
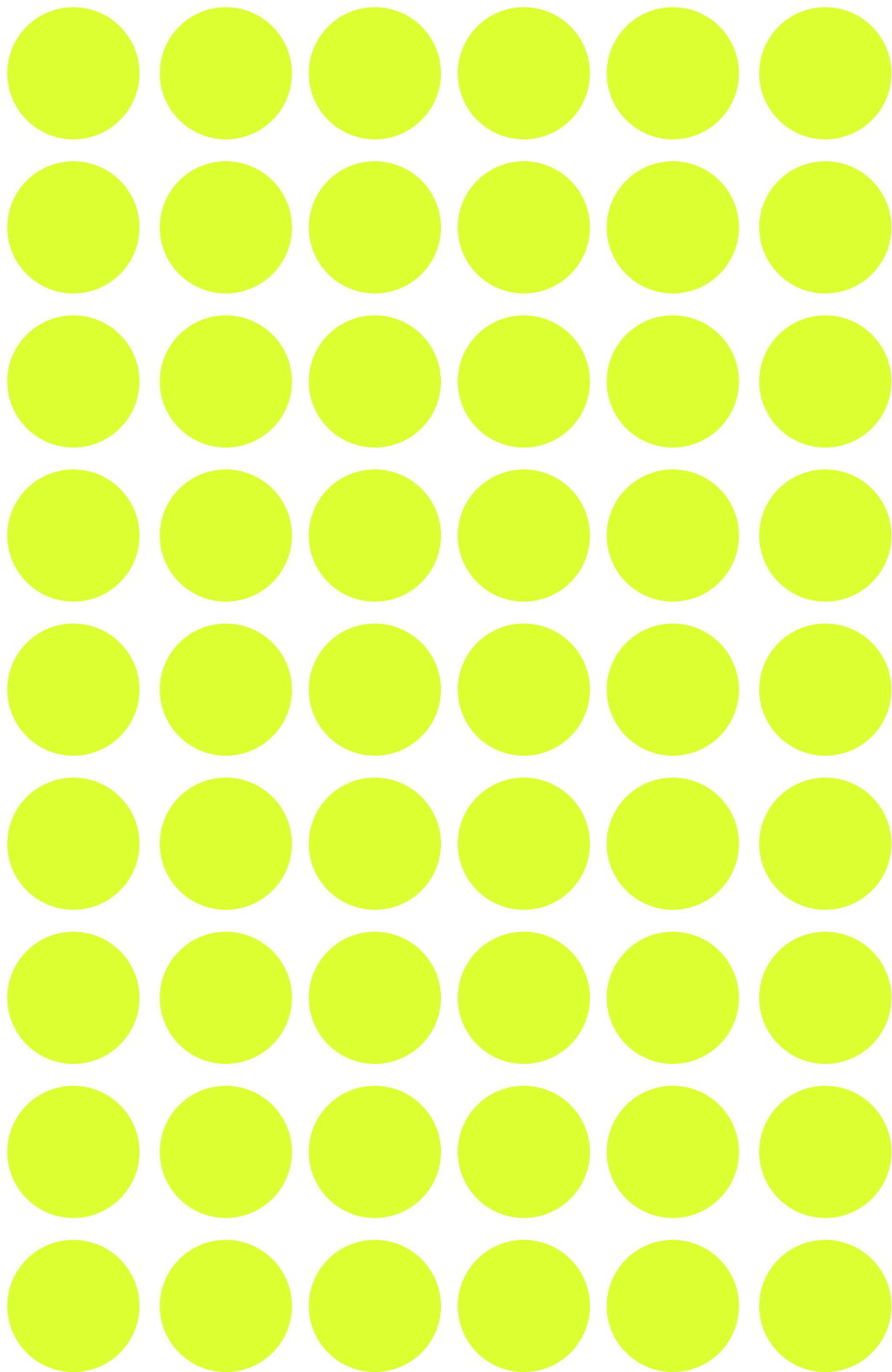




Thesis 2022



Syracuse
University
School
of
Architecture



Thesis 2022

**Syracuse University
School of Architecture**

4	Introduction		NEW NATURES		TERMS AND CONDITIONS		AFTERLIVES
6	Foreword		ARCHITECTURE ON THE EDGE				REGENERATIVE BUILT ECOLOGIES
	B.ARCH	56	Cameron Chahanovich	122	Alexa Adams		
		58	Camero João Pedro Ellery L. F. de O.	124	Kelsey Benitez & Isabel Sutherland	184	Katrina Abad
	IMAGING IMMERSION	60	Jake Hayward	126	Shiori Green	186	Erik Bakken
		62	Yan Huang	128	Andrew Harper	188	Julia Chou
12	Adhityan Anbumozhi	64	Maryasa Krivitskaya	130	Emily R. Hu & Miguel Joseph Roman	190	Kayla Clark
14	Karen Chow & Emmanuelle Amina Kikaya	66	Eve Miserlian	132	Ryo Ishioka	192	Junzhi (DJ) Deng & Yixuan Li
16	Yuting Hu & Yuanting Peng	68	Sarah Perrino	134	Yongqi Lu	194	Jakub Jankowicz
18	Anna Wu	70	Patrick Riley	136	Alex Michel	196	Tina Lim & Jiuye (Jerry) Yan
20	Yihan Yang & Ziyang Zhou	72	Jessica Szymanoski	138	Mehak Saroha	198	Wentao Liu & Andrew Yu
		74	Katie Weeks	140	Roxanne Sarrafzadeh	200	Mason Malsegna & Benjamin Wang
	DISSIMULATING AND DISHEVELING MATTER		HISTORY	142	Heather Skinner	202	Janu Ketan Prajapati
						204	Divija Sethi
24	Karina Corcuera Falconett & MaryKate Krege	78	Daria Agapitova		ARCHITECTURE AND ITS TEMPORALITIES		M.ARCH
26	Andrew D'Angelo & Wesley Feero	80	Lawry Boyer	146	David Chen		DESIGN RESEARCH IN PRACTICE
28	Zheng Fang & Yuntian Zhang	82	Kristabel Chung	148	Shaan Lyngdoh Lakshmanan		
30	Nahall Ghodsi & Sneha Nair	84	Parker D. Klebahn	150	Song Wang	208	Rameesa Ahmed
32	Emmei Gootnick & Coumba Kanté	86	Ximeng Luo & Shihui Zhu	152	Ashley Woo	210	Michael Aiardo
34	Adam J. Harris	88	Shuyu Meng		NO POSITIONS	212	Monisha Arnold
36	Michael Heller	90	Ying Xuan Tan & Xi Xiang			214	Krystol Kay-An J'Nelle
38	Andrea Herrada	92	XiaoJun Zhou				Jeantique Austin
40	Luis M.C. Lopez		ARCHITECTURE AFTER SHARING	156	Joseph Caputo	216	Emily Collins
42	Lainey Marra			158	Ava Helm	218	Sean Culligan
44	Veronica Marz	96	Felipe Becerra Gómez	160	Daniella Hofer	220	Ashley Feyes
46	Jason Moline & Chay Phelps	98	Jing Ying Chin, Alice Rong & Tanya Tungkaserawong	162	Bram Monson	222	Supreetha Guntur
48	Ivania Rivera & Helna Zhen			164	Nikita Palli	224	Wenqian He
50	Zack Samuel	100	Olivia Dellacava	166	Diana Quesada & Shiyi Wang	226	Robert Helbock
52	Shelby Ward	102	Jasmine Greytok & Astra Sun	168	Janani Suriyanarayanan	228	Onkar Sanjeevan Joshi
		104	Dara Jin		LITTORAL / SHIFT	230	Meaghan Kelly
		106	Chengcheng Li			232	Abigail Korn
		108	Ying Na Li, Rachel Ly & Skylar Sun	172	Aly Teymour Abdel Baky	234	Tianche Liu
		110	Xinran Min & Linjing Rao	174	Noah Bishop	236	MacKenzie Timothy Lubin
		112	Megha Murali	176	Cheng Liu & Luying Peng	238	Tiffany Ng
		114	Grant A. Portelli	178	Yang Yang	240	Austin Peña
		116	Pin Sangkaeo	180	Ziyi Zhou	242	Zhenyi Yuan
		118	Anusha Shikre			244	Congshuo Zhang
						246	Ziwei Zheng
						248	Afterword

Introduction

Michael Speaks, Ph.D.
Dean and Professor

A new world is emerging—by fits and starts—and it will not reset to normal as many thought and hoped it might. What should be clear to everyone by now is that the pre-pandemic world we departed, more than two years ago, will never return. That world is now a catalogued memory and only one among a multitude of source materials—**analog, digital, hybrid**—that each of us must use to create and live new, individual and collective futures. Architects in the 1920s, and then in the 1960s and 1990s faced similar challenges in transitioning from one world to the next. But as the contours of the post-pandemic world come more sharply into focus, many of the problems left unaddressed or unresolved by past architects confront current and future architects with challenges that have crossed the line from fundamental to existential: **What is architecture? Who designs architecture? Where is architecture? What can architecture do to address the challenges posed by global climate change, racial and social injustice, and political, economic and cultural conflict on a local and global scale?**

We all know that studying for a professional degree in architecture provides the best foundation for those entering conventional architecture practice. But we also know that this same course of study provides students with the critical thinking skills and intellectual framework to challenge and redefine architecture itself and thus conventional and all forms of architecture and design practice. The proof of that challenge and its transformational power is on display in the projects collected here in the Syracuse University School of Architecture Thesis Book 2022. Taken as a whole, these projects provide a blueprint for the future of architecture and diagram a collective course of action. They propose progressive forms of preservation and reuse; spaces of care, belonging and inclusivity; public protest and celebratory spaces for culture, identity and heritage; AI, VR, large-scale 3D printing technology applications; advanced materials, mass timber, e-waste and reuse, textile up-cycling, bio-welding and other alternative means of construction; urban re-wilding, coastal resilience, rammed-earth and other approaches to addressing the challenges of climate change; glitch materiality, new and reimagined typologies; and emerging narrative, literary and extra-literary forms of architecture. As a collective, these projects represent how our school frames and attempts to answer disciplinary and professional questions. As individual theses, these projects reveal how emerging architects frame the questions that will shape the answers that will unfold over the course of their careers. Our school, the discipline, and the profession, not to say the world, depends, like it has never before, on how well-framed those questions were and how they have been and will be answered.

Foreword

Daekwon Park Undergraduate Chair

The class of 2022 is the first cohort of students that I will see off as the Undergraduate Chair, and it is my sincere pleasure to write the foreword to the thesis publication. I want to acknowledge the thesis students, the Editor in Chief Michael Speaks, Thesis Director Kyle Miller, Editor Danya Li, and Thesis Coordinator Carol J. Pettinelli, among many others, for their contributions in making the 2022 thesis book. The work elegantly presented in this book celebrates the struggles and successes of each and every thesis student.

In a sense, thesis is both the most rewarding and challenging endeavor in the B.Arch and M.Arch programs. Rewarding, as it is an opportunity for the students to independently construct something that is uniquely their own, be it an expertise, a perspective, or a manifestation. Challenging, because students need to combine the knowledge and experiences gained through the program and create something more than its conglomeration. Although the advisory groups provide guidance throughout the process, it is ultimately up to each student (or group) to forge their own paths.

The class of 2022 students overcame many things, academically and personally, through their time at Syracuse Architecture. The past 3-years have been especially more challenging. The entire world was thrust into a pandemic since late 2019, and the entire university and school had to adapt and survive through the ever-changing circumstances. Family emergencies, isolation, travel restrictions, and course delivery are just some of the challenges and difficulties that emerged along the way. However, our School of Architecture community continues to persevere thanks to all faculty, staff, students, and their families. For that, I believe the class of 2022 is equipped with the resilience to overcome anything ahead as they enter the new stages of their life.

The entire undergraduate class of 2022 learned how to put together a building through my building systems design class. Some also developed a mass timber high-rise building with me in the 4th-year integrated design studio. I have also been blessed to work with talented M.Arch graduate teaching assistants and research interns. I cherish the joy, sweat, tears that were shared and thank each student for the amazing experiences we had together. Congratulations on your outstanding achievements, and I wish you the best for the following stages of your careers.

Advisory Groups

- **Imaging Immersion** 10
- **Dissimulating and Disheveling Matter** 22
- **New Natures: Architecture on the Edge** 54
- **History** 76
- **Architecture After Sharing** 94
- **Terms and Conditions** 120
- **Architecture and its Temporalities** 144
- **No Positions** 154
- **Littoral / Shift** 170
- **Afterlives: Regenerative Built Ecologies** 182
- **Master of Architecture Thesis: Design Research in Practice** 206

Claims

No contemporary issues, practices or peoples escape Imaging Immersion (I/I). The necessary condition for the production and experience of architecture today is Immersion Imaging (I/I). By focusing on the technologies, theories, media, and potentials of the I/I nexus of the digital/actual/virtual/manual we can productively and creatively engage and explore any architectural problem.

Questions

How is architecture being redefined by the kinds of diffusion, interface, engagement, effects, and affects engendered by I/I? How does our dependence on digital devices and media engender I/I in architecture? How can imaging theory assist our understanding of this reciprocal condition? How does the complex intersection of actual/virtual/manual/digital inform our production and inhabitation of environments? How did this condition emerge in history and what are its possible futures?

● **Imaging Immersion**

Amber Bartosh
Mark Linder

The “state of the art” of virtual, immersive, and augmented retail experiences as an architectural opportunity has been accelerated by the outbreak of COVID-19. Artificial Intelligence (AI) technologies in retail are in more demand than ever to ensure safety, enhanced user experience, and an everlasting connection with consumers and brand identity. This project consists of research and design of a manual for an experimental retail clothing store using an architectural setting that introduces these new technologically advanced strategies. The design will consist of a physical framework where customers can virtually and physically experience their products of choice using the latest technology such as installations, prototypes, and sensor technologies. Many of our strongest memories are not visual, but those embodied through our other senses.

The AI-fueled technology offers to take care of planning and management of consumers’ virtual holographic wardrobe or product portfolio. Based on the consumer’s previous selections, this service allows consumers to make better use of their time by not over-thinking what to wear at certain occasions in the future. The retail store enables an AI store assistant that can provide customers with product information, recommendations, and proposals for other designs based on motion technology installed in their stores.

This project will examine existing applications of immersive design as an architectural setting and test existing augmented reality in retail installations that could enhance the user experience, directly correlating it with the brand identity. The limitations and potential iterations of these examples will be studied using a metric relating the tools, application, and perceived effectiveness. Expected variables for comparison include use of color, lighting levels, sensor technology and other branding techniques.

Virtual Structures: Reimagining the Future Retail Experience

14

Imaging Immersion

Advisors: Bartosh, Linder

Image: Product Showcase of Virtual Elements



15

Adhityan Anbumozhi

Through an analysis of protests in public spaces and their surrounding contexts, which often include controversial monuments, this thesis responds to the events of Summer 2020 by creating a series of interventions that expand the definition of the monument. While protests manifested in physical spaces throughout the country, much of the activism was facilitated through virality. The future of the monument, therefore, lies in the hybridization of digital and physical infrastructure. The project will reconsider the current state of monuments by implementing immersive techniques using virtual reality, thereby providing an additional layer of engagement to reimagine city hall landscapes in the US.

The protests that occurred in 2020 further sparked the removal of symbols of white supremacy, such as statues of Christopher Columbus. While these monuments are a symbol of heritage for some, they honor a history rooted in racism and violence for others. Evidently, Columbus Circle in Syracuse is a highly contested site with several proposals on how the space should be reimagined, including the complete removal of the statue. By considering the physical characteristics of the public spaces that enable protest, we are pushed to reconceptualize the design of monuments in this first case study through intersections of identities.

Image: Counter Monumentality

Advisors: Bartosh, Linder

Imaging Immersion



By making digital augmentations to informational leftover corners which often also lack program spaces, the project wants to reveal how this simulation can change people's impressions and make afterimages of the spatial evolution in people's cognition of selected spaces. Rather than a visual layer add-on to expand the user experience, we explore how afterimage can shift and reform space.

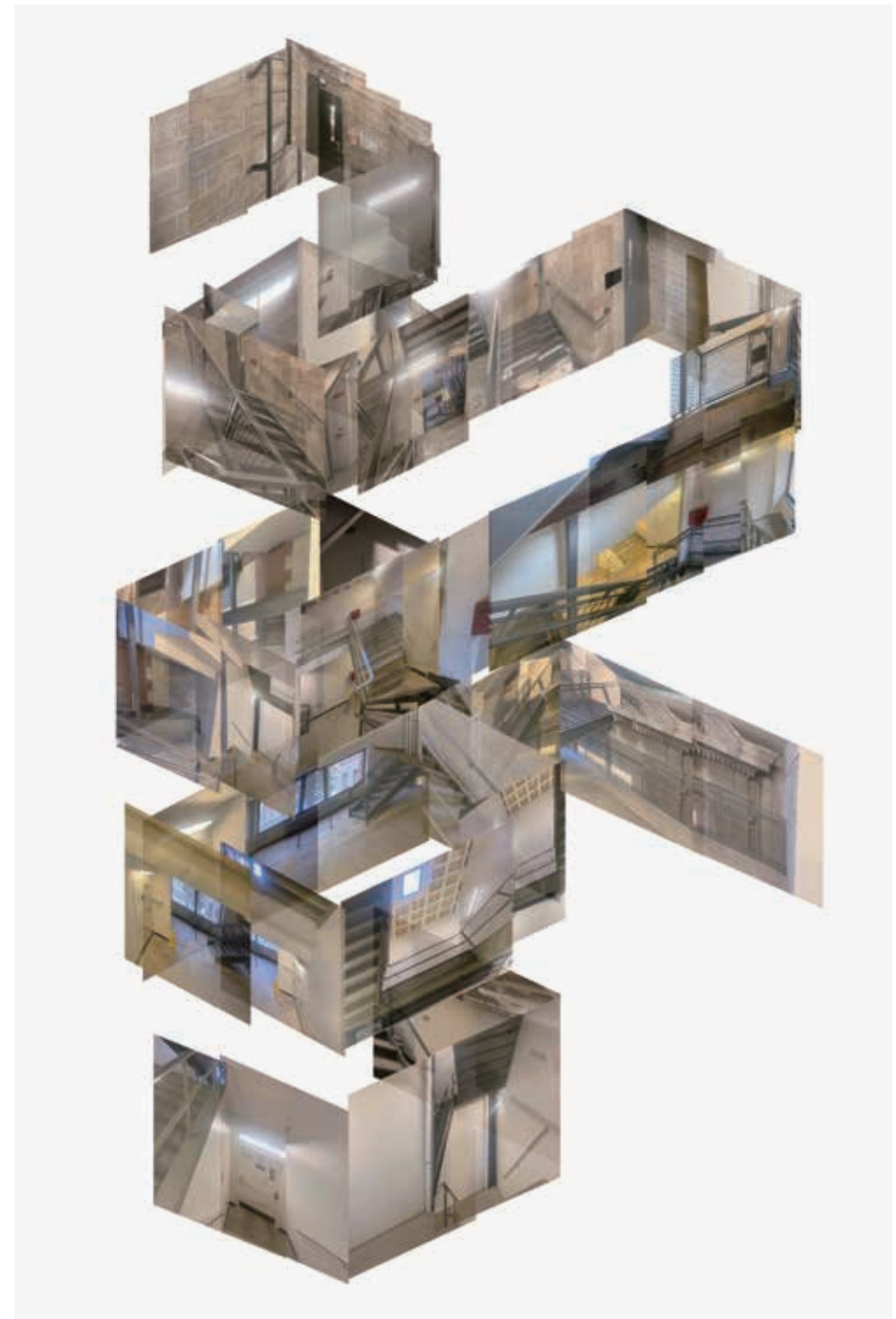
While the original definition of afterimage is a visual illusion in which retinal impressions persist after the removal of a stimulus, for this project it is defined as reflections of information over time. It is a visualized result produced to communicate a shift in spatial understanding output from people's cognition.

The thesis of this project is to make the afterimage a medium to understand space evolution by generating people's cognition of space over time. While posters are an example of information media, the way we use afterimage to view posters through space is parallel to how we go through information. With filters applied to the digital interface, the process of producing afterimage shatters the vector of motion, and of time. It breaks spatial linear cognition, allowing fragmented information to provide insight about space, and more possibilities for it.

Producing an afterimage is the process of iteratively generating images from the information in people's impressions. Thus, afterimage is a hypothetical image that depicts a possible evolution based on the conditions of existence beyond the digital interface.

We define afterimage as the result; the process of making afterimage is adding an intentional filter at the digital interface with simulated information on an architectural space. Which gives us the equation for afterimage language: architectural space + intentional filter = afterimage.

Spatial Afterimage: Possibilities of Architecture Evolution in Cognition



This thesis uses virtual reality as a tool for viewing both documented spaces from filming locations and everyday spaces, allowing viewers to reflect on the relationship between the portrayed realities and the physical realities. This will be done through a 360°-video format in a virtual-reality headset with heavy post-editing visual effects.

The research/production methodologies will entail filming 360° videos (videos recorded in every direction simultaneously) as well as capturing and documenting iconic film sets/locations—recreating 2D representations of an architecture of collective memories but in an immersive environment. Doing so allows us to explore and critique the relationships between inside and outside, the personal and the social, the individual and the cultural, and the true and the false.

These videos will be shot on an Insta360 ONE X2 camera with surround sound captured by an ambisonic microphone. By utilizing the 360°-video format, actual filming locations (from existing movies) will be recorded, creating a comparative dialogue between the things we see on screen when prescribed through a conventional camera and the actual spatial conditions, allowing an evaluation of the difference between the constructed view and the architecturally visible. The outcomes may inform a better understanding of architecture, which is often rendered as a “view” prior to construction but experienced fully once built. Furthermore, the 360°-videos will be augmented to experiment with spatial image manipulation, allowing us to compare the impact of these augmentations in 2D and 3D.

Image: 2D Image vs. Full Spatial Condition

Advisors: Bartosh, Linder

Imaging Immersion



Delineating Illusions of Reality:

360° Video as a Documentation Method

20

21

Anna Wu

This thesis studies immersive experiences in theme parks and speculates on how the techniques of evoking these sensations could be applied in the city's everyday spaces. Theme parks are successful products of entertainment culture and consumerism. They are cartoon-like scaled-down cities and wonderlands where one can escape reality. Despite their isolating nature, theme parks trigger economic development in the surrounding areas since people are willing to pay a significant amount of time and money to visit them. This raises the question: If theme-park-like attractions are embedded in the city's everyday spaces without boundaries, to what extent can people experience the city from different perspectives and increase the utilization of public spaces?

To activate the city's everyday spaces, the project learns from theme park buildings' architectural values and attractions' narrative techniques. The buildings in theme parks not only create functional spaces for visitors but also serve as decorative objects that contribute to the immersive atmosphere. Screens, lights, colors, and interactive devices also enhance the themes. Digital imaging can be used on architecture as a dynamic layer to show different themes accommodating to the surrounding atmosphere.

This project utilizes theme parks' immersive experience techniques to transform downtown Syracuse into an imaginary land with cultural and historical clues. Syracuse Connective Corridor is a shuttle route that aims to connect downtown and Syracuse University with bicycle lanes, benches, and other interactive installations along the road. By dividing the path into several districts with landmarks as the theme initiators, the project builds a new digital layer of information on the Connective Corridor to enhance the experience. Presented in augmented reality (AR), the project will be accessible for people with mobile devices to vividly explore the city's streetscape and landmarks.

Fantasy City: Learning from Theme Parks

22

Imaging Immersion

Advisors: Bartosh, Linder

Image: Christmas Theme in Urban Condition



23

Yihan Yang & Ziyang Zhou

A focus on matter swerves around the comforting disingenuity of good practice and pretty aesthetics. It insists on an approach that looks not at quantitative “performance” of materials but at behavior and misbehavior of assemblages, practices, and machines. Matter eschews nature/culture oppositions, insofar as matter (both material and immaterial) can be simulated, projected, and invented to create new feedback loops with environmental systems and networks. Animal, vegetable, mineral—you can design them all. Tectonics reaffirm, but matter satisfies desires, weaponizes fears, plays with memory, and upsets our aesthetic proclivities and our penchant for perfection. Matter absorbs pain and pleasure. Matter releases placebos, toxins, pestilences, hallucinogens, and curatives. Matter is already encoded with politics, economy, geology, geography, genetics, and (deep) history. Matter is always already befouled, stained, sullied, and covered in blood. We aspire to disheveled tectonics, alt-materiality, corrupted aesthetics, fuzzy connections, and unethical assemblages. We look for flaccid strength, weak structures, dirty ecologies, and low-brow logics. We delineate forces, image substances, project failures, and design for cyborgs (you’re already a cyborg, btw). We aim for unprofessional practice, to engineer the organic, and to faithfully falsify. Reject the binary opposition, stop trying to cleanse yourself of your imperfections, stop trying to fix everything, get over your fake honesty, and get with a real that’s better than reality. Matter is what you make of it.

● Dissimulating and Disheveling Matter

Jean-François Bédard
Britt Eversole
Roger Hubeli
Julie Larsen

The phenomenon of attention lies within the tensions of a distracted public who moves through the world with their faces in their screens. Our tendency is to moralize attention and criticize the increasing phenomenon of inattention. However, when thinking about intervening in the world, inattention is just as valuable as attention.

Accepting that we live in a digi-physical world, this thesis aims to explore the virtuality of the physical domain through the manifestation of a spatialized glitch. By making physical the effects that we normally attribute to our passive interaction with digital imaging, the distracted public gets the occasional glimpse of the uncanny recurrence of screen effects in physical materials. The result: an experiential shift in attention, or more appropriately, inattention that drives the eruption of incomplete, deformed, and distorted information and images in lived public space.

Spatialized glitches derived through image dissonances such as seams, discontinuous stitches, and frayed edges operate as subtle interferences to our existing surroundings. Aiming more for subtlety than spectacle, this thesis proposes a series of interventions in existing material conditions at both surface and spatial levels through the introduction of physical reimaged surfaces, textures, and details. The translation of a digital glitch to a physical space challenges our understanding of materiality: the interface between the image and the physical object or surface becomes confused. The properties of one material become blurred with the next, challenging the viewer's attention or inattention.

OFFscreen: Reimaging Space through Glitch Interventions

26

Image: Interface Between a Digital Glitch and Physical Space

Advisors: Bédard, Eversole, Hubell, Larsen

Dissimulating and Disheveling Matter



27 Karina Corcuera Falconett & MaryKate Krege

Current issues of sustainability and economic inequity require us to re-imagine our built environments for a post-carbon future, and a large component is centered around our attitudes towards infrastructure. The re-expansion of passenger rail, which has been historically neglected in the hierarchy of American infrastructure, is an important component as it is the most efficient means of motorized transportation.

The surplus of obsolete rail infrastructure can be adapted for high-speed rail, presenting a unique opportunity to reimagine the material composition of this historic infrastructure. An ideal study in the implementation of new higher-speed rail is the former Delaware Lackawanna and Western main line between New York and Syracuse, New York. Prior to the 1960s, this was the route of various passenger and freight lines that connected New York City to northern New Jersey, the Pocono region, and Central New York. A portion of the route follows the now abandoned Lackawanna “cut-off” in Northern New Jersey. Completed in 1911, the cut-off was built using a series of fills, bridges, tunnels and other landscape adaptations to provide a high-speed route through the hilly terrain.

To accommodate high-speed trains the railroad will need to be optimized through the replacement of all existing track infrastructure, and the clearing of obstacles. The condition of the current tracks is a debris field of rock ballast and components deposited through previous phases of renewal. Station design for this project will be conscious of the railroads’ effect on landscape and its own legacy and temporality.

The railroad in its current state is most easily identifiable by its debris fields and the accumulation of objects that define them, rather than the individual objects that compose this debris. This project proposes a new architecture for high-speed rail in the US through experimental preservation, creating a non-normative means of incorporating obsolete infrastructural debris into a construction logic derived from the unique properties of railroad debris. The use of debris for the design of these stations emphasizes a consciousness of the environmental impact and material investment inherent in the construction of railroads, critiquing the American treatment of infrastructure and its eventual obsolescence.

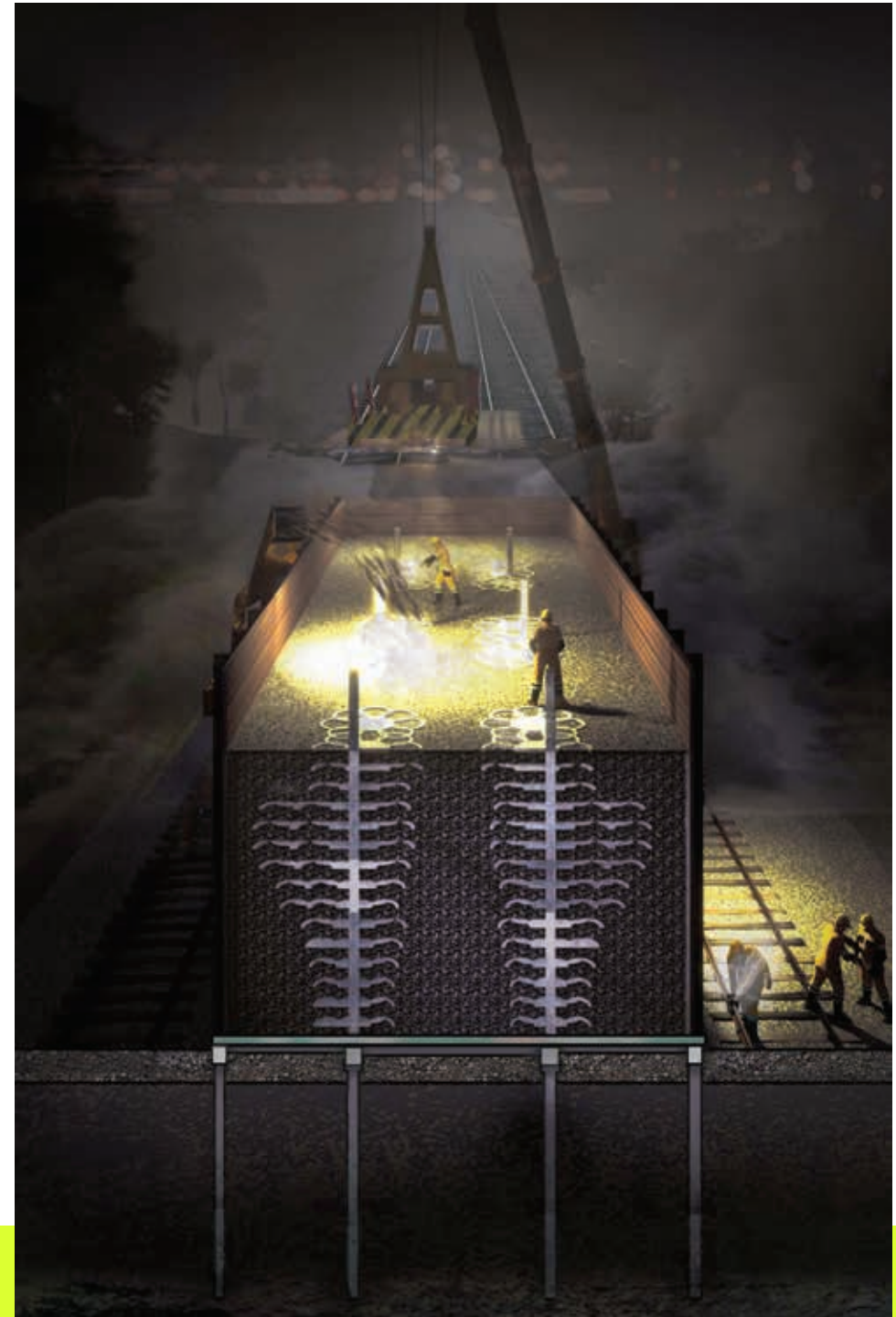
The Lackawanna Line: Experimental Preservationist Approach for Rail Stations

28

Dissimulating and Disheveling Matter

Advisors: Bédard, Eversole, Hubbell, Larsen

Image: Station Construction Using a Large-scale Rock Jamming Process



29

Andrew D’Angelo & Wesley Feero

Throughout history, the notion of the machine has shaped and directed the conception of architecture in relation to functionality, efficiency, and economy. In fact, much of the discourse during the Modernist movement revolved around the idea of the machine and its grand claims for providing solutions and optimization. But this “form follows function” reduces architecture to a secondary position, neglecting questions of sensuality and performativity. This thesis explores the antithesis of machine and its functional (humanist) ambitions—machine not as a responsive object, but as an autonomous agent that is equal in importance to the human subject, offering a sensuous cohabitation between the human and the machine.

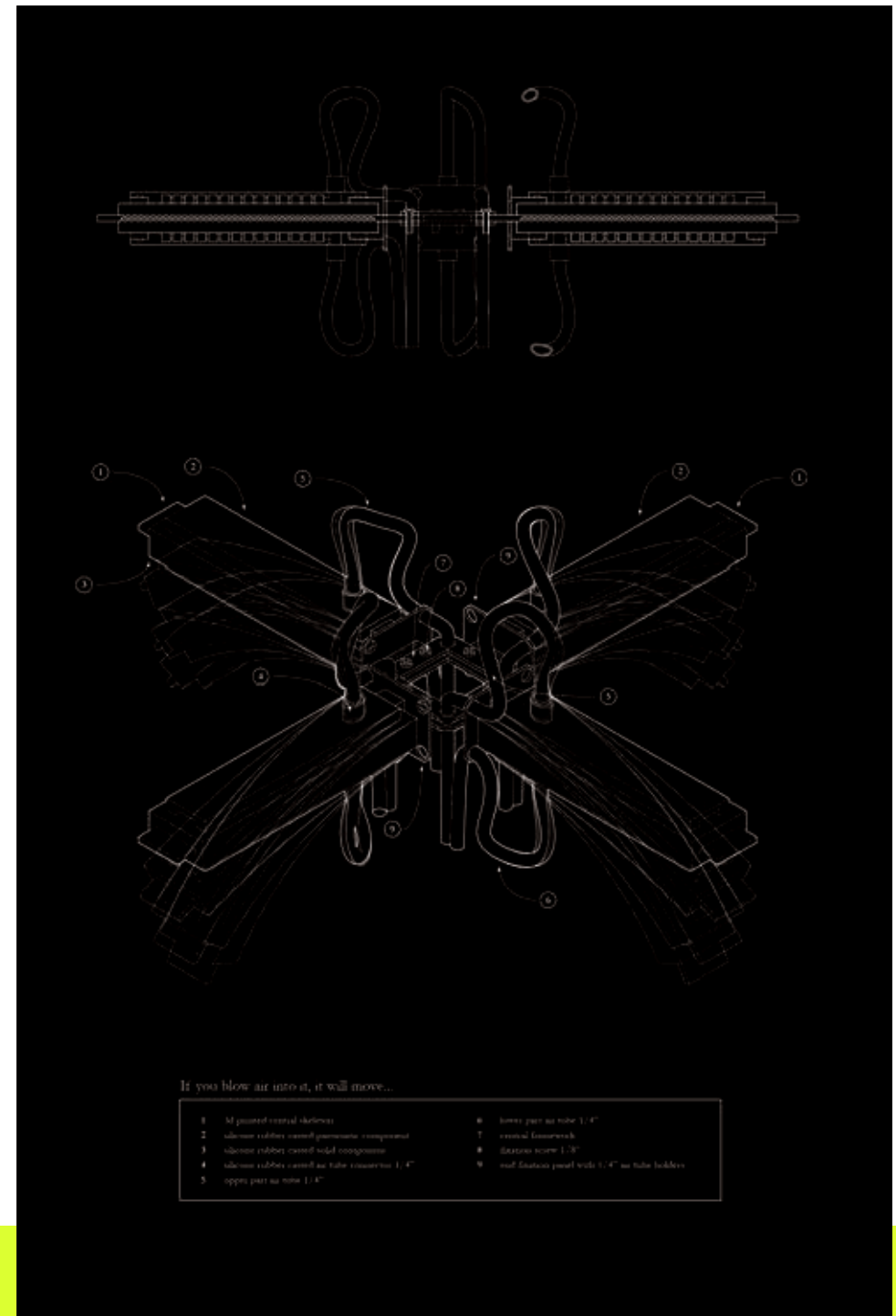
At the scale of design, this thesis manifests itself as a series of pneumatic architecture machines made up of silicone, pipes, valves, manifolds, circuits, and joints controlled by algorithms. The structures sense changes in atmospheric pressure and respond to these temporal elements through a feedback loop. The machine looks for information to react to, reject, or accept—ultimately transforming our understanding of the environment. While the posthuman machine is a material embodiment of codes, it nevertheless rejects absolute control, efficiency, and solutions. Its core function is to generate unexpected effects, and conditions that expand our understanding of the machine, and its endless possibilities...

Dissimulating and Disheveling Matter

Advisors: Bédard, Eversole, Hubeli, Larsen

The Posthuman Machine: Soft, Autonomous Architecture Machines are Useless

30



31

Zheng Fang & Yuntian Zhang

Overproduction and overconsumption have led to the development of material waste as a political substance. Disregarding waste leaves long-term and hazardous footprints in the form of fragments either burned, dumped, or sunken. Because most Antarctic stations (and their waste sites) are located along the coast, contaminated runoff may adversely affect the marine environment. As a result, much of our research examines the types and extent of impacts likely to occur in the adjacent bays due to the changing climate. We have started to see waste flowing into Antarctica from other continents as well as debate surrounding the 2048 expiration of Antarctica's mining ban. With these events and Antarctica becoming more accessible, waste is accumulating in fragments in unruly ways.

This thesis is a radical response to the growing disregard for how waste is disposed of in Antarctica. It also explores how one can represent climate change and the slowing down of its inevitable impact on the earth. As the climate changes, Antarctica is becoming more accessible for exploration and research. With the greater flow of people into this continent, there is a need to protect it from the toxic cycle of waste production. In addition to having waste transported back to its country of origin and the remaining waste absconded, the continent is experiencing a ghost-like gradient of waste. Antarctic regions will soon be overrun by capitalist monopolies due to the increase in accessibility in a very mineral-rich continent. As designers rather than problem solvers, we have a duty to examine how we could handle such a stark and crucial situation in the future. This thesis proposes a company that collects waste produced by other stakeholders present in Antarctica. By predicting a future dominated by capitalism, the thesis plans to highlight elitist greed and selfishness and combat it with a self-aware architectural intervention devised by mass waste accumulation as a permanent and growing structure, breathing in and reflecting its polluted surroundings.

Autonomous Mediations: Antarctic Waste Remedy



Current political discourse in the US has become increasingly physical, with an extreme engagement of architectural space by its users. As a result, the nature and qualities of civic space have shifted, and protest is no longer a vehicle for true expression of thoughts and beliefs. Media, objects, and how people now interact with civic space have changed what protest symbolizes. The dark reality is that the only way to gain attention and acknowledgement of current issues is through manipulative means, often in the form of a physical shift of architectural space.

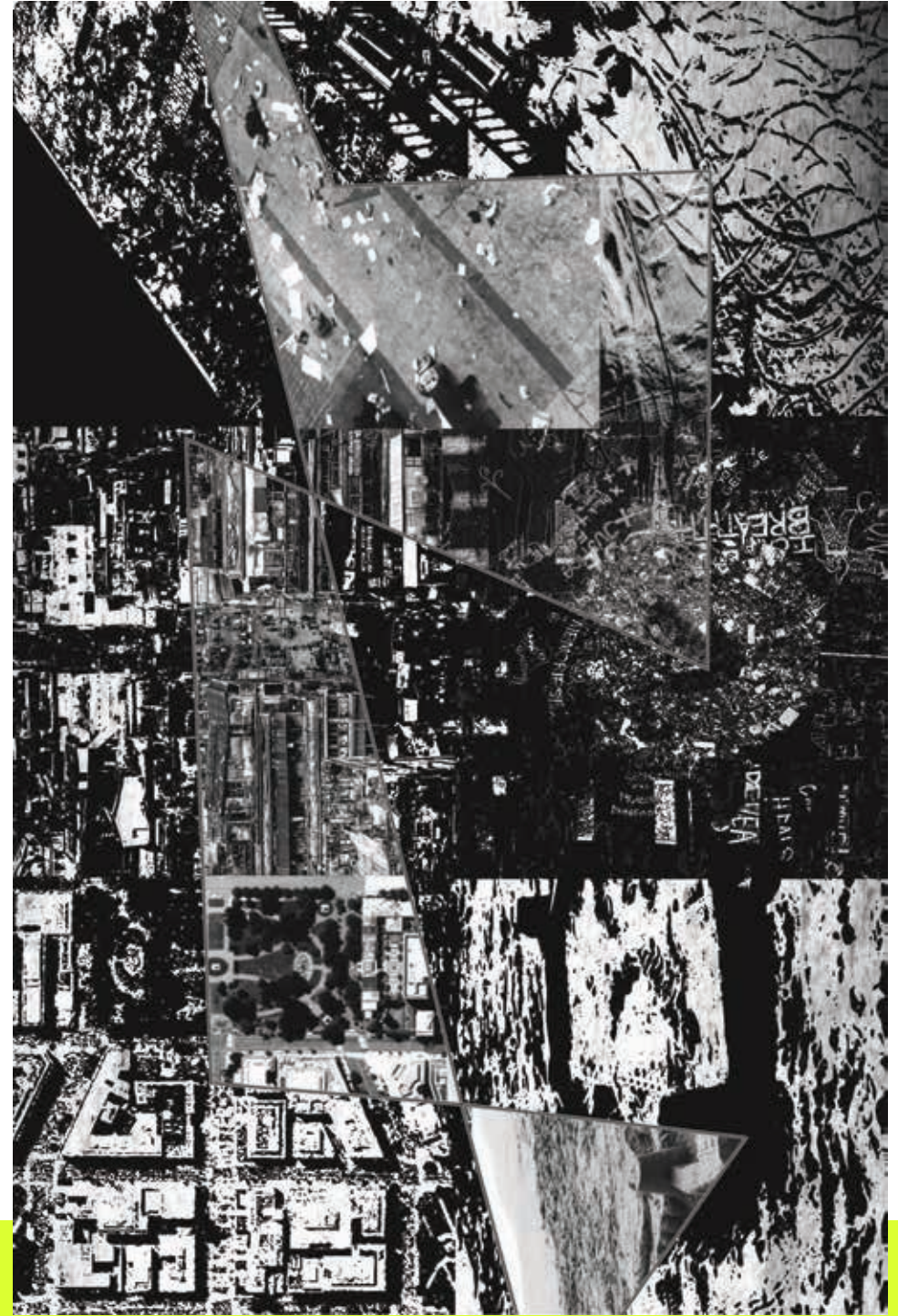
This thesis sounds the alarm on what protest has turned into today, and brings to light the misappropriation of the architectural objects in civic space. Through a meticulous collection and analysis of objects that have been appropriated for protest, we can establish the methods that led to the appropriation in the first place, and subsequently re-appropriate in order to fabricate a new architectural environment. The fabrication of a new and morphed space can provide an environment where there is no need for physical extremes, instead providing a reconstructed atmosphere of contemporary protest that fosters true engagement, interaction, and expression.

Addressing issues of ownership of space, public expression, and agency, the project aims to provoke and question the status quo. The current predominance of image manipulation to construct negative atmospheres within politics has left our country with a distorted view of the significance and intention of protest. Especially taking into account the dialogue between surface, volume, and image, we intend to set in motion a revitalization of the image of protest in the contemporary sphere.

Image: Negotiated Surface, Material Engagement, Textural Traces—Civic Environments

Advisors: Bédard, Eversole, Hubbell, Larsen

Dissimulating and Disheveling Matter



Contentious Mediums: Negotiating the Image of Civic Space

The failure of psychiatric institutions and their treatment methods are paramount in understanding how psychological disorders are made animate by collective debilitation imposed onto patients in their care. Psychiatry's unforgivable atrocities (creating asylums) are therefore not just the ultimate reference, but the only tangible connection mania has to being materially perceived. What allowed the imprisonment of those with disorders to become the quintessential vision of treatment is beyond any humane comprehension. For what precedent exists that better imagines the psychological disorder than the psychiatric institution; the architecture of mania; the sublime embodiment of every opinion, judgment, and projection?

Psychological disorders are not mere imaginaries, but they certainly do not exist—at least not to the degree to which infection exists with its ability to materialize itself into various deformities and diseases that relentlessly provoke global terror. The disorder exists only through a victim's ability to communicate that there is—without any unreasonable doubt—something internally killing them. This is the problem with the psychological disorder: it is an impalpable impediment; an impossible dilemma; an invisible burden; and an immaterial tragedy. Their amorphous properties evolved into an enigma that irreversibly causes disbelief, preserving the unironic abnormalizing of the perpetually suffering. Without the material conviction infectious disease possesses, disorders will remain insubstantial.

Illness in its totality warns humanity that omnicide (the absolute annihilation of all life) is not only possible, but has already taken form. It is unlike any precedent of the seemingly infinite endings-to-be, and whether eternal obliteration be perpetuated by some force of ending, execution is nearly always caused by something material and something external. Pervasive viruses are the only ending-from-within and ending-from-without. They are unmatched in their properties to destroy all life from within any single vessel of living matter. Psychological disorders are the only “endings-from-within” that approach the potential destructive capacity of disease. The failure of psychopathology lies not in its inability to prove that it exists, but rather in its inability to convince all life that it may kill, has already killed, and will continue to kill until it inevitably endures its own fatality.

Immaterial Psychopathology: Drawing from Mania



Something of a lackluster anachronistic body wobbles on the dry horizon. The landscape could be read as the highlands of the Atacama, the Gobi, or the Hashemite Kingdom. The soil is parched, with rains seldom arriving; the air is blistering, causing one's throat to heave, stricken. However, this place is bursting with riches. What has not been taken away by now will surely follow suit in time to come. A train slowly chugs by, retreating out of the valley with its hefty cargo trailing behind. What remains sits, abundant and fruitful. Lying on the flats, a gold mine of sorts has waited for eons to be unsettled and unfurled from earth's tethering bind. Minute particulates of a fortunate chemical reaction have led this ancient lake to smell of sulfur and function only as a place of retrieval rather than pleasure. The desert is a place of contrasts. Hot and cold, desolate yet abundant, remote yet picturesque. A unique set of attributes have made this flat scape something of a treasure trove for both extractionists and artists.

The mechanized landscape creates movements in the soil: carving, pumping, rolling, piling. Without rest, the ground shifts, changing state again and again. Lines blur to become compositions of a great and solemn dance. A repetitious process of inputs and outputs. Yet this operation is opaque, with only the silhouette of undulating pipes, unfurled grounds, and aging steel revealing themselves as the actors in this ongoing play. At the end of each day as the motors cease to roar, a picture is taken, from high above the valley. A snapshot of the day's work, exported and archived into the database. Layer after layer—the images reveal the movements and alterations to the landscape below. Ponds recede, trenches deepen, gaps fill, piles build, and tracks widen; a palimpsest of the never-ending procedure that takes more than it gives.

Dissimulating and Disheveling Matter

Advisors: Bédard, Eversole, Hubeli, Larsen



On Geodermic Affairs: Smudgy Karma Machines

One Thrifty Shopper receipt: a hand broom, a purple tupperware, a plastic baseball, a flashlight, a red cup, a pink fork, a toy dinosaur...

A cabinet stands alone, packed full of treasure and trash alike, each valued in a balanced hand. Its doors can hardly contain its chaotic composition as the collection has surpassed the shell it clings to. Shrouded jewels of material possession pick at the threads of human curiosity, begging for a chance to show worth. Discarded and forgotten, these objects entangle themselves further and further into the dusty debris of our memory and material affinity.

The collection and curation of our material belongings shapes our material and immaterial identities. In our places of refuge, we categorize objects—stacking, folding, hanging, shoving our things into convenience to find order out of chaotic possession. Surrounded by consumerist invitations, we collect and possess with such fleeting appetites that we often lose grasp of how much we have accumulated. As time pushes us forward with an ever-steady hand, we continue to compose even as the dust collects.

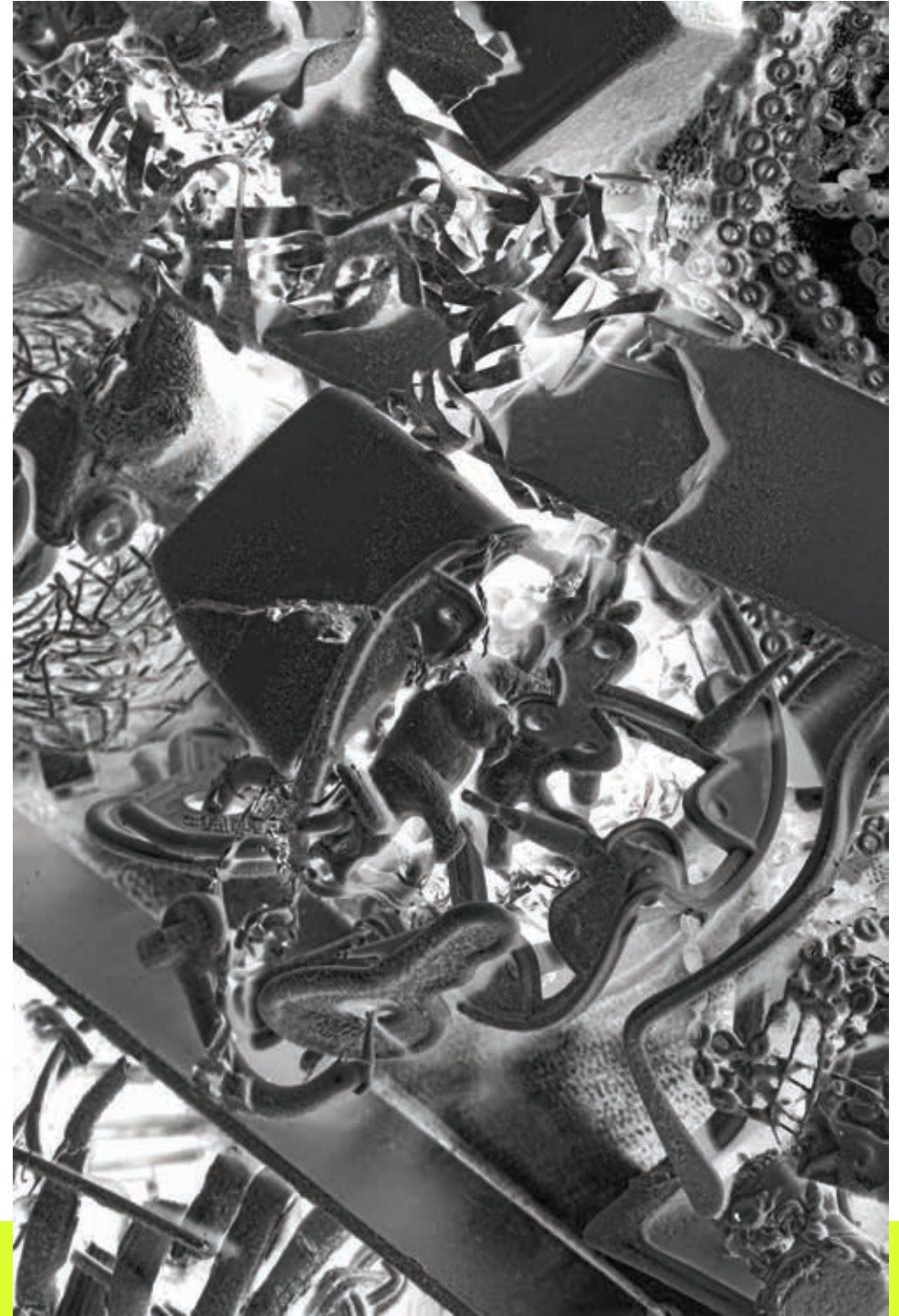
Every object we possess, use, collect has a character or meaning bestowed upon it, reflected in the eyes of the viewer, given value of memory, of recognition. Our realities and our memoryscapes are constructed in the form of a system of relations among these objects. But what of the discarded? What becomes of the pawned material bits and bobs of which we unburden ourselves?

These divorced material pieces come together to form a museum of the self, of memory, and of affinity. Questioning what it means to assemble and what it means to identify oneself with the objects of our spaces, these deployable memoryscapes become entangled landscapes of our material dust that pull at different moments of our lives and our minds. With time comes the dust, the crumbs of time that layer veils of misrecognition. Out of the dust emerges a new microcosm of object debris that meshes together, shrouding itself in time, and escaping our attention in its aggregation.

Image: The Cabinet. Accumulation + Aggregation of Dusty Debris

Advisors: Bédard, Eversole, Hubbell, Larsen

Dissimulating and Disheveling Matter



Re-Assemblage of Material Memory: Microcosms of the Abandoned Object

The process of casting can be divided into three object stages: the double negative (the original object), the negative (the casted mold), and the positive (the new object). The casted mold is the one that is discarded. In the construction of traditional bronze monuments, the process of extracting the casted bronze positive results in destruction of the negative mold. In recent years, there have been increasing protests against Confederate memorials. Many of these statues have been taken down, but their plinths are left to decay within the public space.

This project is intended to be situated in the city of Richmond, Virginia. Formerly the capital of the Confederacy, Richmond erected five Confederate statues along the newly created Monument Avenue decades after the Civil War. In the wake of the George Floyd protests in 2020, these statues have been removed, leaving the plinths behind. In recent months these plinths have also been removed, leaving voids at prominent intersections along the avenue.

This project consists of two parts: first a material exploration—testing the plaster mold and the voids of plinths it encases—and second with the new mold objects becoming a new landscape bearing traces of the plinth, a fragment of what was left on the site. Timothy Morton suggests that the world is full of objects, and without the world the object itself becomes more intimate. This project imagines the object becoming a world in itself—hence the new landscape. The congregation of objects attempts to create a new common ground, whereas the original plinth disturbs the ground plane by becoming an anchor occupying space; the casts shift and blend, introducing a new topography.

Image: Object Landscape

Advisors: Bédard, Eversole, Hubbell, Larsen

Dissimulating and Disheveling Matter



A piece of textile lies on the floor of a highly regarded institutional setting. It is a contention, inherently. Its sentence cannot be avoided. Domestic textile tradition is a marginalized craft, excluded by said venues and canonical architecture because of its gendered affiliations. This women's labor has existed and evolved within the domestic realm outside typical capitalist economic parameters, responding to our most basic need for warmth, embrace, and folk tradition. Now we stare at its fibers, through a lens of marble columns.

Western architecture's origin story lies in the concept of the primitive hut; we understand Laugier's storyline to be man adapting to nature by creating the primitive hut—the natural instinct exercised being a need for enclosure and stability. This is the side of architectural history's narrative that has been subscribed to and sustained, arbitrarily serving as the basis for what classical order has been derived from.

This project is a re-origination story, a speculative “start-over” projecting a what-if scenario if the feminine alternative to the primitive hut were instead the basis of western canonical architecture. Rigid joints connecting the multiple armatures of man's primitive hut are reconsidered as the feminine coaxing of fibers into a seamless felted enclosure. Instead of rigidity and permanence as the first instinct, the Feminine creates a soft embrace of textile utilizing and mimicking our friend the sheep's wool coat.

Except it feels like it's too late. We all stand here tiptoeing around the elephant in the room. It's become an architectural object for consumption. The empty hut.

This piece of fabric wallows in its stagnant oblivion. Its forms are romanticized abstractly, devoid of emotional meaning, dissociated from the labor and tradition embedded in its identity and use. But there is no point pitying it. All we have to do is remember—its fibers rely on human touch and shared occupation for true instigation.

Agitated Fibers: A Feminine Re-Origination Myth

44

Dissimulating and Disheveling Matter

Advisors: Bédard, Eversole, Hubell, Larsen

Image: Felted Wool Study with Potential for Occupation



45

Lainey Marra

We live in a gluttonous society. Whether it be in our consumption of media, buildings, or objects, humans have successfully begun the cultivation of a grotesque and extravagant need for overindulgent accumulation. This accumulation will eventually begin to affect our surrounding environments just as it is affecting how we think in our daily lives.

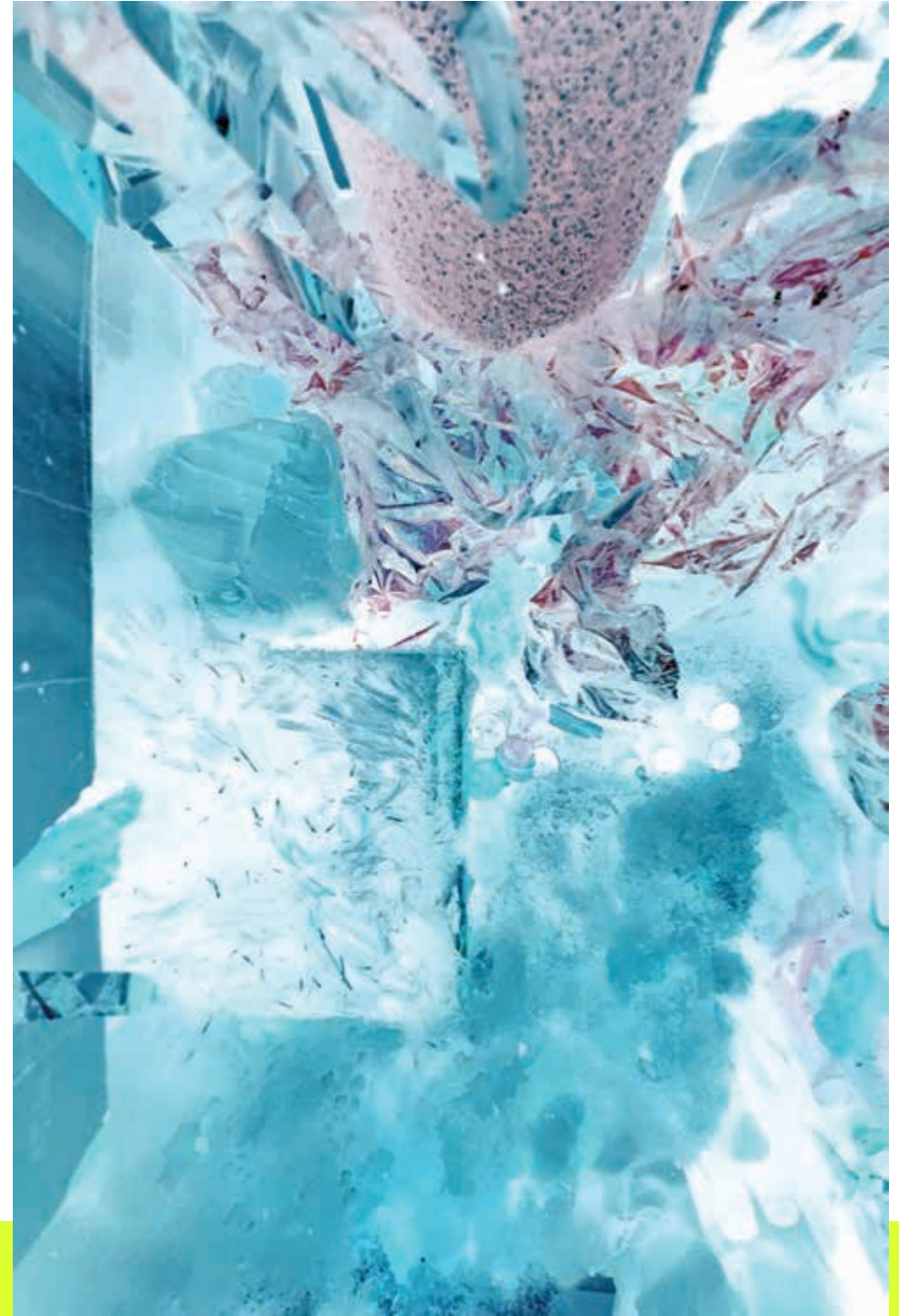
This thesis focuses on material exploration and perspective imaging revolving around gluttony and the traces it leaves behind in our own environments. Gluttony is often depicted in media and beyond as excessive, self-indulgent, and competitive. It is often represented as a loss of form that overtakes its surroundings and interacts with the body. These interactions are both physical, directly affecting the body, and performance-based, reflecting the body within its surroundings.

The project seeks to amplify and exaggerate the impacts of spaces that already simultaneously foster feelings of wonder and repulsion. Speculating on the results of these new environments, which begin to erupt from known and established spaces, allows new narratives to emerge and further define them. It provokes a need to know what could happen if people and their surroundings continue to grow and act on one another until they become indistinguishable from one another, and whether we can face living in our own gluttony.

Image: Material Palette Accumulation

Advisors: Bédard, Eversole, Hubell, Larsen

Dissimulating and Disheveling Matter



Humanity's interference within the global hydrological cycle has resulted in countless wildfires, the choking of migratory patterns, and the desiccation of surface water systems. Located within the arid regions of California, the Salton Sea fell victim to the wrath of anthropic development, resulting in a steady decline in the health of both the lake and those who reside upon its shores. The consequences of ignoring this crisis, combined with unsustainable building practices, mean that life within these arid regions may soon cease to exist entirely. We as a species must now ask ourselves: how do we react to the creeping humanitarian crisis of the global water shortage?

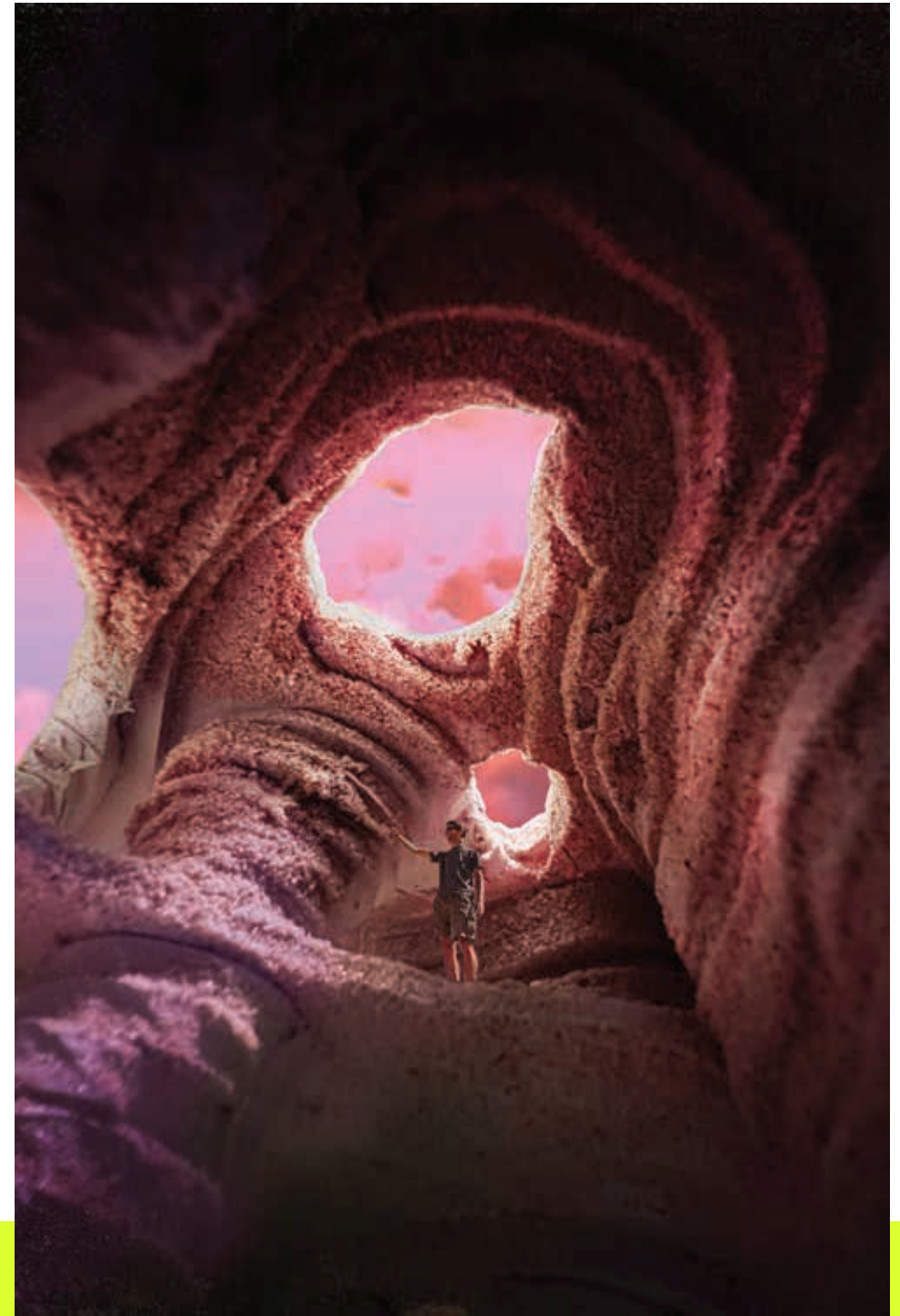
This project responds to this growing catastrophe by providing arid regions with both zero-water materials and innovative construction processes. By superheating local silica and lime using solar radiation focused by Fresnel lenses, we are able to assemble silicate glass into a variety of forms and structures. The culmination of this process and the repurposing of current computer numerical control (CNC) fabrication processes allow for a new and innovative vernacular of 3D-printed structures. The project ultimately aspires to develop an assemblage of tools, machines, and fabrication methods that can be utilized in the construction of architecture located in these desiccated landscapes.

In a further response to the compounding health issues at the Salton Sea, we have applied our silicate glass bricks to the development of a water treatment facility. The bricks are assembled into vaulted enclosures designed to work into the surrounding landscape, accommodating both natural and mechanical processes for water cleanup. This project additionally seeks to exhibit the history of the lake's decay, and the ongoing efforts to revitalize the natural and anthropogenic ecosystems of the Salton Sea.

Image: Algal Waterfall

Advisors: Bédard, Eversole, Hubbell, Larsen

Dissimulating and Disheveling Matter



Desiccated Assemblies: Building Amidst a Water Crisis

48

49

Jason Moline & Chay Phelps

In an age where consumer culture has been driven by the linear economy or a make-take-use-waste mentality, climate change and detrimental effects on the building industry and our built environment have become the norm. The depletion of natural elements and resources has reached a point where we can no longer afford the luxury of remaining complacent to the severity of our massive carbon footprint. We need to reintroduce and revitalize bio-based materials—specifically, mycelium and biodegradable substrates—into circular economies where zero waste is produced. Mycelium potentially has the ability to fuse with natural materials to create new building blocks—presenting a new way of thinking in a zero-waste economy, and providing longevity for non-recyclable building materials.

Consumer behavior and the stereotypes that come along with conventional materials can be changed to embrace an ephemerality of materials, thereby incentivizing a new methodology of orchestrating material change. By obliterating this fetish for or romanticism behind the “newness” of current materials and the “cosmetic obsolescence” that contributes to premature disposal and unsustainably short product lifetimes, we seek to pave the way for solutions that design exactly for this phenomenon. It is time to rethink current environments with time scale as a primary driver of design. Time scales tend to negotiate a certain agency, human attachment, and level of stimulation towards a space. Looking into the lifecycle of mycelium, we contend that its properties with respect to time can pose a new understanding of our environment. We can begin to pose the question: what if our environments address the current linear economy by becoming disposable in a sustainable fashion?

This methodology consists of no longer building architecture but rather growing it in sustainable crafted mycelium growing chambers. Mycelium will produce ephemerality in the mundane, temporality in natural landscapes, and disposability in urban landscapes. This biodegradable material will offer a new flexibility through the notion of constant change with different typologies in different contexts.

Impermanent Mycotectures: Bio-Welding as Methodology

50

Dissimulating and Disheveling Matter

Advisors: Bédard, Eversole, Hubell, Larsen

Image: Impermanent Mycotectures: Bio-Welding as Methodology



51

Ivania Rivera & Helna Zhen

In our age of growing consumption, hype and spectacle have become a driving force behind the apparel industry. The desire to own the newest and most fashionable items produce a world of fast fashion, which becomes the catalyst for quicker turnaround of new styles, increased number of collections, and lower prices, all of which appeal to the consumer. The demand for and production of fast fashion have resulted in the doubling of clothing production and a desire for excess. The current system for producing, distributing, and using clothing is completely linear. Large amounts of non-renewable resources are extracted to produce clothes that are used for short periods of time, after which the materials are largely lost to the landfill. It is often difficult for consumers to contextualize how, where, and at what cost their products get into their hands. This linear process from start to finish poses considerable threats to our global community, producing eight percent of global greenhouse gas emissions.

This project aims to disrupt the market, providing a circular system for brands and consumers to upcycle textiles into new products. Through collaborative and custom design, this proposal bridges the market between luxury design and mass consumption. It uses methods of mechanical recycling to deconstruct used and unused clothing into assorted fibers. These mixed textiles are then processed into the customer's new product. An app prompts users to help guide them through this step-by-step process. In doing so, *reClaim* becomes the agent of authenticity between brands and consumers. Operating in the market at a fraction of the environmental cost, this intervention educates consumers and enhances their experience. *reClaim* embraces the current demand for newness and consumerism by reimagining how we interact with products and brands. Not only does the process become tangible, but the products themselves also invigorate the uniqueness of fashion and apparel.

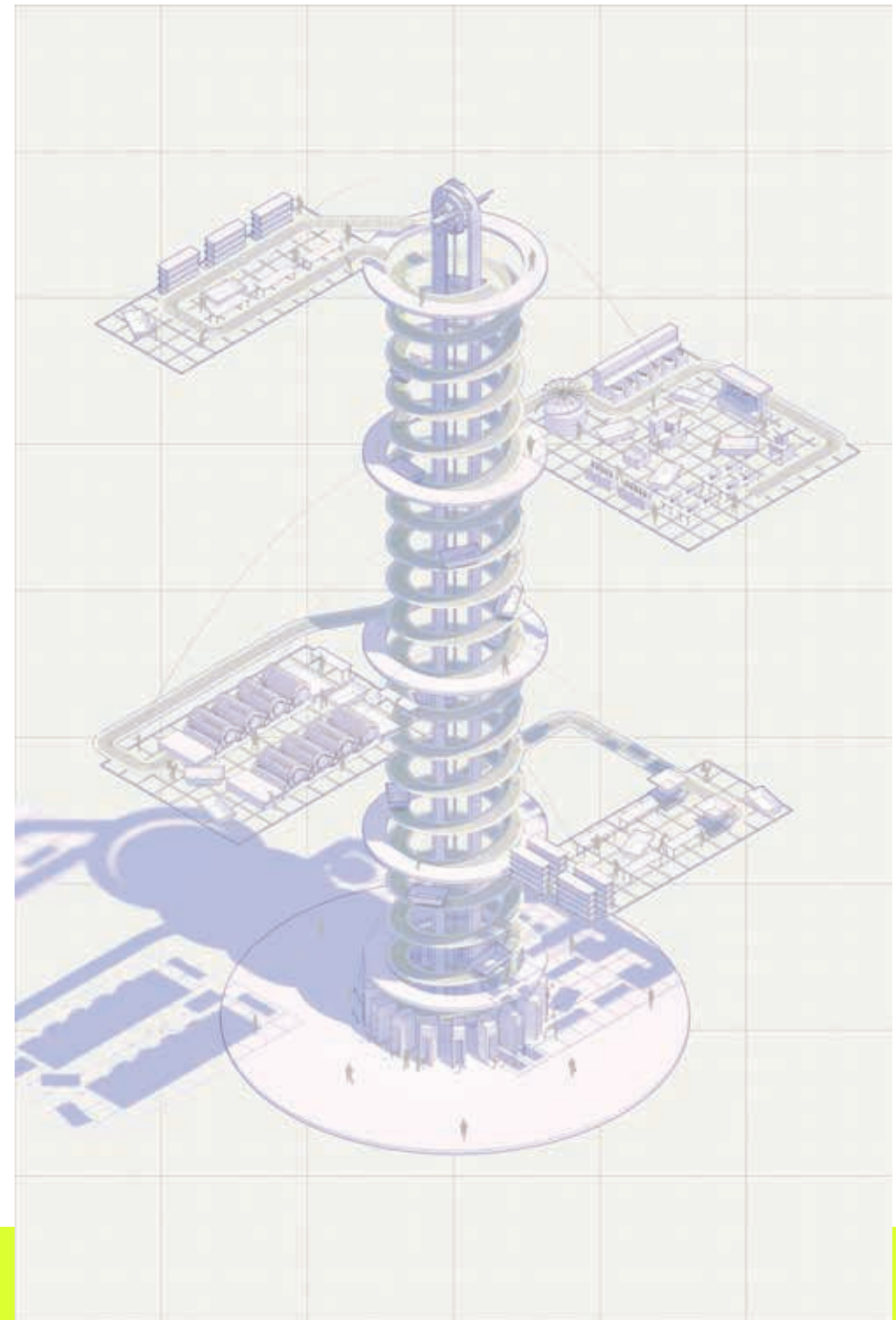
reClaim: The Circular Alternative

52

Dissimulating and Disheveling Matter

Advisors: Bédard, Eversole, Hubell, Larsen

Image: Destruction and Construction of Garments



53

Zack Samuel

Town squares across the US have become sites of controversy surrounding the historical figures and events they commemorate. Negative emotions—like those we have seen during the highly charged protests—block learning, while positive feelings of interest enable learning and discussion. Therefore, it is essential that urban environments in the modern world foster growth and discourse.

There has been an ongoing debate about Columbus Circle in downtown Syracuse. Should the Columbus Monument stay or go? This question currently divides the community. Some people see Columbus as a “hero” and a representation of their heritage, while others view his presence as “degrading” to Native Americans. Christopher Columbus is a global figure, fundamental to the understanding of exploration; however, his actions and his discovery of the Americas is often questioned.

The figure, which stands 40 feet high, is the central point of the area. The history of this statue is extremely complex, as are the histories of many statues across the US. These complexities and tensions are woven into the fabric of Syracuse and Columbus Circle, merging with individual memories and the evolution of the town itself. Syracuse, like many cities, is comparable to a collage of time, histories, people, events, memories, and so on. Columbus Monument acts as a bookmark in history to remind people of a specific figure. Members of the public have numerous memories and opinions surrounding him, some positive, some negative. The culmination of these sentiments reflects on the space around the monument and impacts the public’s experience of the area.

This thesis is a critique of the public’s energy surrounding the monument and how Christopher Columbus is portrayed as a hero within the circle. Through recentralizing the circle, pulling the attention away from the center and towards more intimate focal points, the intervention blurs the monument with the space and defamiliarizes its iconography. The public is encouraged to interact with the monument in new ways that are practical for the urban design, eliminating the heroic nature of the statue.

Image: The Morphing Profile of Columbus Monument

Advisors: Bédard, Eversole, Hubell, Larsen

Dissimulating and Disheveling Matter



We have traditionally located nature in untouched wilderness, agricultural development, or the gardens and parks built in cities. The landscape historian John Dixon Hunt identified these places as “the three natures” in his writings about the historical development of nature in our cultural imagination. In the 21st century the forces of climate change, species invasion, and extinction have affected the three natures in disproportionate ways, demonstrating the importance of rethinking the three natures paradigm. How might a Fourth Nature challenge traditional ways of imagining architecture?

We consider the Fourth Nature as a provocative source and catalyst for re-thinking the contemporary city, urban buildings, and designed landscapes. This work is a field of experimentation, researching and advancing how the Fourth Nature—as demonstrated in multispecies architectures, landscape urbanism, and AI technologies—enables us to imagine new ways of seeing, valuing, acting, and designing within our challenged anthropocentric environment.

● **New Natures Architecture on the Edge**

**Kristina Borrman
Ted Brown
Julia Czerniak
Emily Pellicano**

The term “preservation” is conventionally understood as erasing the effects of the forces of time. This thesis investigates a new way of envisioning preservation that lends itself to the aging and growth of nature over time. It questions whether we can imagine a hybrid relationship between matter and material that produces a sustainable structure. This project proposes a living, self-preserving structure that nature and the human-made will evolve into, as one fluid entity; this structure will highlight and utilize the cycle of growth, decay, and rebirth.

Since the site is home to natural conservation areas, there is opportunity to design this structure in a way that will utilize endangered tree species to rebuild vulnerable ecosystems. This thesis focuses on the revival of the ash tree species in the area through its implementation as a structural element, so that the species itself can be preserved along with the self-preserving structure.

Untreated timber recycled around the town of Lincoln, Massachusetts will serve as a basis for the structure’s first growth cycle. This will make up a sustainable scaffolding through the building sink effect, a process that compensates for human-caused CO₂ emissions. However, the material lifespan of untreated timber is limited to 30 years, so material decay will occur much sooner than with traditional treated wood. To counter this, the planting of new ash trees can be utilized as a reproductive structural component, as it is timber that is still growing and living. The trees will eventually grow to the point of replacing the original decaying timber structure through the process of conservation plotting and tree shaping.

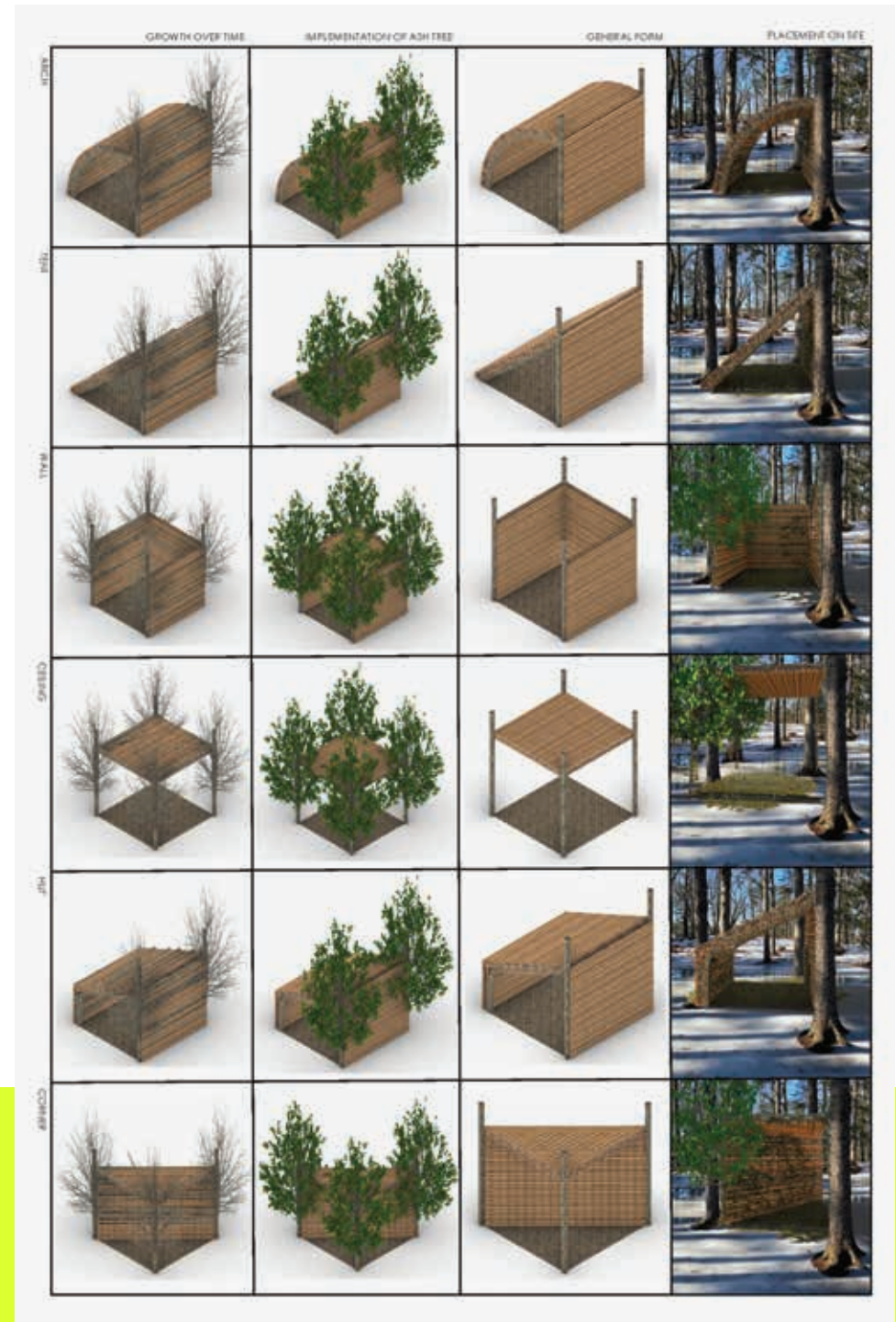
The self-preserving structure will then exhibit itself as a growing center and conservation area for endangered species around New England, as it will rebuild its once prominent ecosystem through its growth and germination cycle.

Through methods and simulations of dematerialization and regrowth, this thesis will design in a way that hypothesizes future advancements in sustainable design methods. These elements will exhibit a universal, self-preserving structure that lends itself to the hybridization of the architectural (material) and natural (matter) life cycles.

New Natures

Advisors: Borrtman, Brown, Czerniak, Pellicano

Image: Regenerative Structure Ecosystem Levels



Dematerializing the Architectural Life Cycle: Self-Preserving Structures

The digital divide is growing worldwide—exponentially in developing nations. Due to the recent COVID-19 pandemic, the inability to access digital infrastructures and the internet has been highlighted in “forgotten” communities. With the move to online learning and work from home, many were left school-less and jobless since their homes aren’t plugged into the infrastructural grid of power and internet access. Some don’t even possess electronic devices that connect to the internet, making it impossible to attend classes, work from home, or participate in global social and economic activities.

This project proposes fourth nature as a data infrastructure providing affected communities with tools and frameworks to start bridging this gap by building new productive ecologies. In today’s context, a data center typology is here re-imagined as one that assists socio-economic, environmental, and technological recovery.

The thesis will use the cultural capital of Oaxaca, Mexico as a test case. Oaxaca is a region of local municipal governance with ties to the customs of indigenous populations, and an economy powered by agriculture, small businesses, informal workers, and artisanal products. Oaxaca lacks digital telecommunication, with its poor infrastructure especially evident during the past two years. Although artisanal items and agricultural products are in high demand internationally, local producers have little access to market data and broadband services to connect to consumers and distributors worldwide.

To envision this new typology as a catalyst for recovery, the project will ultimately examine data across scales with the goal of understanding global connectivity and its relation to territory. Using and converting GIS data to construct maps, diagrams and drawings of the territory will reveal opportunities for location and potential for cross-programming. The process and predicaments (consumer needs, degradation of land and ecosystems) of the local artisanal and agricultural industries will inform the social and environmental potential of the data center.

Milpa³ will thus develop the IT infrastructure of a region, while providing a space for residents and small businesses to access computer labs and incubators to participate in education, visualize market data, and survey the land. At the same time, it is projected to support local ecologies.

Milpa³: A Regenerative Data Infrastructure



The ECO-tec Initiative aims to construct a framework for reconnecting fragmented ecoregions and revitalizing degraded habitats. It does so by joining national parks and protected areas into a network of continuous wildlife corridors stretching across the far reaches of North America. The project posits an augmented nature—one aided by telemetry data and technology to support the population growth and continuation of endangered species. The perpetual encroachment of human development has left millions of other species fragmented and isolated into ecological islands. By actively intervening in and across ecoregions we might construct a continuous landmass of ecological refuge—an anti-archipelago.

In its initial stages, the project aims to revitalize Ecoregion-045 and join the 350-mile stretch of land between the Arches National Park in Utah and the Rocky Mountain National Park in Colorado. By creating factories for the incubation of endangered species we might begin to preserve irreplaceable systems of life. In this way, ECO-tec taxonomizes and commodifies flora and fauna only to be reintroduced back into their native habitats.

The project dispels the notion of “non-intervention” in the natural environment by inserting design interventions across ecosystems that help to support habitat resiliency. Such interventions include wildlife corridors across urban development, seed banks to preserve plant species, DNA banks to store genetic material, research labs with drones and trackers for data collection, designed plant and animal shelters, and the recalibration of land-use to turn monoculture farms into fertile micro-biomes.

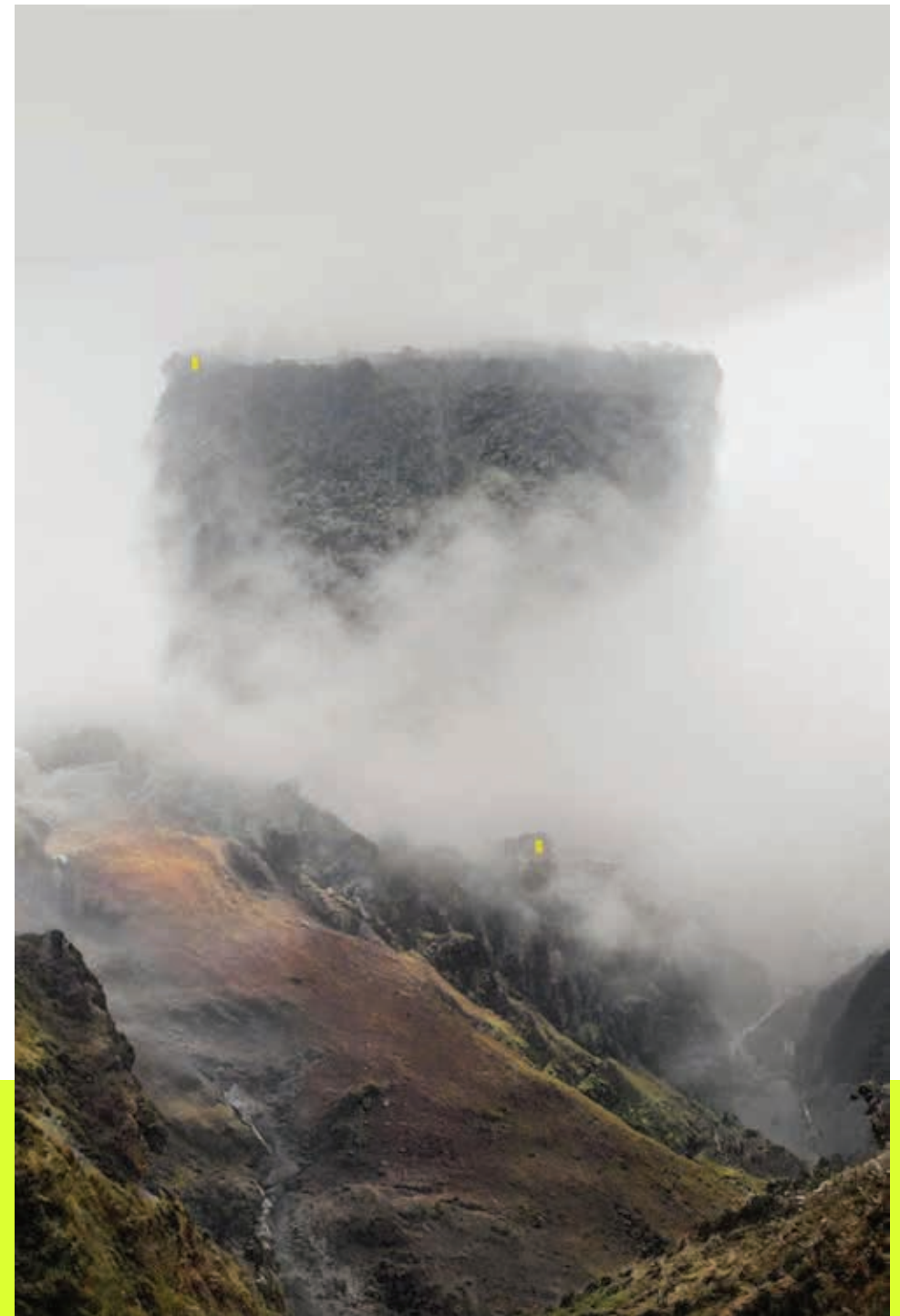
Due to human intervention and related factors, 30 to 50 percent of all species could go extinct by the year 2050. The loss of suitable habitat and its continued fragmentation by way of highways, neighborhoods, and urban development spells population collapse for even our most robust ecosystems. Relegating our ecosystems and natural environments to parks and conservations is not a sufficient model for preserving and supporting biodiversity.

In response to these issues, this project pushes back against the spatial asphyxiation of habitat by suburban sprawl, industrial agriculture, and metropolitan development. By actively designing for the continuation of other species we might protect and preserve what’s at stake—Life on Earth.

The ECO-tec Initiative: A Framework for Constructing an Anti-Archipelago

62

Advisors: Borrtman, Brown, Czerniak, Pellicano
New Natures



63

Jake Hayward

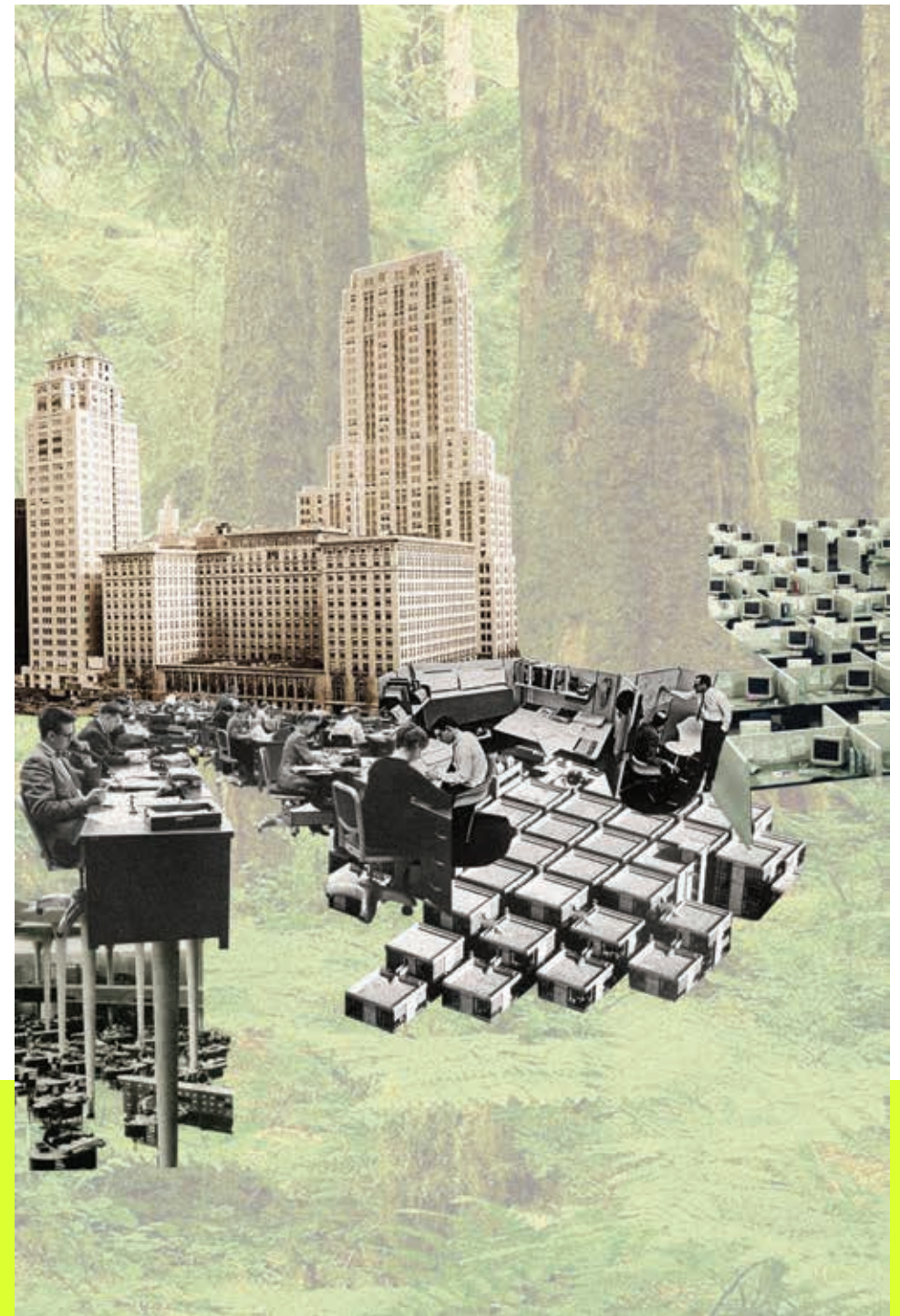
Due to the current development of the service industry, many large enterprises are divided into multiple small businesses to form a clear social division of labor. This change of work mode influences the design of office space, such as the shift from modular working areas divided by panels to contemporary co-working spaces. Against an evolving “landscape” of office environments over the last century, this thesis looks at new potentials of co-working space through an examination of boundaries and borders between workers, inside and outside, and human and non-human species.

Located at a “green area” in a financial trade zone in Shanghai named Lujiazui, the project area is valued as an important political center constructed under the great period of the Development and Opening Policy of China in 1990. Nevertheless, the modern Lujiazui is inharmonious with “nature” in the city because of high population density, heavy traffic, abundant steel and concrete buildings, and a lack of parks and vegetation. The design of the overpass in the center of Lujiazui dis-aggregates the walking habit of human beings from the street. The proposed co-working habitat recombines and reenergizes relationships: human/human, human/city/street, human/non-human. A new nature is proposed as one of integration and cohabitation.

Image: Co-Working Habitat

Advisors: Borrmann, Brown, Czerniak, Pellicano

New Natures



For centuries we have tried to control, modify and extract “nature” to construct ways of life. Instead, we need to adapt how we live in relation to the shifting forces of “nature.” A “new nature” is a lens through which we, as humans, relinquish our efforts to control nature as we adapt our lifestyles to evolve with natural processes. This thesis constructs architecture’s role as one that fosters environments that can evolve along with natural forces like water. To that end, this project explores mobile and flexible architecture that can be implemented in the Lower 9th Ward of Louisiana to imagine adaptive solutions that create harmonious environments between people and nature. While studying the Lower 9th Ward, it has become clear that solutions at the scale of the block and its aggregation allow us to see how this community can live with nature through a new lens.

Image: Adapting to a New Nature

Advisors: Borrman, Brown, Czerniak, Pellicano

New Natures



This thesis explores solutions to H-2A housing in a Central New York location, Beak and Skiff apple orchards, where people of every age visit each fall. The site's high regional popularity makes it suitable to demonstrate the onerous experiences of H-2A workers as well as challenges for both employers and workers. H-2A visa workers are foreign, non-immigrant people who work in agriculture on a temporary basis. H-2A employers are mandated to provide many things to ensure a life of quality for their workers, not the least of which is adequate housing. Most of today's H-2A housing falls far below the acceptable conditions, and with workers' visa status bound to a single employer, it is very difficult to speak up about unsuitable conditions. H-2A housing is thus characterized by its seasonal use, its agricultural site, and its link to the employment of its residents, which usually results in minimally suitable conditions.

This housing project works to elevate the standard of life for H-2A workers by providing homes that support their physical and mental well-being between long days of manual labor. It also facilitates a community for the workers to fight isolation, as all of them are far away from their homes.

Additionally, this project extends to support the livelihood of the surrounding orchard via its flora and fauna. Plants and animals work together to cultivate the agricultural products of an apple orchard via pollination and pest control. Studies have shown that a healthy population of birds and beneficial insects can control pests better than many pesticides. In this project, the building and surrounding site caters to the needs of valuable plants and animals and provides spaces for them to create habitats. By synthesizing the needs of H-2A workers and the surrounding orchard environment, this project creates a New Nature of coexistence, effecting a healthier orchard for every being.

Expanding Orchard Life: Raising Housing Standards for Seasonal Beings

68

Image: Flora and Fauna Coexist in a Healthier Orchard

Advisors: Borrmann, Brown, Czerniak, Pellicano

New Natures



69

Eve Miserlian

With the advancement of technology, the everyday relationship between humans and nature has dwindled. This disconnection has allowed people not only to neglect, but also to harm nature. *Unfulfilled* proposes an architectural intervention to assist nature and reeducate humans so they can live in harmony with the outside environment. Architecture has long been about protecting humans from the outside, but now the script is flipped. Humans must protect nature to protect themselves; this will be a learning process for many.

Unfulfilled examines this possibility at an Amazon fulfillment center recently constructed in the middle of a suburban neighborhood in Liverpool, New York. This copy-and-paste warehouse has a bleak design; a drab gray façade facing vibrant homes. The 110-acre site was previously a public golf course, but this large recreational zone was sold as an industrial one. The loss of this public, outdoor, recreational space is detrimental to the community and demonstrates how recreation is undervalued.

Inside this warehouse, hundreds of thousands of packages are shipped out daily. But do people know what to do with their purchases if they are subpar, broken, or just done with them? Making the easy but uneducated decision to dump them into landfills does irreparable damage to soil, ground water, crops, air quality, humanity and future generations. Proper disposal of e-waste is critical to protecting our environment from hazardous chemicals. Education is programmatically essential in assisting nature.

Unfulfilled combines the past desire for play and the present need for education. This project envisions recreation and resources that don't need to be separated, providing both in an accessible way so the community can integrate educated decisions into their everyday lives. This is the first step in assisting nature.

Advisors: Borrmann, Brown, Czerniak, Pellicano
New Natures



National parks are both valuable sites of American culture and complex ecosystems. Rich with history and diverse flora and fauna, these parks are resilient havens of American nature. However, these sites, and all natures, are threatened by worsening climate conditions. The west coast's Yosemite National Park is a cultural icon and core site of national interests in preservation. Yet it too is repeatedly challenged by fires at increasingly greater scales and extremities incurred by climate change. This crisis will escalate, turning calculations of future devastation into a permanent reality.

In response, architecture has the agency to create potent imagery, to demystify the climate crisis, rendering the danger and effects of these elemental conditions in order to evoke an emotional response and protect America's cultural icons. Current representations of these natures are critiqued as ineffective at connecting with audiences. While different types of media may portray national parks with distinct intentions, such as tourism, preservation, reporting, and documentation, most romanticize the past and present states. Researching American national parks requires the past, present, and future. New representations are approached as a mixture of the park's factual histories and historic representations balanced with projections of the future.

Seeking imaginings of the foreign and undiscovered, artificial image productions—utilizing text- and image-to-image and style transfer machine learning technologies—offer the ability to defamiliarize the known. Designed as a parafictional atlas, image fabrication of Yosemite National Park is guided by a fictional documentary narrative designed to present future projections as fact. Visually and textually capturing the tense temporality and archived physicality of Yosemite can inform and increase emotional investment in the future of American natures. Audiences therefore approach the familiar as foreign. Representations can translate the power of cultural icons and disasters into tangible issues commanding immediate reflection and responses.

American Natures: The Fictioning of Facts

72

73

Patrick Riley

New Natures

Advisors: Borrmann, Brown, Czerniak, Pellicano

Image: Repent in Admiration, Construct Your Image Fast



This thesis aims to provide an alternative life for materials produced by the construction and demolition process of our built environment. Currently, the handling of debris results in an excess of discarded material whose final resting ground is abandonment in landfills. However, construction and demolition debris hold potential for further use in construction. This thesis acts as a material study which proposes applications for the re-use of debris. Excess material does not need to be discarded, instead, it can be preserved or reused to diminish the cycle of production.

Construction and Demolition (C&D) materials consist of the debris generated during the construction, renovation, and demolition of the built environment. Extracting and processing raw materials to manufacture new material damages ecosystems in each step of the process, circling back to their eventual abandonment. We live in a second nature which acts to overpower our remaining first nature, with the act of discarding debris adding to the unnecessary occupation of existing ecosystems. The EPA estimated that 600 million tons of C&D debris was generated in the US in 2018—more than twice the amount of generated municipal solid waste. Discarded material rests in landfills that consume space previously occupied by plant and animal life, destroying their natural habitats. In addition to this consumption of space, the runoff from landfill sites disrupts surrounding soil quality, impacting the health and growth of surrounding flora and fauna. If landfills and production of new materials continue to grow, what is at stake is the health and sustainment of natural ecosystems.

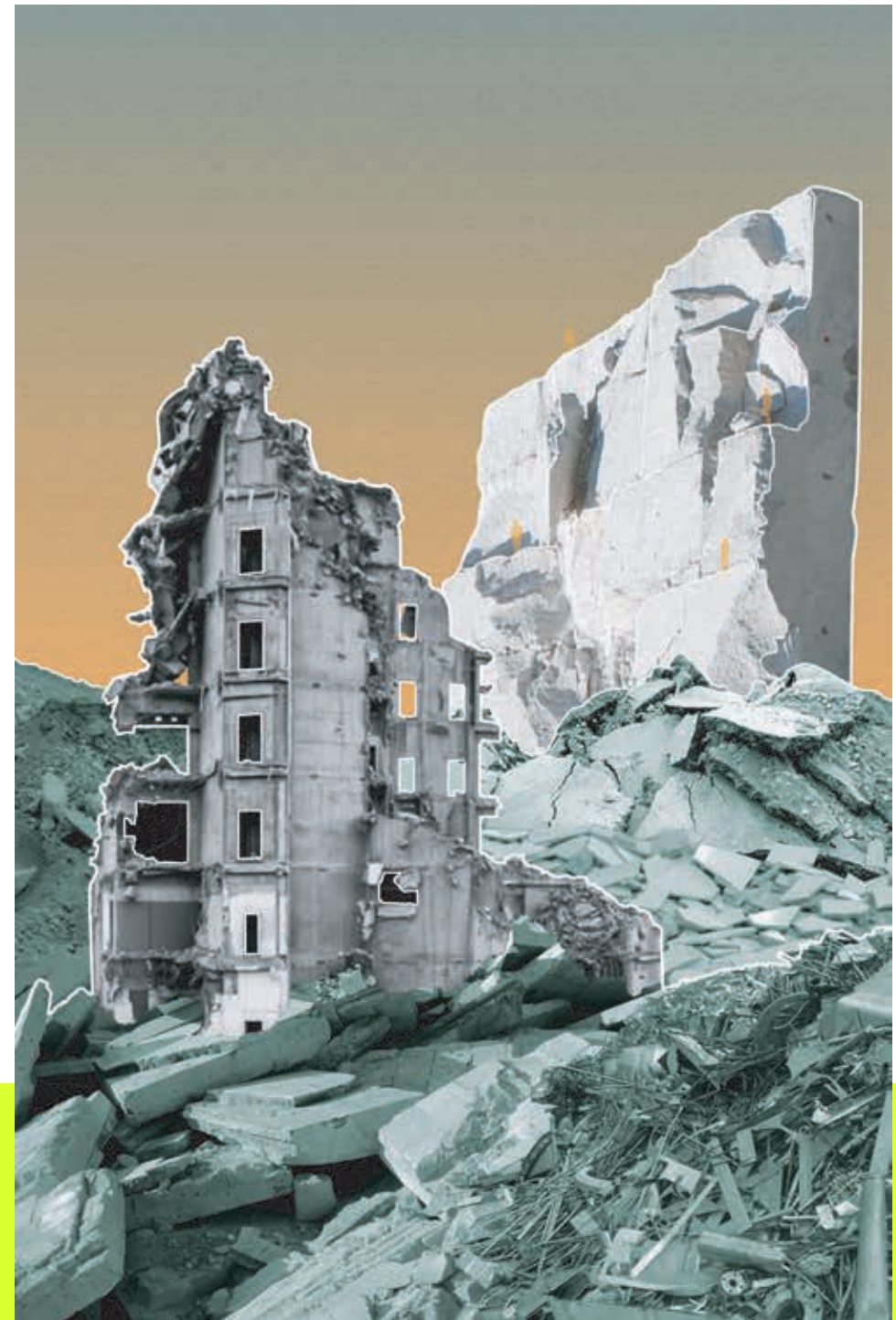
Debris: Material Repurposed

74

New Natures

Advisors: Borrmann, Brown, Czerniak, Pellicano

Image: Future for the Discarded



75

Jessica Szymanoski

The death of the American shopping mall leaves behind a boxy, monotonous, and universally recognizable space to be reinhabited. Material degradation and vegetative overgrowth through now-obsolete shells hold the possibility to blur the boundaries of human and nature, to cultivate stronger relationships between our internal and external environments. The large commercial acreage scattered across the American landscape holds the potential for communal self-reliance, particularly through local food production. The artificial environments of the shopping mall are not unlike the highly manicured spaces of our agricultural sector, heavily reliant on maintenance and accessibility to be effectively integrated into everyday life.

A stark boundary has been drawn between nature and the built. However, as we drive further into the Anthropocene, our responsibility to the environment must break down these boundaries. Understanding our evolving relationship to nature, from the wild untouched outside to manicured gardens of our own creation, is integral to the future of architecture. As such, the newest nature is one of our own manufacturing, built off existing “wildness” to be reflected and integrated into our own heavily artificial environment. This project imagines that programmatic obsolescence and subsequent vegetative overgrowth provide an opportunity to break down the heretic envelope and explore self-sufficient futures in tandem with environmental “wildness.”

The closure of Shoppingtown Mall in Dewitt, New York allows the reimagining of agricultural production and recreation through new enclosure strategies that integrate overgrowth and conscious decay. Through interventions of opening the mall onto landscaped parks, offering “outdoor” light qualities, destabilizing enclosed aspects of space, softening boundaries of interior and exterior, compressing and extending the building envelope, integrating agricultural strategies, and creating vegetative pockets, the form of Shoppingtown can evolve to bridge boundaries between existing communities and the environment. Though many current mall-reuse projects focus on privatization and demolition of dead commercial spaces, Manufacturing Nature works within the concepts of accessible food systems and community self-reliance to adapt spaces engrained in the American subconscious to meet the new needs of the Anthropocene.

Manufacturing Nature: Dead Malls & Self-Sufficient Futures

76

New Natures

Advisors: Bortman, Brown, Czerniak, Pellicano

Image: Exploring the Commercial Section with the Reintegration of Vegetation



77

Katie Weeks

This group's theme opens the dynamic between architecture and historical research, providing an opportunity to enrich the design process through in-depth study of historical contexts and to encourage studies that employ design strategies in the study of history. It welcomed topics focusing on any period, geography, or scale of historical inquiry, assuming any position in the dynamic between the study and design processes, whether investigating those processes or initiating them.

The resulting projects address a wide range of historical questions, time frames and methods, and are geographically wide-ranging. The subjects extend from an analysis and interpretation of the uses of classicism in the Skopje 2014 project; the use of enslaved labor envisioned in Albert Speer's Germania plan for Berlin; van Schendel's and James C. Scott's concept of Zomia studied through an investigation of "traditional" peoples in the Heilongjiang region of China; creating a new reflection of the historical diversity of old Sarajevo; issues of preservation in the renovation of shophouses in Kunming; the consideration of multicultural history along the Silk Road in designing a commemorative museum at the site of the destroyed Buddhas of Bamiyan; a study of the transitional sequence in from the outer world to the spiritual world in sacred architecture in the design of spaces of meditation; and a critique of real estate and the living arrangements of migrant domestic workers in Hong Kong.

● History

Lawrence Chua
Susan Henderson

Our existence can be identified as a constantly transforming sequence of places, thoughts, moments, and dimensions. As a critique of the fast-paced condition of life and of individualism, this thesis poses the following questions: How can architecture contribute to our ability to wind down and appreciate the present moment in the process of constant transformation? How can architecture become a threshold in the city transformation by addressing new typology that contributes to both the urban and public spheres? How can architecture become a marketing tool that delivers its transformational values to consumers and a community at large?

The site of the project responds to a master plan recently published by the Institute of the General Plan of Moscow, which identifies industrial areas as zones of change for public facilities. The meditation pavilion is to be located in the redeveloped industrial zone in the southeast of the city, thus promoting mindfulness within the existing cultural urban context of the city. Through creating community, meditative practices can be used not as an escape from reality, but rather as an integration into the everyday routine. This project does so by creating a so-called “third space,” a term coined by sociologist Ray Oldenburg.

The final product of the thesis is a series of design prototypes for different kinds of Zen practice—Zen meditation, Zen yoga, Zen dancing, and Zen chanting—each of whose purpose is a practice of non-attachment in response to different stimuli, including visual and spatial. Within the programmatic sequence, crossing the threshold of architecture, metaphor, and self, one pursues a journey into the unknown, in search of a new or expanded meaning about oneself, others, nature, or higher good, through experience.



Ideas and authority are transmitted by building, resulting in the identity of a nation created by the architecture of its capital city.

Louis Althusser describes ideology as “the imagined relationship of individuals to their real conditions of existence.” Architecture and large-scale planning projects shape our material world and are vehicles for ideology, narrative, and identity. This thesis will answer how government regimes have used architecture to rewrite history, create national belonging, and tell a story about themselves and their country.

In North Macedonia, the capital city of Skopje was devastated by an earthquake, resulting in a call for international solidarity and aid from the UN, which sponsored a competition to reconstruct the city. The Japanese Metabolist architect Kenzo Tange was selected, and his vision for the city partially executed through donations from across the world. The buildings constructed in this period continue to draw international acclaim and attention from sources such as the MoMa’s 2018 exhibition, *Toward a Concrete Utopia: Architecture in Yugoslavia, 1948-1980*.

Fifty years later, the city was again redesigned via the Skopje 2014 Project executed by Prime Minister Nikola Gruevski, which reclad many of the concrete buildings with white, classically styled façades and the construction of hundreds of new national monuments and memorials across the city. What remains is a contradictory and dialectical image of Brutalism and Classicism, old and new, and a palimpsest of national narratives. Which version of this city can be called authentically Macedonian? What micro-histories are left behind by the repeated rewriting of this city’s identity?

Architecture has an abundant and precise language to describe the technical functions of its elements but lacks language to describe ideological ones. This project compares the unbuilt and invisible aspects of ideology with its visible expression. It offers a grammar of architectural elements and reveals how these elements acquire ideological meaning in the context of a capital city. And finally, it explores how architecture and architectural representation are complicit in the construction and dissemination of narrative.

Delaminating the Real: Unpacking the Physical Expression of Ideology

History

Advisors: Chua, Henderson

Image: Superimposed Governmental Façade Elements



This project examines the relationship between domestic labor laws and the “spatial practices” of migrant domestic worker (MDW) spaces in Hong Kong. The project asks, what do the designed and spatial practices of domestic worker accommodations inform us about the hierarchy and future of domestic space in Hong Kong?

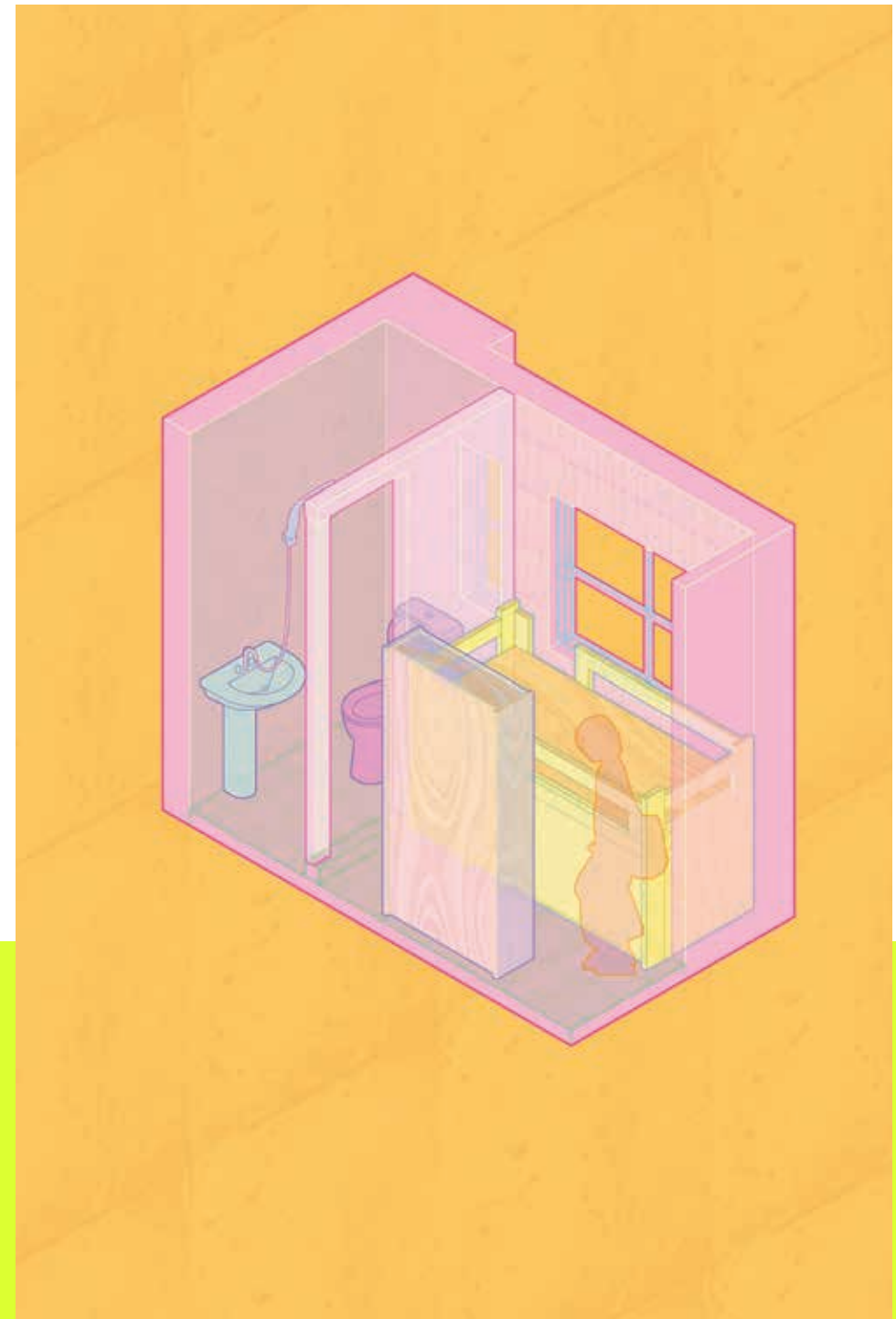
While most studies of gendered space tend to rely on US and European domestic models or focus on Hong Kong’s public spaces, this study offers an alternative understanding of gender relations, rooted in urban, postcolonial, and global cities in Asia.

In 2003, Hong Kong issued a law requiring domestic workers to live with their employers. For apartments without a designated servant space, makeshift accommodations were created within those apartments to comply with the law. The research studies these modifications within the home and creates spatial abstractions through differently scaled models.

The spatial practice of employers and the designs of residential developers of migrant domestic worker accommodations in Hong Kong create a distinct social hierarchy structure between the servant and the served through varying means, ranging from porousness to confinement. We see this in examples such as sharing spaces with other members of the household, living in the living room or the kitchen, and in objects such as fabric partitions, unlockable doors, or security cameras. The combination of spatial arrangement and objects imposes spatial awareness of the workers’ security and comfort within the home.

The research is based on a survey carried out in collaboration with the Mission for Migrant Workers, an NGO in Hong Kong. Additionally, in-person interviews revealed that employers renovated servant spaces antithetically to the developer’s designs. The survey asked about privacy and had the workers draw a floor plan of their accommodations, while the interviews allowed for an intimate understanding of spaces and casts that preserve the material damage due to their labor. These methods of archiving space are important for future studies of represented space that can preserve the identity of participants, especially those in vulnerable socio-economic positions. This project proposes shifting furniture and making structural changes to the participants’ apartments to expose the absurdity of the condition.

Stored Labor: Spatial Practice of Domestic Worker Accommodations



It is beyond debate that Adolf Hitler and his National Socialist Party wanted to build a New World Order under Nazism to remake the world according to their ideas of racial, social, and cultural worldbuilding. This new world also had a distinct architectural aesthetic and order, one that Hitler personally began to execute from the minute he was appointed chancellor in 1933. As he stepped off the rostrum after becoming chancellor of Germany, he handed Albert Speer a sketch he had made while he was imprisoned, and remarked “Wenn ich Europa regiere, wirst du das für mich bauen.” The sketch was of a monumental, domed assembly hall, to be the largest in the world, a project that Hitler and Speer would go on to call the Volkshalle.

The Volkshalle was the centerpiece for Hitler and Speer’s plan for a completely new Berlin, which was to be renamed Germania, a new capital for all of Europe, which was to be under Nazi domination. This project would utilize the largest slave labor empire and industries in the history of the world, to be established in the occupied eastern territories. Every aspect of the Volkshalle, from its building materials to transportation to people on site building the buildings was to be through slave labor. Estimates by Speer’s office, the Generalbauinspektors für die Reichshauptstadt, called for 2,000,000 forced laborers for a period of ten years, just for construction alone—not to mention the millions of workers who would be responsible for quarrying and processing well over a million tons of stone, brick and steel that the building called for.

This thesis will investigate Nazi monumental building projects, specifically the Volkshalle, through the examination, understanding and deconstruction of the vast Nazi forced-labor empire. Additionally, the forced-labor empire and planning for the Volkshalle leaned heavily on methods of standardization created specifically for the use of forced labor. This thesis seeks to understand those methods of standardization and use that as a lens to understand the projects and labor apparatuses further.

Ensanguined: Terror & Slavery in Nazi Building



In the contemporary context, the same piece of natural land often displays a superimposition of various truths. The collapse of overlapping spacetime can be found in marks created by human construction activities, compressed into the concept of contemporaneity. For example, a post-industrial city in Northeastern China often possesses infrastructures and factories built in the last century, orthodox-style architecture left by Russian merchants, and residents who still cannot get away from the memories of their collective youth; on top of that are new political boundaries, modern constructions, and intact natural areas. The living environment—other than our familiar metropolis, advanced technologies and infrastructures—seems to be the B-side of so-called modernity, escaping from the narrative based on data flows and digital devices. Peripheral lands and populations exist beyond the capture of cameras, overlooked by official historical accounts, as real as metropolises but somewhat a phantom of the “modern” life. This project does not see the development of society as progressive, contending that these lifestyles are not in different stages of development, but are all contemporary.

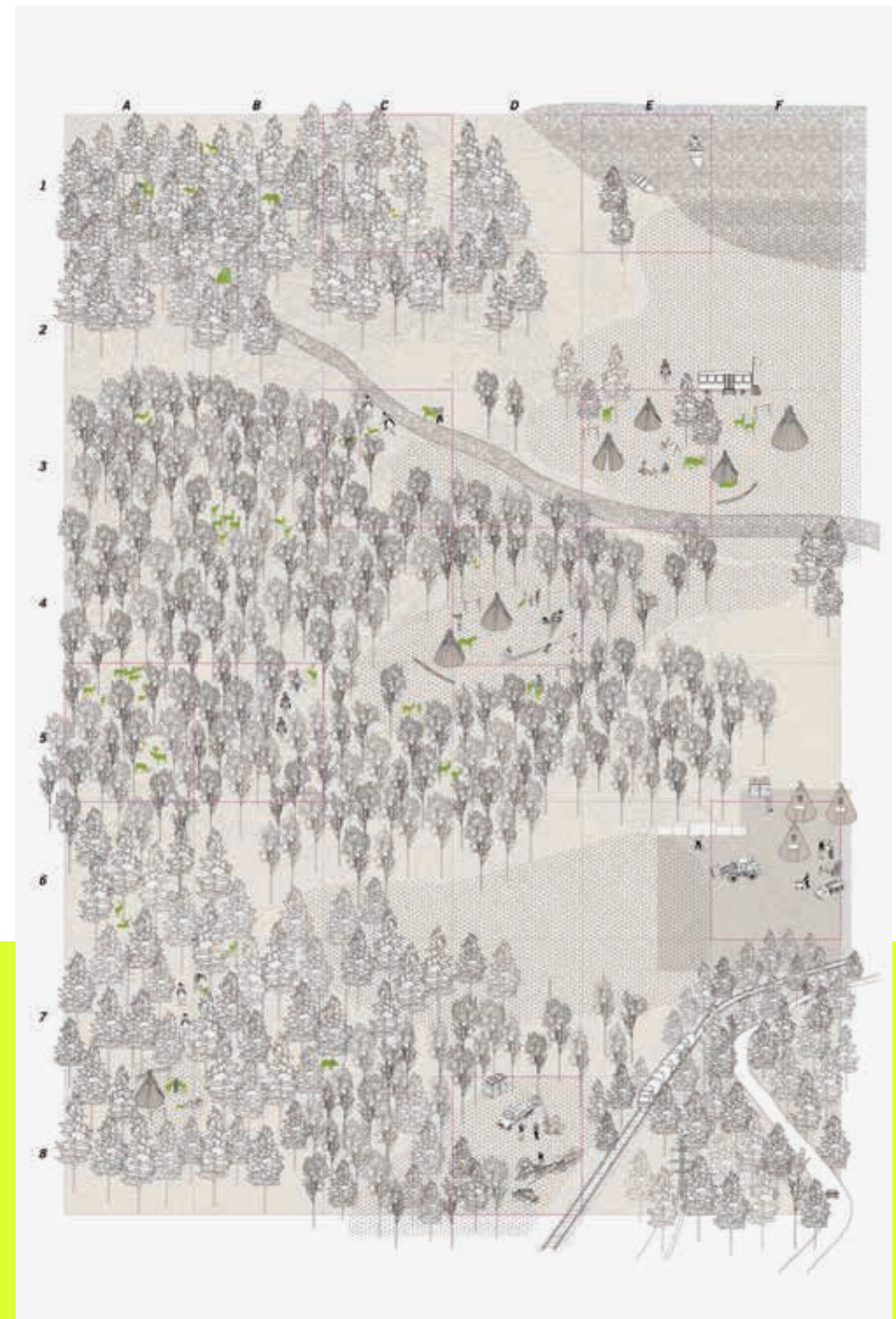
The scene is set along Heilongjiang. The river feeds populations in the Russian Far East and Northeastern China, while simultaneously delineating the long and winding national border between contemporary Russia and China. The Chinese Northeast has been flattened and re-established as a cultural icon, yet when we peel off the pictures from streaming media, what kind of marks does the northeast—once called “the eldest son of the Republic” for its rapid industrial development in the last century—leave on the land? Infrastructure—such as collective farms in fields, tree farms in forests, roads and electric towers—becomes a device for the government to exercise control from a distance, and between the network formed by these structures lie scattered villages and towns among untamed wilderness. The project traces the river downstream, investigating specific man-made landscapes in the forms of nomad camps, temporary settlements, villages, towns, and cities in this borderland far from the state’s central power—looking into the natural landscape and environment, the presence of the authority, and the resulting forms of living.

Maps!: Living with Ghosts

History

Advisors: Chua, Henderson

Image: Speculative Map: Living in the Greater Kluingan Range



The historical background of a region governed by authorities with different cultures and religions has created the multi-ethnic country of Bosnia and Hercegovina (BiH); the recent war caused by ethnic nationalism further split the country, segregating ethnic groups geographically. As the capital of BiH, Sarajevo is a typical example of an extreme ethnic-exclusive situation in the historical center of the city. However, under ethnic violence, various forms of activism are carried out spontaneously by citizens in Sarajevo and from all over the country—both during the war and in the postwar period in today’s Sarajevo—a powerful way to resist ethnic conflicts, increase cross-ethnic communication, and express a civic voice to the government and the world.

Therefore, the Sarajevo Art and Activist Center is proposed in the Baščaršija area to provide an inclusive, multifunctional space and an open stage for people to gather, start street action, produce artwork, exhibit, perform, or any other potential civic purpose. In the process of interaction, street actions can gain more public attention through art performance. Similarly, art production can gain inspiration from current social issues embodied in public events such as protests. The architectural form of the project is inspired by and abstracted from traditional local architecture in the context, creating communal space that is reshaped in a modern manner. To accommodate various programs in the Center including temporary gathering and long-term art production, both the interior and exterior spaces are designed openly with a simple shape that can be divided by movable panels for special needs.

History

Advisors: Chua, Henderson

Image: Multifunctional Space Situated in Historical Context



Sarajevo Art and Activist Center: Promoting Sarajevo Multi-ethnic Interaction

This thesis provides a historical preservation solution to today's people in Bamiyan, Afghanistan. Bamiyan valley was an important trans-cultural portal for Afghanistan and Central Asia. Statues, stupas, viharas, shrines, and grottos here have all witnessed the cultural creolization on this land. Today, the Taliban have returned to power in Afghanistan. The religious government has a strong opposition to figuration. Their previous political destruction in 2001, blowing up the Bamiyan statue, shocked the world. The government today has promised to engage in international diplomacy and make compromises. Preserving artifacts at Bamiyan is a humanitarian act and brings the government financial income.

The project seeks to find a way to preserve the precious artifacts in the age of the Taliban's regime, respecting the Taliban's ideology on the surface while showing the real deal on the inside. Using material, water, and light as a tool to hide the artifacts from the surface, this thesis discovers methods of visual illusion. Water, an essential element in Middle Eastern architecture, will orient throughout the project. The stream will lead locals and visitors to enter the project to see the actual side of these cultural artifacts.

This thesis is a pioneer experimental practice towards religious conflict that does not follow mainstream standards. It is also a conservation proposal seeking an eclectic solution to ensure a stable environment for Afghanistan's people. In the end, no matter how the government changes, it is the people's life happiness that matters most.

[IN] visible: Preservation and Iconoclasm in Bamiyan, Afghanistan

92

History

Advisors: Chua, Henderson

Image: Buddha Image vs. Artifact



93

Ying Xuan Tan & Xi Xiang

As a grounded art existing under specified environmental and cultural backgrounds, preexisting architecture requires strategies to meet modern needs. The discussion of current historical buildings has always revolved around the response to dynamic updates and adaptive reuse, often resulting in routine methods of preserving the look, demolishing the rest, and repairing the old as it was. The historic districts need both renovation and updating with new functional and formal paradigms. A shophouse serving both as a residence and a commercial business in a district context can introduce a block renovation while grasping the new and old to organize a prototypical methodology dealing with historical districts. Historic districts in city centers are often the most densely populated areas, generally located in the core area of the old city. The various municipal facilities needed for modern life are scarce in these historic districts. To stimulate the vitality of historic districts, protective repairs and recombination are necessary.

Through an analysis of the chosen renovated historical district, Old Street in Kunming, remodeling modes are summarized. Historical blocks can maximize the economic value of the land by maintaining the traditional style so the specific historical context of the city can be preserved. Shophouse, a common building type in historical districts, containing both a residence and a small business, can be the first batch receiving renovations. Through research on existing preservation and renovation methodologies—with corresponding precedents and case studies at the chosen site of Old Street Kunming—the prototypical processes of architecture recombination and re-modification of the shophouse would be explained and expressed. This information would then be reorganized into a renovation manual that can be reapplied to typical historical districts in southern Asian city centers.



The concept of private ownership has been under scrutiny in recent years. Co-housing and micro-housing with shared amenities, spaces and responsibilities are now familiar in urban areas globally. British commons have long served those with little access to commodified resources. Some survivors of the 2011 earthquake, tsunami and the nuclear power plant explosions in Japan have moved to koh properties, a traditional system of sharing land and services, so the communities that lost their hometowns can stay together. Instead of private corporations owning the drilling rights, oil in the state of Alaska is understood as a common natural resource, and the profit from sales is distributed among all local residents. This turn in the concept of ownership attests to the fact that architecture is an active participant in the construction of the city, suburbs, the rural, and the natural, and an agent in realizing a political and cultural project in the environment we share. The concept of shared ownership reimagines architecture beyond the object-icon dimension in which it is trapped today.

This group focuses on sharing and its impacts on architecture. Contrary to a romantic notion of the olden days, today's shared resources cause conflicts. Border walls, wars over precious metals and refugee camps, communes, gated communities, and micro-housing call into question who owns which resource, who decides and what the consequences may be for our environment and architecture.

● Architecture After Sharing

Junho Chun

Joseph Godlewski

Marcos Parga

The shared border region that segregates the cities of El Paso in the US and Ciudad Juarez in Mexico, reveals a drastic social fragmentation and polarization that exposes inequalities, vulnerabilities and dissimilarities. These contrast the domestic methods of collective interactions and communal sharing on both sides. This thesis investigates the ideals of urban structure, development and social manifestations across the border in order to understand the effects that the border has historically represented in the region at differing scales.

Through a comparison and definition of the physical border condition, the proposal reorganizes and classifies prevalent systems of collective sharing particular to the border cities of Ciudad Juarez and El Paso, where the manifestation of communal sharing is defined by different interpretations relating to identity, history and culture. There are innumerable perspectives and realities concerning the division between the Mexican and American border which have materialized in the expression of different forms of collective living. Therefore by comprehending and applying these diverse systems across the border, new means of domestic environments can emerge, displaying alternate proposals that reflect and engage the diversity across communal strategies in both countries.

By introducing systems of sharing particular to each city, the thesis will make evident the distinctions and similarities shared throughout the cities, especially those concerning housing, communal living and collective efforts of organic, urban expansion. The implementation of sharing strategies also correlates to resource availability, government structures and political principles that have prevailed in the distinct cities. The proposal encompasses a commune, recognizing that the core of domestic life begins in the housing models developed on the border. The commune proposal is projected on both cities, reacting specifically to existing systems of sharing, city boundaries, household characteristics, ownership and power strategies and resource availability, differentiating the clear division exemplified by the border restrictions. In El Paso, the commune prototype will advocate for the use of vacant private lot areas in the suburban residential regions, creating and presenting strategies of sharing experiences in Ciudad Juarez. Similarly, the dense environment of Ciudad Juarez would be utilized to consolidate systems prevalent in El Paso.

Decentralizing the Common Border: Shared Collective Domesticities

98

Architecture After Sharing

Advisor: Marcos Parga

Image: Shared Informalities and Domestic Borderline



99

Felipe Becerra Gómez

Vacant spaces are non-utilized or underutilized lands due to their parcel shape, size, or geographic location. American cities are underdeveloping vacant lots, and as a result, many of these lots are used for illegal dumping—harming communities in social, environmental, and financial ways. This thesis aims to help each community reclaim their vacant lots by equipping them with curated infrastructure for intervention that will allow the people to activate the space themselves. Instead of waiting for institutions to do something, the people are taking action into their own hands.

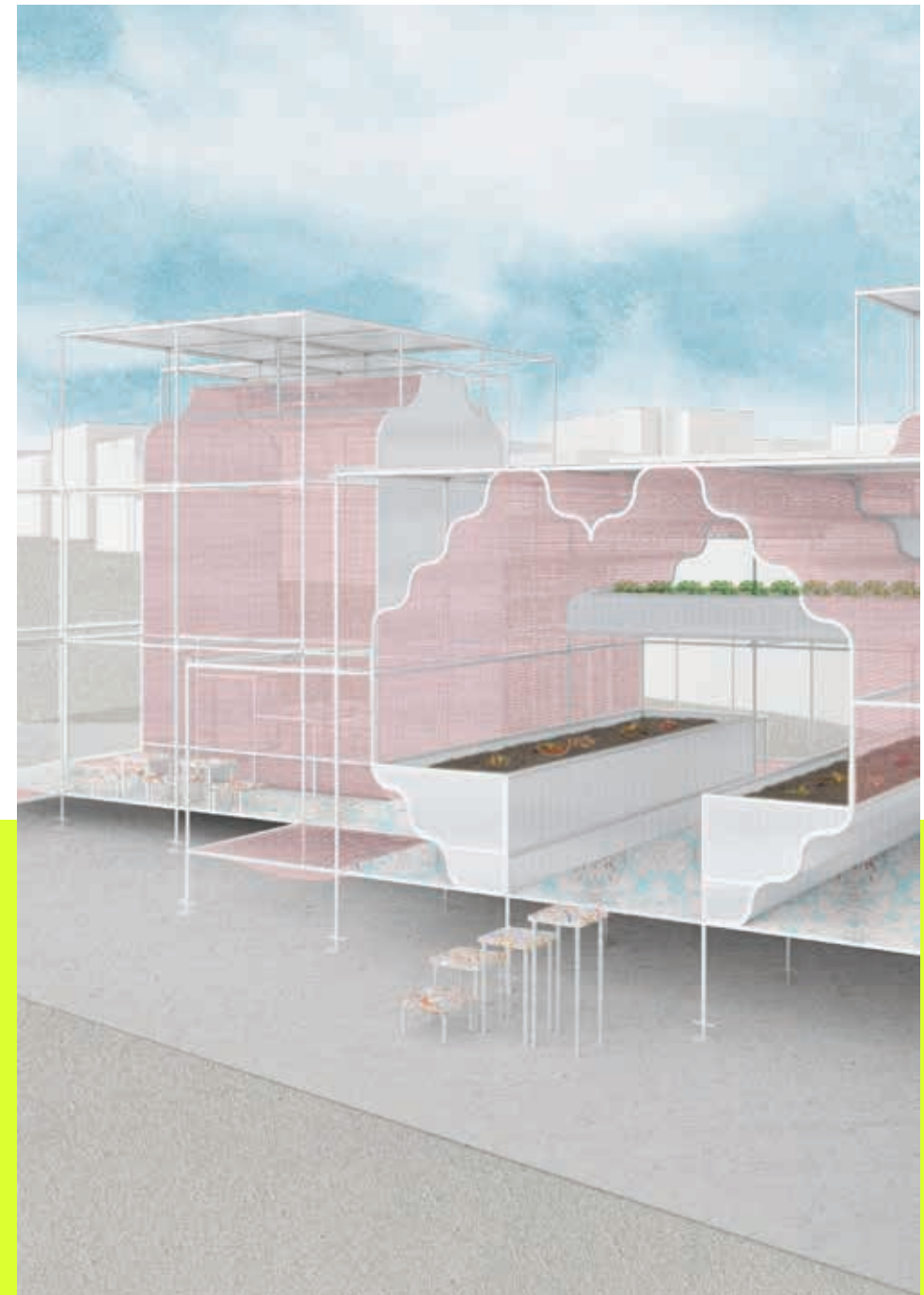
The project explores the potential of enhancing vacant lots to the benefit of the community and achieving net-zero waste by introducing a self-sustaining system. Debrisia acts as a prototype that addresses local needs and adapts to different scales of community. There are five networks supporting one another: energy, water, agriculture, livestock and recycling workshops. The locals will generate electricity collected by motion, manage the livestock, produce fertilizer for vegetation, and create products from their food waste. Emphasis is placed on participation from the residents, allowing them to get back what they help produce at the facility.

Through the implementation of Debrisia, and through the lens of illegal dumping, people will become aware of the power they have. Instead of unconsciously throwing things away, they can participate in an initiative that repurposes waste and draws awareness to sustainability. Instead of contributing to a problem by illegal dumping, they can be part of a collective that is a solution for creating a better space in which to live.

Architecture After Sharing

Advisor: Marcos Parga

Image: Prototype of Intervention



This thesis analyzes the New York City housing crisis through the lens of post-pandemic office and retail vacancies, re-imagining the ground floor as a transitional space for collective life above.

The pandemic changed urban life programmatically. As people began to work from home due to office closures and travel bans, there was a loss of foot traffic and tourism. This led to retail closures and a large percentage of ground floor vacancies. To reimagine the ground floor is to reclaim the city for those living there.

By taking this post-pandemic city and giving back the ground floor to the people, the city can once again be a testing ground for new types of urban and domestic space as people can see themselves in a community and feel ownership of their city and housing. Cooperation works best in small groups with face-to-face interaction, so by imagining a ground floor that prioritizes accessibility for city inhabitants we can reimagine how to work and live with one another. Work and home life are interchangeable, bringing an opportunity to rethink the domestic realm and the rigidity/separation of conventional apartment living. This project proposes housing that transgresses the idea of the single unit and creates a movement of “public ownership.” Collective living means creating a “commons.”

The ground floor is more than just a single level—it is what can be given to the public sphere based on building and program. Combining and adapting existing sidewalks, vacancies, and the backlots of Manhattan’s large dense grid of infrastructure can create a new public sphere that supports both housing and community.

Stripping vacant storefront glass façades and non-load-bearing partition walls in offices lets us imagine circulation paths and collective space through buildings from one street to another. Vertical accessibility can be redistributed as the public ground floor becomes a continuation of life above. Limiting boundaries allows for shared yards by absorbing backlots as “extra” space, emphasizing foot traffic through sub-streets to increase community development—changing domestic and urban life simultaneously.

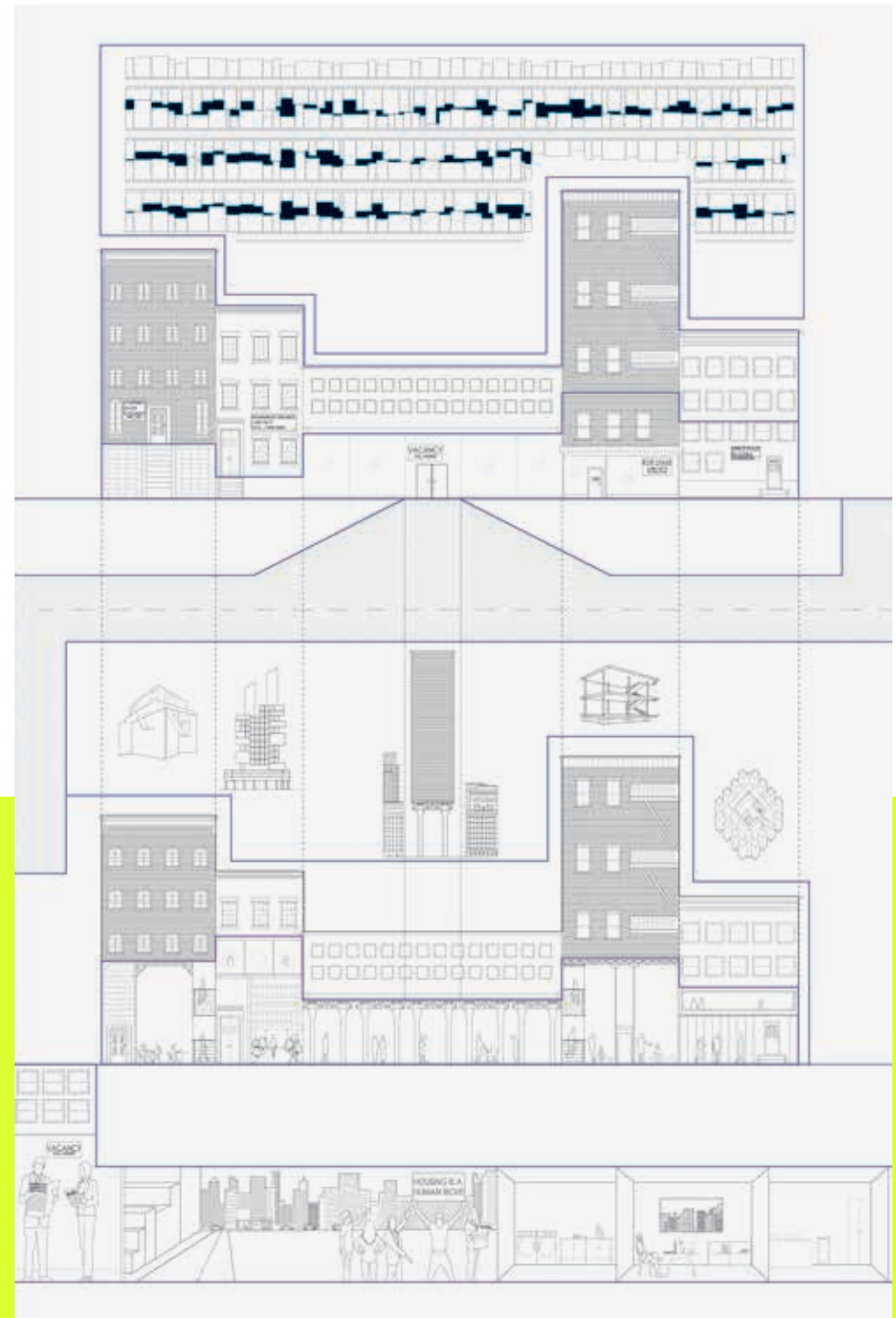
Collective Autonomy: Reclaiming the Vacant City

102

Architecture After Sharing

Advisor: Marcos Parga

Image: “Ground Floor” as Continuation of City



103

Olivia Dellacava

The suburbs promised a home all your own. A place where you have the freedom to live however you want and fulfill the dream of private ownership. Based on ongoing changes to current family and household structures, the first American suburbs built in the 1950s no longer serve the nuclear family ideal, composed of a breadwinning father, a stay-at-home mother, and one to two biological children. Our thesis challenges the notion of traditional private domestic spaces isolated from the greater public. We propose a transformation of the existing suburban fabric composed of user- and community-driven design, facilitating the idea of a home all OUR own instead.

US suburbs are designed to exclude, isolate, and dissociate individuals from their greater community and environments. Through exploring these issues and the history of the Northeastern US suburbs, we propose an interactive product containing multiple pieces: a series of graphic novels, game pieces, and a game board, which would be the best method of generating experiments and proposals through active participation and play. This conceptual product mimics the capitalist nature of the suburbs and plays upon historic commercial advertising that built and sold the suburbs to its residents. The appearance of this thesis, disguised as a toy, brings a sense of familiarity and comfort to consumers, deceiving them into participating in this strange suburban experiment.

Issues of inequality, consumerism, capitalism, and isolation are not new and have been present in the lives of individuals living in the suburbs since their creation. We will speculate on how people deal with these issues in their unique living situations within the graphic novels. Crossing storylines reveal the common ground residents have on issues found in the suburbs; despite being isolated from one another, they have similar hopes and desires for change. There is no single solution to our characters' problems since there isn't one single way to live. The issues of the stories are left unresolved and open to interpretation so the consumer can investigate and prompt new experiments on domestic and neighborhood design.

Home All (Y)Our Own: A Series of Suburban Experiments

104

Architecture After Sharing

Advisor: Marcos Parga

Image: Realistic Suburban Advertising



105

Jasmine Greytok & Astra Sun

As more cities globalize, the appearance of ethnic enclaves such as Chinatowns create unique sites for the negotiation of cultural identity. Since 2009, China has established itself as South Africa's biggest international trading partner. In Johannesburg, a healthy population of Chinese migrants have integrated themselves in the neighborhood of Cyrildene, Johannesburg, which was once an affluent suburb. As this new Chinatown begins to form its identity, it has also begun to take on and reshape apartheid architectures that predated its arrival.

Currently, Cyrildene Chinatown can be seen as an anxious neighborhood. Its Chinese residents have adopted defensive practices such as electric fencing, high barriers, and even employment of private security personnel. This anxiety lies primarily in the tensions Chinatown has with the surrounding city of Johannesburg. Notions of otherness, lack of safety and paranoia often trouble the Chinese. Public space becomes a place of hostility and vulnerability. This thesis deals with the tenuous relationship between Chinatown and Johannesburg and proposes an architectural intervention that aims to acknowledge the rift and create a space for open dialogue. Through both collaborative design and architecture, the proposal uses the ubiquitous Chinatown feature of the "stall" and its larger counterpart, the market, as the medium for opening the spatial conversation.

This thesis views public space through AbdouMaliq Simone's concept of "people as infrastructure," which describes the remaking of cities through constantly flexible, mobile and provisional space. Simone contends that this constant reshaping of public space strengthens public space more than inscribing transactions through separate groups, as it allows social collaboration through a multitude of identities. By defamiliarizing this space, new possibilities and understandings emerge; the stall is re-envisioned as a space not just for physical goods but for cultural and identity transactions. The stall and the market become new spatial zones for gathering and cultural exchange. The project should not be viewed as a monolithic or homogeneous entity but rather as a dynamic and transformative space.

Woven Tensions: Chinatown Contestations in Cyrildene, South Africa



Established in 1754 on the grounds of Morningside Heights in Manhattan, Columbia University is the oldest institution of higher education in New York. After hundreds of years of development, the University has faced challenges of expansion in the populated land of Manhattan. In July 2003, Columbia announced its 30-year expansion plan to West Harlem. While the horizontal expansion of the University is providing the school with more space, it has had negative impacts on local neighborhoods. Many residents have had to relocate, and housing prices have risen in the area. The way Columbia University has been expanding has betrayed the idea of “Manhattanism.”

This thesis re-imagines how the University expands in a culture of congestion. It creates a scenario where the school only expands vertically, follows the grid, and fits its recent expansions into West Harlem back to its original site in Morningside Heights.

Moreover, the architectural design of the vertical campus will create an ironic annotation to criticize the idea of university rankings and how Columbia may have manipulated their data to gain a higher ranking. Incorporating the idea of height as vanity from skyscrapers, the design can ironically represent Columbia’s current “height” in rankings, exaggerating its inaccessibility, like the skyscrapers that have been built with unusable height.

Ivory Tower Vanity: Reconfigure the Campus of Columbia University

108

Image: Vertical University in New York City

Advisor: Junho Chun

Architecture After Sharing



109

Chengcheng Li

The Chinese immigrant residing in America is filled with internal, unresolved emotional conflict as heritage and identity are challenged in the face of assimilation. What is passed down from one generation to the next becomes a hybrid heritage, molded through the pastiches of the suburban American environment and population. From this emerging identity comes the dilemma of which customs to pass down, often favoring customs of the new environment rather than ancient, domesticated rituals. The modern Chinese American is thus confronted with how to pass down their culture in an ever-changing social landscape. The only way to extend cultural longevity is adaptation of practices for a new generation.

The domestic sphere of the Chinese American home is a promising site where contentious identities and memories of routine are at play. In the kitchen, engaging with the ritual of food making—a natural human endeavor—fosters reconnection and reconciliation with a past identity long forgotten. Architectural extrapolation is then seen through means of practices like fermenting vegetables and observation of domestic rituals between the individuals and their surroundings—whether it be the orchestration of food (the process), the jar in which the vegetables and the brine rest (the vessel), or the patterns of kitchen utilities being used (the environment). From defamiliarizing these built constructs, we aim to challenge the often independent and disconnected nature of pickling by focusing on reconstructing objects made for the new Chinese American diaspora. These objects will be constructed to reflect their emerging sensibilities, providing intrinsic comfort in the practices they dictate and serving as a living heirloom echoing a forgotten identity.

Vesseled Cultures: Figures of Diasporic Comforts

110

Architecture After Sharing

Advisor: Joseph Godlewski

Image: Practice in Focus



111

Ying Na Li, Rachel Ly & Skylar Sun

Although social and environmental issues are commonly dealt with separately, in reality they are interrelated. Those who face social inequalities are more vulnerable when facing natural hazards. We hypothesize that reconfiguring the role and functionality of infrastructure as a built network can redefine its responsibility to focus on binding the different social groups through water pipes, creating a monument of inequality in the city skyline that acknowledges the social issue, while simultaneously solving the inland flooding hazard under climate change.

We have identified New York City as the primary site due to its coastal location and increasing risk of sea-level rise and flooding, as well as the overarching issue of basement flooding that caused 11 deaths during Hurricane Ida. Currently all 14 water treatment facilities in New York are at low elevations and high risk of flooding, and over 80 percent of areas in New York are still using combined sewer systems that are inefficient during extreme precipitation. The pump stations and water treatment facilities are inactive during extreme weather, potentially causing street flooding. While low-income groups are eager to rent relatively inexpensive but illegal basements that are at risk of flooding, skyscrapers get higher and higher to gain more profit by adding excessive void spaces. This project creates a multifunctional infrastructure that improves the resilience of the system while raising awareness about the social inequality. It consists of a water system connecting each household through water tanks with sensors that can measure water quality and weather hazards, and pipes that can pump floodwater to the void spaces to be treated and stored, all while activating new urban spaces for citizens to enjoy.

Infrastructure Redefined: Mitigating Climate Inequality under Urban Flooding

112

Image: HAVE System Connecting the Voids

Advisor: Junho Chun

Architecture After Sharing



113

Xinran Min & Linjing Rao

Rammed Earth is a building technique that has been in use for centuries due to the ease of access to soil. Soil has been used to build on virtually every continent apart from Antarctica and has been considered economical and efficient. Within the last half century, rammed earth has been revitalized as a sustainable building material. Years ago, this technique used weights to manually ram soil and compact it to create walls. For the last 40 years, the process of making rammed earth has been mechanized, using hydraulic compressors and machines to pour and mix soil. Rammed earth buildings that used to take weeks to erect can now stand complete within a matter of days.

Although architects have been using rammed earth in Modern construction, a set of guidelines is still lacking. In all styles and types of architecture we have examples to study. We see demonstrations of building typologies like hospitals or museums. We can also point to Renaissance architecture versus Modern architecture. As it stands, Modern rammed earth has only just emerged and doesn't yet have a strict visual style. In Modern architecture, one can point to Le Corbusier's Villa Savoye as a manifestation of his five points of architecture. David Easton, father of Modern rammed earth, attempted to create a cube concept but his vision was never fully realized.

Just as Villa Savoye is the manifestation of Le Corbusier's five points of Modern architecture, this project, Villa S(av)oil, aims to demonstrate a new set of rules for Modern rammed earth. Villa S(av)oil is the manifestation of the natural spatial tendencies of soil. The thesis methodology uses physical testing to understand the inherent nature of soil, along with a deliberate study of the program of Villa Savoye to create a set of rules or guidelines. The addition of Villa S(av)oil will be a manifestation of this set of rules.

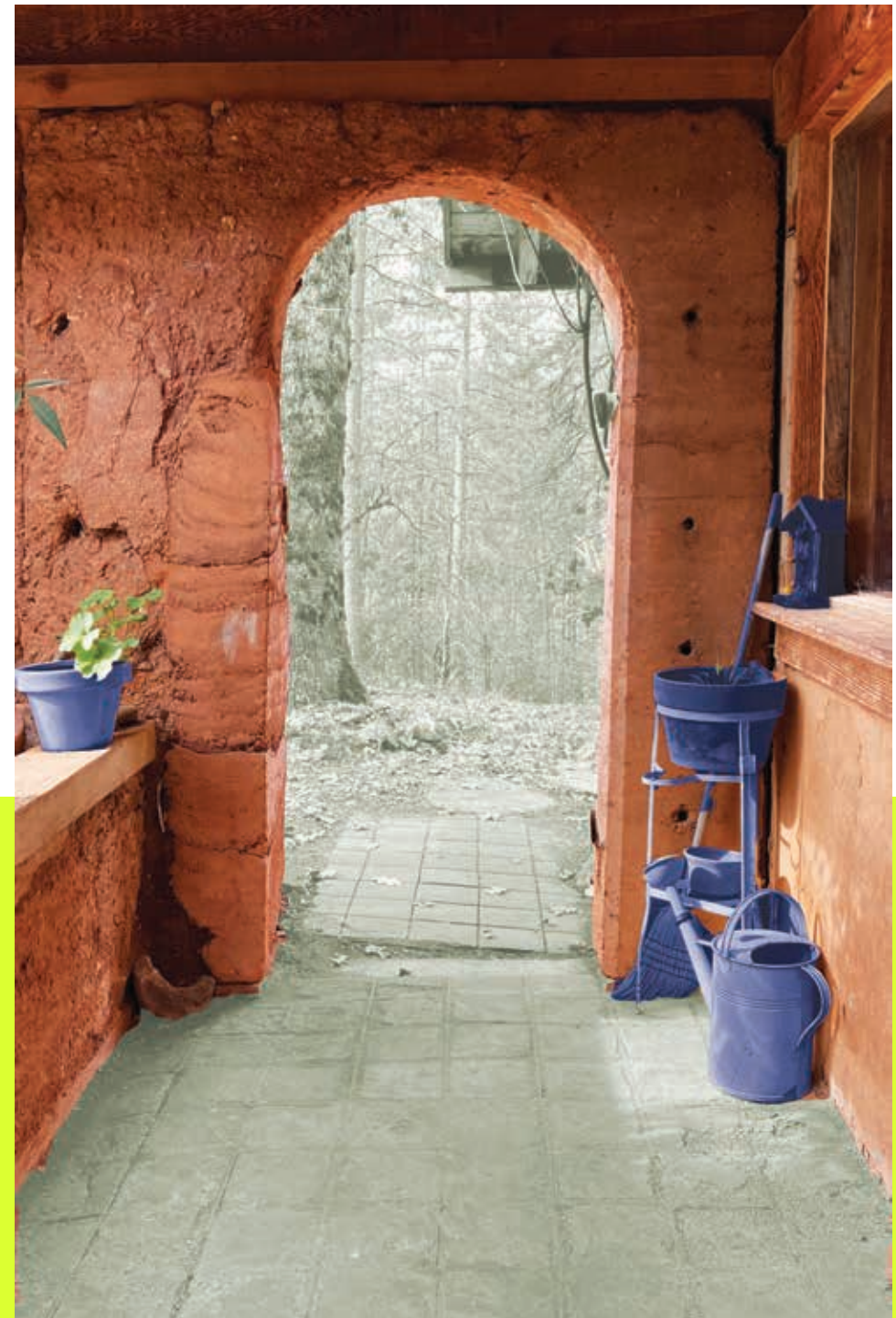
Unearthed: Villa S(av)oil

114

Image: Eroded Rammed Earth Corridor in Wileysville, CA

Advisor: Junho Chun

Architecture After Sharing



115

Megha Murali

When was the last time you saw your neighbor? When was the last time you spoke to them? Do you know their names?

The rising issue of chronic loneliness in cities has been well documented for almost a century. In spite of the reintegration of social spaces into the street-level fabric of the city, this solution has done little to slow the issue down. If we are to attack the architectural roots of this issue, they lie not in the common spaces of our streets, but in the intimacy that exists between rooms; the micro-communities that form between cells and corridors. It is in this thin piece of connective tissue, the corridor, that all of a high-rise's internal community must form around, and it is a weak, decaying, vestigial organ—a forgotten remnant of a stronger and older architectural typology. In order to repair and reinforce the social fabric of the dense urban landscape, the corridor—as it has many times before its present state of neglect—must once more evolve so that the social condition too may evolve.

This thesis examines the high-rise residential complex as a structure of holistically designed rooms, which can be surgically removed from any coherent whole. By a process of breaking down a high-rise into static, unchangeable components to be rearranged, the hidden labyrinth of accessways, staircases and corridors can also be freely rearranged. The objectives of this thesis are to conduct an intent-driven disintegration of the high-rise, so that its interior, its labyrinth, can be altered, and become holistically habitable. The disintegration and reintegration of components acknowledges that there is an inherent value in this aprogrammatic labyrinth, and only by addressing this in design can it become a valuable part of the intra-complex social fabric.

Jetsam of Babel: Decoherence of the Spaces between Rooms

116

Architecture After Sharing

Advisor: Junho Chun

Image: Conceptual Foundations, Neglected. The Future, Disintegrating



117

Grant A. Portelli

This thesis investigates the role of architecture as a physical tool to maintain the status quo of modernized Bangkok—used by those who hold political power in order to superimpose their hierarchical ideologies on the citizens and to perpetuate the governing system with its emphasis on nation, religion, and king.

This thesis is a speculative dystopian narrative that subverts the same architectural tools that the “merit-makers” (ผู้มีบุญ) impose on the Thai population—both through “merit-making” (ทำบุญ) and “shopping”—in order to uncover and surface the political, financial, and cultural relationships that are manifested in the popular Siam-Ratchaprasong shopping district in downtown Bangkok, where malls have replaced the temples as community centers. Unlike temples, malls appear to be secular and non-political.

This dystopia subverts the orchestrated mobility systems in shopping malls, by proposing a never-ending loop of moving walkway that travels through ten existing malls in Siam-Ratchaprasong, connecting every escalator in each mall to one path. This closed loop is regulated by a merit score system, where the devotees’ (shoppers) spiritual status is measured by the accumulation of money and time they spend in this loop. By overlaying the narrative of the never-ending cycle of shopping upon the narrative of the cycle of merit-making, this satirical dystopia reflects the merit-makers’ hierarchical ideologies through the architectural design of the malls.

Temples of Consumerism: Subverting Bangkok Shopping Malls

118

Advisor: Marcos Panga
Architecture After Sharing



119

Pin Sangkao

Immigrant assimilation in the US has been the topic of discussion for years. Since 1990, the number of Indian immigrants entering the US has increased substantially; they currently make up the second largest immigrant group in the nation. The notion of identity for an immigrant is challenged through the ways in which they are able to assimilate within their environment. This thesis focuses on the Indian immigrant population that resides in Edison, New Jersey. It looks at the current lived experience of residents in the suburbs in conjunction with the primary activity occurring in the commercial strip that runs between the towns of Edison and Iselin. Immigrant homes as well as businesses are used as a point of intervention. This intervention is done through the introduction of additional expansions to existing homes as well as the introduction of commercial programs in the suburbs.

American suburbs and the isolated and separate nature of individual homes are differentiated from communal living types that accommodate spaces of gathering. The spatial repercussions of the suburban layout are analyzed and rethought as an integrated environment that combines commercial activity along with the residential program. Looking at a site that is densely populated with Indian immigrants, this thesis proposes an alternate version of the suburb that accommodates changing family structures and dynamics of the typical resident. Spatial elements of Indian architecture are interpreted in a suburban setting to create places of gathering and to introduce familiar environments in a local setting. Drawing from traditional Indian architectural typologies, this thesis aims to create a hybridized version of the suburb, one that accommodates and encourages a communal lifestyle.

Image: Site of Edison/Iselin

Advisor: Joseph Godlewski

Architecture After Sharing



Claiming Culture: Indian Identity in the American Suburb

120

121

Anusha Shikre

This thesis advisory group is interested in examining the terms and conditions in which architecture is produced. The terms of architecture are the events, histories, knowledge sets, mediums, phrases, rules, skills, systems, processes, techniques, and words used to define a territory commonly referred to as the discipline. The conditions in which architecture is produced are the circumstances affecting how we live and work, especially with regard to safety, well-being, and a sense of belonging.

This thesis advisory group is particularly interested in speculative investigations within urban and public territories; it convenes projects that demonstrate, on the one hand, the value of architectural design in urban, social, and cultural contexts and, on the other, the impact of architectural design in relation to the history of our discipline. Ranging from surgical operations on existing artifacts to conceptions of new forms and environments, these projects link architecture to its constituents in a manner that imagines positive change for both.

This thesis advisory group maintains a particular interest in formal, material, and spatial interventions in public space, and their ability to illuminate broader cultural, environmental, political, and social concerns of a place. As much as urban interventions reflect culture and provide critical commentary on the particularities of the context, they can also project new readings of place-revealing hidden narratives, uncovering latent possibilities, or imagining new futures. Interventions at a variety of scales within an urban environment connect to, and are in many cases dependent upon the broader infrastructures of a place. Beyond extra-architectural affiliations, urban interventions provide a platform for designers to experiment with and exemplify their aesthetic predilections. These projects capture the public imaginary by engaging pressing issues; embracing the overlap between culture and form; privileging form-making over form-finding; and recombining known practices into new and delirious possibilities.

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Greg Corso
Aurélie Frolet
Molly Hunker
Kyle Miller

San Francisco is known for its iconic, colorful Victorian-style houses. While these structures are beloved symbols of the city today, their social history is relatively unknown. These houses once served as the backdrop of many of San Francisco's most defining cultural phenomena and were home to many of the city's ethnic and non-conformist subcultures such as Japantown, the Black Panther Party, Manilatown, and hundreds of communes during the 1960s. For many San Franciscans, the familiarity of these houses' unique architectural features creates a shared sense of place not commonly found in other US cities.

Currently, the cultural legacy of these houses exists in a precarious position. In the past few years, the gentrification of these homes has linked them to an increased sense of displacement that follows a long legacy of discriminatory policy-making towards minority occupants. Additionally, the city's current preservation policies do little to preserve more than the image of these homes, since preservation most often means experiencing buildings solely through their preserved exteriors, while the interiors remain accessible to the fortunate few. This condition reinforces the idea that belonging in the built environment is increasingly defined by class and race.

This thesis critiques existing preservation policies and proposes a new method of preservation that reveals, acknowledges, and celebrates the historically latent identities of San Francisco's subcultures. Using the social values of communes during San Francisco's 1960s counterculture movement, this project constructs a new form of urban identity and public space-making that is reflective of the progressive cultural values of the past. While adhering to Neighborhood Character guidelines, the design alters three generic Victorian houses with community-centric programs and new public access to reflect the ideology of San Francisco subcultures. This proposed method of preservation prioritizes material conditions, cultural values, and lifestyles of specific groups rather than a fallacy of a building's permanence. Overall, the thesis is a reinterpretation of how subcultures of the past appropriated these homes and put forth a more holistic notion of preservation that transcends the conservative aesthetically driven policies in place today.

Another Home: Reimagining San Francisco's Victorian Houses



Immigration has contributed to growth and demographic shift in the US. Immigrants are prevalent and fundamental to history and society, yet the role of immigration has turned into a political and humanitarian crisis. Negligence in policy and negativity in the media have forced immigrants to endure structural and representational marginalization resulting in adversity and hostile spaces.

For many migrants, cities become primary stops due to their density, cultural familiarity, and access to services, yet protection is absent. Resources are lacking for recently arriving immigrants, and those who are undocumented are in constant fear of deportation. Deportation is exaggerated by local police cooperating with Immigration and Customs Enforcement (ICE) through policies and laws, producing a dangerous state that evokes distrust and uncertainty. In addition, ICE uses a series of ruses and techniques to arrest undocumented immigrants through disguise, misleading language, and surveillance. While ICE uses these tactics to perform arrests, there are spatial and legal loopholes. By exploiting the existing policies and urban conditions, this thesis implements a multi-scale formal and spatial proposal that prioritizes the narrative of immigrants in the urban realm and creates an argument for the social and spatial role of sanctuary spaces.

Sanctuary zones are spaces that are likely to be sheltered from ICE enforcement and raids. These spaces include existing spaces of worship, education, and health centers, referred to by ICE as “sensitive locations” in which immigrants can be harbored. Current guides explain how a sensitive location can become a sanctuary, yet there are no spatial design suggestions. This thesis includes a guide to the development of sanctuary spaces and illustrates how to design effective and safe temporary housing for human comfort. Each chapter of the guide contains elements that dissect policy, history, and site. The architectural design is outlined through a series of strategies, programs, and details to create a resourceful space that combats ICE and offers a temporary dwelling. Sanctuary Spaces enhances the role of architecture in safely housing immigrants and offers a design alternative that is adaptable and replicable.

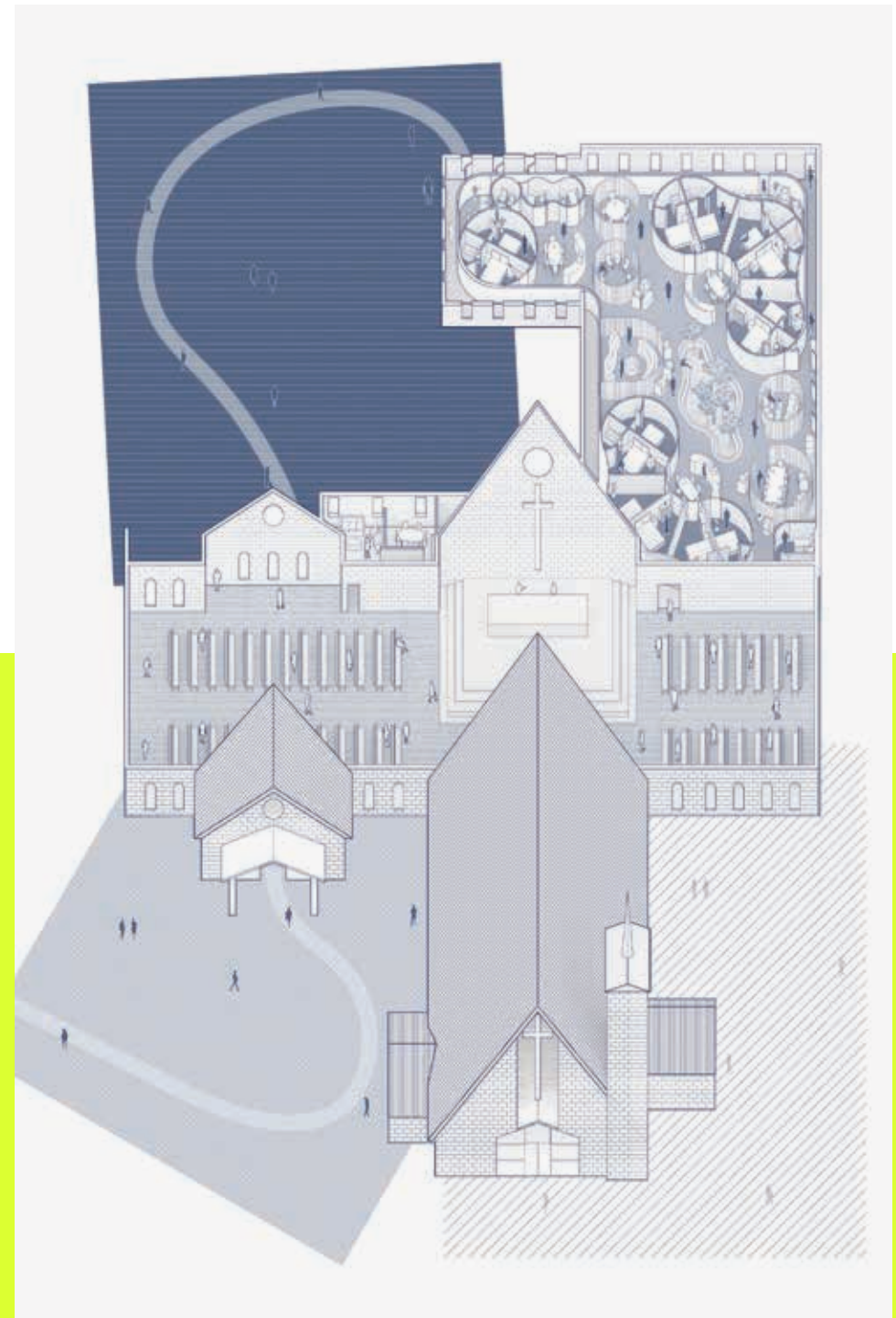
Sanctuary Spaces: The Urban Narrative of Migration

126

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Advisors: Corso, Frolet, Hunker, Miller

Image: Protected in Plain Sight



127

Kelsey Benitez & Isabel Sutherland

On March 1st, 1954, the US government dropped a 15-megaton hydrogen bomb on Bikini Atoll in the Marshall Islands, a small island chain in the Pacific Ocean. Equivalent to 1,000 Hiroshimas, this bomb and the following 67 nuclear bombs vaporized atolls, poisoned waters, and ruined life on the atolls for years to come. Yet, due to collective societal amnesia towards acts of imperialism in the Pacific Ocean, the story of the Marshall Islands remains unknown. How is it that a bomb equivalent to 1,000 Hiroshimas goes unknown in our society? What were the tools, methods, and techniques used to deploy such a pervasive level of deletion?

Mimicking professional architectural practice, this thesis reimagines the intolerable acts in the Pacific as comprehensive architectural production. Defining the clients, architects, and constituents involved, this thesis scrutinizes the proposal, which vouches for nuclear testing as a necessary evil, in relation to the product—the years of emotional anguish, betrayal, and abuse felt by the Marshallese people.

Serving as the main design product of the project, a woven collage is employed to embody a more authentic depiction of the ills of nuclear testing. By overlaying texts, images, and artifacts to create an amalgamation of information, the collage diverges from the initial proposal to provide perspective from the Marshallese people that highlights an incredibly human dimension of the effects of nuclear testing.

Finally, a series of as-built drawings draw on the strength of architectural representation to be a language for thought, to highlight the discrepancies between the product and the proposal. What went wrong and where, and how can we better understand the complexities of nuclear testing in the Marshall Islands to prevent it from happening again elsewhere?

Through the adaptation of the professional architectural design process, this thesis unpacks the construction of erasure. As a means to combat societal amnesia, the woven collage in conjunction with as-built drawings attempts to bridge the gap in our collective memory and bring forth the voices of the Marshallese people.

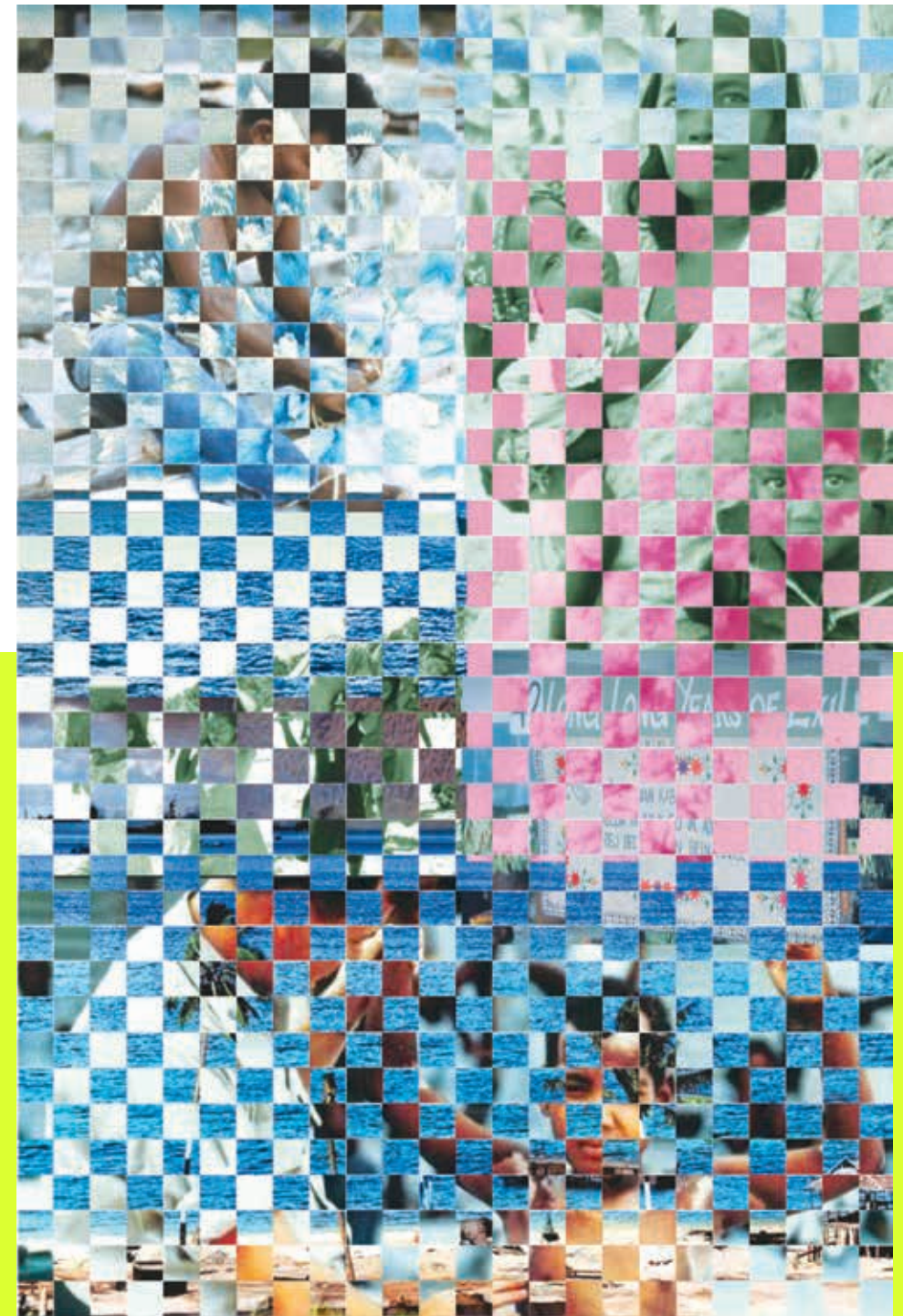
Delineating Erasure: Illuminating Entangled Histories through Professional Practice

128

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Image: Bikini Perceptions



129

Shiori Green

Contemporary building culture suffers a misplaced, millennial-long preoccupation with the angel, a non-sexed figure who finds its building counterpart in the frictionless monument of antiquity. Our means of architectural production and the prevailing design canon further inhibit our ability to interrogate the viscera which architectural design implicates. The consequences are dire, a built environment that bears little semblance to its inhabitants. Worse though, this logic has infected even the lowest common denominator design ethos, and buildings have become sensorially and functionally unfamiliar. It is for these reasons that strangers to this discourse will insist they haven't a clue about architecture, when in fact, the discourse ought to aspire to belong and make itself legible to its body counterpart just as a body would acclimate to an organ transplant. Consider that our bodies, with all their groans and disabilities, are not closed systems but instead respond very acutely to their building counterparts (and vice versa). This work means to suggest a new method for relating to the built environment and for growing simultaneously; habitation, as it will come to be known.

Gottfried Semper described our habitation so concisely, as consisting of hearth, roof, enclosure, and mound. What are these elements if not a system of external organs? Slocum Hall, for instance, the site of my work, a body whose organs I've laid out next to one another as you would during pre-op, has clung to life for a century now and is subject to surgery via adaptive reuse. What's revealed is somehow more possessing in its vulnerable character than the rigid morals that gave it life to begin with.

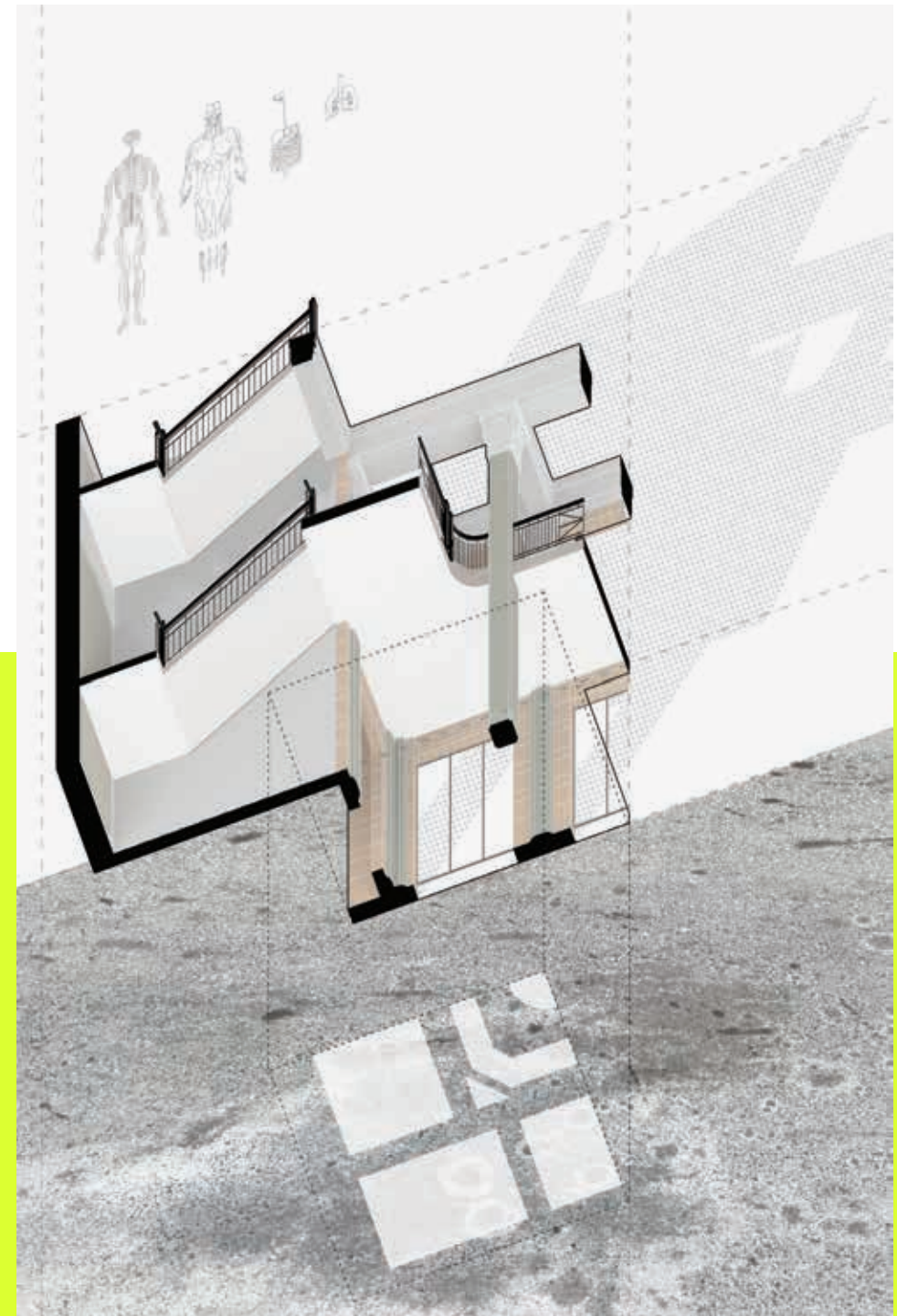
Slocum Viscera: III-Functioning Bodies & Expressive Function

130

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Image: Slocum Organs Axonometric



131

Andrew Harper

In recent years, the intensification of e-commerce, accelerated and brought to the forefront by the COVID-19 pandemic, has dramatically altered the physical manifestation of our consumer economy, from the abandonment of shopping malls to the proliferation of fulfillment centers. Following a study of two extremes—hyper- and post-consumer imaginaries—this speculative project imagines a future where obsolete shopping malls are resurrected and given new meaning in an alternative consumer system. This sharing- and renting-based world, situated in a repurposed shopping mall, preserves materialistic lifestyles without the detrimental consequences of hyper-consumption waste. Relying on logistics of product movement and energy production, the contained city speculates a future “shopping center” drawing from its past iterations.

The project infuses the logics of fulfillment centers—from randomized product organization and vast selection to conveyor circulation and distribution bins—in order to develop a new and efficient system. Revolving around a dominating infrastructural system of product recycling, this mall-world furthers this circular consumer culture through the introduction of hyper-commodified housing; rooms of the homes become rentable products that circulate via the same processes as retail goods. However, no one wants to shop in a distribution center, and the lack of ownership appeals only to specific populations. Thus, architectural tactics of advertising and consumption—from simulated cities to engaging experiences—are leveraged to make an often-unappealing relinquishment of possession just as, if not more, appealing. Even product drop-offs become social infrastructural spaces, both celebrating and concealing the alternative sharing system. The mall-fulfillment center hybrid not only extracts the logic of its typological references, but also subverts their ownership systems through the development of interior infrastructure to facilitate a new and appealing sharing consumerism.

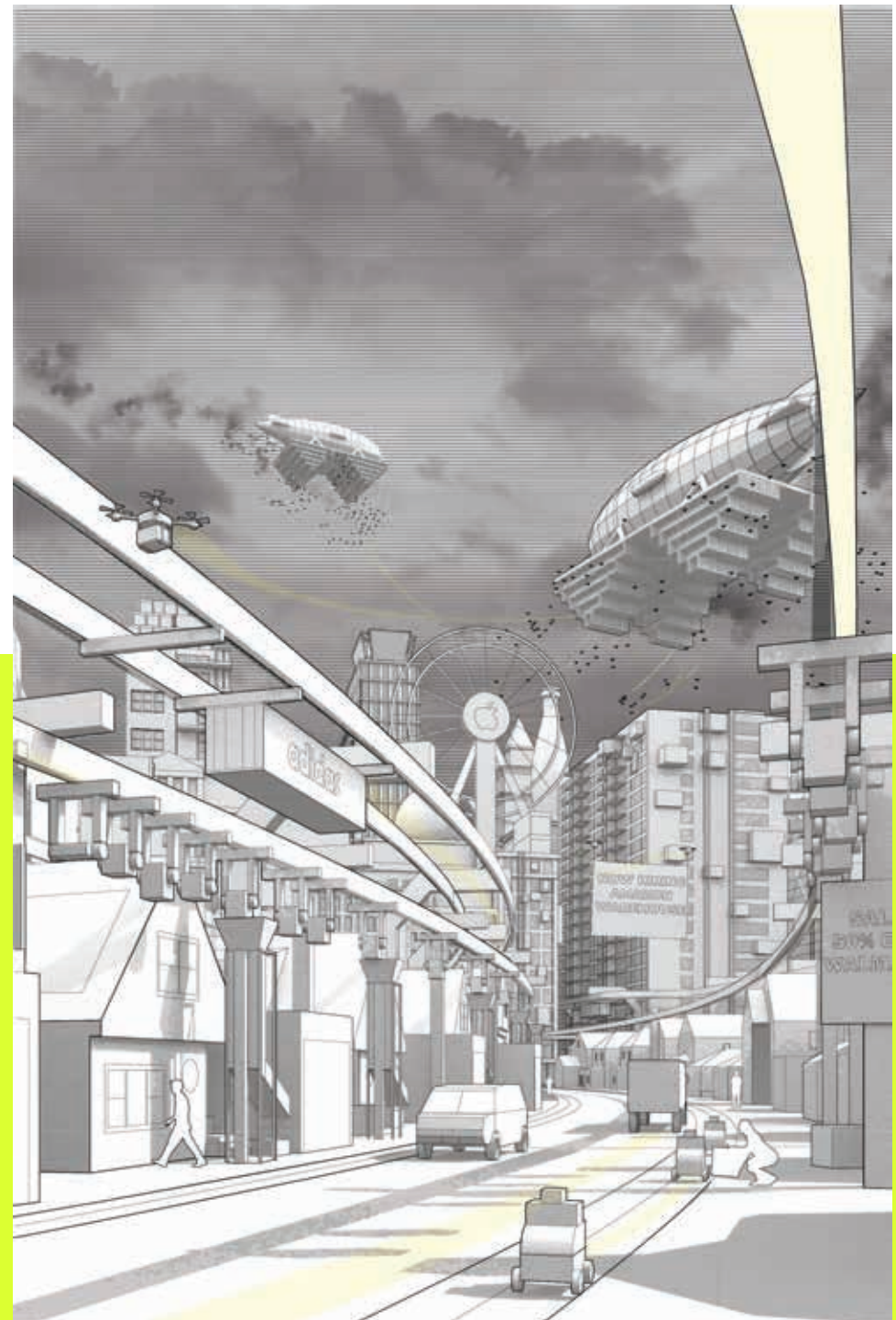
Shop ‘Til You Drop: A Mall-Fulfillment Center for Alternative Consumption

132

Image: A Speculative Hyper-Consumer World with Delivery and Infrastructure

Advisors: Corso, Frolet, Hunker, Miller

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133

Emily R. Hu & Miguel Joseph Roman

From sensory perception to narrative and atmosphere, literature often provides provocative and vivid descriptions. Literature conveys an experience of place, using words in richer ways than architects usually tend to do through images. Evocative literary descriptions of spaces, whether in novels or poetry, often provide detailed information of how people experience architecture. Aesthetic and formal qualities tend to be dominant in architectural representation, but literature often describes other sensory perceptions of spaces with great detail and intensity, and includes other aspects of experience such as atmosphere and narrative, which remain largely inaccessible in traditional forms of architectural representation.

On the one hand, architectural drawing is prescriptive and effectively articulates design, but is often confined to a notational tool. Like a score in music, conventional architectural drawings tend to be rigid and simply communicate design. On the other hand, literature lacks the representational attributes of architecture, but leaves room for interpretation. A book, for example, can lead to numerous interpretations while an architectural drawing cannot. However, an architect can design a beautiful tangible building, while a book does not produce a visual product. By bringing together the capabilities of architecture and literature, this thesis proposes a pedagogical exercise to better understand the architectural design process, in addition to narrative and atmosphere.

This thesis investigates written narratives as generators for architectural design. Taking inspiration from Matthew Celmer's Narrative Homes, and utilizing Bernard Tschumi's space/event/movement (SEM) sequence as a criterion for text selection, multiple books will be interpreted into houses with an emphasis on the process by which certain texts manifest into architectural features. By recognizing the potential of literary language and narrative for the description of architectural space and atmospheres, this thesis critically examines the pedagogical approaches in architecture that often neglect an in-depth understanding of the experiential aspects of space. By opening up design to the interpretive nature of literature, this thesis subverts the rigidity of architectural design by voluntarily using literary text as a primary design generator.

From Literature to Architecture: Theme, Narrative, Atmosphere

134

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Image: Literary Atmosphere



135

Ryo Ishioka

The communal exchange of cultural images and self-expression of racial individuals is minimized in the current urban framework; it boxes particular ethnic groups in, characterizing and chaining them within clearly defined cultural, social, and economic boundaries. Since racial density directly corresponds to the density of cultural events, their racial cultural activities are often performed within the neighborhood and only favored by the immigrant community. Their inner lives become invisible to those outside their immediate community, and such circumstances further weaken their recognition of their own identity in relationship to the local context. Although the status of Chinese immigrants has been recognized in the US, transitioning themselves as American Chinese, these terminologies do not give a clear definition of how one's identity is relevant to the context. For either the new generation or the first-wave immigrants, finding a relatively stable balance between their traditional ethnic culture and local culture is difficult. These struggles have resulted in generations of immigrants with a high ratio of racial melancholia, which could be caused by racism or negative criticism but are most likely due to a loss of self-recognition of one's racial identity.

Thus, the parade machine becomes a treatment for racial melancholia through the recovery of self-identity, a vehicle that constantly celebrates self-images and cultural practices of Chinese immigrants, interacting with the urban fabric. The machine constructs a narrative of tracing back the lost identity, which is respectively reinterpreted from Chinese traditional ritual into five parade float programs: offering, sound, game, physical interaction, and emotional exchange. Its constant movement along the parade route recalls Chinese American cultural images—attracting, informing, and interacting with other community members with assorted festive activities. Through simple infrastructure constructed with reinforced bars and accessible platforms with temporary booths, and other services to supplement the parade machines at the landing of Manhattan Bridge, the routes continue to expand and embrace the racial identity recognition of the group.

The Parade Machine: Narratives of the Lost Racial Identity

136

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Image: The Cultural Parade Station at Manhattan Bridge



137

Yongqi Lu

American memorial practices today continue a legacy of mythmaking that furthers biased histories—grounded in preconceptions of whiteness, privilege, and permanence. Archives are a critical component of this network, acting as a shield of power over status, preservation, and access; they are constructed to appear comprehensive, their unfathomable totality used as a mechanism of control. Constructed notions of comprehensiveness dilute the role of the Archive and shroud its true power: the Archive is not a repository for facts, it is the birthplace of fictions.

The Archive is activated—history is constructed—through the assembling of disparate pieces, made legible through the selection, manipulation, and positioning of a newly constructed whole. This thesis explores the generative potential of the Archive. The intent is to pose alternative approaches to mythmaking in order to evoke new social memories and counter the perpetuation of history. Through the production of anti-histories—fictional interpretations of archived material—the authority and relativity of the Archive is challenged.

The work consists of an image-making practice and a fictional narrative. The image-making practice uses digital techniques to alter images sourced from the Library of Congress's Prints & Photographs Online Catalog. The images produced are simultaneously historical and surreal, provoking an ambivalent relationship between history and its artifacts. The fictional narrative, titled *In the Land of False Prophets*, is a commentary on the systems of knowledge that actively perpetuate biased memorial practices—a satirical representation of the relationship between time, power, and history.

In the Land of False Prophets tells the story of three people who become obsessed with breaking the confines of their fields: the Photographer, whose fascination with photographic truth leads them to the excruciating task of producing two indistinguishable images; the Archivist, who discovers a pair of identical images in a reclaimed box of artifacts and is subsequently exiled to find their source; and the Researcher, whose assignment to uncover information on unidentified satellite images leads them down a rabbit hole of exploration. The story follows their twisting obsessions, colliding in a discovery that questions the validity of history.

Image: Images Sourced from the Library of Congress

Advisors: Corso, Frolet, Hunker, Miller

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Space created for refugees does not exist within one bounding box, nor can it live in just one procession. It is a confounding space of inhumane practices and treatment that architects must improve. Populated and built by immigrants, the US has chosen to set up barriers between themselves and “others,” leaving the immigrant’s journey into the country as a convoluted mess, evidenced by crowded rooms with trauma and mistreatment. The processing center, often the most problematic space an immigrant is confined within, is synonymous with a detention facility. While one can argue that there should be precaution due to the faded memories of terrorist attacks, over 60 percent of immigrants in detention centers have just a minor felony such as a traffic violation. These centers do not even need the court’s approval before deporting immigrants to their countries of origin, even if their homes are dangerous or inhabitable.

The inhumanity of spaces we build is tucked away under the swellings of immigration bureaucracy and unjust practices embedded in our processing system. As lawyers, immigration agencies, and gatherings of local protesters dedicate their lives to bringing these issues to light, architects employ the overused and inhumane catalog of prison typologies to make spaces for immigrant detention rather than reception. While a majority of the immigrants who end up in the processing centers join American society, there is a cavity in the architectural processes that can assist with reintegration rather than exaggerate trauma.

This thesis examines immigration centers in California and finds inspiration in an unaffiliated architectural typology to reimagine processing centers in the US as reception centers. By juxtaposing the monastery—familiar to the global population as a sacred, safe, and communal space—this thesis offers the spatial and narrative technique of designing a reception center influenced by monastery architecture as the dialogue that initiates a shift in practices. This investigation is in response to the growing crisis in architecture where the responsibility for the experiences suffered by a migrant, in awful places such as the current processing centers, is evidently on us, Architects.

From Detention to Reception: Addressing Cavities of Immigration Processing Centers

140

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Image: Processing Centers, a Warehouse Generating Trauma



141

Mehak Saroha

Real or virtual, temporary or permanent, political or apolitical—Tehran’s building murals invite outsiders to an attractive destination that provides a glance into one of the few places free of capitalist-oriented, commercial propaganda. Funded by the beautification committee Zibasazi, murals span the city districts, displayed on the sides of buildings near highways that bridge the economically divided northern and southern municipalities of the city.

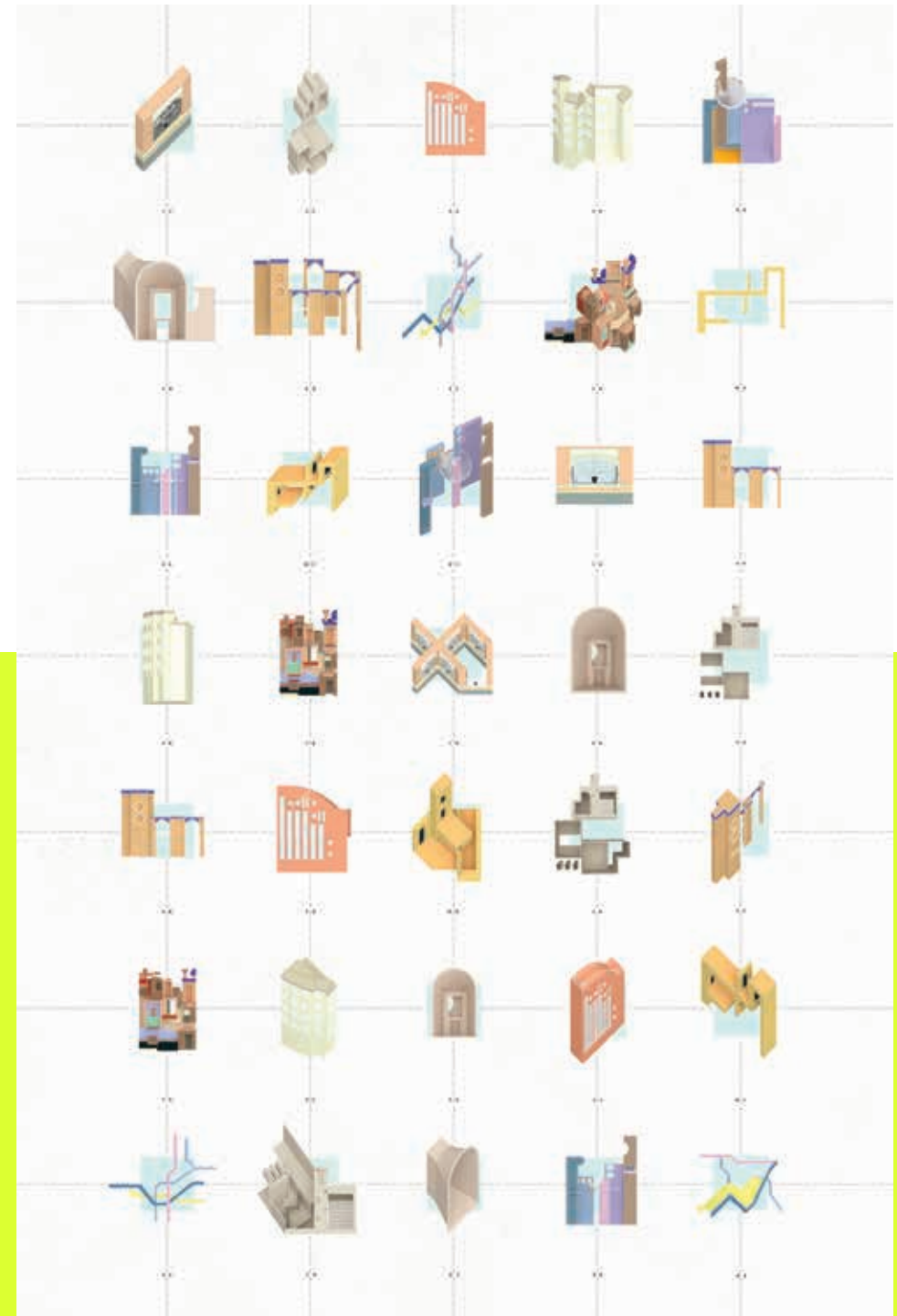
The spectacle of the mural industry in Tehran has created a visual voyeuristic Mecca; however, its decorative displays stop short of establishing communal forms of engagement to invigorate the city. To tackle the current spatial and social divide of Tehran, this thesis reimagines the visual narrative of murals as figural formworks that address the absence of a collective identity in Tehran’s urban fabric.

Tehran as a metropolis is facing two major challenges at its core today: finding its identity within globalization and finding harmony between social and capitalistic values in its urban realm. This thesis uses and exaggerates the mural typology to create culturally vibrant and socially active spaces throughout the city, a platform in which the community takes precedence to indicate to the city the space’s real usage. These spaces blur the boundaries between formal and informal activity and become an integral part of constructing a new, unified aesthetic identity for Tehran. Each of these urban interventions invites users to engage with their formal, spatial, and material qualities and helps bridge the current social, economic, and cultural divide between the north and south of Tehran.

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Image: Mural Follies



New Nostalgia: Reimagining Tehran’s Streetscape

142

143

Roxanne Sarrafzadeh

Quintessential architecture in the US evolved from European colonization practices. The colonial presence is visible today in the architectural styles that have been reproduced and preserved, particularly in the American Northeast. Ancient and Renaissance styles of architecture signify monumentality, classicism, and prestige. Today, building codes and preservation laws keep these oppressive architectures intact as an exclusionary tactic. In critique of oppressive colonial vernacular, this thesis hacks preservation codes to develop an aesthetic strategy for building design that produces a sense of inclusivity and belonging.

Martha's Vineyard maintains bylaws and codes pertaining to the preservation of the town's distinct architectural styles. Form, roof pitches, windows, chimneys, material, and paint color are all included as elements that are policed by these codes. Style, as defined by William Morgan, expresses our worldview, and therefore reveals the intentions and aspirations of those who construct it. Morgan equates the importance of style with written stories and legislation, but this thesis argues that analysis of the stories (the context) and legislation (the code) is central to revealing the pervasive Euro-centric mindset.

Composite Cohousing reconciles these concerns of classist architectural preservation laws and colonial vernaculars. Divided into two sections, the code and the hack, this thesis explores the historic bylaws through documentation of existing conditions of the island. The code is the laws, bylaws, and standards, both physical and rhetorical, put in place to uphold the general aesthetic of the town. This veil of strict identity hides the social, political, and economic underpinnings of the island. The script produced from the code yields conciliatory, obedient architecture. Merely nostalgic reproductions, the architecture fails to speak to the socio-economic diversity of the island today. The proceeding hack challenges these codes to produce an architecture that acknowledges issues on the island today relating to housing insecurity and affordability. The hack is a critique of the elitist systems that deny aesthetic evolution. The result creates a resilient architecture, acknowledging and celebrating the systemically hidden diversity of the island today.

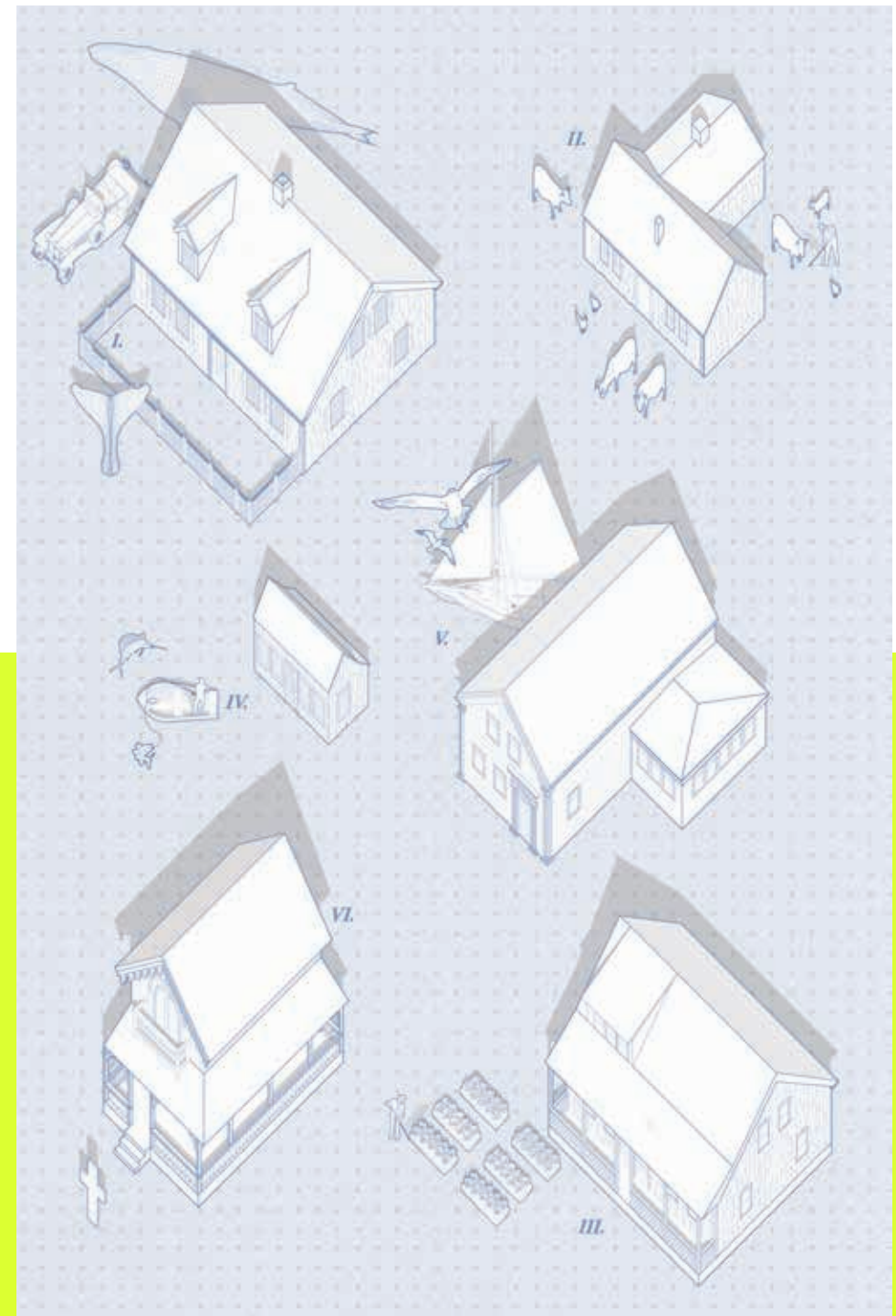
Composite Cohousing: Hacking Colonial Vernacular

144

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Image: The Colonial Script of Martha's Vineyard



145

Heather Skinner

Architecture is too often understood as a discipline concerned almost exclusively with space, understood independent of time (understood as a system of measurement) and/or temporality (understood as a condition of objective or subjective duration and sequence). This bias toward space has for the most part underplayed or even ignored the multiple roles played by time and temporality in the theorization, production and experience of “architecture as it exists in time and as time exists in architecture,” to slightly paraphrase Jeremy Till. This thesis advisory group concerns itself with identifying and taking a position on some aspect of time and/or temporality as it produces and/or is produced by architecture. Some potential topics could include:

- The temporalities of the architectural object: indexical expression of construction processes and details; materials and weathering
- Spatio-temporal experience in architectural theory: temporal awareness as a critical tool; the meanings of time and place
- Architecture and changing needs over time: transformability and adaptation; ephemerality
- Temporality in other disciplines: landscape and other constructed environments; the fine arts; sciences
- Architecture and (its) history: modern vs. postmodern narratives of historical meaning; preservation of architecture and the value of temporal narratives

● Architecture and its Temporalities

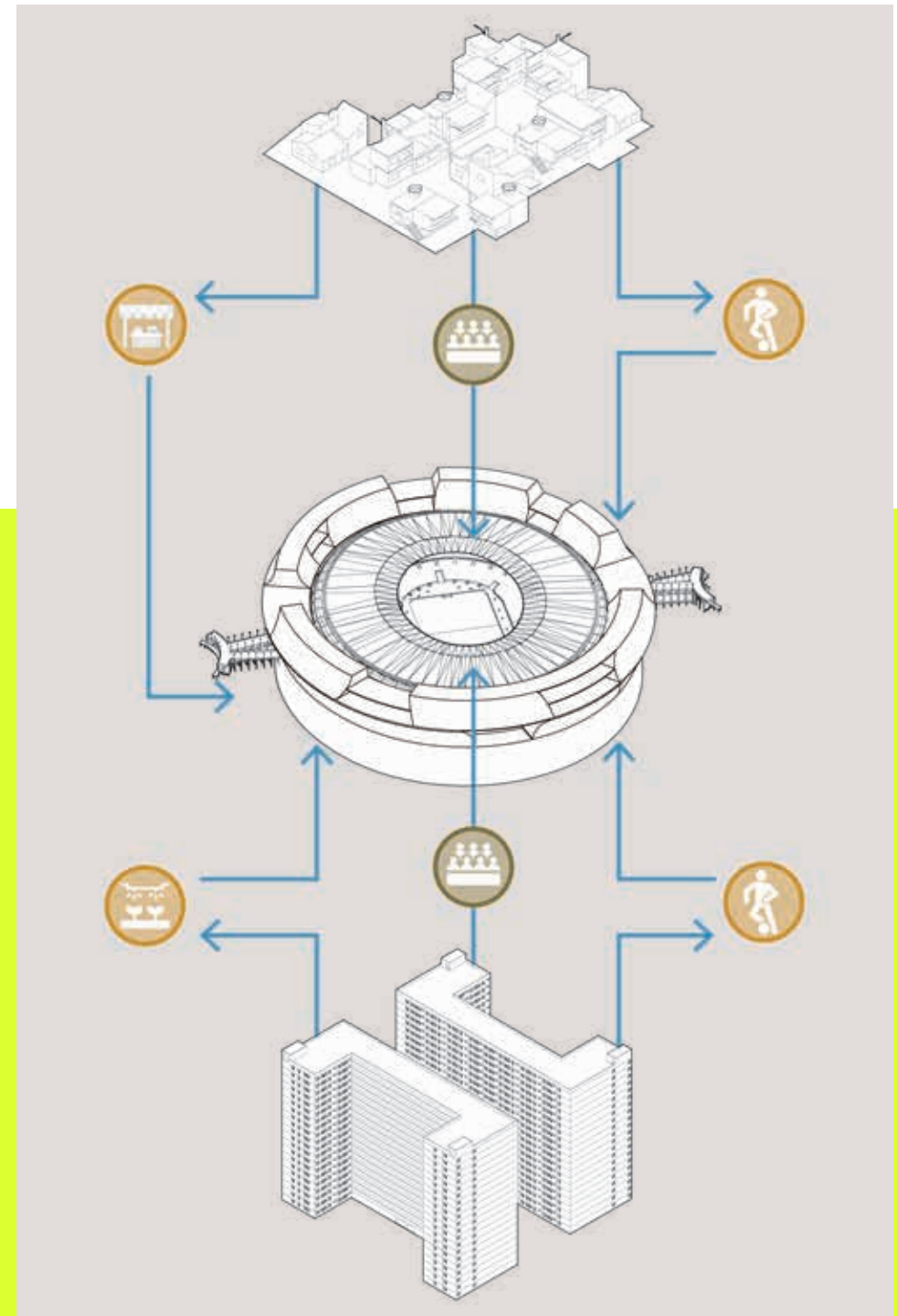
Terrance Goode

Mega stadiums are monofunctional and obsolete once the celebratory events are over, disrupting the urban context when the lack of daily events renders the site functionless. High maintenance costs make these facilities run at a loss, resulting in their being passed from one investor to another, continuing the cycle of disuse, disrepair and neglect. The current approach to repurposing stadiums is wrong—investors and owners only want to generate money by selling tickets or repurposing it as a parking lot. At the same time, communities are displaced, and the urban context is neglected in the pursuit of revenue.

Over the last decade, Brazil has fallen into this cycle by pouring over \$3 billion into the construction and redevelopment of more than 30 stadiums to host the 2014 Fifa World Cup and the 2016 Olympics, often displacing poor working-class communities so these facilities can be built. People who live in favelas or inadequate housing are evicted and forced to move so that these new stadiums can “socially cleanse” Brazil. Instead of spending money to develop social projects for the disadvantaged communities, the government has spent more money on developing sports facilities and beautifying the city so tourists who visit see only the cleanliness of Brazil.

This project proposes a network around the Maracana Stadium in Rio to bring activities and functions back into the urban landscape. During the day, indoor vertical farms and outdoor farms will help feed the malnourished families in favelas that face issues of food insecurity. This will help activate the movement of people in and out of this part of the urban landscape, which would traditionally be unoccupied during the day. Proper infrastructural networks will connect the markets at the favelas to the farms in the stadium. At the same time, a vertical sporting facility will be open to the public to provide a safe playing environment and develop the athletic talents of Rio’s youth. Both the farms and sporting facilities will be located near the Maracana Stadium, while the markets will be located near the favelas.

Extending the Temporalities of Mega Stadiums



The experience of our bodies extending out to the external world, through what we see, touch, hear, and smell, is not locked into the immediate present. Rather, it is recollected through time and space, and plays a role in the development of the self as well as in the act of placemaking. This is where we can find the human values of emotion and empathy in architecture. It is within the qualities of place in a material object that we can attach ourselves to the external world. However, the objective values we place on architecture today do not include these placemaking qualities in our narratives, and therefore our experiences are limited. How we remember spaces is an important part of our existence in the environment, for it acts as a device to describe these empathetic and placemaking qualities of environments.

A space is constructed starting with its foundations, the essence, its bones. We eventually experience the space, and once we are physically detached from the space, the process of remembering begins. Most architecture only exists in its remembered form. As more time elapses between experiencing the space and being away from it, the process of metaphorical elucidation happens, where the remembered space begins to reveal itself. Instead of the deconstructed remembered space revealing to us technical information about the space, it reveals to us its qualities of place that are embedded within. Place is what gives architecture its humanity. It is what evokes emotion, attachedness, and memory. Two different spaces, even if completely detached from each other in every way (spatial, typological, cultural, political), can be connected by having similar characteristics. That is to say, when one enters a space, memories of another space with similar qualities can be triggered.

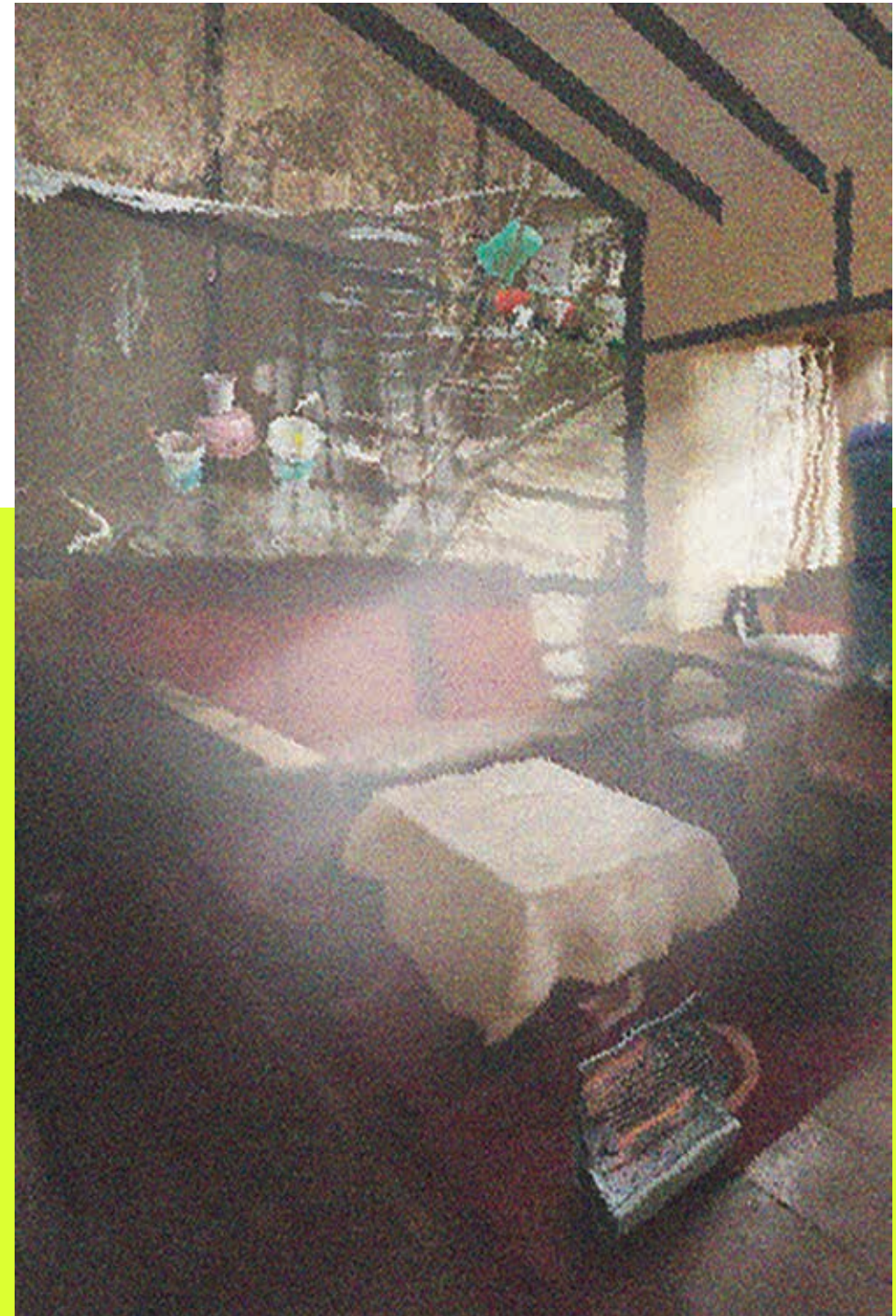
This thesis aims to explicate the processes and qualities of remembered spaces; it addresses the relationship between the remembered spaces and physical spaces, and explores the possibility of identifying the figures and shapes that exist in remembered spaces.

Remembered Spaces: Reframing Architecture from Body to Building

150

Architecture and its Temporalities

Advisor: Terrance Goode



151

Shaan Lyngdoh Lakshmanan

Qingdao (China) used to be a colony to many countries. Since Qingdao is a peninsula city, the railways have played an important role in its history and development. Those railways are the trace of the city.

With the high-speed development of society and its traffic, Qingdao has expanded dramatically, and part of the railway in the downtown area is going to be abandoned. The city has become more rigid than before. The Qingdao International Beer festival, the city festival, is shifting from the downtown area to the countryside. The trace and memories of the festival are vanishing from the old town, leaving barely any amusement or recreational activities for people in the downtown area.

The contention of the project is to reuse the abandoned railways as the stage of amusement for citizens and tourists, to continue to write the history of the city and keep the trace of the city's festival.

Image: Carnival on the Railway

Advisor: Terrance Goode

Architecture and its Temporalities



Carnival on the Railway: Reuse Railway and Station as New Architecture

This thesis traces the influence of Instagram on spatial understanding and design. In a world dominated by social media, image culture has started to affect both the built environment and how artists and architects design. Although visuals have been factored into design since the beginning of Architecture, it wasn't until the 18th century Picturesque Garden that a space was designed with the intention of being recreated two-dimensionally. With the creation of advertisements came Constructed Recognition—the phenomenon where people recreate official images in their own images. This subsequently gets translated through social media in the formulaic reproduction of similar images. Now over 1000 photos are uploaded to Instagram every second and spaces seem to be vying to be the backdrops. The success of designers seems to be determined by how recognizable a space is to the populace rather than the acknowledgement of their peers; this has resulted in a shift from functionalism and pragmatism to a formalism that results in objects like the Vessel in NYC and a renewal of postmodernism.

Through collecting, cataloging, and collaging photographs from Instagram, this thesis aims to highlight what people photograph, how people interact with the built environment through photography, and the spatial experience and understanding mediated through the image. The main case study is Rodeo Drive in Beverly Hills, California. Through collaging crowd-sourced photographs, this project tries to digitally move through and recreate the street.

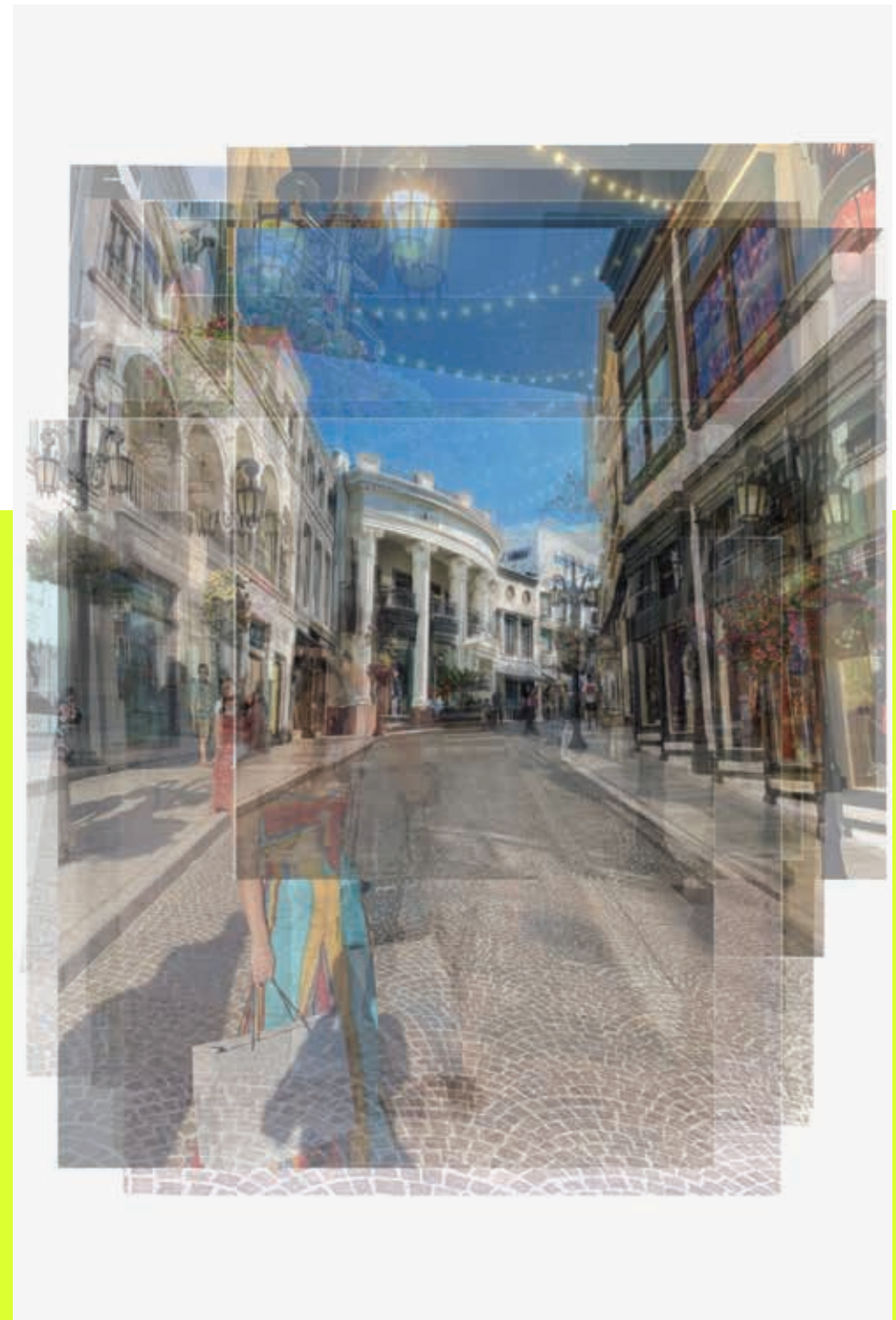
Rodeo Drive has been a tourist attraction since the early 1900s. Prominent architectures on the street include: The Beverly Wilshire Hotel, featured in the film *Pretty Women*; Two Rodeo Drive, which recreates an Italian street as a shopping mall; Anderton Court Shops, designed by Frank Lloyd Wright; Prada, designed by OMA; local icons like the bright yellow Bijan; and various brand name stores like Gucci and Louis Vuitton, which constantly move and renovate to fit the times. Trends in design can be traced through the varied history of the street, and recent renovations seem to show an interest in creating Instagram-able spaces to promote tourist traffic.

Insta-esque: Design Mediated by Instagram

Architecture and its Temporalities

Advisor: Terrance Goode

Image: Instagram Composite of Two Rodeo Drive



The architectural thesis is the student's project, not the advisor's project. The core ideas, interests and ambitions are self-initiated by the student. This thesis advisory group is positioned to assist students in clarifying, evolving and architecturalizing their initial provocations. We work to support the students' fundamental disciplinary topic areas and not to mold them according to our own. We will help direct, refine and demystify the thesis to frame an architectural issue, contention or curiosity. We will help the student develop a more focused approach and ultimately realize a precise thesis statement that articulates the architectural issue/s endemic to the project. While the advisor's sensibilities will influence the work, the core values, goals and scope should come from the student's... position.

We will look things up, we will read things, we will draw things, we will model things, we will record discoveries and will engage in the parallel activity of speculation. We will conduct analyses of architectural and non-architectural content. We will work largely through making while grounding work in the appropriate areas of theoretical, historical and or architectural discourse. We do expect that all thesis endeavors in this thesis advisory group will be architectural design projects that contend with issues of context, utility, language, space and the evolution of the architectural species, i.e., making Architecture.

● No Positions

Valeria Herrera
Richard Rosa

The individual is lost in the sea of the collective. There exists a desire to create a dwelling that is public, designed with open concepts that allow for large groups to occupy the house. The role of the private dwelling is to construct the personal identity of the occupant and should incorporate the experience of being a part of the world. When you take away private space, there is a loss of individual self-expression. When one leaves the house, they leave behind their personality to become a part of the collective. When the collective enters the private dwelling there is a sacrifice that must be made on behalf of the individual. How does space in private dwellings negotiate this relationship between the individual and the collective?

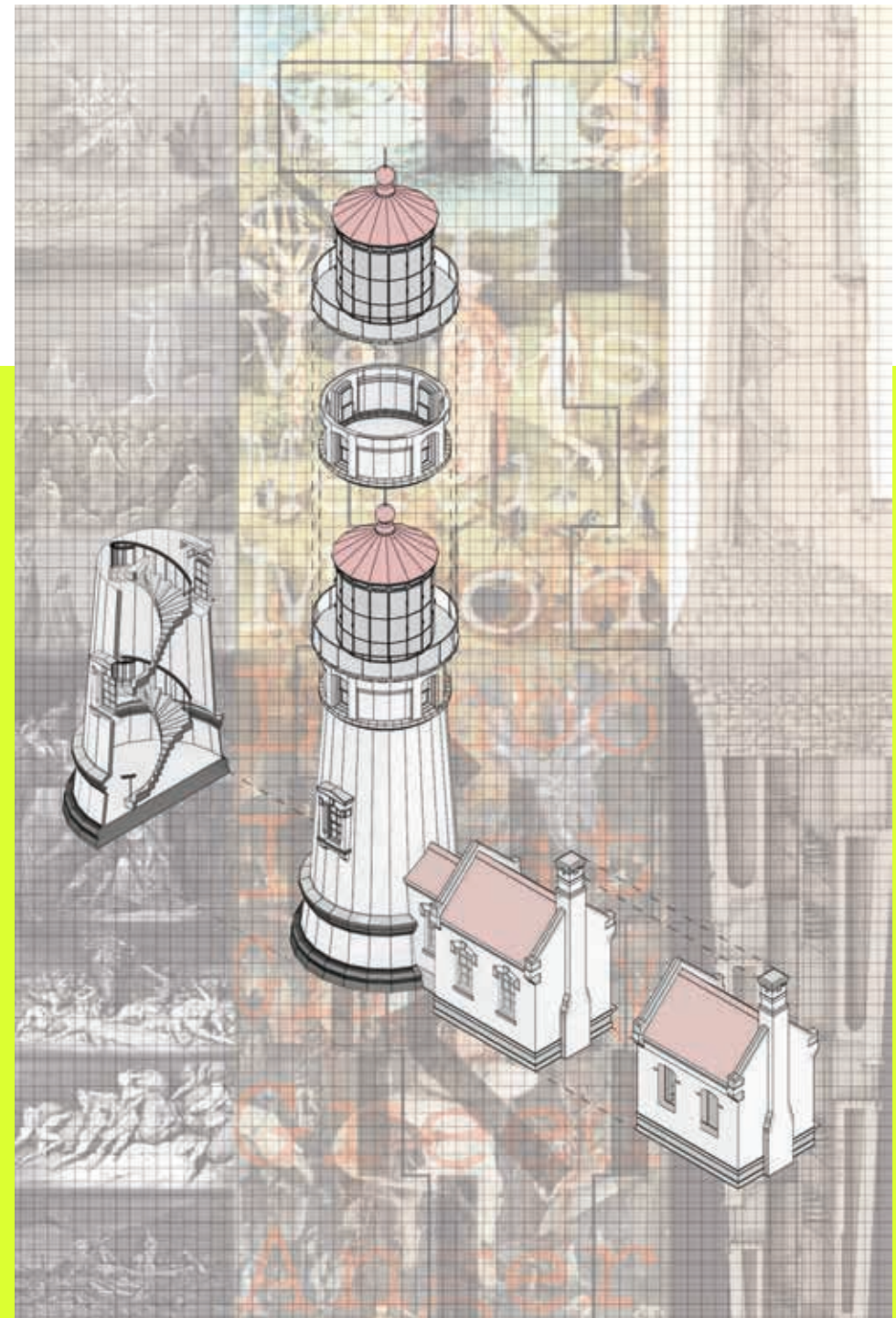
In the private dwelling, space for the individual is personalized; it is more than just the privacy of the bedroom. Mood and atmosphere in architecture provides opportunities for human life to be expressive and sensual. This thesis crafts a space of private dwelling that encourages self-expression and self-exploration while considering environmental self-sufficiency and individual self-sustainability.

The nature of dwelling and labor will be considered in this thesis through the design of a lighthouse. Without recurring labor, the worker would leave the house and join the collective, leaving their individuality behind. This thesis also considers the lighthouse architecturally and typologically as a space existing in between the mechanical and the domestic. The intent of the thesis is to craft the space of the individual to such a heightened intensity that individuals either become God or are lost in search of the divine, and is a reflection on the concept of the individual versus the collective.

No Positions

Advisors: Herrera, Rosa

Image: Section



Lights Out: The Space for the Individual

The hotel is dead. The hotel's sole purpose is to house visitors, yet it isolates them from their destination. The modern hotel typology has forgotten about its context, and works merely as a temporary vessel for its inhabitants. It works to move people in and out as quickly as possible as a vehicle for mass consumption. Hotels have adopted bare walls and white bed sheets, as if they were hospitals, negatively impacting the travel experience. Swiss photographer Roger Eberhard documented this loss of hotel architecture through his book, *Standard*, in which he documents 32 hotel rooms in 32 cities on five continents. All 32 rooms are eerily similar and showcase a complete disregard for context.

Historically, in New York City, hotels were an essential part of the city's social life and image. Famous films such as *The Great Gatsby*, *Sleepless in Seattle*, *Crocodile Dundee*, *The Godfather: Part III*, and many more have used great hotels as part of their plots. These films' portrayals of hotels demonstrate how crucial the hotels were to the makeup of the city itself. Historical hotels such as The Plaza are well known for hosting famous parties, celebrities' activities, and political events. Frank Lloyd Wright himself lived at The Plaza for six years, and it's there that he met Solomon R. Guggenheim.

Despite this historical relevance, the modern hotel typology cuts the city off at the lobby. The modern-day concern for security has suffocated the hotel. The lobby should connect to and be part of the city, and should never be a closed-off room with a reception desk. The tired reception desk and its isolated clerk reject the city and discourage any guest from staying too long. The two should be intertwined, one and the same. Redesigning the hotel lobby is crucial to revising the hotel typology.

This thesis is a critique of the modern, utilitarian, a-contextual, consumerist hotel typology. It works to reconnect travelers to their destinations by re-engaging the hotel with its context by blurring the boundary between the hotel and the city.

Hotel Avenue: Reimagining the Tourist Experience in NYC

160

161

Ava Helm

Image: The Hotel is Isolated from the City

Advisors: Herrera, Rosa

No Positions



This thesis constructs a new set of images to provide a more complex and comprehensive understanding of architectural spaces, architectural relationships, and visual relationships. The thesis positions itself within the history, technique, and trajectory of architectural representations, examining how architectural space can be studied, translated, and then abstractly represented through the traditional medium of painting. Visual representations of student projects consist almost exclusively of computer-generated line drawings and renders. This project critiques the value of digital drawing, which cannot visually represent the geometrical relationships within architecture. Traditional technical documents used to represent architecture are implicit in their reading; while they are clear and concise, this thesis proposes that architectural representation should be more than just that.

Instead, this project will explore the tactics of architectural representation in the depiction of two- and three-dimensional architectures: the conventions of plan and section versus the viewer's perception of perspectival space. Through painting, this project will represent architectural space in a perceptual manner.

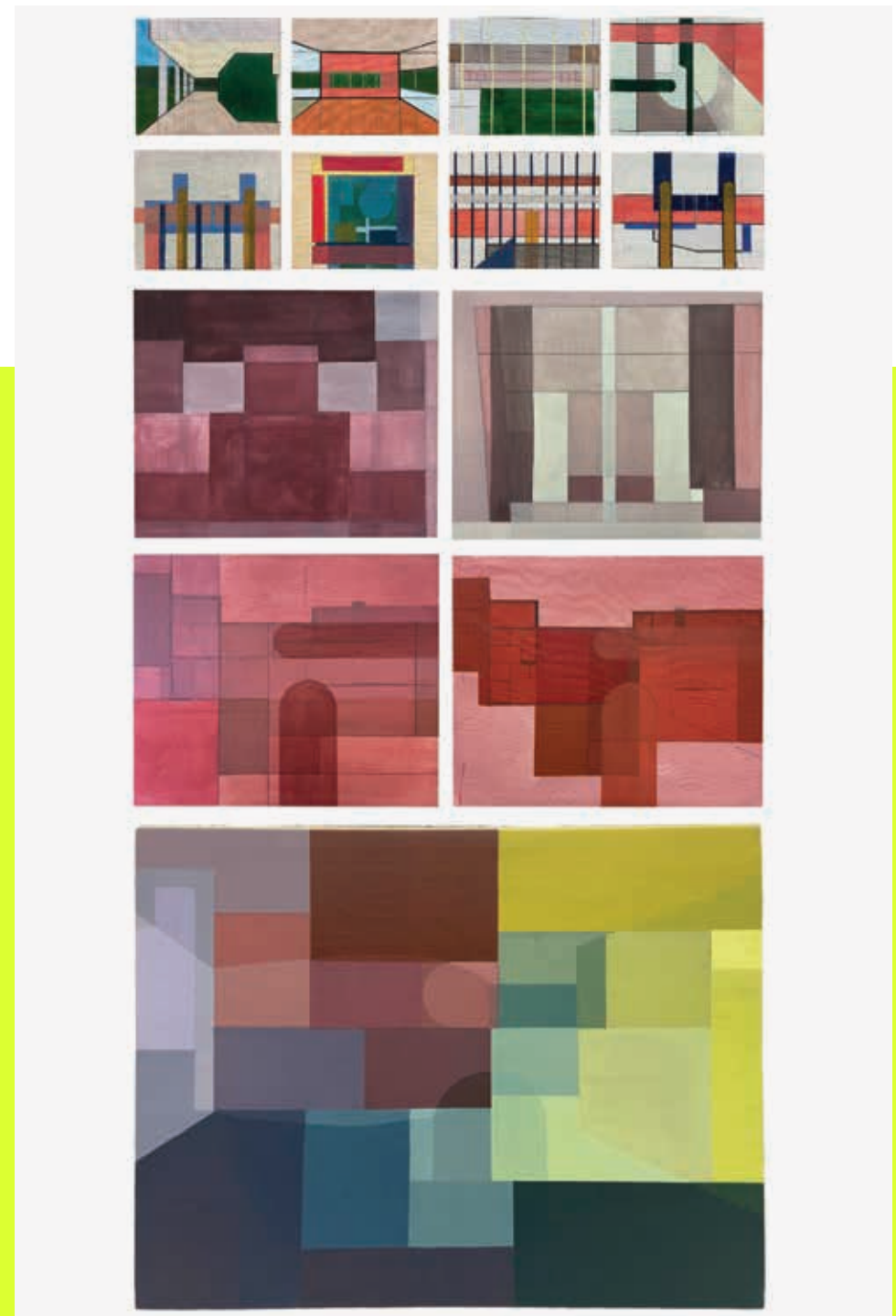
After a study of precedents from critical time periods throughout architectural history, paintings will be created that re-present the spaces and architectural relationships in a simultaneous way. Each building will have painted "documents" as the foundation for the new set of images produced by this thesis. These newly produced documents will have the capacity to convey something that is more than only a plan, more than only a section, or more than only a perspectival view. This project takes these original technical documents or perspectival photographs and transforms them. It uses principles, themes, and ideas developed from artistic movements such as Purism, Cubism, Constructivism, and De Stijl to further the ability to translate architectural space.

How can these precedents be compared visually and analytically? I propose that the documents this thesis produces will not follow the same logic of singular legibility and will not be bound to one reading or interpretation. The goal is to construct a series of architectural representational documents, paintings, and images of spaces that are multidimensional in their view and in their capacity to communicate information to the viewer.

No Positions

Advisors: Herrera, Rosa

Image: New 'Building Documents' Created Using Paint as Medium



This thesis seeks to reclaim and reposition architecture as a multi-layered rhetorical device, proposition, and construct; an architecture loaded with a terabyte of content embedded within itself; an architecture of formal ambiguity and complexity; a backdrop onto which layers of symbolic, historic, and cultural content are superimposed.

Situated on the Gianicolo Hill—the highest point in the city of Rome—the programmatic driver of this thesis is an archive of the history of architectural thought and production. The archive operates as a double functioning project: it will represent the history of architecture in its collection and in its construction. The project engages and draws on the rich history of the site symbolically, culturally, topographically, and cosmologically.

The archive is positioned as a vessel within a larger garden complex. Programmatic elements, follies, and symbolic artifacts—both small- and large-scale—are distributed throughout the garden according to a set of visual, historic, and narrative-based relationships, which didactically unfold as the observer wanders through the garden. The garden complex operates as a processional, cinematic sequence up the hill—a viewing device to the city, framing a series of views until the ultimate view is revealed: Rome.

Image: Vessel in a Garden, 16x20 in, Acrylic and Mixed-media

Advisors: Herrera, Rosa

No Positions



Mutant Typologies: Architecture's 1-Terabyte Hard Drive

164

165

Bram Monson

Current typologies of the orphanage fail to construct spaces for nurture; instead, the orphanage neglects the child and the childhood experience through standardization. Childcare facilities thus far inherently lack the enthusiasm to protect, heal, and inspire. Instead, the children are provided with passive institutionalization. This thesis recognizes the good intentions yet possibly failed executions of the current built orphanage typology. This project identifies the institutionalization of these facilities, but more intensely examines the conditions of orphans in India.

This thesis responds more specifically to the negligence and the abandoned means for nurture portrayed in India. With an emphasis on providing spaces to protect, spaces to heal, and spaces to experience childhood, this project explores the extent to which the orphanage can be hyper-idealized as a vision of fantasy for kids. India is home to the largest population of orphans in the world. Yet the orphanage typology merely does not exist. The confined conditions of orphanages in India are replicated throughout nearly every orphanage in India.

The site chosen takes ownership of some of the most historical monuments in India, and also takes ownership of India's most dense population of orphans. Uttar Pradesh is one of the top three orphaned states in India. The city of Agra is located here, with the strongest access to other highly populated orphaned states and cities within India.

The New Orphanage proposes what the Indian orphanage must demonstrate, acting as a manifesto for an Indian orphanage typology that no longer disregards scale, culture, and function. The New Orphanage stands as a dialogue to argue, reconsider, and reflect on which resources and efforts are prioritized in the Indian built environment; it hopes to synthesize the successes of architectural moves in westernized orphanages, idolized structures from worlds of fantasy, and the architectures of cultural iconism to provide a safe home and childhood for orphans.

No Positions
Advisors: Herrera, Rosa

Image: Synthesizing Realities of Home and Experiences of Fantasy



Amalgam: Introducing the New Orphanage for India

166

167

Nikita Palli

This thesis operates as a critique of the current ad hoc or temporary responses (specifically in education) to the rising need for open-air spaces as seen with the outbreak of COVID-19. The project also serves as a criticism of American high school design, a de-evolved typology.

For years, schools in the US were designed by the same people designing prisons, making it easy to draw parallels between the two. High schools in the US have historically placed a greater focus on security, discipline, and control, and much less focus on students' overall physical and mental health. This thesis references and builds upon the open-air school movement in Europe from the early 20th century with the outbreak of tuberculosis—an air-borne disease very similar to COVID-19.

The project proposes an “open-air” high school situated in a dense urban site. The design will not only respond to the ongoing pandemic needs but will also reflect the many benefits of integrating nature with architectural design. This proposal will help redefine the fundamental components of education spaces by analyzing the health benefits of access to fresh air, ample daylight, and green spaces in a learning environment.

The current American high school typology is very solid, with few or no classroom windows, and extremely closed off from nature. For the design scheme of an “open-air” high school, this thesis proposes a more light and porous approach to the design to better integrate the natural with the built environment. In addition, it will contain a program of spaces with a focus on the health of all the school's occupants.

The School Doesn't Breathe: A Functionalist Approach to School Design

168

No Positions

Advisors: Herrera, Rosa

Image: Conceptual Model Exploring Porosity and Intersection of Program



169

Diana Quesada & Shiyi Wang

As sociologist of women's and gender studies Betsy Lucal states, "Femininity requires that something be added." This is synonymous with the diachronic sentiments of ornamentation in architecture. Ornamentation has been seen as "something added," of "superfluous detail."

Adolf Loos, along with several theorists, historians, and architects (Le Corbusier, Amedee Ozenfant, Augustus Pugin), affirmed that the ornamental has traditional connotations of effeminacy and decadence. The presence of ornamental decoration in art and architecture is and was denigrated, resulting in the emphasis on form and purity. It resulted in modernism rebuking the dependent and feminine, and celebrating the transcendent qualities of pure abstraction. This abstraction was defined for what it was not: decorative. While ornamentation is not inherently gendered (but is subject to the polarities of male/female, culture/nature, center/periphery, and form/decoration), the historical (and criminal) association between ornamental decoration and the feminine was established. Just as masculinity does not exist except in contrast to femininity, Loos's version of modernity cannot exist without the presence of ornamentation, nor should it exist at the expense of its depreciation.

What if Loos were asleep and ornament were to run free? What would this look like? Adolf Loos's Muller House serves as the context in which the thesis will demonstrate the elements of femininity through ornamentation. Elements of femininity are constructed through material and form speculations and act as a continuation of Beatriz Colomina's work on Loos and his subsequent delineation of gendered space. They are conceived in the Muller House and applied to other contemporary architectural works. This thesis seeks to rehabilitate ornament by identifying and extracting conditions of ornamentation and reapplying them in contemporary architecture as an abstraction to represent the feminine.

Ornamentation and the Feminine: Representing Femininity through Abstraction

170

No Positions

Advisors: Herrera, Rosa

Image: Deviating from Crime | Surface Speculation: Loosian Shells



171

Janani Suriyanarayanan

“Littoral” commonly refers to territory occupied by land and water, or sometimes by land, and sometimes by water, but it can also be understood more broadly. Things, geographies, concepts that are interstitial can be characterized as littoral, as thick boundaries. A river’s flood plain is littoral; so is the earth’s atmosphere. Littoral territories lie between ocean forces and the almost equally strong inertia of the land—*terra firma*. In the midst of violent fluctuation, where planet-scaled quantities of energy are spent, we squat—three billion people and counting, in increasingly vulnerable coastal locations. For millennia, water was a transportation infrastructure for colonization and trade. Now, it is a threat to 40 percent of the planet’s human population. Somehow, we are still managing to ignore the risk. We shield ourselves from evidence, we ignore facts, we stick heads in sand. We want the definite. We expect the unalterable. We want water that is cool, salty (and sweet), and predictable. We want rain, but not deluge. We want fire, but not wildfire. We want heat below boiling. What we get is Katrina, Harvey, Sandy, and Andrew.

Climate change and population increase are combining to produce rapidly growing levels of distress and destruction within coastal regions, the planet’s littoral zones. Population growth and shift, with attendant increases in shoreline settlement, are placing ever-larger numbers of people and volume of construction in storm-vulnerable locations while simultaneously degrading the potential of these same coastal landscapes to absorb storm force. The intensity, frequency, complexity, and monumental tragedy of flooding disasters will not decrease. In fact, predictions are for the opposite. It is well established that rising global atmospheric and oceanic temperatures are linked to increasing carbon levels in the atmosphere. And further, that rising temperatures are changing global climate dynamics—wetter wets, drier dries, more frequent and powerful storms. As greenhouse gases accumulate in the atmosphere, temperatures climb and climate change accelerates. These projects address sea-level rise in a variety of ways; some are dystopic and Biblical, while others take cynical aim at the crisis of realpolitik. Each of them addresses the broad zone “in between.”

Liz Kamell
Timothy Stenson

An urban identity tells the unique story of a city and its people, providing insight into its growth over time, as well as a glimpse into its projected future. Built over generations, a city is impacted through its geographic location, as well as the changes brought through political, economic, and social movements over time. These different layers engrain themselves in the city's urban fabric resulting in a unique culture and identity being birthed. Many of these unique elements can be identified as the buildings, streets, and spaces, all of which have been adapted to suit the needs of its inhabitants. It is these smaller components that come together and build off one another, resulting in a direct influence on the formation of a city's identity.

The erasure of urban identities comes with the removal of individual elements in favor of the more "modern" solutions that are introduced today. When a traditional typology is replaced, a building technique forgotten, the city begins to lose its overall identity. This is a direct result of globalization and the spread of ideas becoming more accessible. For developing regions, adopting these technologies and ideas paves a way into a more sustainable future; ultimately, their desire to progress into the future comes at the expense of the erasure of their past. To remedy this, a solution is needed to ensure that a city can both maintain its identity and progress with the rest of the world.

This thesis applies this idea in the context of Siwa, a desert town located in the Western desert of Egypt, which is in a precarious position in its lifespan due to the impending approach of globalization. Changing the overall existing logic in favor of a more structured system would argue against the idea of preservation given the spontaneous nature of the growth of the city over time. Therefore, using the hierarchal elements within the city to influence different typologies could serve as a way of using the smaller typological elements of the city to help create a grander identity for the overall city.

Creating an Urban Identity: Rediscovering the Identity of Siwa

174

Littoral / Shift

Advisors: Kamell, Stenson

Image: Topographical Map of Siwa



175

Aly Teymour Abdel Baky

The building industry alters the earth and sky. Minerals, ores, sand, and gravel are extracted, transplanted, purified, processed, and transported across the globe in mechanized human processes, continuously pumping carbon dioxide into the atmosphere. The consequences of this process are now well known and easily seen: the building industry is responsible for 40 percent of global carbon emissions. Syracuse, New York is no stranger to these processes; the city has been built up, polluted, and left behind by industrial production. The crumbling buildings and infrastructures of the old city are costly to repair or replace. They remind us of the end result of the old way of building; it's time to change.

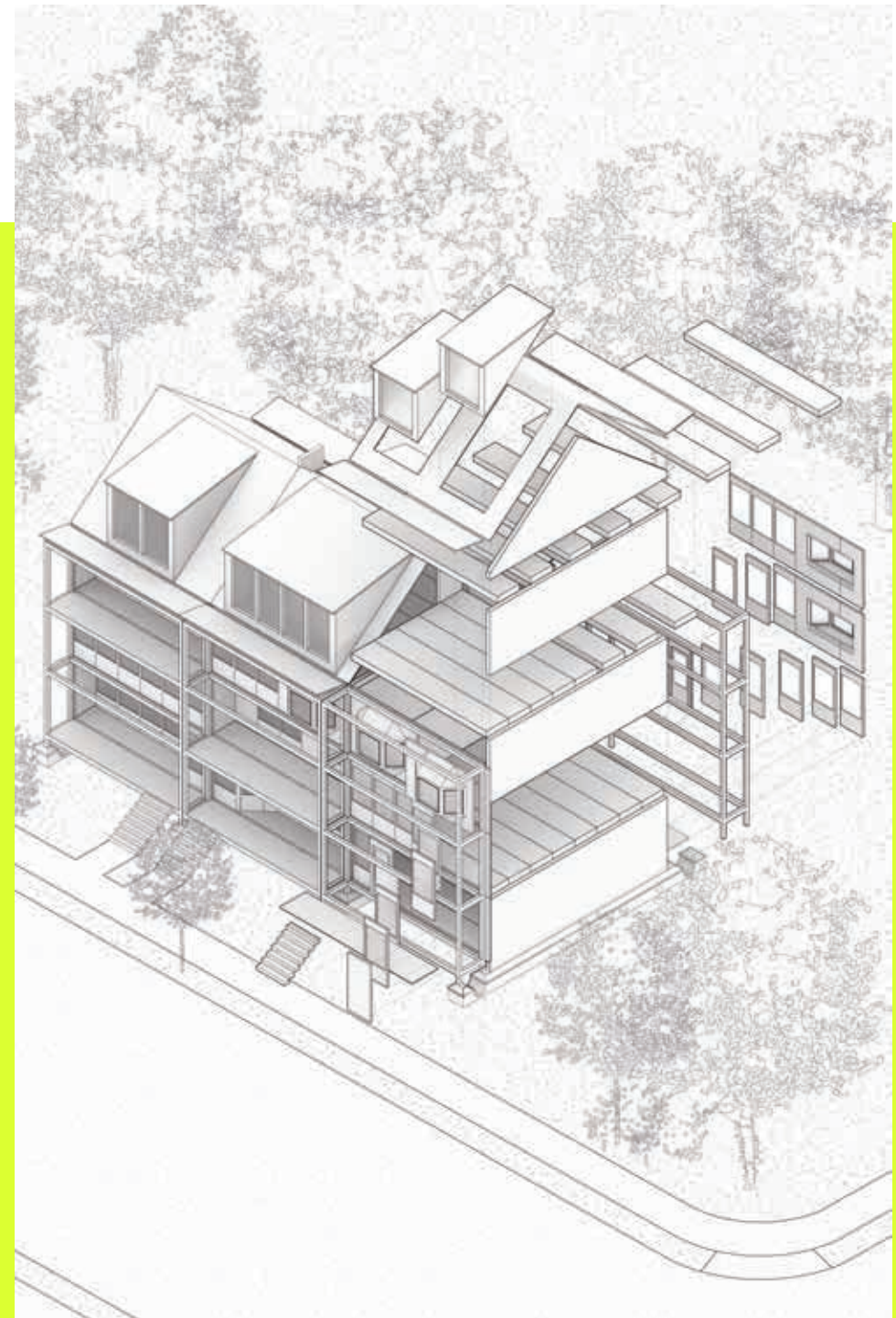
Climate change demands a restructuring of industrialized society. Architecture cannot solve climate change; it must address it.

This project will address climate change through the design of housing in Syracuse, New York. When faced with the crises, complexities, and uncertainties of climate change, architecture is prone to question its identity. This project will neither reject building when faced with the reality of its problems, nor assume that architecture can save the earth. Instead, it will intensely focus on designing attached housing using innovative timber construction methods, according to the climactic parameters demanded by the 21st century, and according to a reimagining of how the pieces and parts of a structure can be used and reused.

Though suffering under the degradation of post-industrial decline, Syracuse looks squarely at climate change and finds a baffling silver lining: our region might become more habitable. How then might we establish a method of building sustainable urbanism in Syracuse?

This project asks: What if we designed housing? Housing that challenges that old logic of extractive and destructive material processes. Housing that utilizes found materials, renewable resources, and natural products. Housing that does not feign immortality, but rather acknowledges its coming death. What if, instead of a violent explosion, it awaited a careful disassembly and repurposing, a recycling of each carefully constructed piece and part? What if every crucial energy that erected that beautiful space were reclaimed as it sinks back to the earth?

Reconstructing Carbon Street: A New Demountable Urbanism



This project is a statement under the context of Chinese modern society, proposing that personal recall could work as an anchor to reattach displaced communities to their cultural origins. These displaced communities could be expats living abroad, or individuals living in other cities domestically.

The motionless memory in architecture preserves one's life track and fragments of life like amber. While people are constantly floating between different locations, architecture and landscape work to provide space for memories to be shaped. Those memories could be personal to individuals, but also collectively shared by the majority with similar cultural backgrounds. Though different memories can be created within the same spaces, the similarity and familiarity of spaces still echo. The identity of a group thus forms.

Under the social background of China these days, the large number of displaced communities flows from city to city, country to country. No matter what their social class, the stuff they carry with them along the way could all fit into a small scale of space, just like their memories. After all, the built environment that architects create is just a temporary place to hold people, but the small unit holds the displaced memories; to bring up personal recall of identity and culture does not necessarily rely on huge-scale spaces. The small-scale units are not actual physical spaces, but a deconstruction of spaces where most people's daily activities take place, also a container for memory. To rearrange those deconstructed moments and spaces into one, the small units and items contribute to a collective culture recall and various personal recall for people.

Although formal spiritual spaces could be lost during this itinerant process, the memory of tradition still remains. Eventually, those spiritual memories are transformed into scenarios that are more secular, and hence, become the Specter of Homeland.

Specter of My Homeland: The Displaced Culture and Itinerants

178

Littoral / Shift

Advisors: Kamell, Stenson

Image: Patronus Fish



179

Cheng Liu & Luying Peng

In its 2019 report, the IPCC predicted 0.6 to 1.1 meters of global sea level rise by 2100 if greenhouse gas emissions remain at high rates. By 2200, seas could stand as much as four meters higher. The speed of water level rise keeps increasing significantly, and data show that climate change will also bring more storms and floods to those waterfront areas. These hazards will threaten the security of coastal facilities and human life.

Moreover, as sea levels rise and landmass diminishes, those who live in flooded areas need to find new locations or methods for settlement. Instead of forcing these people to give up their land property and lose the beautiful scenery at the waterfront, settlements directly floating on the sea could be a future trend to deal with problems caused by rising sea levels.

The project site, Southland neighborhood, is in the high-risk flooding zone in Vancouver, Canada. It is located near the Fraser River; part of the neighborhood's residential area is currently 0 meters above sea level. Because the surrounding region already has very high population density, moving the residents inland may not be the best choice. This region can represent many places around the world that are also facing the urgent challenge of coastal storms, flooding, and rising sea levels.

The design removes old neighborhood houses that have no flooding protections at all. Three new types of floating housing modules are tested in this region. One module consists of community centers that can gather about 150 people each, supported by columns that lift the functional areas above water; a second module consists of multi-family houses attached to a bridge; the third consists of single-family houses that are self-sufficient and can float freely in the water like a boat. These houses are arranged according to the environmental capacity of water and the demands of human daily life, as well as the goal to bring new potential for activities on water. The floating module will renew people's lifestyles in Vancouver city and also around the world.

Neighborhood on Water: Applying Floating Housing Module in Vancouver

180

Littoral / Shift

Advisors: Kamell, Stenson

Image: Renovation of Flooded Neighborhood near the Fraser River



181

Yang Yang

This project alters the original Cartesian system to allow other coordinate systems such as spherical, or cylindrical, to interpret space and forms. The application of transformation in-between dimensionality and the unfolding profiles contributes to the articulation of the re-representation in different coordinate systems.

Such a system means that the overall shape, or inner space of architecture can be flattened and depicted in any XYZ dimension. The X Y dimension would be the plans, and the Z direction would be the section. X Y and Z represent different perspectives, so plans are easy to distinguish from the section.

In such a system, the original verticality and horizontality become a united figure, blurring all orthogonal drawings, including plans and sections. Such a characteristic allows the architecture and the user to move, act, perform and circulate with great flexibility.

These flexible, unlimited characteristics can be applied to theatrical plays. This thesis therefore combines the transformation of coordinates with theater design. To accomplish this, compatible models are designed for each play, along with the movement of the model according to the play's content and scene changes.

Re-representation of Architecture: Transformation of Architecture in Other Coordinate Systems

182

Littoral / Shift
Advisors: Kamell, Stenson



183

Ziyi Zhou

As a group, our research interests overlap at the intersection of the material, system, and building scales that compose the total built ecology, questioning how architecture reorganizes energy and matter to mediate between uncontrolled and controlled environments, examining the role of architecture in a rapidly emerging future of resource depletion, climate change, and global economic disparity, and bridging conventionally separate disciplinary silos and methodologies in order to engage in the modes of integrated thinking that will be required to design resilient human habitation for an imminent future characterized by extremes. Topically and methodologically, our interests occupy both the conventional core of design research and the bleeding edge overlapping with territories of energy systems, life sciences, infrastructure, materials science, philosophy, and action. Our research is conducted at multiple scales in the built environment, from DNA to whole urban constructs, while investigating critical systemic interdependencies and causations across enduring/stubborn spatio-temporal boundaries.

This thesis advisory group guides students to employ multiple methods of traditional scholarly inquiry, and calls upon them to design modes of investigation appropriate to the purview of the topic, as the research problem crystallizes. Students engage in literature review and precedent search, drawing, diagramming, and mapping of the territory and preliminary scales of focus to state the research problem. They articulate important interrelationships across scales and disciplines as they concern the development of the research framework and the formation of the design problem, specific context, and constraints of testing. The design problem, or the instantiation through which the framework is tested, is manifested in a specific physical site (whether existing or imagined) or context. Students iteratively design while developing the metrics/measures by which their work is to be evaluated, and ultimately produce a complete “test case” with clear design boundaries and parameters of applicability. The students work in such a way as to anticipate that all of the artifacts produced—the framework, the methodology itself, and the test case investigation and documentation—together constitute the students’ novel contribution to the discourse.



David Shanks
Nina Sharifi
Yutaka Sho

Manila, the capital of the Philippines, is the country's most densely populated city, with thousands of people migrating there every year in search of economic opportunity. However, with land and housing prices at a premium, rent becomes unaffordable and many find themselves living in one of the city's hundreds of informal settlements (ISF)—commonly referred to as slums. The Manila North Cemetery is the site of one such informal settlement. Thousands of families live in the cemetery, building shelters atop existing mausoleums and tombs, and working as caretakers of the dead.

The cemetery's residents largely act as custodians and stewards of the site, preparing graves for families visiting the tombs. Residents are often hired to clean and watch over the same tombs they live in, only leaving when visitors come to mourn. On major religious holidays to celebrate and remember the dead, current residents will either leave to give space to mourners, or take part of the festivities by selling flowers, candles, rosaries, and providing services (guided tours, jeepney rides, etc.).

Despite the significant roles played by the cemetery's residents, there is a glaring lack of formal documentation of their lives and homes. Government bodies neglect to include graveyard residents and other informal settlers in census data, and there are no maps of the specific locations of the shelters. Random expulsions by the local police and a lack of formal ownership leave the members of the cemetery's community vulnerable. The brutality with which the cemetery's inhabitants are both driven out of their homes and kept on the fringes of society is a theme repeated throughout the world where the homeless and homed intersect.

This thesis examines the relationship between the settled homeless of Manila, the housed, and the city's governing bodies—not to prescribe a solution to the country's housing problems but to learn from the robustness of those on the fringes of society.

In Living Memory: Informal Settlement in Manila North Cemetery

186

Advisors: Shanks, Shariff, Sho
Afterlives



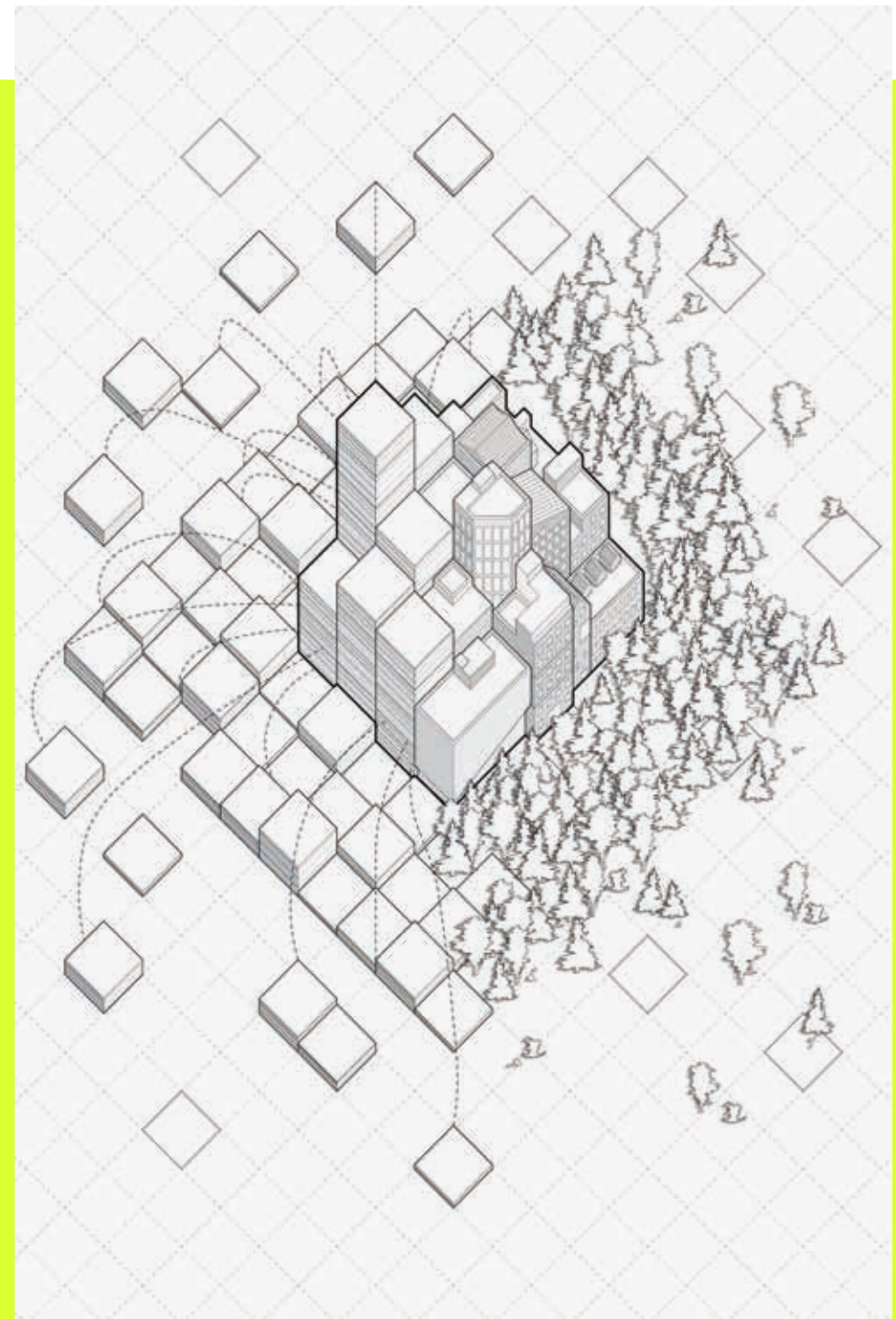
187

Katrina Abad

According to the IPCC Special Report on Climate Change and Land, sustainable land management is necessary to mitigate anthropogenic carbon emissions, particularly in forests. Though unmanaged forests play an important role in absorbing emissions, accumulated carbon is increasingly at risk of future loss triggered by disturbances such as flooding, fire, drought, or pests as the global temperature rises. Additionally, when vegetation matures and carbon reservoirs reach saturation, the annual removal of CO₂ from the atmosphere declines towards zero. Thus, managed forests, in which material is strategically removed to mitigate density-related risks and promote increased growth, are more effective at combating climate change. Sustainably managed removal of small-diameter timber provides an opportunity for the built environment to play a role in carbon sequestration.

While the physical embodiment of carbon in materials such as beams or siding is clear, there is less understanding of the forested environments these products come from. And the provenance of wood products matters; each piece of lumber represents both its own stored carbon and the space it has created for another tree to grow, repeating the sequestration cycle. Plus, the built environment, when designed out of timber, is more efficient at sequestering carbon per area than a forest is. There is a pressing need to manage forests, particularly in the face of worsening climate change. There is an urgency in architecture for sustainably sourced and carbon-sequestering materials in the face of climate change, a burgeoning global population, and housing shortages. In order to connect and combat these multiscale issues, architects must embrace timber's unique opportunities and design for a symbiotic relationship between natural resources and the built environment.

Silvicultural Cities: Linking Local Forestry with Timber Construction



This thesis aims to increase the visibility of marginal spaces through the specificity of their relationships to dominant and formal adjacencies. From the nature of the line to the poché of the building areas to the marking of accessible bathrooms, there exists a hierarchy of experience based on the user's physical dis/ability.

This project is focused on the architecture of higher education as a critique of the knowledge frameworks and systems of power under which we legitimize production and work. By evaluating academic spaces, we can begin to understand which bodies are privileged to access knowledge. Thinking globally and working locally, this project focuses on the Syracuse University campus from which we learn and work. At the heart of the Syracuse University campus lies Hendricks Chapel, open to members of the community regardless of religion, race, gender, or other social categories of identification. The neoclassical architecture of the chapel, however, creates numerous barriers for individuals with mobility disabilities to enter through dominant spatial sequences. Rather than entering through the ceremonial staircase at the front of the building, people are forced to access the interior through hidden side doors. This division of sequence contributes to the stigma of disability, as groups are then excluded from designed architectural experience denoting education, enlightenment, and power.

In order to center physically marginalized groups and individuals, we must look beyond common narratives. The primary mode of exploration is a participatory mapping exercise involving users of the Syracuse University campus to evaluate the barriers of access and designs for access. Collecting and layering perspectives will reveal the potential of what can be noticed by others, and what remains unnoticed by the trained collective.

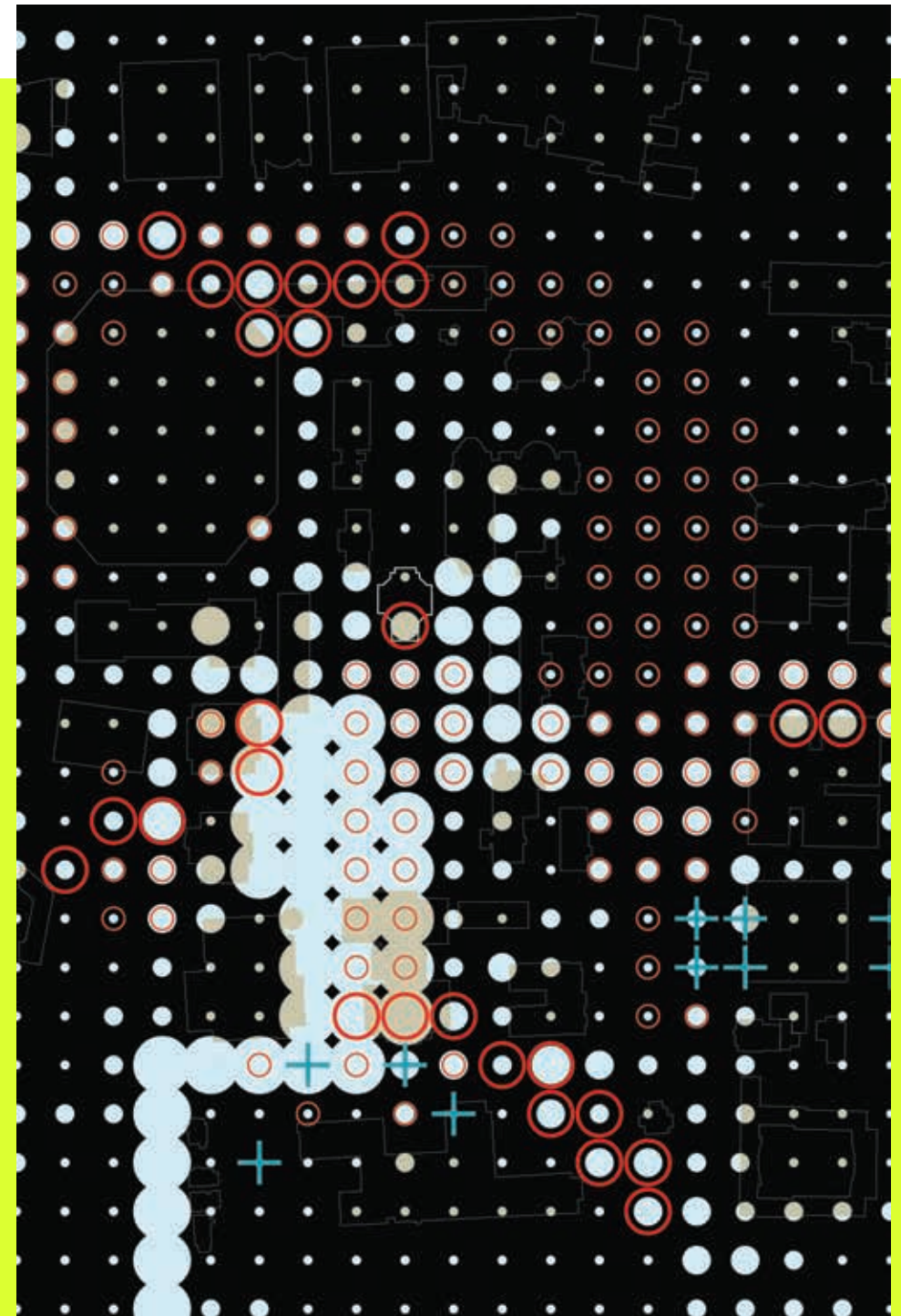
Mapping the Margins: Transformative Disability Justice Design Practices

190

191

Julia Chou

Afterlives
Advisors: Shanks, Sharifi, Sho
Image: Comprehensive Participatory Exercise Map of Identified Barriers and Accessibilities



Human stimulation of the environment has brought the climate crisis to the point of no return, displacing communities and forcing people to seek refuge. The UNHCR has established plans to mitigate the climate crisis and assist the destroyed communities and people who have been forcibly displaced. Climate change is a risk multiplier, driving displacement and protection needs around the world.

Climate change has created political turmoil, which in turn increases the rate of armed conflicts. The surge of global conflict and natural disasters related to climate change has forcibly displaced 21.3 million people, as reported by the UNHCR. The changing environment and relationship between climate and conflict will only exacerbate those numbers and require more relief for those who are forcibly displaced. How can architecture take part in the timeline of refugees?

Refugees stay in temporary camps much longer than they are intended to. Temporary shelters are meant for immediate relief, not for longevity and stability. Refugees are constantly dwelling between temporality and permanence. This is where architecture can intervene and provide much-needed stability for people who have been forced to migrate.

Most refugees hope to return to their home country, but returning home is rarely the case. American legacy cities are a site where refugees can establish permanence, while at the same time reviving the city. The stability of refugees is not just their origin country's responsibility—it is a global responsibility. Legacy cities allow for ownership of responsibility, revival for the city, and a permanent space where refugees can feel safe, secure and at home.

Atlantic City, which is deemed a legacy city, is the site for this idea to be tested and explored, through the design of new housing, as well as the repurposing of vacant buildings for public use. The design is a bottom-up approach and will be a blueprint for other legacy cities to follow to build a permanent life for refugees.

Afterlives:
 Advisors: Shanks, Sharifi, Sho
 Image: Refugees in Atlantic City



Between Temporality & Permanence: Dwellings for Refugees in the US

The rapid globalization of the world market has dissembled the world into several main subareas: production, consumption, and waste accumulation. The appearance of the 8th continent—the great Pacific Ocean litter patch—brings up a new issue for human beings. Nowadays, over 90 percent of garbage, including plastic, is directly transmitted to a developing country and discharged into the ocean without any management.

Humans have mainly dealt with these issues in a most aboriginal manner: ocean dumping for past decades. The gradually accumulated floating garbage finally forms new permanent places called marine debris over the ocean, dramatically jeopardizing biodiversity and the marine environment. Marine litter can cause many negative impacts such as water pollution, animal capturing due to ghost nets, and polluted materials in the food chain.

Even though many countries now aim to manage waste more sustainably, such as transporting waste to energy plants, developing countries' current infrastructure and waste facilities are still insufficient to deal with these issues. Despite many agreements and voluntary measures, marine debris is still expanding consistently. Recent international agreements are attempting to tackle the marine waste problem by reforming the waste management system in cities. However, the existing garbage over the sea remains unresolved. And, due to its unmanaged situation and durability, this kind of waste will pollute the ocean bio-environment, food chain, and ultimately the human species. Given this urgent condition, there must be a strategic plan to think about cleaning the ocean up.

In dealing with the plastic waste problem, the role of architects remains undefined. Considering the now emerging infrastructure that attempts to clean up and recycle plastics, there is an opportunity for architects to rethink the possibility of using plastics. As architects, how can we conceive a spatial configuration for accommodating or ameliorating developing clean-up technology and systems? What can architects do with plastics, given the fact that many construction materials are made out of plastics? What are the real properties of plastics; and how can architects utilize these characteristics to create a new architecture typology within plastics?

From Plastics: Toward a Recovered Material Architecture

194

195

Junzhi (DJ) Deng & Yixuan Li

Afterlives

Advisors: Shanks, Sharifi, Shio

Image: Plastics Delta: Technological and Architectural Intervention



The need for energy-efficiency measures across the global building sector is quite urgent since buildings typically last a long time. If sustainable building is not prioritized, our ability to reduce greenhouse gas emissions in the coming years will be restricted. While building with high performance and efficiency in mind is important, it is not always possible, such as in certain areas where much of the future expected building stock has already been built. One example of such an area is New York City. There are over one million buildings in the city, and it has been estimated that more than 90 percent of those buildings will still exist in 2050. The ability to reduce these existing buildings' greenhouse gas emissions would significantly help with the city's commitment to achieve carbon neutrality by 2050.

Existing buildings are often highly energy inefficient and contribute a lot to greenhouse gas emissions. Demolishing an existing building can have impacts for up to 80 years, even if the resulting new building is energy efficient. Retrofitting the city's existing building stock is a potential method in reducing emissions; it could also combat the deterioration of older buildings, an issue that plagues much of New York's building stock. A notable example is the public housing owned by NYCHA (New York City Housing Authority).

This project envisions the Woodside NYCHA Project in the year 2050. With New York City pushing for carbon neutrality by 2050, there is a great opportunity to retrofit the public housing project. This is also the ideal time to tackle the challenges the residents face such as lack of proper ventilation and insulation. Additionally, the lack of a substantial nearby public park creates an opportunity to transform the fenced-off project into open spaces that can improve the quality of life of the residents and create a safe and inviting public realm for the community. The rooftops of the Woodside buildings can be transformed into green roofs and sources of on-site renewable energy. Combined with electrification of the buildings, these solutions can make the project resilient for the future.

New Era of NYCHA: Public Housing in a Carbon-Neutral City

196

Image: The Woodside Housing Project Retrofit
Advisors: Shanks, Sharifi, Sho
Afterlives



197

Jakub Jankowicz

The advent of hyper-consumerist culture has led to the proliferation of electronic waste, or e-waste. Our constant cycle of demand, production, and disposal has had detrimental local impacts on developing countries. Every year, consumers generate tens of millions of tons of this e-waste. Stimulated by the rise of big tech, our digital age has conditioned us to be indifferent to a lack of transparency in our digital lives. The value of the array of devices and products at our disposal has preceded the conditions of those dealing with the aftermath. This unforgiving process has created the physical embodiment of environmental misconduct and a new type of landscape—an electronic dumping ground now known as “the e-wasteland.” This e-waste is typically “recycled” through informal, unregulated, and dangerous conditions that threaten the health and safety of not only people but also the environment. Efforts to properly recycle this e-waste of late have mostly been experimental, uncharted, and contentious. In Agbogbloshie, a wasteland at the edge of Accra, Ghana, up to 10,000 workers once toiled daily in a roughly 20-acre scrap yard, burning cables covered in plastic so they could get at the valuable metals, like copper, inside. Agbogbloshie has been the symbol of this escalating issue for years; some of the world’s most respected media organizations report on this issue over and over without resolution or accountability.

This thesis redefines Agbogbloshie’s future after its demolition as the new testing ground for e-waste reuse, recycling and detoxification, utilizing plants with phytoremediation properties. As the desire for new products continues to grow, along with the rising demand for sustainable energy equipment, the world needs to focus on utilizing all resources on hand. In the viable future where e-waste becomes the new gold, Agbogbloshie will transform from being the receiving end of discarded waste to the forefront of innovation and opportunity, extracting secondary raw materials and encapsulating the unrecyclable hazards. This thesis seeks to investigate a hopeful future—a testing ground on a derelict site with the goal of preventing further contamination, neglect, and lack of education on the dangers of informal e-waste recycling.

Circuit City: From Wasteland to iLand

198

Afterlives:

Advisors: Shanks, Sharifi, Sho

Image: Urban Mining in the Terrain of Tomorrow



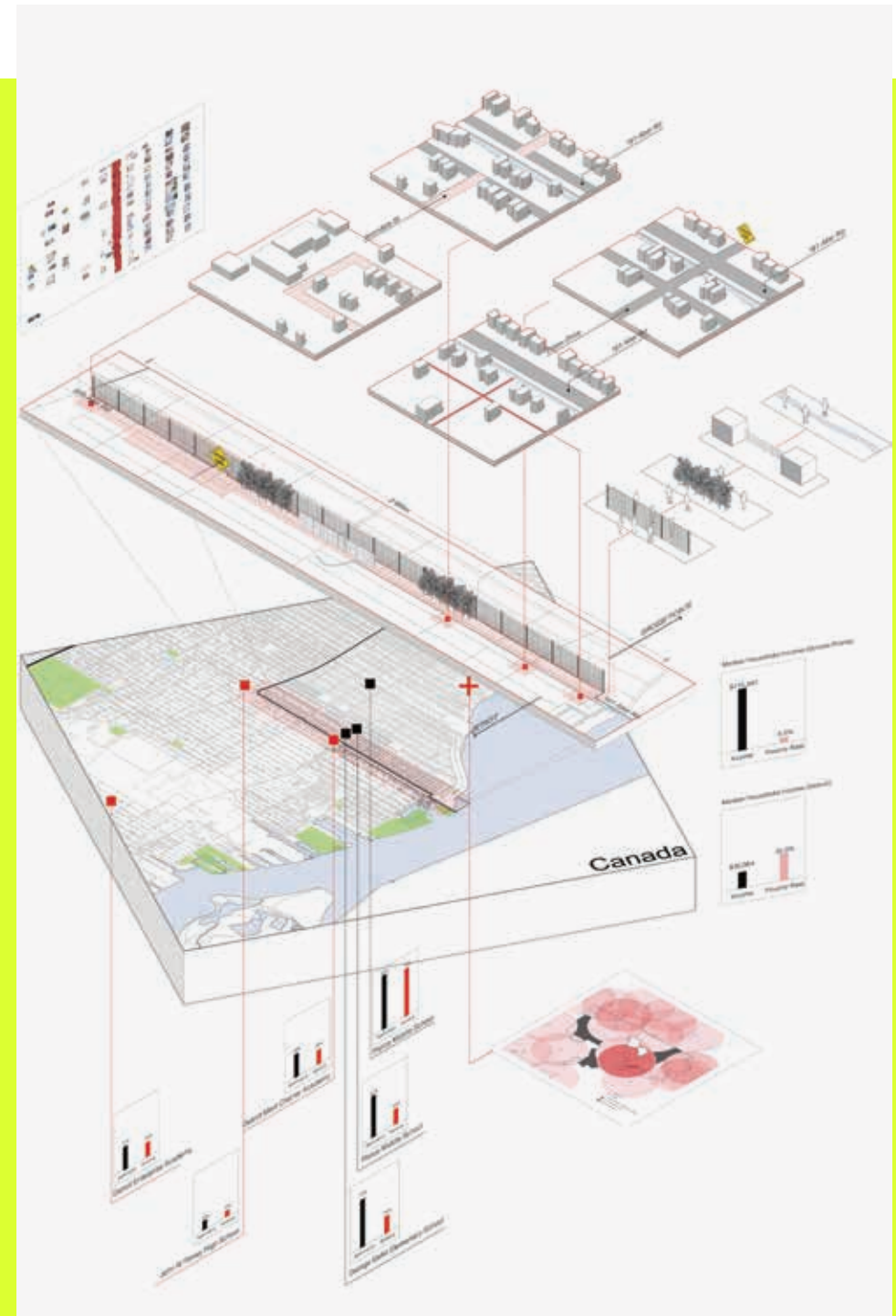
199

Tina Lim & Jiuye (Jerry) Yan

The great majority of major cities in the US are concentrated along the coasts. Notably, when looking at trends related to climate change such as flooding and wildfires, and those related to natural disasters such as earthquakes and hurricanes, the coastal cities are by far the most vulnerable. Warmer summers and drier conditions along the west coast have led to an 800 percent increase in high-severity wildfires since 1985. Meanwhile, on the east coast, as the sea levels rise, flooding is becoming increasingly common. Additionally, natural disasters like hurricanes cost cities an estimated \$54 billion in damages annually. Finally, with 40 percent of the US susceptible to desertification, the majority of which is located around the breadbasket, the country risks losing one of its largest sources of food and industry. If the current infrastructure is not capable of handling these massive implications, at what point is the investment no longer worth the returns?

Midwestern post-industrial Rust Belt cities are the least susceptible to climate change because of their geographical distance from the coasts, their elevation hundreds of feet above sea level, and their proximity to the Great Lakes, the largest source of freshwater in the world. Furthermore, the large amount of existing infrastructure and vacancy that have come to define these cities could be adapted and reimagined for incoming climate refugees. By 2100, it is estimated that in the US alone, 13 million people will be displaced by climate change, effectively becoming climate refugees. Therefore, the post-industrial Rust Belt city could become a potential safe climate haven in the future US. The issue is that these cities are dilapidated; they have some of the lowest household incomes and the highest emigration rates in the country. Cities like Detroit, Cleveland, and Pittsburgh have shrunk tremendously in population and wealth since their peaks in the 20th century, and those that remain have endured decades of social and financial disparity. Therefore, climate havens being built in the Midwest must be designed with resilience and a sensitivity appropriate to their context.

Let's Move to Detroit!: Climate Resilience in American Post-Industrial Cities



The Intergovernmental Panel on Climate Change (IPCC) released a report on August 9, 2021, indicating that many of the changes studied in our climate are unprecedented in the past thousands of years and that coastal regions are one of the most affected areas; they are projected to see a dramatic increase in severe sea level rise (SLR) and erosion over the next 100 years. The IPCC states that, “Extreme sea-level events that previously occurred once in 100 years could happen every year by the end of this century.” According to the UN, over 2.4 billion people live within 100 km (60 miles) of the coast, placing a large population at risk of coastal disaster events. Over the last decade alone it has been estimated that 215 million people have been forcibly displaced by abrupt weather-related hazards.

When SLR occurs, it does not affect all individuals equally. Minority communities, communities of color, low-income groups, and regions of lower infrastructural investment are disproportionately susceptible to climate change. Within urban environments systemic racial, social, and economic issues dictate a community’s ability to mitigate rising sea levels. Often these groups don’t have the social or physical safety nets that other, more affluent, communities have in place, such as investment into infrastructure to mitigate flooding effectively.

These minority areas are often overlooked and underserved within resilience efforts at local, state, federal, and international levels, left to help themselves with minimal financial support for their communities. Ultimately these communities can be more at-risk for illness, injury, and mortality when a flood or other event occurs. New Orleans exists as an opportunity to analyze the crossroads between these socio-political, economic, and urban issues, while allowing for a point of intervention in the form of a design proposal. The city’s levees will no longer be effective come 2023. Ultimately, the city itself will shrink due to SLR and erosion, displacing hundreds of thousands of individuals. The design will densify community networks, providing resources to the neighborhood, and will allow citizens to maintain their social structures within the city after SLR.

Living with Water: Adapting Existing Networks to a Flooded Environment



“Informal” settlements are a common sight in India. Dotted around major cities, they nestle between juxtaposing infrastructure and development. As more cities keep growing radially outwards, these settlements follow an inverse trajectory of encroachment and lack of space. Due to this informal and temporal growth of the settlements, official city governances often fail to provide adequate permanent resources.

This shortage of resources severely impacts the health of these marginalized citizens. Having little to no access to appropriate health services, most of them fall prey to diseases that either seriously hinder their immunity or prove fatal. Basic amenities like proper hygiene, private toilets, fresh air, and sufficient water supply all play a role.

Given recent events, it is more than ever necessary to build communities with better immunity and overall health. To best execute this, it is important to understand the most vulnerable populations of the country and analyze aspects of their daily activities and where resources are lacking.

How can architecture aid in the betterment of the daily lives of these citizens who have not been given an equal opportunity at a healthy life? How can infrastructures help these residents maintain a sustainable way of hygienic living? What is needed to allow them to live longer lives and not fall prey to toxic cycles of illness and disease? Architecture has its limitations, and one cannot resolve this problem solely through architecture, but can it provide a foundation on which a revived community can live and thrive, not just survive?

These marginalized communities are not going to shrink any time soon. With ever-increasing expansion, there will be an influx of workers and families into these informalities. Given the changing nature of the status of these lands and structures, a “fixed” solution is not most efficient. The temporality of these structures and peoples requires an architectural intervention rooted in mobility. This thesis aims to design “green living” structures that can be dispersed throughout the gamtal to combat a few of these gaps simultaneously, providing a sustainable and economically viable solution to these citizens.

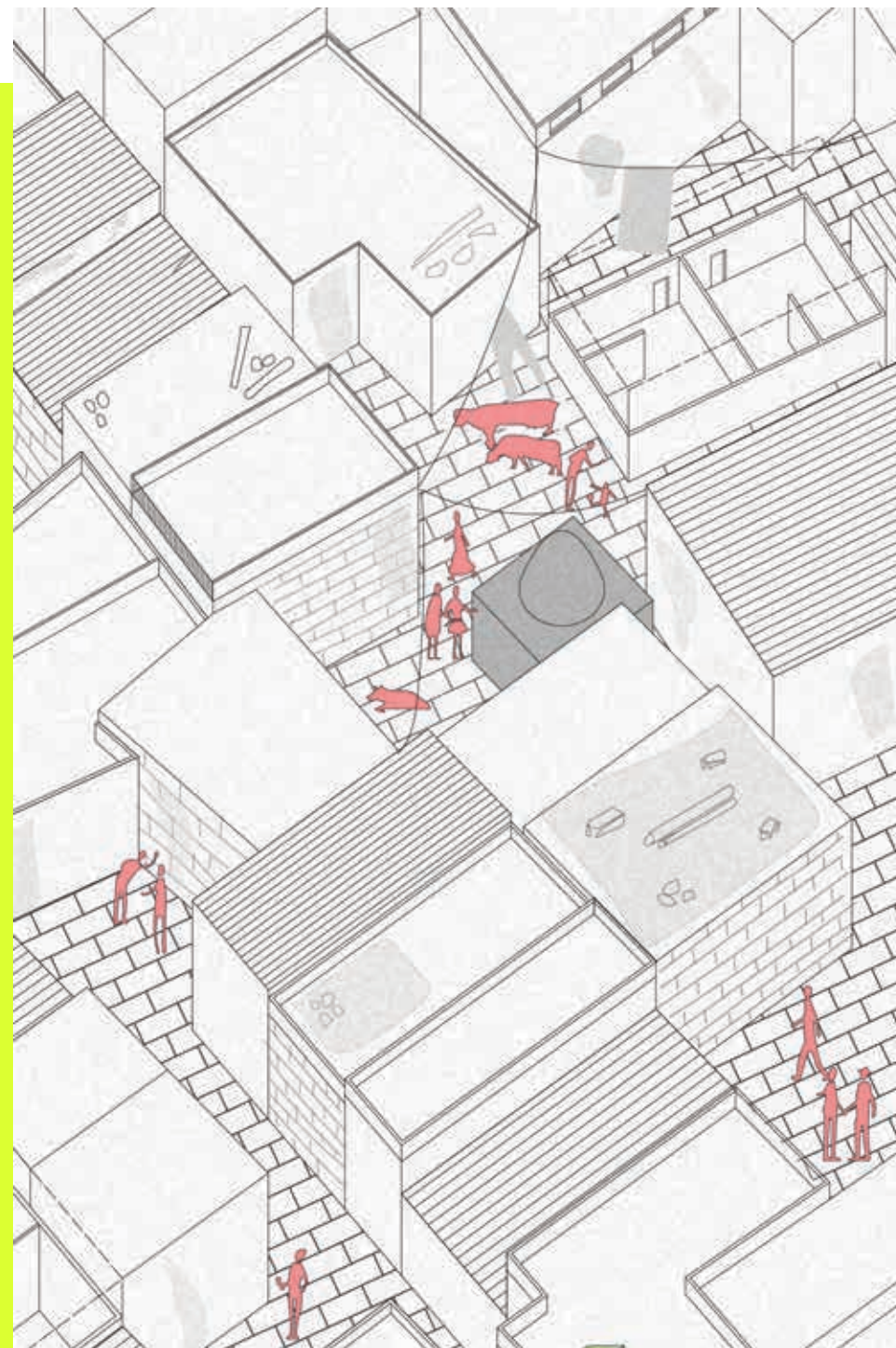
Informal Urbanities: Life between the Lot and the Little

204

Afterlives

Advisors: Shanks, Sharifi, Shio

Image: Lives of the “Informal” Citizens in Informal Urbanities



205

Janu Ketan Prajapati

The US is a “melting pot” of various immigrant ethnicities—what started with Europeans eventually included Asians, Latinos, and other races. These members settled in informal ethnic communities, which can be identified as enclaves, low-income neighborhoods, or ethnoburbs, based on different social and economic conditions. These characteristics can be translated into physical and spatial markers highlighting these communities’ divergence and convergence within the American urban fabric. Socio-economic identities have a direct impact on the built environment.

Indians are one of the largest immigrant populations in the US (about 3 million people). Usually, Indians come to the US for higher education or better job opportunities. However, the experience of existing, living, and functioning in an Indian city’s neighborhood differs vastly from an American neighborhood block’s workings, activities, and environment.

Certain factors are more important in some cultures than in others; these factors can act as parameters, translating into changes made to the city’s fabric. Lower Parel, Mumbai, India, was chosen as a case study to understand the nuances, spatial markers, and community identifiers within its urban fabric. In addition, a neighborhood in Iselin, New Jersey with over 43 percent of Indian Americans was analyzed. Combining the understandings from the analyses shed light on the parallels between cultural beliefs, routines, and needs for both populations, and across both neighborhoods (despite the other differences). These include but are not limited to religion, cultural celebrations, education, and community.

Iselin, New Jersey, has an American suburban architectural style that subdues and restrains part of the population from expressing and experiencing cultural comfort and freedom, despite numerous plazas, temples, and restaurants within the neighborhood that intend to make the environment more familiar and relatable. Evidence proves that cultural expression that doesn’t run parallel with the community’s design standard is isolated, where it is more hidden than celebrated.

This project intervenes in the Indian ethnoburb business district in Iselin, with the intention to design a cultural and religious center that sits comfortably within this American neighborhood. The hope is that the building stimulates a more integrated cultural acceptance and redefines a new “normal.”

Madhyam: Redefining a Typology

206

Afterlives:
Advisors: Shanks, Sharifi, Shro
Image: Finding a Middle Ground

207



Divija Sethi

The MArch thesis is a rigorous endeavor that builds upon disciplinary and professional knowledge to leverage design as a powerful tool for conducting and generating new potentials. These projects build on all our students have learned—the intellectual, material, social, cultural, theoretical, technological, environmental, historical, and professional aspects of architecture—and are explored through forward-looking architectural research methods and approaches. While the subjects are intentionally wide-ranging and chosen by the students, the research is directed in order to build students’ skills in integrating research into design and leveraging design as a form of knowledge-development. The questions pursued in the master’s thesis are many: What role can architecture and design play in support of mental and physical well-being? Can the science of emotional regulation be deployed in the construction of spaces that can soothe, rather than exacerbate anxiety, depression, or other stressful emotional states? Can we reconceive of place-making through various forms of speculation to imagine living conditions—apartments, houses, even cities—that are hyper-local, predicated on context, and that ultimately reflect us more personally as individuals? Can our agency as citizens be brought to bear on the reclamation of public space from private entities, and return truly wild green space to the urban realm? With space at a premium in cities, and with urban migration on the rise, how can we reconceive of both work spaces and domestic spaces as existing interdependently? How might we architecturally engage technological innovations like virtual and augmented reality, artificial intelligence, and the design of the so-called metaverse?

This student work grows from an explicit challenge to identify a position in the field and the disciplinary situation in which they are working; poses pressing research questions and the methods most well-suited to answer them; and constructs knowledge and design outcomes that meaningfully integrate rigorous research and design methodology. The students’ eventual outcomes, both within the scope of their thesis presentations, and projected forward into the discipline at large, are measured against their ability to demonstrate the agency of architectural design—both process and product—to leverage these strategic research goals.

● Master of Architecture Thesis Design Research in Practice

Brian Lonsway
Bess Krietemeyer
Joel Kerner
Hannibal Newsom

The lack of equity in design creates hostile, disruptive and impersonalized architecture that cannot stand the test of time. Communities that are handed cookie-cutter solutions to their individualized problems are rarely known to overcome their issues when the design is created “for” them rather than “with” them. One such context can be found in Dhaka, the capital of Bangladesh, in areas known as slums. These low-income, informal settlements are in dire need of an update to provide residents with basic facilities at home. The slum dwellers in Dhaka are suffering due to unplanned makeshift infrastructure, which can be positively addressed with the proposal of a modular architectural unit. The thesis explores the use of 3D-printed modular architecture to address the informal housing settlements in Dhaka. The design intent of this exploration is to create housing units that can handle the disruption caused by monsoon floods and provide the residents with a safe, durable, and sanitary environment.

Bangladesh is a densely populated nation with a bustling capital of 22 million people. A large part of the population moves from the villages to the metropolitan city to find jobs and routinely turns to informal settlements for shelter. The socioeconomic status of this community is defined as low income, and they rent shacks on both private and government land. The living conditions in the settlements are unplanned, unsanitary, and hazardous to the dwellers. The haphazardly built communities are constantly developing to compensate for the growing population and need rebuilding after the monsoon season. The redesign of this context includes a modular system made through 3D printing that will benefit both the tenant and owner of the properties throughout the population growth and natural calamities. The day-to-day city runs largely on low-income job holders, and they act as a building block for the growth of Dhaka. Architecture can help provide these marginalized citizens with a safe, equitable space to call home.

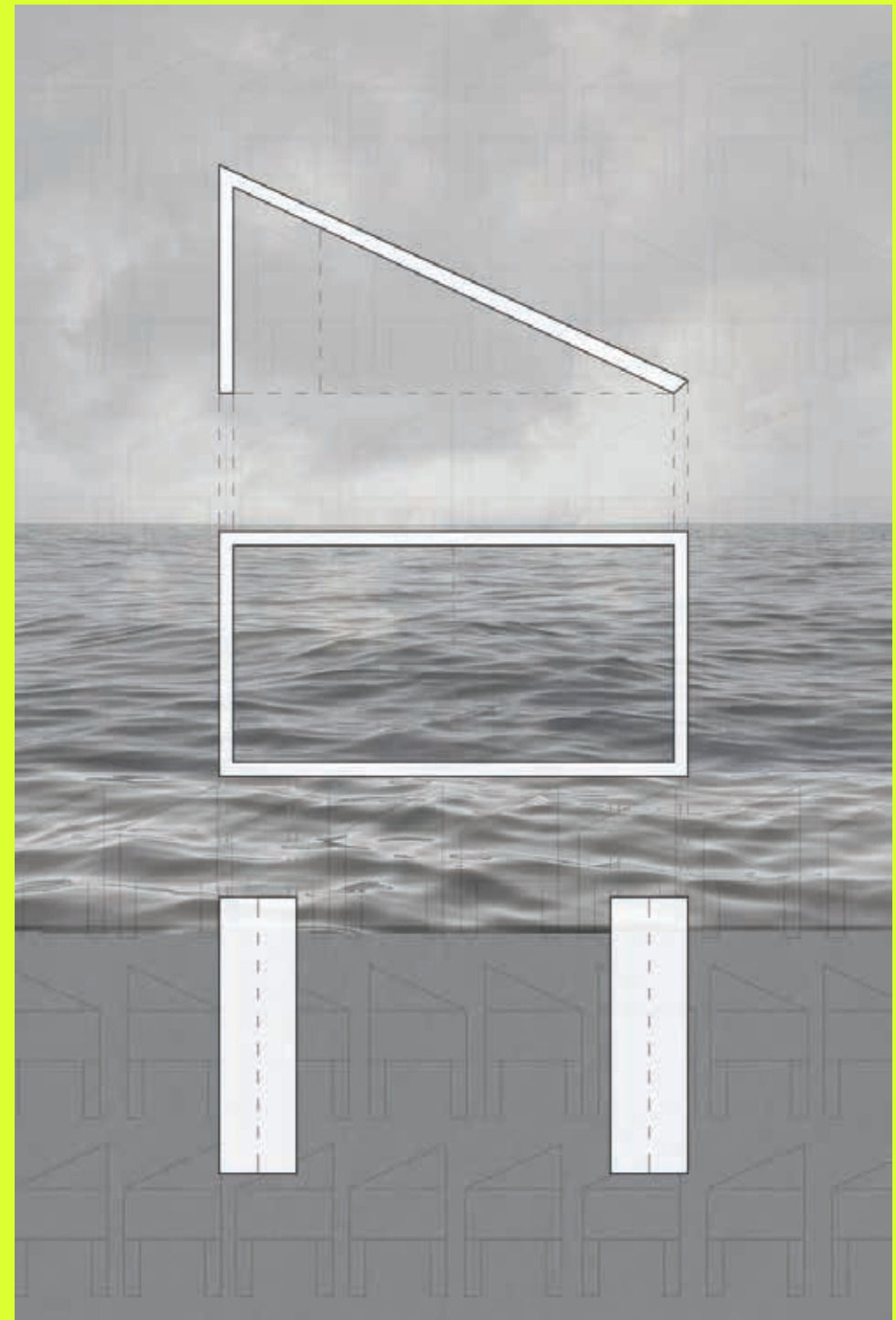
Printed Property: Exploring the Future of Informal Settlements

210

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Modular Dreams



211

Rameesa Ahmed

Some of the earliest modifications and remnants that humans have consciously manipulated on earth were a result of building, making, and exploring. From the crafting of tools to make ancient dwellings to machinery in industrial plants that mass produce goods and products, today's architecture manifests itself primarily as buildings and structures—the product of its accommodation of fabricating. However, this thesis contends that the culture and demands of fabrication in the 21st century have evolved to require an architecture that acknowledges changes in its culture and its impact on the natural and technological environment.

Humans are no longer the sole manipulator of the world, although we command the change. Tireless machines and tools become extensions and auxiliary actors in our intended directives. This recent evolution has presented new realities which the discipline of architecture needs to respond to: first, the knowledge of material application as it relates to the physical and digitally modelled object; and second, the advancements in science and construction technology that facilitate mass customization of products, changing construction possibilities and outcomes. From the simple CMU or nut and bolt to a more speculative universal connection with every product in an assembled system that is still made of unique parts, I define this contradictory moment of comprehensive standardization and vast customization in a setting of rapid production, as post-fabrication.

Can a research fabrication hub respond to this aspiration for more thoughtful and complete fabrication techniques and practices as well as encourage thoughtful planning as more diverse design challenges ensue? Ideally, this facility would foster new methods and adaptivity that consider environmental conditions stemming from a collective universal system.

Post-Fabrication: A Post-Anthropocentric Imaginary

212

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom



213

Michael Aiardo

According to the Indian census of 2011, there are 139 million internal migrant workers (i.e., close to 40 percent of the US population in comparison). Of these—as per the National Survey Office census of 2016—the number of construction workers in the country is over 74 million. Construction migrant workers travel from rural communities to metropolitan cities like Mumbai and Delhi to find work. The minimum daily wage in India is so low that almost every member of the family must work just to eat.

While living in Mumbai, I witnessed their plight, first-hand. In fact, our household help Seema was one such migrant worker from Northeast India. Her husband worked as a construction labourer on a nearby site. As a mother of nine, she lived in one small room made of construction waste with no utilities. Her situation is not uncommon amongst construction migrant workers; these laborers are usually given accommodations on the construction site, in haphazardly put-together makeshift rooms, with no basic utilities, drinking water, toilets, or gas. Once construction on the current site ends, they will have to move from one site to another.

Using questionnaires, precedent analysis of existing projects with low-cost material assemblies, and iterative design prototyping, this project proposes transitional, recyclable homes using prevalent and economical construction materials like concrete, wood scaffolding, and bamboo. Each component can be easily made and replicated on any construction site and assembled in 24-36 hours by a two-person crew. The project avoids factory-made products and machine assemblies. Another objective is to maintain connections to cultural identity and vernacular architecture. This thesis intends to promote a healthy, sustainable environment through natural ventilation and passive design strategies. Ultimately, this thesis seeks a viable, affordable, and healthy solution that builders and government entities will embrace and promote. It seeks to bring awareness to this widely prevalent critical issue. Implementation of the housing scheme can potentially relieve the suffering of this silently overlooked vast community and bring hope to many lives.

Dignity Housing: For the Migrant Construction Worker

214

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Assemble-Disassemble-Reassemble Urban Village



215

Monisha Angel Arnold

While the pathology of schizophrenia is unknown, it's been well documented since the 1900s that urbanism is at the locus of the schizophrenia epidemic. To many, this provides evidence that cities are bad for our mental health (Bell 2016). With rapid urbanization comes a decrease in socialization and human contact with nature. While the link between these two is becoming clearer, literature on schizophrenia and the unsavory effects of poor city living are typically found separately.

The rise of the disease proportionate to a global increase in urbanicity calls us to reengineer how we think about living. Since the natural environment has shaped a large part of our emotional and cognitive apparatus, there's a growing body of empirical evidence to suggest that consistent interaction with nature is critical to mental health (Bratman 2019). By reverting to strong cross-cultural beliefs about nature, rurality, and tranquility, it may be possible to better manage the disease, or combat its development altogether.

Since rural spaces often experience a mass exodus of people, they are typically seen as unwanted spaces of archaic living and poor infrastructure. They have evolved over time, from a farm and water resource to primary sites for mining and extraction. This robbery of our natural resources has stripped our access to the natural environment by creating a series of new alien-like man-made formations at an unprecedented rate. With development focused on clearing land to bolster the city, the dichotomy ends up being a self-fulfilling prophecy. But why is rurality often dismissed as declining or stagnating, when we are frequently attempting to replicate it in urban spaces? We develop city centers into "concrete jungles," only to turn around and call for greenery and sustainability. It is truly a self-serving cause, rife with hypocrisy!

Since rurality has more to offer than its translocality to urbanism, biophilic design should be made a necessary component of architecture. This thesis aims to develop a biophilic design series of prototypes for the rehabilitation and/or prevention of schizophrenia through the architectonics of forest therapy. It aims to create an ecological hypothesis for a new mental ecosystem rooted in ruralism.

Schizophrenic Architecture: A New Mental Ecosystem

216

Design Research in Practice

Advisor: Bess Krietemeyer



217

Krystol Kay-An J'Nelle Jeantique Austin

Power has been a thematic element in the political and social climates since man's evolution. Simultaneously the built space has also existed throughout the development of man as humans developed dwellings and structures to suit their daily needs. Both act as a means to an end. Architects wield power in terms of the public expectation of manually manipulating the built environment and its surroundings. By controlling circulation and program, architecture reveals only what is intended to be revealed by its author. The subjects carry on as if in a necessary order of power progression. In a sense, this is power. The French philosopher Foucault defines power as a cause and effect. Architects epitomize this role in their ability to manipulate the environment.

Each interaction with power has a powerful character as well as those at the hands of the powerful, in the most extreme cases an oppressed character. There is also the gray character of the casual bystander. In law pleading, the fifth has no ground of guilt, while the bystander is often as guilty as the perpetrator in public circumstances. Can architecture capture a bystander effect within a built space, a gray area of action and reaction? Can the powerful and oppressed power dynamics be captured or manipulated by a built space? Power be emphasized? Oppression as well? Do specific spaces evoke power more than others? Can these actions and interactions be studied under different political climates?

This thesis will explore these concepts of a powerful space and the public's role in each through the design of a moveable architectural exhibition that will attempt to evoke particular emotions and feelings of differently defined political spaces through a sensory experience. Spaces shadowing oppression will evoke emotion and feelings associated with that lack of control. Additionally, the public will be able to interact in this space through kinetic architectural elements where one room affects the other. It will be a constant breathing measure of human interaction with complexes of power.

Within Walls of Power: Metrics of Power as Defined by Space

218

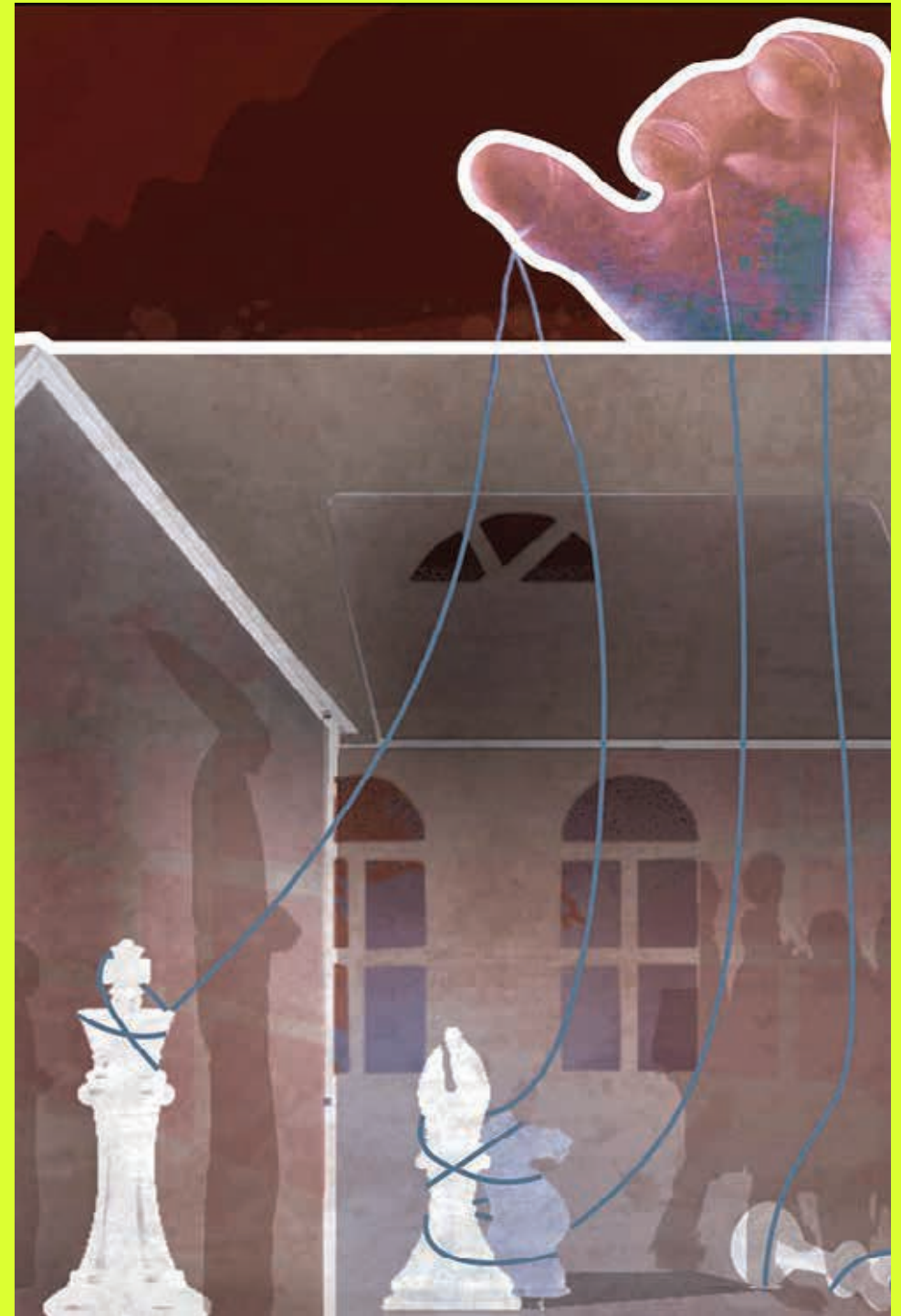
219

Emily Collins

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Power over (to) the People



Many communities within the American Rust Belt have suffered post-World War II economic declines, leaving many industrial buildings vacant. Some states like New York demolished many of these buildings through urban renewal policies. But do these industrial pasts need to be erased in order for new functions to be served? Other states like Massachusetts and Vermont have worked to repurpose and renovate these buildings to fulfill the changing needs of their local communities. Some buildings need more drastic alterations to meet new programmatic needs of the community—whether to address the building’s physical decay, or to meet contemporary building codes and construction practices.

But this brings up two questions: a) what are contemporary construction practices? and b) are contemporary practices sufficiently forward-looking to address the needs of tomorrow’s built environment? The built environment accounts for nearly 40 percent of global greenhouse gas emissions with 28 percent from operation and 11 percent from construction. How can we as architects reduce the carbon footprint of this social and economic need over which we have a direct influence? The answer may be in re-exploring the use of wood for large building renovations, since it has a much lower carbon footprint due to both the lower processing requirements and its natural carbon sequestration. Though light wood construction is frequently utilized in light residential construction, the amount of wood used is actually quite small, minimizing any potential carbon footprint mitigation. However, mass timber construction sequesters more carbon, saving labor and energy on the job site while utilizing a renewable resource.

Mass timber designs have been utilized almost exclusively in new constructions or building expansions, but not in renovations. But can mass timber be utilized not just as overall methodology, but as insertions into existing structures? This thesis will explore the potential uses of mass timber material and construction practices in the renovation of existing buildings to reduce the carbon footprint of a project through material preservation, project resource savings, and carbon sequestration.

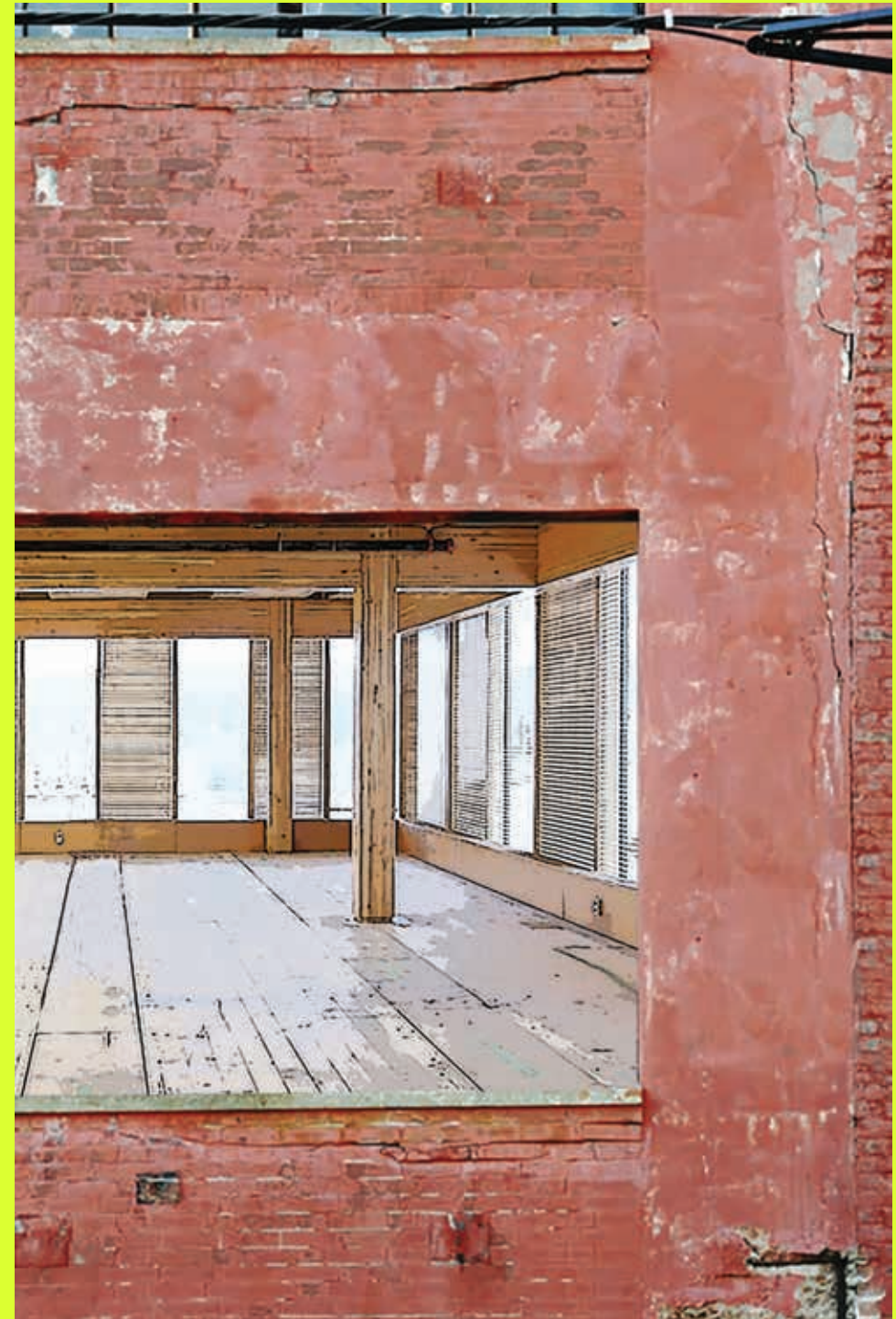
Mass Renovation: Mass Timber Renovation of Urban Decay

220

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Can Mass Timber Help Address Urban Decay?



221

Sean Culligan

Virtual reality (VR) systems with hardware, VR headsets, and gaming software have provided opportunities to design immersive and interactive experiences within architectural interiors. This project seeks to contribute to narrowing the gap between the physical and virtual environments within architecture for uncommonly addressed users, especially senior citizens, who can enjoy shared environments, real or imagined. VR technologies can combat loneliness and social isolation by giving individuals the freedom to explore and immerse themselves in real and imagined places. Several VR platforms and services have developed VR experiences specifically for senior citizens to prevent social isolation or chronic loneliness. Chronic loneliness is the feeling of loneliness and social isolation during long periods, increasing the risk of feeling lonely and self-loathing. This project addresses these concerns through interactive design exploration by integrating VR and tessellated surfaces to create immersive experiences that improve physical and social engagement among seniors.

The research uses VR sensory constraints, physical and cognitive, to create therapeutic spaces where seniors and physical therapists can adjust the physical environment to complement the patients' needs in VR. The Rockwell Group's Imagination Playground is an example of using flexible modular components designed to give the user—in this case, children—the opportunity to transform their playground into imagined spaces. That same concept is applied to the architectural components that make up the rehab interiors. Spatial mapping is used to determine how the components are formed. Spatial mapping creates a 3D map of the environment, which reduces the risk of injury from colliding with objects when fully immersed in VR. Therefore, what optimal geometries that are transformable will be most ideal to spatially map to VR when designing furniture and physical therapy obstacles? Overall, this project seeks to give more opportunities for individuals to transform their space in both realities—architecture and VR—a space that generates lasting impressions from temporal moments of human interaction and immersion.

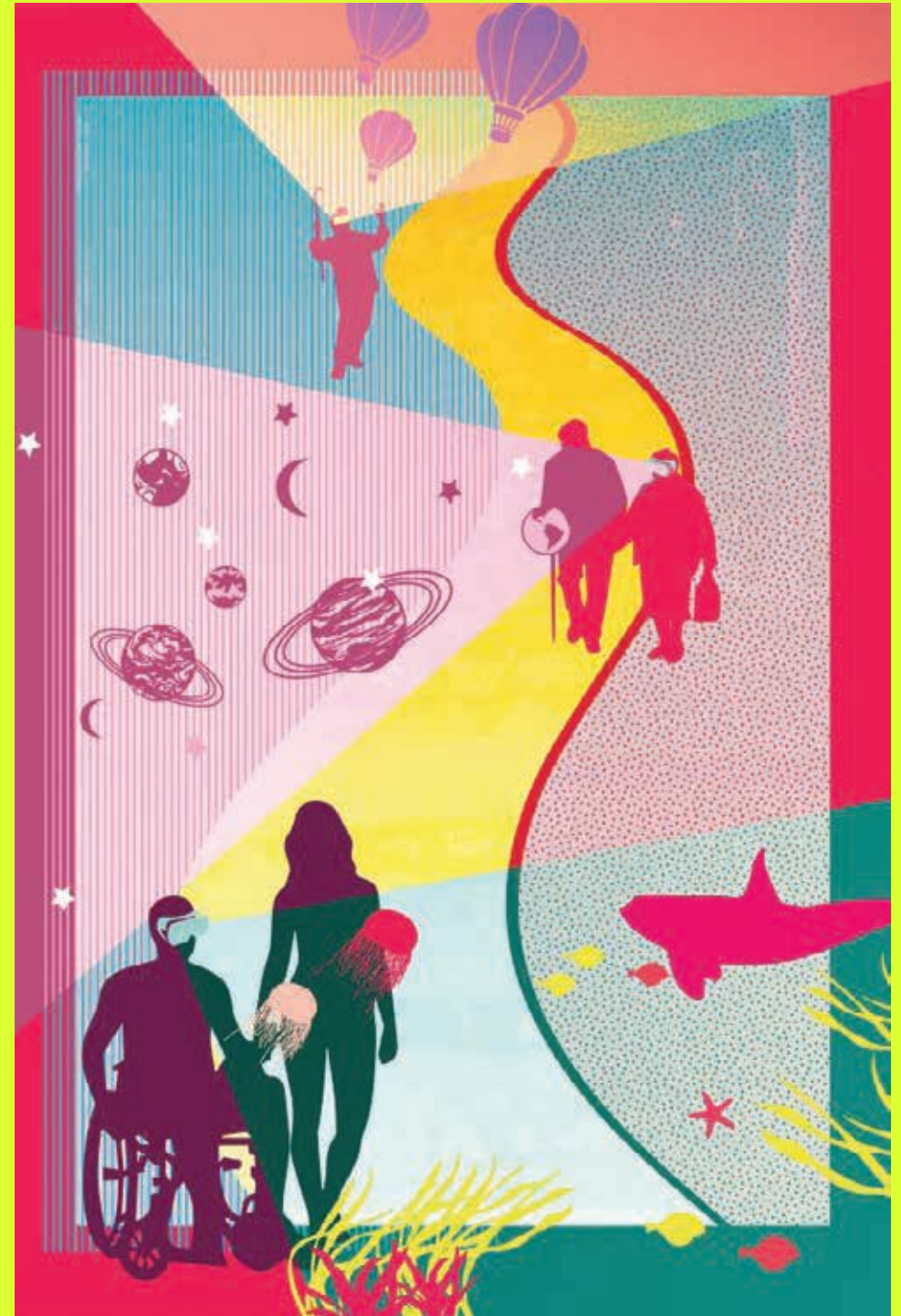
Immersive Therapy: Integrating VR with Tessellated Surfaces

222

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Graphic Illustration of Senior Patients Experiencing VR



223

Ashley Feyes

Climate catastrophes have been impacting coastal communities, which have been left to circumvent natural disasters through recovery efforts provided by the government or left exposed and vulnerable to future disasters that will further strip away aging infrastructures and local economies. Superstorm Sandy was pivotal in inspiring new urban resiliency efforts in recognition of the severity of storms that the East Coast is susceptible to. Breezy Point, New York was one of the heavily affected areas in New York City, making the site ideal for a community-driven intervention involving the people in the affected area. Currently, the focus on intervention occurs after storm damage through recovery efforts, while intervention prior to the storm-inflicted havoc would be a more efficient way to ensure that communities and the infrastructure they inhabit can be sustained.

Through research and design exploration, this project explores how communal programming can instill collective sustenance and growth in a community to endure climate catastrophes, and how adaptive and transformative spaces mediate and mitigate pre- and post-disaster conditions.

This project explores resilient attitudes through communal engagement by means of spatial interaction in an environment prone to natural disasters. The intention is to provide the community of Breezy Point with three design interventions in the form of a library that would convert to a resilience hub in the event of a catastrophe; a community garden to enable resource allocation; and a landscape strategy to act as a protective barrier against flooding and rising sea-levels.

In essence, the library, community garden, and landscape strategies create a socially resilient environment to empower the community of Breezy Point, by allowing people to convene and build trust through collective resonance, which are the primary attributes to building resilient attitudes.

Deviating from the current focus on post-disaster recovery efforts, the emphasis would now be placed on preventative measures that support people working together as a self-reliant ecosystem, to endure with courage under any circumstance.

Community Resiliency: Social Resilience Efforts Supporting Climate Resiliency



Have you ever had thoughts of death or suicide? If not, have you ever had difficulty concentrating, remembering, making decisions, or sleeping? Have you ever lost interest in hobbies, lost energy, cried a lot, moved, or talked more slowly? Have you ever felt sad, anxious, empty, hopeless, bothered, or annoyed? If the answer is “yes,” and the symptoms have been present for two or more weeks, you may have the potential to be diagnosed with depression.

According to the National Institute of Mental Health, depression is a mood disorder that causes a persistent feeling of sadness and loss of interest, affecting how people feel, think, and behave in their daily activities. People may have trouble carrying out normal day-to-day activities, and sometimes they may feel as if life isn't worth living. Research shows that mental illnesses are common in the US, affecting tens of millions of people each year, but only half of the people with mental illnesses receive treatment. This means millions of people with mental illnesses may be living, acting, and working as normal people. What if they need help but are not willing or able to seek out psychiatric care? Besides receiving medical treatment, how can we help? It is likely that people who have potential depression need a better environment or space in their everyday life. In this way, this thesis focuses on how a holistic public architecture might integrate the latest research on environmental depression-mitigation, seeking to create awareness of depression, mitigate symptoms without medication, and design a better environment or space for people's everyday life.

Architecture and Mental Health: Mitigating Symptoms of Depression Without Medication

226

Image: Depression Healing in the Busy City

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Design Research in Practice



227

Wenqian He

Although one of the main goals of architects is to serve the communities they build in, those stakeholders are not always involved in the design process. Community input has long been an overlooked factor within the traditional architectural process. There have been efforts to include community at key points of a project's development, but participation and expert feedback are missing at the forefront of the design process. This thesis tests a potential design workflow that directly integrates active feedback from people who aren't normally included within the traditional architectural industry. The aim of this tactic is to weave a field of open inquiry through social media for outside feedback within a modified architectural design process.

A test bed within a neighborhood on Staten Island, New York, was chosen because of its historically negative reputation and struggling built environment. There have been efforts to physically revamp this area, but they have all failed. This thesis questions why this neighborhood isn't thriving given its proximity to Manhattan and why efforts to revitalize it haven't been successful. There seems to be a disconnect between outside designers and the local community. In order to bridge this gap, test the modified design workflow, and pique interest in the area, a potential project was introduced that strives to restore the neighborhood's once-positive notoriety and physical landscape. Additionally, a series of surveys were shared on social media to gather feedback and testimonies from people within this area. These surveys were repeatedly shared along this parallel schematic design process to examine how the inclusion of "outside voices" might change the way a typical project can be transformed. Their success, insights, and evaluation were utilized in the progress of the potential project proposal as external experts used their voice to improve the delivered design and potential user experience. In doing so, this thesis attempts to fully investigate how a more integrated form of participatory design can have a positive impact on the future of Staten Island.

Forgotten Borough No More: Engaging Communities and Restoring Relevancy

228

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: It Takes a Village to Enact Change



229

Robert Helbock

This project explores the opportunities product manufacturers see in Extended Reality (XR) as a new medium for advertising. As with e-commerce, advertisements are going to become an integral part of the immersive experience.

This project explores possible combinations of immersive experiences with non-intrusive advertising and marketing, aiming to create a prototype for companies stepping into advertising in this realm. The aim is to include brand or product communication in an immersive environment and to investigate scenarios and methods to make the ad experience more cohesive and comfortable.

The central question of this thesis is: Can architectural elements integrated into an immersive experience be designed in a way to facilitate users' engagement with the ad experience as welcome pauses from their objective tasks? The project is divided into three main design components: the primary immersive experience, which is a virtual space for users to engage in socialization; the immersive advertisement experience, which is a virtual space having a curated experiential product advertisement; and the transition space, which is a user gateway from the primary immersive space into the immersive advertisement.

To identify a product that would benefit from an immersive experience, existing advertisements are shortlisted based on a matrix of parameters used to understand the stories of the products, the context of the users, their current interaction and engagement to the user, and the user movement in the advertisement. The selected advertisements act as case studies to understand which product experiences are candidates for a virtual reality experience. By formulating a combination of a possible product to advertise with a context of users in the virtual space, the three components of the experience are designed.

This project addresses two audiences: the corporation who makes a product they need to sell, and the person occupying the virtual space. The client needs to clearly communicate the product and needs the user to engage with it. The user will appreciate an ad experience that is cohesive with the primary immersive experience. The thesis project bridges the gap between the requirements of the two entities by designing the virtual space and curating the experience in it.

Advertising in Immersive Spaces: Product Communication in a Virtual Space

230

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: User Immersed in Virtual Product Communication



231

Onkar Joshi

Our planet is experiencing an unprecedented extinction event. At the same time, the human population is rising rapidly, worsening urban density and sprawl; this does not bode well for ever-shrinking animal habitat. Green space helps humans too: it reduces violent crime, benefits mental health, improves air quality and combats climate change.

How can cities reintegrate vital animal habitat back into the fabric of the city? Some have passed legislation that requires maintaining habitat and integrating greenery into new buildings. The Singapore Green Plan for 2030 sets goals in terms of reducing waste, creating new green spaces, improving public transit, lowering reliance on diesel cars and producing food locally. These methods are helping create a sustainable “garden city.”

Can Manhattan become a “garden city?” The area used to rival Yellowstone National Park in terms of biodiversity in the 1600s. Before it became a concrete jungle it was home to gray wolves, bears, harbor porpoises and thousands of other species of plants and animals. Manhattan presents a good opportunity for habitat reintroduction and reintegration since it may soon offer up considerable space for redevelopment with the projected movement away from the use of cars. Manhattan is covered in spaces designated for cars, from street parking to garages to multi-level parking structures. There are already several proposals to ban cars in Manhattan. Many people want to take this space and give it back to the citizens of New York. But what if it were also given back to the non-human citizens? Where can habitat fit into the streetscape, parking structures and bridges, allowing humans as well as plant and animal species to travel through the island? Rewilded streetscapes allow a system of travel for a variety of species that has been missing for centuries.

Walking out of your walk-up or luxury condo into a world of people traveling by bike, train, or bus, or walking through wilded green streets will hopefully lead to a new investment in preserving landscapes that still exist and remain intact. How can you truly invest in and care about something you’ve never seen with your own eyes?

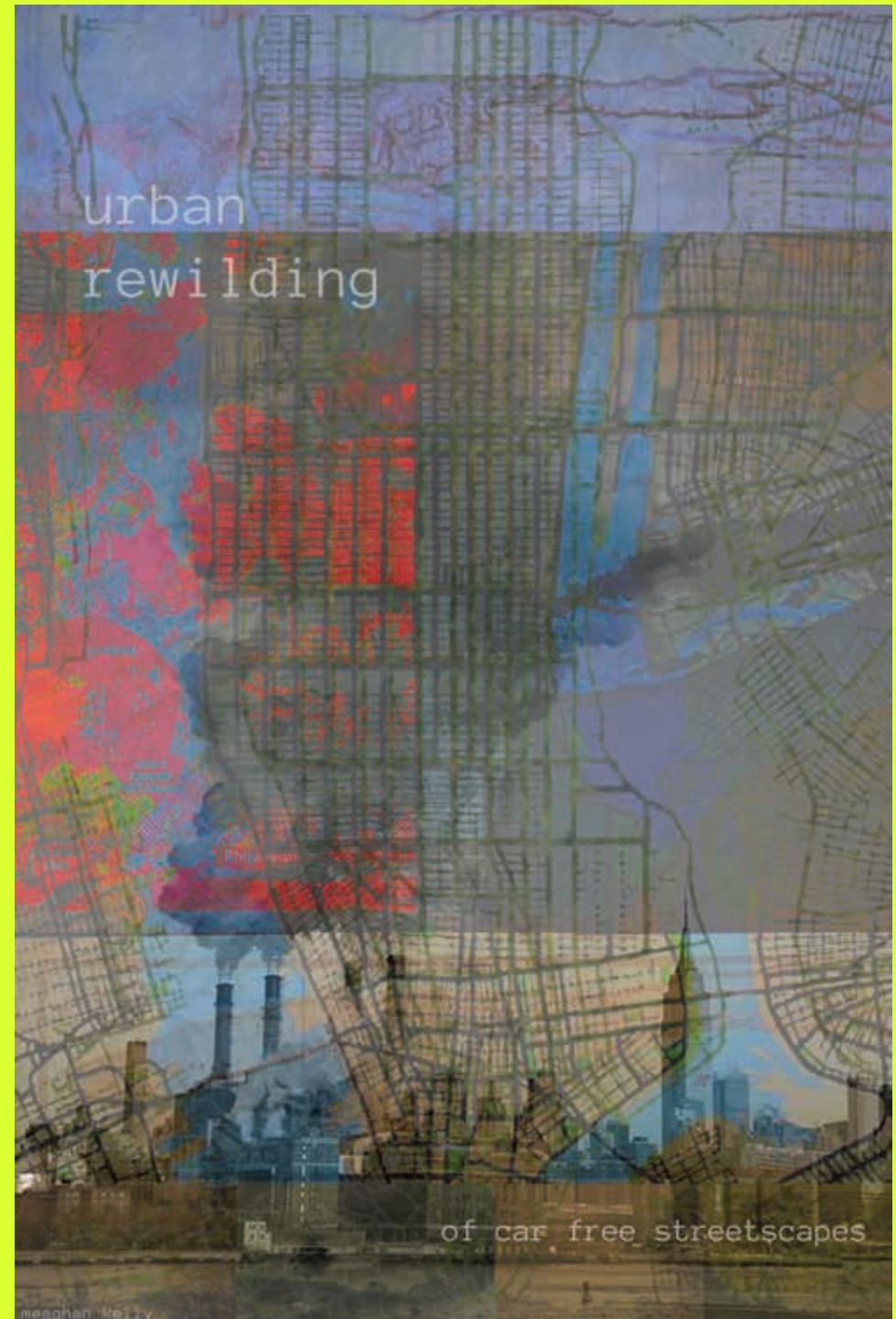
Urban Rewilding: Rewilding the Streetscape of Manhattan

232

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Urban Rewilding in the Manhattan Streetscapes



233

Meaghan Kelly

Every 68 seconds, a woman is sexually assaulted in the US. This is happening at our homes, on our way to and from work, when we are at school, and when we are out running our day-to-day errands. Each location has one common connector: it is happening within the built environment. Architects have a responsibility to design and create amenities that better the world—to encourage growth and change when needed, and to be an ally and a voice for those who are not heard. As a practice, without addressing this we are perpetuating and enabling the creation of spaces that are deemed unsafe, that women avoid walking through, holding their keys, or calling a friend. We begin to ask how we as designers are becoming a voice and advocating for the one-in-six women who are raped within the US before the age of 35. As architects, we have been predominantly trained by men. Our teachers, our faculty, our bosses. Right now, only 17 percent of licensed architects are women and only 0.4 percent of licensed architects are women of color. I want to initiate the conversation of how we as architects, who are responsible for creating the built environment, are perpetuating the designs of space for rape and assault. We must take accountability for how we are a part of the issue; without changing anything, we are only allowing that victim count to grow. By not doing anything, we as designers have become a part of the problem. Our schooling, the AIA, the future firms we will be working for. We need to note the spaces of crime while amplifying the designs of safety and recovery in our day-to-day lives.

Pink Tax: Architectural Exploration of Discrimination

234

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Graphic Illustration of Exposition Exploration



235

Abigail Korn

After the seventh national census of China, the Chinese government summed up the current trend of population change as: slowing population growth, accelerating problem of aging. Based on this, China's government has issued a series of directives, including improved community elderly care services; increased nursing home capacity; promotion of medical services into communities; strengthening of social participation and education for old people; and a more age-friendly environment.

In response to the requirements of government, as an architect concerned with aging issues, this thesis seeks to help China's Department of Housing construct a community that fits the new population structure. The goal is to allow older people to contribute to the community and enjoy their retired life instead of either feeling alone at home while their children are working, or being isolated in nursing homes. The current family structure in China is mostly families of three generations, but they are relatively independent and lack communication and mutual help. The design is for a community, including efficient urban transportation, childcare facilities, activity centers, education centers for old people, and medical centers in megacities like Beijing and Shanghai. It seeks to rearrange the residential space and public spaces, to enhance the community elder care and medical services, to encourage retired people to participate more in society, and to help retired people get an education. Instead of being divided into isolated three-generation families, people will be integrated into a three-generations community. In this three-generations community, the community can take care of disabled older people, relieving the pressure on single families; the community can also take care of children because there are lots of experienced retired people in the community who still want to contribute.

Three-Generations Community: Adapt to China's New Demographic Structure

236

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: What Will Communities Look Like in the Future?



237

Tianche Liu

This thesis explores the intersection between the urban conditions of New York City, Times Square, and the notion of radicalization. The term “radicalization” refers to an extreme change in worldly affairs, signifying that architecture must formatively react to changes in culture, climate, politics, etc. Moreover, the term “radical” is aggressively progressive and favors social reform performance. Secondly, the term “spectacle” refers to a visual and spatial event that occurs within the public’s everyday life. The act of the spectacle is meant to captivate its viewer, providing a sense of awe and unfiltered stimulation. More specifically, through the parallel exploration of radicalization and the spectacle, social activism and performance will become one.

The focused design audience for this thesis will be the residents and employees of the theater district community in New York City. According to recent testimonials, Times Square has become an avoided space that suffers daily from urban congestion, aggressive panhandlers, and an increase in crime over the years. After years of community petitions, testimonials, and press attention, Times Square remains a place riddled with conflict and a community left ignored. Through *Radicalization of the Spectacle*, this thesis aspires to give the community a platform to communicate their challenges and concerns openly and artistically.

This thesis will critique the existing urban conditions of New York City through a linear, four-stage, design process which includes stakeholder research, architectural precedence and analysis, urban case studies, and form studies. Ultimately, this thesis aims to answer the following question: How might radical performative architecture actively foster free public performance (in pedestrian-heavy environments) using Times Square as a case study?

Radicalization of the Spectacle: Fostering Free Artistic Expression through Architecture

238

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Unfiltered Stimulation—The Theatrics of Space



239

MacKenzie Lubin

Hong Kong 2046: A Floating City is a cultural imaginary of Hong Kong. This collection of drawings illustrates the complexity of identity in post-colonial Hong Kong. It foregrounds the city's relationships with imperialism and colonialism, examining how identity is established by adapting to distinctive local social and political practices, emphasizing the potency of the built environment and architecture as a testimony of the city.

The project is narrated in a story about existence, about a humanity that has lost their identity and is uncertain about where they belong. The memory of a group of people called Hong Kongers has been wiped out. Waking up in 2046, they find themselves in a "floating city," where they discover fragmented pieces of memory as they navigate around the city. The city appears dynamic and vibrant. Although the protagonists cannot find any clue regarding who is reigning, they feel a deep sense of belonging and intimacy as they navigate around the city.

The project's representation and conceptualization reference architectural precedents such as Archigram, an avant-garde architectural group formed in the 1960s that was futuristic, drawing inspiration from technology; and Japanese metabolism, a post-war Japanese architectural movement that evoked ideas on architectural megastructures. Fused by an architectural competition called fairytale competition, which calls for the imagination of designers and architects around the world, this project explores the incorporation of futuristic architectural practice and fairytale.

The narrative depicts the relationship between cultural identity and the built environment, and the architectural and construction features in Hong Kong, such as bamboo scaffolding and the coexistence of western and eastern architectural styles. Shadowing the excursion of memory recovery of Hong Kongers, it reveals a reconfiguration of everyday life and cultural norms that respond to the identity of Hong Kong people, from the living customs to practicing freedoms in the floating city. It is a story that implies the desire of Hong Kongers for democracy and their identity associated with the city.

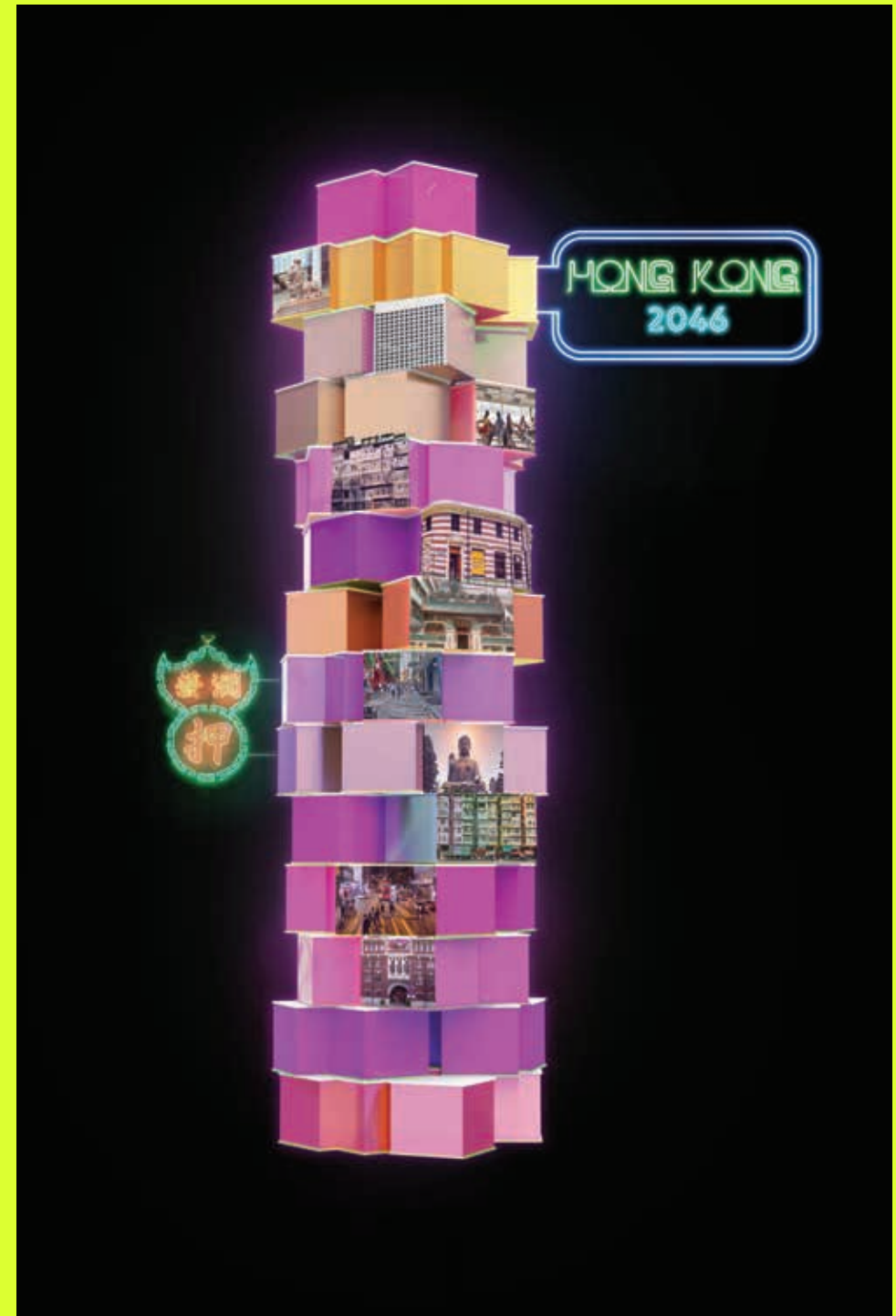
Hong Kong 2046: A Floating City

240

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Hong Kong Endowed with Multiple Identities



241

Tiffany Ng

“Capitalocene” is a new word that’s more precise than Anthropocene because it assigns specific responsibility for the degradation of the Earth beyond general human activity. The Capitalocene means we’re living through a period of irreversible damage to the Earth because of capital accumulation. Capitalism and the base human desire for wealth and excess have led us to extract and commoditize anything and everything we can. We’ve done it to animals, to natural resources, and even to each other. Capital accumulation has led to huge wealth inequality, and has inspired the colonization and unfair treatment of far too many.

This thesis is a critical analysis of capitalism’s effect on the most precious commodity in the North American Southwest: water. The thesis assumes there will be a reliable way to harvest water out of the air at low relative humidity in the future. Given this assumption, this thesis imagines two futures. In one, we are still living in the Capitalocene, and society’s model is based on accumulation of capital. Water harvesters are commoditized and privately purchased. Golf courses—like the one in the middle of urban Las Vegas, Nevada—possess massive privately funded infrastructure to harvest water.

The other future is based on a beautiful past—one where the commoditization of the Earth is left behind. The Dine people are given the technology to harvest water since colonizers dried up the massive Colorado River, and the water harvesters create a type of commons around which their sustainable society can grow through a symbiotic relationship with the land and air and the resources they provide. This future imaginary will demonstrate an alternative reality where Dine people create a sort of Utopia that looks remarkably like their past. The thesis will use elements of the past to inform radical future scenarios. By mapping existing infrastructure in Navajo Nation, Las Vegas, and Phoenix to identify key sites to observe and analyze, drawing and collaging the future infrastructural potentials with new water harvesting technology will result in a curated set of drawings that are critical of the commoditization of water, but hopeful about radical indigenism.

Two Hydrocentric Futures: Capitalocene vs. Radical Indigenism

242

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Capitalocene vs. Radical Indigenism



243

Austin Peña

China's urbanization exceeded 60 percent by 2021, according to China's National Bureau of Statistics. This population growth in urban areas has led to a change in the residential pattern of the population; gated communities, which are commercial housing, now dominate the residential pattern of cities and towns. This living model brings advantages and disadvantages to an aging population.

Currently, because of the expansion of cities and the lack of large public outdoor areas, commutes of at least one hour make most of the urban seniors prefer to be active in their communities. However, the outdoor activities of the senior groups have been affected by the monotony of the community public areas, incomplete facilities and the pandemic. These factors, as well as the use of smartphones and the internet, have caused a 30 percent decrease in outdoor activities among seniors as of 2021, according to the Asian Development blog. According to the WHO, a complete or near-complete lack of contact between people and society leads to social isolation; long-term social isolation can seriously increase loneliness and endanger the mental health of seniors, so this reduction in outdoor activities is dangerous for seniors.

In general, this thesis design is a modular, prefabricated, demountable building that can be combined with options for communities of various sizes to quickly build public space that improves and secures the social needs of seniors. This device encourages outdoor activities for seniors and enhances communication to reduce the potential dangers of social isolation. Further investigations will reveal which activities are appealing to seniors, how to establish interaction between seniors through these activities, and which materials and which types of elements can be incorporated into the design of such buildings.

Senior Rejuvenation: Reconfiguration of Community Public Space

244

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: Experimental Module for Community Activities



245

Zhenyi Yuan

This thesis seeks to apply traditional Chinese architecture culture into the contemporary Chinese architecture world, with a goal of applying this into a real building. The point is not that all Chinese buildings should have Chinese traditional elements, but that those buildings that should be traditional buildings can be more Chinese, more beautiful, more traditional, and more logical. With the rapid development of the economy, China's cities and countryside have the problem of a thousand cities with similar faces, with urban and rural buildings gradually look more similar. In order to make each area in China more distinctive, more regional traditional architectural culture should be displayed on the unique cultural buildings of each area. This will help enhance the specificity of the scape in each region.

To be more specific, today's Chinese architecture world faces some issues. First among these are cultural identity issues. Architecture itself has not only material properties, but also cultural properties. Different cities' architectural styles should be distinguishable from one another. But Chinese cities are losing the cultural identity of their architectural styles. Because the speed of urbanization determines the speed of income for everyone, rapid urban construction was pursued rather than design quality, leading to the cultural identity issue. A second issue could be called weird building issues. Weird doesn't mean unique. Some regional governments or corporations have built weird buildings for publicity purposes. As an example, a liquor company built a liquor-shaped office building. It is very eye-catching, but this building can't reflect the personality of its city, because it lacks any local cultural connotation. Traditional Chinese architecture culture can solve these two issues, making buildings more unique without losing cultural identity.

This thesis tries to find a stable and reproducible way to define design direction, categorizing sources from ancient books and real building cases. The final thesis resembles a book or manual that can be applied to designing a building. The building recalls traditional Chinese architecture, but is not a direct application of ancient architectural elements.

Traditional Chinese Architecture: Modernize Traditional Chinese Architecture Elements

246

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom



247

Congshuo Zhang

While architecture makes an important contribution to society through design, architects should also actively use their own ways to solve social problems such as global warming, sea level rise, population increase, and so on.

In China, with the advancement of urbanization, the urban scale is expanding, the land resources are becoming increasingly tight, and the pressure of population and transportation is increasing. Faced with this situation, China chose Transit Oriented Development (TOD) as a strategy to guide the solution of urban problems and put it into trial operation in major cities across the country.

TOD first appeared in Peter Calthorp's book, *The American Metropolis-Ecology, Community, and the American Dream*. This mode requires that a central square or urban center be established with a radius of 400-800 meters centered on the stations of rail transit and bus trunk lines such as railway stations, airports, subways, and light rails. The biggest feature of this urban center is that it integrates work, commerce, culture, education, and residence, so that residents and employees can easily choose buses, bicycles, walking and other travel modes.

The first step of this project was to modify these principles so they conform to architectural design. Next, three examples of TOD were found, and the design strategies for these buildings were analyzed to bring forward a new design strategy. The three examples are Salesforce Transit Center in San Francisco, Shibuya Station in Tokyo, and Denver Union Station. These examples are aimed at the connection of above ground and underground space, the integration of urban complex and transportation, and the connection of ground transportation. The third step was to choose a site in Shanghai. The fourth step used the newly created principles to analyze the original site to discover existing problems. The last step is to choose different strategies to solve these problems and iterate the design.

Design Research in Practice

Advisors: Lonsway, Krietemeyer, Kermer, Newsom

Image: A Regional Identity



Transportation Center in Shanghai: Follow the Policy of Shanghai Government

248

249

Ziwei Zheng

Afterword: Practice to Project

Julia Czerniak
Associate Dean and Professor

Thesis is by all measures challenging, yet its outcomes rewarding. It is enormously gratifying to witness how our students reconcile architecture's appearance and performance through individual and specific "projects"—ongoing sets of concerns and sensibilities that have evolved over their time at the School. I emphasize "project" as opposed to "practice" intentionally, drawing loosely from a distinction articulated by architect Peter Eisenman when lecturing at Syracuse Architecture in 2011: "If you have a project, it is the architect who defines the world around him or her. If you have a practice, it is the world that defines you. Every project is always a critique of the status quo and of the discipline. So therefore, a project in some ways is always political, ideological, and intellectual."¹

Thesis work, as comprehensively presented here, occurs in the final year after students "practice" architecture through semesters of design iteration supplemented by coursework in theory, history, technology, and other concerns where accumulated knowledge, experimentation and reiteration impact its evolution. The design thinking the students employ and the designs they produce variously engage architecture's appearance and performance. On the one hand, they perform a consequential amount of work: environmentally (from reusing waste materials, to engaging rising seas, to enabling biodiversity and sequestering carbon); economically (for the cities and sites for which the work is projected); socially (for the citizens that visit, use, occupy them); and intellectually (by catalyzing possible and alternative futures). On the other, however, much of this work *also* clearly and unapologetically advances design agendas regarding architecture's appearance, in all its complexity—*both* responding to the field's highest ethical responsibilities and external concerns and engaging with students' own internal preoccupations with the look of things, their spatial and material formations, *and* how they come into being—technically, technologically, and through the process of design.

The promise shown in this collected body, then, is the next generation's commitment to disciplinary and professional "projects" that critique the status quo within architecture—as Eisenman suggests—while engaging the formal, spatial, and material concerns of our discipline; sustainable and socially equitable design; and intellectual and disciplinary possibilities.

1 Peter Eisenman, "Practice or Project" lecture, delivered at Syracuse University School of Architecture, Sept 30, 2011.

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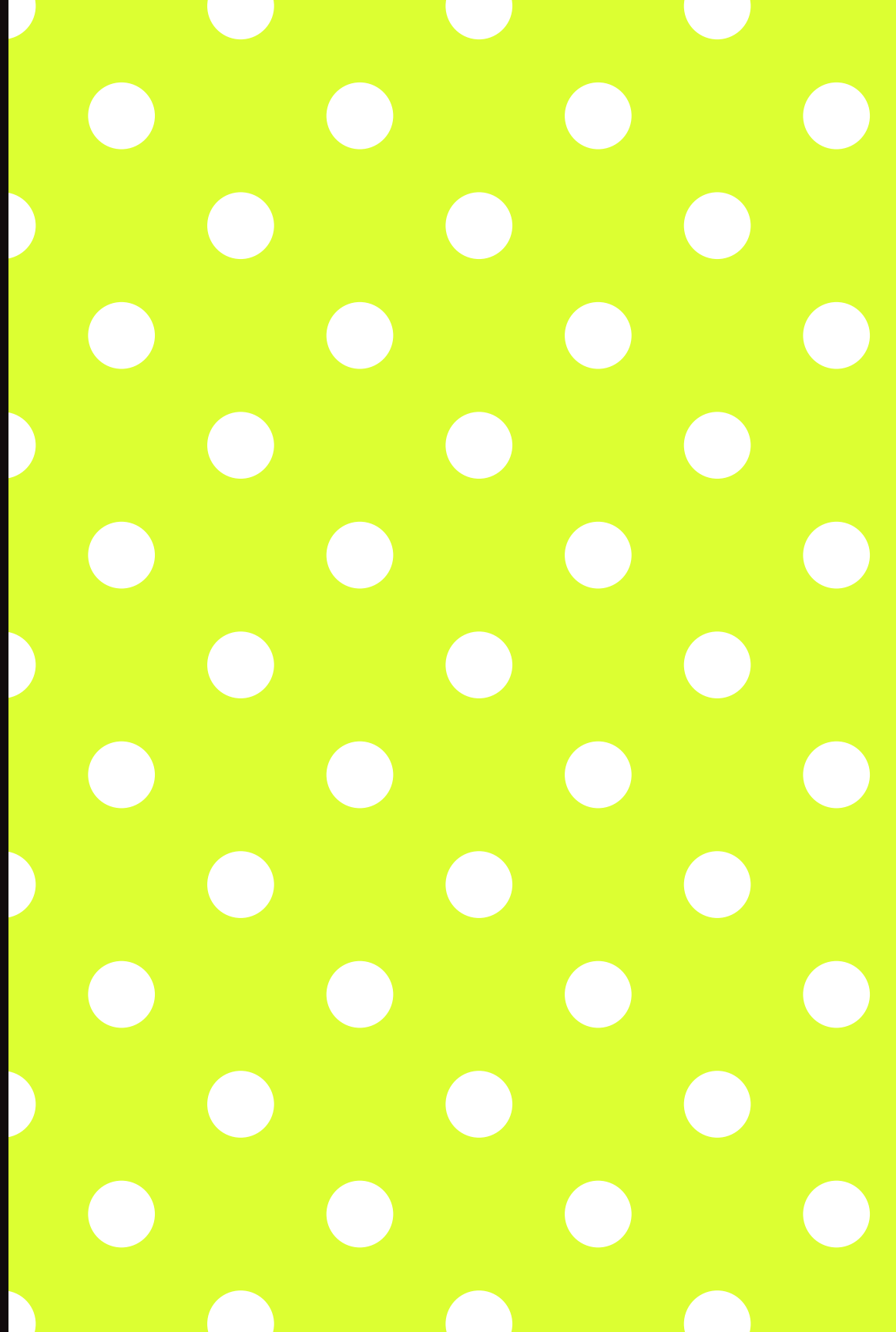
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