **challenges of water management**, **environmental degradation**, and **social inequality**. Through innovative design, ecological restoration, and technological innovation, the Riparian Institute will promote resilience, sustainability, and community cohesion in the face of a changing climate and evolving social dynamics.





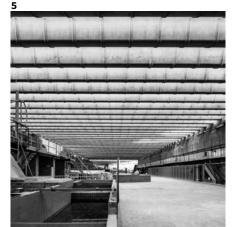












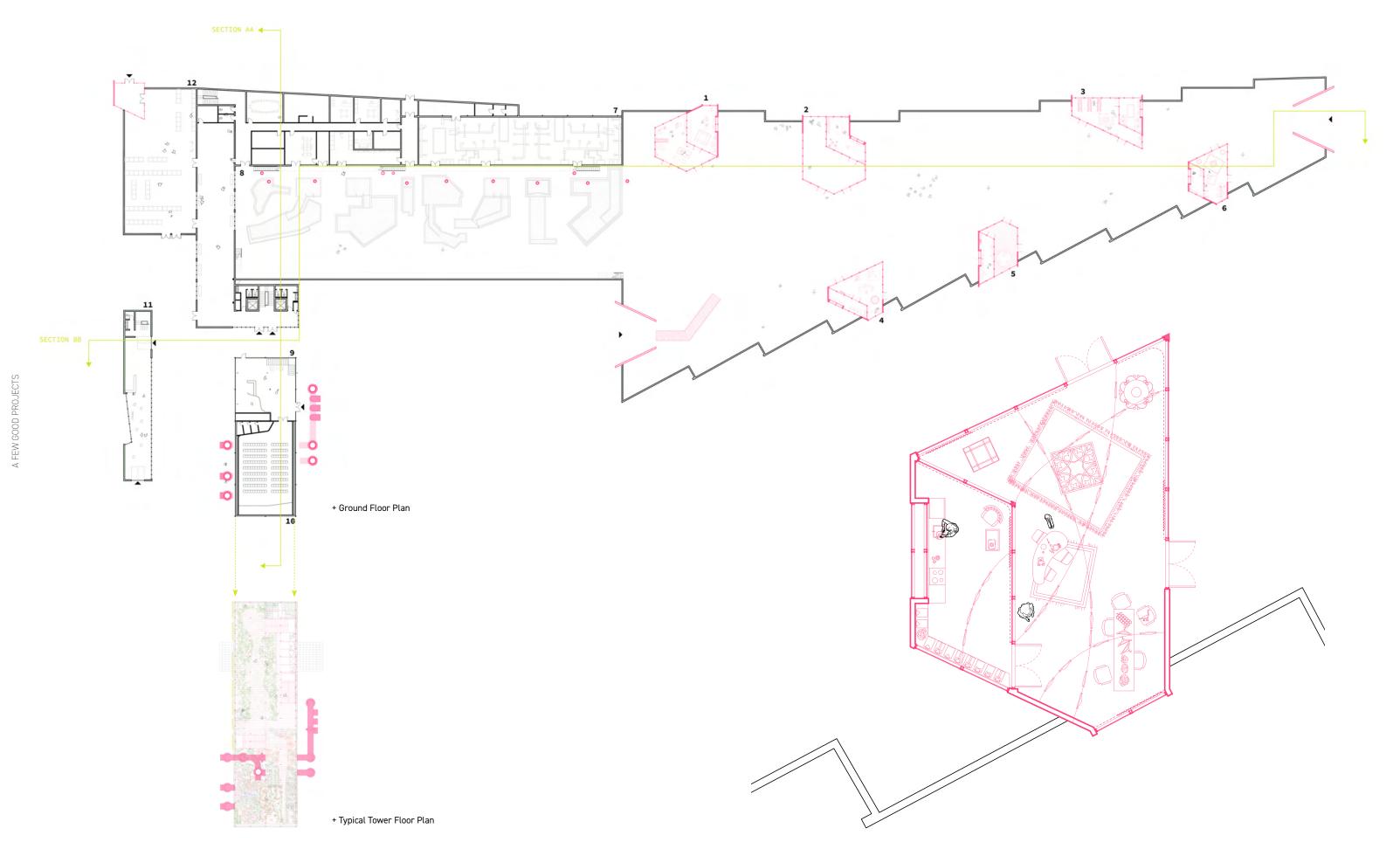




ADVANCED STUDIO VI

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A FEW GOOD PROJECTS



THANK YOU