DIMENSIONS

Letter from the Editors

Brand new, but much the same, and yet a little different. Dimensions carries a similar charge from year to year. For the past three decades, Dimensions published the work of its students, not as a yearbook, but as the curated compilation of Taubman College at a specific moment in time. Dimensions 31 occupies a time of change for the college, bolstered by a new dean and the new Taubman Wing addition.

It's by no coincidence that our letter occupies the space typically reserved for the title page. Winding throughout many of our discussions over the past year revolved around balance, and particularly the balance of honoring the fidelity of contributors and the authorial scope of the Dimensions staff. We took liberties; we took a stance, and we add our names into the lineage of staffs before us and those to continue after us.

The work presented in Dimensions 31 does not exist in isolation. Projects end and begin on the same spread, and where the turn of a page previously cordoned off work from one another, there is now the clear visual linkage and the ambition for an emergent narrative.

Though Dimensions 31 may differ in our look, our sensibilities, and in our priorities, we remain committed to the work of our contributors. We hope to continue being the sensitive instrument that Dimensions has always been, and we rely on its legacy, of thesis projects, interviews, and fellowship work to attune ourselves to the local particulars and wide-ranging propositions embedded in the work of the architecture program at Taubman College.

Paige Gibson, Jordan Laurila, Liam Li,
Vaishnavi Magar, Chuchu Wu, Jiaqi Xin, and Le Yang

Foreword

Dimensions 31 is an imperfect but relevant reflection of Taubman College's Architecture Program. Under 200 pages, this yearly journal can only begin to catalogue the 70+ studios that took place in 2016–17; the dozens of lectures, scores of lunchtime events, exhibitions, and cities and countries visited during travel studios in 2017–18; and the dialogue and debate that takes place daily in studios, classrooms, and our newly opened Commons. The last, the new hub for everything Taubman College, both collects and disperses the nervous energy of the school in motion as furniture is reorganized throughout the day to accommodate quiet morning conversations, a workshop or informal panel at midday, an impromptu pin-up in the afternoon, and a "star" speaker to close out the day in the evening.

Yet, themes emerge. Sometimes it takes outsiders to help us define whom we are;
"Speculative and imaginary" (Liam Young)
"A multidisciplinary collective" (Assemble)
A place that "privileges the combination of research, education, and practice" (Ensamble)

...thesis studios reveal where we agree to disagree;
One student's project might look at "drawing as a critical tool," while another take-up "architectural representation in a post-digital age."
An indexing of architectural elements confronts a studio that takes on fabrication in the context of "participatory and collaborative practice."

...fellows continuously push boundaries;
Between the traditions of painting and architecture. (Hans Tursack)
Between "programming and design culture." (Erik Herrmann)
Between parallel projection and three-dimensional form. (Viola Ago)

...and students project their pedagogical experiences onto future careers.
Knot, funded by the Architecture Student Research Grant offers "a platform for discourse and dialogue," (Ali AlYousefi, Scott Deisher, and Laura Devine) cropping up every so often at some corner of the building—is it every two weeks?—it asks students and the occasional faculty or staff member to interrogate—in almost real time—the events, conversations, and concerns that occur across all of our spaces and spatial discourses.

Dimensions 31 reflects and records.

Sharon Haar
Professor and Chair of Architecture

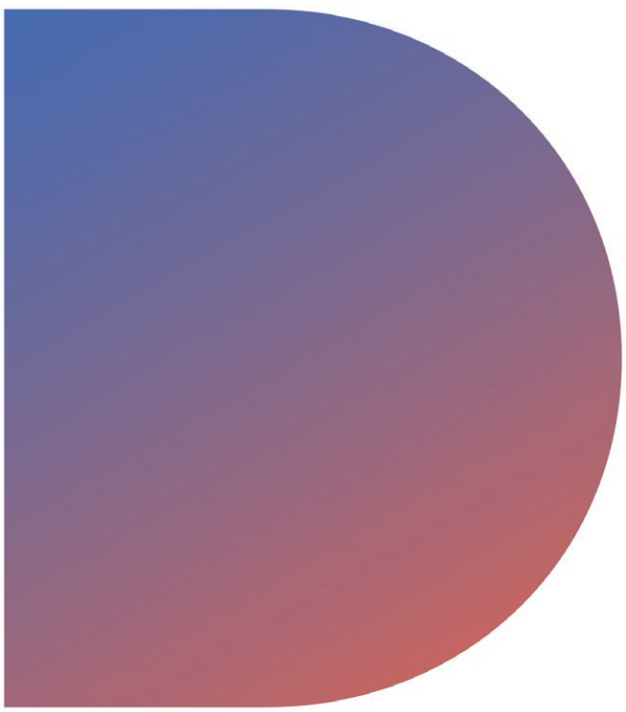
Interviews

Thesis

Wallenberg

Fellows

ASRG



Liam Young

Liam Young delivered the keynote address for the *Ambiguous Territory: Architecture, Landscape, and the Postnatural Symposium* at Taubman College on October 5, 2017. The symposium addressed the intersection of architecture and landscape within the Postnatural, or the era of climate change.

Young co-runs the nomadic research practice, Unknown Fields Division, while also being the founder of Tomorrow's Thoughts Today, a think tank which explores speculative and imaginary urbanisms. His work has received the praise from *BBC*, *NBC*, the *Guardian, Time Magazine*, *Wired*, and *Dazed and Confused*. His work appears in the collections of the Metropolitan Museum of Art and the Victoria and Albert Museum. He currently runs the M.A. in Fiction and Entertainment at SCI-Arc.

Dimensions 31
What are some of the founding principles of your think tank, Tomorrow's Thoughts Today, and how does the interdisciplinary aspect of architecture and film help in shaping our pure practice?

Liam Young
I was interested in developing a practice that would explore the ways where technology is fundamentally changing our world. What we do is develop work that is about exploring the global, urban and architectural implications of new technologies. But more than that, we try and explore those ideas by borrowing from techniques of filmmakers, documentarians, journalists, and storytellers to communicate them to audiences that would traditionally sit outside of architecture. These are issues that are so fundamental to contemporary experience and culture and its ridiculous that we typically keep them locked away, they become invisible. We use these practices of fiction and storytelling to try and reveal them and to position audiences in new relationships to them. So for example, Kate and I recently traveled to the Lithium Triangle, which is a part of the world formed from Argentina, Bolivia, and Chile to visit the Lithium mines. Lithium is the key ingredient in the batteries that power all of our technologies, batteries that enable a phone to be 5 mm thick or a laptop to be light enough to carry around in our bag. It's a fundamental ingredient in electric cars, in Tesla's power wall battery, it's the fundamental ingredient which is going to power our green electric future. But we never talk about where this material comes from; we just are enamored with the possibilities of this hopeful future and we lap it up and deify people like Elon Musk because we like easy answers and simple solutions and clear pictures of what our future is going to look like. But what we try and do is tell stories about these landscapes so that people understand and can make decisions about the extraordinary complexity that comes with some of these inventions and technologies. It's not that simple. And as a culture, we need to get better at understanding the complex ecosystem within which all these technologies exist so that we can become more informed and critical consumers of these technologies.

D31
The Unknown Fields Division explores various countries across continents. What led to the explorations of these locations and some of the primary decisions in site selection?

LY
Essentially Kate and I formed this research studio to follow the stories that were really shaping our lives at particular points in time. So when we're thinking about a destination, we're trying to think about the sites, territories and landscapes that are really critical at this point in time? What are the sites that are really fundamental shaping the contemporary moment? So as I mentioned, we went to Bolivia to explore the lithium mining industry just after Elon Musk launched the power wall batter and launched his vision for a solar powered future. And we thought it was important to actually talk about all of the networks and systems that he doesn't talk about. We went to China just after Apple became the largest and most profitable corporation in history and we went to follow the supply chain of Apple mobile technologies all the way back to the hole in the ground and a radioactive lake in inner Mongolia beside the world's largest rare earth mineral refinery where a lot of these technologies begin their lives. So we're always looking for contemporary tales or stories that sum up who we are at this point in time and these are the sites that we want to uncover.

D31
Documentary film and multimedia performance has been a central theme in your practice. When and why would you decide to choose film as your main lens of practice?

LY
I think the conditions that we are responding to with our work are ones where the city is being shaped by conditions outside of the domain of traditional architecture: things like large physical infrastructure, public squares, buildings. All of these things used to be constructive of some kind of an urban experience. But we're now at a point where our experience of the city might be shaped more by who's online at a particular point on time, the speed of our access to the Internet, the strength of our GPS signal or mobile phone reception than any of the physical infrastructure that surrounds us. So cities are being shaped by these networks and systems

which stretch across the entirety of the earth. So it's no longer sufficient to use the traditional techniques of architecture to try and map the extent of cities. The plan, the section, the site plan don't sufficiently capture the complexity of these ecosystems and these networks, which are fundamentally time dependent and that take place across multiple sites and times. So the medium of film, the medium of fiction and storytelling is one of the techniques we use in order to describe a city which has been atomized and stretched across the earth. And we would argue that if any architect wants to sufficiently engage with the reality that we all occupy, then they, too, need to start to explore these new forms of site that now exist. Because there is no single site anymore. It's no longer sufficient to deal with the direct and immediate adjacencies that a site section might generate. But we need to be finding ways to cut sections that span from the massive resource fields and mine sites on the edges of the world all the way through to the final points of consumption in a city like this one and all of the conditions, spaces, territories and infrastructures that exist in between. That's the only way we can really comprehend and deal with and respond to all of this complexity as designers.

D31
You consider yourself a kind of architect/non-architect and mentioned in one of your interviews an architect's skills are completely wasted on making buildings.

"But we're now at a point where our experience of the city might be shaped more by who's online at a particular point on time..."

LY
Yes, I did.

D31
What are your thoughts on the way architectural education is taught in the traditional context?

LY
I think what's really dangerous is that as a profession, we continue to define what it is we do in such a narrow, narrow way. I think that making buildings is just one small part of the myriad of things that architects can and should be doing. The making of buildings is wrapped up in a very fixed process of the movement of capital, a very fixed set of relationships that exists between an architect and a client, and a budget. In contrast however, the ideas that architects often explore and the things that we're trained to do, like abstract problem solving, understanding technical and cultural relationships, are so urgent and valuable right now in the context of the massive seismic shifts that are being brought about by ubiquitous technology and an evolving climate. Simply engaging with the building as the only instrument through which we can engage with the world is just catastrophic. So I think as educators and as institutions, we need to get better at helping students evolve a form of practice which is much more contemporary and much more relevant. An education where architecture graduates may be trained not just to move into intern positions in architecture offices, but might move into a technology company, or might move into the film industry, or might move into politics, or urban planning, or product design, or the automotive industry. We may still operate as architects in all of these different fields, but we're just finding different mediums of expression for the ideas that we're trained to be able to engage with. So I set up this new post-grad Master's program at SCI-Arc in Los Angeles, a Master's in fiction entertainment, which is trying to look at different forms of practice and trying to legitimize the path that an architect might take moving through different scales of their own design thinking and ultimately encoding, like Trojan horses, critical ideas within the mediums of popular culture.

It's my way of trying to bring the architectural project out of the discipline and put it in front of people that would normally not have any relationship to the things that we talk about.

D31
Before starting at SCI-Arc, you taught

at the Architectural Association and Princeton University. Do you think the pedagogical approaches of these different universities have impacted your research practice in some way?

LY

I mean we kind of parasitically occupy these institutions to develop our own research projects. And to varying degrees, we have to find nimble and dexterous ways of operating in order to continue our projects in these contexts. Because as I was just saying, to a large extent, institutions are not set up at this stage to fully support these alternative forms of practice that are emerging. People used to talk about the work that we do as being on the margins of the discipline, but now I think that actually, the work on the margins are the practitioners that locate their work solely around the making of buildings as singular objects. If you look at the people trained as architects that actually make a living from making buildings, I think they may be in the minority, but institutions and educational systems haven't caught up with that reality. So it's a constant battle to try and find ways to re-tune the infrastructure of academia in order to facilitate and incubate these new forms of practice that so many young designers and architects are starting to move into. And that's what we really have tried to do at each one of these different institutions is construct pathways for people that don't want to go out and work for an architecture office, but that might want to go out and tell stories, or make a documentary, or do other forms of research, or work in different fields and different industries.

D31

Okay. So our understanding about landscape ecologies is very generic. Through your practice, we get a sense of the speculated and imagined organism. Could you elaborate on the different characteristics of these different typologies?

LY

Which typologies?

D31

So you mentioned about infrastructural versus technological landscapes and things like that in your readings. And we always find like landscapes is just one typology and we get this generic sense.

LY

Yes, the buzz word right now is anthropocene, right? We characterize this period as one where humans are the dominant force shaping the planet. What I am interested in is actually talking about the post-anthropocene, which is a condition where technology and nature are actually one and the same thing and can no longer be defined in separate terms. Post-anthropocene suggests that it's not us that are dominant force that is shaping the planet; the anthropocene just as a term puts us at its center. Post-anthropocene suggests that it's machines, AI and technology that are the things shaping the planet, and that's I think the point in which we're at. It's technology, which is defining remaking and rebuilding the world at every possible and conceivable scale. So I think these are the types of landscapes that we talk about. The title of my talk here was "City Everywhere" and what I am trying to raise with that framework is this idea that we have completely and totally urbanized the planet. There is no nature anymore. Perhaps there never really was in the sense that we culturally define it. What there is, is just endless urban context. And that urban context at some points looks like cities as we would typically recognize them, like Los Angeles, or London, or it might look like a landscape that has been produced by or produces that city. But it still means that that landscape even if it may be a remote mine site, a giant feedlot for cattle, is still conditioned by the city. So to use words like "nature" and to put it in opposition to technology is no longer valid. These are outmoded terms. It's just one continuous, soupy, meshy-mash of territory. And what we try and do is try and make sense of those complex inter-relationships. We try and look at the ways that product design, the design of a phone or a laptop, and landscape design, territories, mine sites, and everything are actually compressed and collapsed together into the same thing where decisions we're making about the gold coating on the back of an iPhone or the design decision about how it slides into our pocket actually casts shadows that stretch across the earth and have these reverberating effects in landscapes like the ones that Unknown Fields and Kate and I visit.

D31

The power of visualizations reflected in your projects, they strongly support its narrative. What are some of the digital technologies or softwares used in achieving these visuals?

LY

What we do in the work is that we co-opt the tools of film. All of the techniques of visual effects, all the techniques of editing and film-making, all the techniques from journalism are useful to tell these stories. And we do so because these mediums

are something that we're all familiar with. Fiction is this extraordinary, shared medium. It's through stories and films that our cultures share and disseminate ideas. We train for seven years in an architecture school to learn how to construct or understand a section. But ever since we can sit up, we're put in front of the TV and we watch cartoons, or we fall asleep watching a film, or reading a novel, so what we do is try and use the tools from those different disciplines to disseminate critical ideas in ways that we're all much more familiar with. And that's how we kind of get outside of the discipline. We bring those techniques from popular culture and film to bear on very real conditions and stories. I love the new journalism movement, which emerged around writings in the '60s and '70s from people like Tom Wolf and Hunter S. Thompson where they would write about real experiences and real places using the tools of fiction. They were journalists essentially, but they would use techniques from literature in order to dramatize those contexts and present them in a way that objective journalism would tell you is wrong. But they would favor the idea of truth over facts. They would see that fiction is sometimes a more powerful form than the real. And that's what we do with the techniques that we use where we try and bring people closer to the real context that we experience. The tools of fiction are the tools of our practice.

"...to use words like 'nature' and to put it in opposition of technology is no longer valid."

D31
Your inherently collaborative design approach allows your work to diversify and scale in nature. Do you think it would have been the same if only architects were working together?

LY
We are dealing with a world which is so intricate and complex that it necessitates a whole range of different disciplines. We work with network engineers, we work with anthropologists, and geographers, we work with creative coders, and technicians. We work with filmmakers, and journalists, and writers, and storytellers in order to capture and make sense of all of this complexity. Architects often think that we can do everything and there are some things that we're really uniquely suited for and one of those things is working within larger interdisciplinary teams. And that's a really critical thing that any contemporary practitioner should be doing if they really want to engage sufficiently with the diversity of the landscapes that we've constructed for ourselves. So we've really defined our model of practice around that form. We don't have a studio in the traditional sense, we pop up and appear at different points in time depending on the project. We don't have a fixed, permanent staff that we have to pay each month, we don't have overheads that we constantly have to maintain. We are like a pirate ship business model where we appear for one particular mission, we assemble a crew, we go out on that mission, we come back, and then we disperse again. It's a project-based model of practice. And in that way, we can assemble different diverse teams within the specifics of what a particular context or condition requires. And it's something that we try and work with our students as well is to talk about alternative business models. It's something that isn't particularly sexy in educational context. Most schools have some kind of professional practice course that is the last thing that a student wants to spend their time on. It's generally run by some traditional practitioner whereas this potentially this could be the most exciting and radical program in a design school where people experiment with different forms of practice, different models of practice, and different economies of practice so that we don't have to work within the existing models which are very limiting. Its not often we get paid to do the work that we are most passionate about. Sometimes people teach as a means to pay the rent and then do the interesting things they want to do on the side, or they get research grants to make them happen. Sometimes people work in an office in a 9–5 job and then do their interesting individual work on the weekend or in the evenings. We find various ways to pay ourselves in order to allow us the time to do the extra curricular work that we really want to do. But instead we should be thinking about alternative models that allow us to earn a living and sustain the type of practice that is actually most important to us. Architects are worse than any other discipline than I can

imagine at this. We devalue our own abilities and I think it's one of the failings of contemporary education that we do not acknowledging those realities.

D31
What intrigues or inspires you the most when working with people from different disciplines?

LY
I think everyone has an extraordinary and specific type of knowledge. And we try and work with people that come from very particular backgrounds, but that are open to engaging with different models of practice that we may or may not have anticipated. And for the most part, what is extraordinary about all of the collaborators that we have brought in on our projects is the willingness and the capacity that they have to step outside of their comfort zones. And that's really I think what we all need to be thinking about is how we can all be active explorers and we can all be willing to take our practice into unexpected and unexplored territories to see where there might be different resonances that we haven't anticipated. What we try and do is corrupt and contaminate our own practice by engaging with all of these collaborators within different fields and that takes us into different directions. And hopefully those relationships also take them into different directions as well. With Unknown Fields Kate and I travel with all of these different collaborators and it's important to take people with us to these landscapes I have been talking about. Some of the things that we encounter out in these territories can really fundamentally shift the nature of people's practice. It's important for us to get outside of the walls of the institution and immerse ourselves in these realities as a means to make new work. The willingness of people to come with us on these journeys is really inspiring.

D31
Technology is another aspect around which your thesis revolves.

LY
Yes.

D31
What do you think is the hierarchical role of technology in the future?

LY
What we try and do is look at the history of how various technologies have made their way into the world. So we look at the technology transfer chain and we look at how various technologies begin their lives in the military. For example, the Internet, started out in the military industrial complex. Drone technologies started out within the military industrial complex. And we look at the ways that they slowly filter down into the hands of everyday users. And the most interesting point with all of these technologies is when they become democratized. We do a lot of work around drones right now because drones are at that really interesting point where they have just now become accessible. It's now possible to walk down to a toyshop, or an electronics store, and for less than $300, buy a 4K camera drone that you can learn to fly in an afternoon. There are now more civilian drones in the air than there are military drones.

And that's the point with all technologies that we see interesting things happen. With the Internet, it wasn't until it became accessible and on everyone's home computers, and on everyone's desk that you got the birth of Web 2.0 and file sharing, video sharing, YouTube channels, new forms of communication, blogging, and amateur journalism. And that's where we try and focus our own work, to look at the technologies that are just about to become accessible, just about to become democratized. That's why I think it's urgent to be doing this type of work because these are the things that are going to fundamentally change our lives and we need to prototype the different types of futures that may result from those conditions. Some of those futures are full of wonder and are extraordinary and have this amazing capacity to change our lives for the better. Some of those technologies are open to misuse. Some of the possibilities of these technologies are dangerous and scary. As a culture, we're very good at focusing on the solutionist roles of technology, the technology that's going to make us skinnier, help us get to work faster, give us a better orgasm, connect us better with our friends, but it's important to understand the other side of technology, the dark side of the screen, as I describe it, in order to look at all the different futures that these technologies may give rise to. Our futures are equal parts fear and wonder and that's why we need to get better at telling stories and prototyping what some of these technologies may mean so that we can focus funding in particular directions, we can mitigate the particular problems that might emerge, and we can be ready. We need to be more active consumers of the right kinds of technology as opposed to blindly stumbling into futures we don't plan for.

D31
Did drones provide a different perception of looking at the contemporary landscape?

LY
What I talk about with drones is that the view from the air has always been one of privilege. It used to come with immense cost and technology and now it's in the hands of a seven-year-old kid flying it in the park, or it's in the hands of a protester who's put a camera in the air to be an objective eye to monitor the movements of police and the treatment of protesters. It's allowed us personally to take drone cameras with us on all of our Unknown Fields expeditions and fly them across fence lines, across territory that we normally couldn't walk ourselves to document some of these phenomenon. We just took a drone to India and we flew it across the fence lines to look at the dye industry that colors all of the garments that we wear and that dumps untreated chemical waste into the Ganges River. We took a drone to the Amazon jungle to document illegal logging in deforested areas. We took a drone with us to Chile and Bolivia to map the extraordinary evaporative landscapes of the lithium mines that from the ground level just look like a solid, white horizon, hidden behind mountains of salt. It wasn't until we got in the air and were able to look down on it that we revealed the scale of production. So this aerial view, just like the technologies I have been talking about, has become democratized and can now be used to reveal a whole lot of hidden stories and truths.

D31
Would you consider your design practice to fit in the historical trajectories of landscape urbanism or does it carve out a new path for itself?

LY
I think the discipline of landscape urbanism is fundamentally changing for all of the reasons that we have been talking about through this interview. There is no center and periphery anymore. There is no landscape and city, or country and city divide. What there is, is just a continuous system of relationships, a continuous urban form that stretches across the planet. So all work we do is now work of landscape urbanism. When an architect builds a building in New York, they are engaging in an active landscape urbanism because the systems that building sets in motion are extraordinary in scale. So I think every discipline has in some form become a type of landscape practice. That's I guess what we're arguing for when doing the work that we do and using the tools that we use. We are

arguing for this new conception of site and place that is global. The myth of the local has long since vanished and we're totally global citizens and the work that we do has planetary scaled effects and consequences. And we need to get better at understanding what that means and start designing new types of objects that are relational objects, objects that set in motion effects across the other side of the world, not in the services of cheap production or efficient labor, but by looking at the ways that we can design the shadows of our cities in a really positive way. We need to think about how we might actually design those systems and in objects may just coalesce, like a cloud, out of these networks. If the title of my lecture was "City Everywhere," I am interested in what it means to truly design objects made in that everywhere.

D31
How challenging is it, do you think, in the professional world, to work on a practice that not necessarily produces buildings as the end product?

LY
As I said before, I actually don't think it's that difficult anymore and I think that the majority of architects work in this way now already. We may not want to believe it, but it's increasingly difficult to create a sustainable practice built on the back of buildings. I think that operating in this multi-disciplinary way or parasitically occupying these different fields is actually a much more efficient and productive way of working. It's actually a much easier way of working because for the most part, these different fields really value our involvement and really appreciate people with our skill set. I think the real battle is in trying to be a proper jobbing architect hunting for clients and trying to get buildings built in this complex context. I think that's much harder than doing the types of work that I am advocating for.

D31
Any closing comments for the next generation of architects?

LY
Well, to continue, I guess what I would try and encourage people to do is define their alternative forms of practice that have at the core of their very being methodologies, and techniques, and tools that are about engaging critically with the world as it is. And I think it's very central to the work that we all should be trying to do, this idea of trying to communicate and engage with audiences outside of the traditions of the architecture discipline. I think that it's our duty and responsibility as contemporary architects to engage wider communities in the work that we do and not just scream into a vacuum, but fight for ways to be relevant.

Liam Young was interviewed by Vaishnavi Magar on October 6, 2017.
Photographs: Chuchu Wu.
tomorrowsthoughtstoday.com

Anthony Meacock + Joseph Halligan

Joseph Halligan and Anthony Meacock are part of Assemble Studio, a multi-disciplinary collective, working across and through the boundaries of art, architecture, and design. The practice actively incorporates the public into the design process, where the public can become both participant and collaborator. Assemble was founded in 2010. Their first project was self-initiated and self-funded. In 2016 Assemble became the first design practice to win the Turner Prize .

Joseph Halligan and Anthony Meacock ran a two-week workshop in Fall 2017. Collective Memories, funded by the Third Centuries Initiative and supported by the Stamps School of Art and Design and Taubman College.

Dimensions 31
You've talked a lot about how Assemble formed. Could you talk more about what disciplines are represented in the collaborative and how those disciplines have enriched the work that comes out of it?

Joseph Halligan
By training, we are architects and artists. English graduate, philosophy graduate. What did Louis do?

Anthony Meacock
History and briefly law.
And an accountant.

JH
Those were useful.

D31
What is the dynamic of the collective when you're working by architectural artistic means?

AM
We don't really have an internal distinction between the different disciplines. It's like it's not something that's like, "This is this, this is this, this is this." They are conceived as part of the same practice. And I think we have never given that much time to thinking about what the distinction is and we don't—I personally don't think it's particularly important. And whether it's viewed as art practice, or architecture practice, or business planning, I'm not super interested. I think what is interesting is if we like the work and find it worthwhile, then that's the important thing, what the work is doing and then what's the kind of interest in that. And the lens it comes under doesn't feel super important.

D31
That's come up quite a bit in past articles, past talks, that a lot of people project classifications onto you. What do you use to define or position yourselves?

AM
I think we wear different hats, depending on what the project demands. And sometimes it's been useful to promote yourself, to describe the thing as art because it provides a certain freedom and access to certain types of funding. And it encourages a certain type of practice that sometimes is defined as art and other times is much better defined as architecture because that gives it a kind of credibility and a certain type of practicality, and it's always really dependent on the work. I think we have just been super pragmatic about it.

JH
I mean we have always resisted being classified in that respect. There's quite a lot of us, so I think it's completely fine that we don't all like the color blue. That would be weird for 18 people. Different people in the ensemble see things differently as well. So we always say art and architecture and design practice, which is a balance.

AM
Which feels useful and all-encompassing.

D31
So does that reasoning play into why there's no studio manifesto? It's purposely left open and broad?

JH
Yeah, I mean I don't know many architects with a studio manifesto.

AM
I mean it might be—and this is very vague, but it feels like it's something that's more discussed at schools in America. And it's been asked a few times in crits.

JH
There are themes. It's probably a better way of talking about it, isn't it? And interests too.

AM
I think we have always been quite keen that the work is judged as the work, not against some sort of slightly abstract set of values, but I think there is—I agree— there are definitely themes of work, and there are interests, like craft is something we talk about a lot.

JH
I think that there is an interest in involving lots of people, I think normally, whether it's through collaborations with other disciplines, like ceramacists for example, I think you find most of our work has some degree of collaboration in it. Whether it's within ourselves or actually with someone else—definitely more recently.

AM
I think as we have become more established and more aware, we have become more interested in collaborating with other people more. I also think we are generally interested in making—I guess making both production and the use of spaces more inclusive. I think

trying to allow people to have agency in the city, in an essence is a central underpinning of the work now.

D31
As you become more established, what's the selection process like for new projects coming in? Do you have a greater freedom in choosing?

JH
It's a toss up between work that some people in the office might find interesting and work which is able to pay. Some people will come to us with very interesting offers of exhibitions or small-scale pieces, but that we will have to over-invest in. Then there might be larger projects which you could be stuck on for two or three years if it's a building, for example, and that's potentially not as interesting but the steady cash flow is obviously useful. So it's always a negotiation.

AM
I think as a practice becomes more professional, it gets to be more explicit about the work it takes on. But I also think different people have different interests, so the range of work always reflects that some people are more interested in doing architecture and some people are more interested in the research, and that means it's quite a strong range. We have probably been less able to take on some of the more exploratory projects that don't have a real budget because the reality of us functioning as humans starts coming in to pay.

D31
This question relates more towards the beginning of the collaborative, but how did funding and finances affect the design process? Does it play into the material choices, does it play into scale? How did finances affect the final product?

JH
I think this is true through all of our work. I think finance is one of the key driving factors—particularly for architecture. Design—I feel quite strongly about this— that finances operate effectively as a design constraint. If you can do more with something cheaper with just as much effect, I find the work much more interesting.

AM
It really means you can do more.

JH
It allows a generosity of space or scale. If you can build it in a particular way which uses less materials and is more efficient.

AM
Or you can do two houses instead of one. I think it's fundamental in almost everything we do. There's a real underpinning in the finances: how it's funded, how it's paid for, who is paying for it, in what timeframe, etc. I think it's interesting and I think it's a general movement in England especially. I mean I can't speak for here because I don't know the kind of situation well enough. But in England, it is definitely a growing movement of architects and design firms who are much more interested in the kind of financial, economic side of their work.

JH
It also tells you a lot about the clients that we work for. There is still an architecture which is privately funded, which doesn't rely on excess.

AM
But I think there is more—I agree, there is—there is more value in being very conscious with the money you're spending and trying to do as much as possible with as little as possible. And I think the idea that cheapness is a good thing if it doesn't compromise on the art quality has a tendency, especially in higher-end design, just, "Throw money at a problem," I find that less interesting.

D31
Using that as segway to talk about material choices, it's an interesting choice to use waste materials, and recycled materials, and debris, and detritus. Could you talk about how those material choices play into the studio ethos, play into the design process that you employ?

AM
I mean it does stem from that idea of economy of means and I think it's just that there's two streams that decide the materials. There's one that's about economy of means and how you can use lower-cost materials, but enhance it, and deal with it, and attack it in a way that adds value and makes it richer. And the other one is also an idea of the material sensibility and what materials have meaning embedded in them. And there is a kind of narrative behind projects that leave you to think about what feels like appropriate materials and what feels like

useful materials. So I guess it's both. It is more about being very conscious in the materials you choose and understanding the effect they have —I mean this always sounds a bit floppy, but being true to the materials you're trying to use.

JH
The products where we have used waste, it's been literal waste. It's been for poetic reasons as much as anything. Like the mantle pieces in in Granby, the idea of forming the most precious thing in the house from the stuff that's in the skip and giving that value. And the fact that what was in the skip was once the house: that's the bricks and the slates, is quite poetic. And it's also true for something like the Cafe OTO project space, where we went to the space and there were just bags of rubble in the space and they wanted to build a building there. And so the idea of then just tidying up the rubble and reforming it to make a building is quite—I mean it gives a nice narrative and story. It's a direction, isn't it?

AM
Oh, so that one. The building has been there—I mean it looks like it's going to be there for longer than—it was there for three years, and then it was five years, and then the idea that when it goes, it can go back to rubble and there is no real—there is very minimal impact on the site in the long-term. It's like a narrative.

D31
Earlier in the workshop you briefly touched on the question that art and architecture practices have taken a social turn recently. And Claire Bishop, an academic, has talked about this social turn as making poverty palatable, and yet at the same time, the strategy is to make poverty palatable. Many collectives do work that makes poverty look good, because they tend operate in this context.

AM
I don't think we're trying to make poverty look good.

D31
Right.

AM
I mean it depends on the project, but on the whole, we're trying to make the situation better through direct action. And we're interested in tackling situations that are in a bad state of affairs, like in Granby. We want to work with the residents very closely there and that was about bringing homes that were derelict back into use. There was nothing intrinsic about celebrating poverty or dealing with it. It was about trying to make things better, equally like Baltic Street, where the council, the state is abdicating its responsibility for social welfare and care, which is happening all over Europe, particularly recently in Britain. You're trying to find a way that those sort of provisions can still be provided for. And that's really the intent in some ways, and it's about trying to make a situation, trying to create a different type of resource. And I think it is still conflicted. There's bits about it that it's like, "Should art money be funding social welfare in that situation?" Surely that's something the state should be in—there are still real conflicts about what's going on there. But it's not anything about celebrating poverty . It's about trying to make situations better, but in a way that's not necessarily in line with the current socio-political, socio-economic norm.

D31
And that's why I asked because I appreciated the point on the inevitability of gentrification, but that it's not always negative in the change. Or that good change is possible.

AM
Change will happen in some form. I mean that sounds very trite, but it's fundamentally true. And then so the challenge is: How do you make that change benefit more people rather than fewer people and it feels like the current way it's happening in London and in many ways all over the world is that the change is prejudicing a certain type of people who have a large amount of capital behind them. And the benefit is increasingly getting narrower and narrower. And so you're like, "Okay, the change is going to happen. And you want the benefit to be spread." And I think that's where the kind of economics becomes really important. So in the COT, the housing is owned collectively and cooperatively, which means the value will start going up because it is changing, and it is improving, but that value is then shared more widely and there is a cap on it. It's a kind of constraint that controls it from exploding and a few speculators making a lot of money. It's that sort of world of being aware of what you're doing, but not trying to stop everything. Because that area has a value, but also there is a huge amount of social problems and economic problems, and spatial problems that needed to be addressing. And the idea that that should be held in stasis to stop gentrification, I find deeply problematic.

D31
And speaking about Granby, when you're working with community engagement, empathy is an incredibly important part of the process, with large communities, developing trust. How does that changes your design process, perhaps it deepens the final outcome?

AM
So I guess there are two bits of the question. It's one: How do you work with communities or people? And two, how does that change the design process? And I think the first one, the word "community" almost becomes meaningless. It's like there is no such thing as community. There are communities that exist in every situation. And it is just down to thinking about the modes of communication you're using. I think historically a lot of architecture was completely impossible to understand by most people. That's why I think the key question is, "What communication are you using?" And how does that enable people to understand and comprehend it? And sometimes using big models is also a way of making the stuff communicable, which then means people can get involved and it can have a meaningful impact rather than kind of mundane exercise at the end, "Do you want it blue or red?"

JH
I mean for me, I think that it's also probably just talking a lot to them, being around a lot. I mean that was an approach that we have taken with a lot of projects where in the end, the Granby project someone has moved to Liverpool and they have now had a kid there.

D31
Embedded in the community?

JH
Yeah, he lives there. And another girl was living there for three months or so and it's when we were doing bits on making the mantle pieces and things, we were living there for weeks at a time. And through that, there is a level of engagement, informal engagement, which happens when you see people in the street, and around, and then you get more of a lay of the land. And I think that came from the first two projects that we were doing where we were building them ourselves. We were the builders on-site. The amount of interest that you get from passing people or the people that live opposite, or next door, is really the best way of engaging with the place, just being there.

AM
Taking the time, and listening, and being around, and being present. It's not a formula you can apply and do it and say, "Oh, yeah, this is how you do it." Because I think it's different in every iteration. It sounds a bit simple but it's being there and listening.

D31
Specifically with Granby, because it's a rather long-term project, how do you approach stewardship with the project so that you don't go in, do your work, and then just leave? But what kind of sense of stewardship do you have with the CLT and Granby?

JH
It's a long-term vision for Granby, I think, which is decades rather than years, I think. There is a business there now, which at present we're running. And I guess the idea is that you would slowly walk away from it all. But at the moment it feels like the business is not ready to leave yet—I mean you would want to leave it so that it felt like a very secure asset, which I think could take some years. At present, we have finished a series of the houses and now we're working on this winter garden. But I think our presence in Granby has been less recently. And it feels like maybe we should—it should be more with the next set of houses on Ducie Street.

AM
It's always a balance, how much is a tricky one. Because how much do you force through an idea and how much do you let it succeed or fail in its own terms and there is a balance between driving something that you believe in, but also in stepping back enough. There is a project still on the book—the Black Horse workshop is something we set up, but now we have two members of us still

on the board and though we're stepping away, we're still involved, but it's lighter.

JH
Apart from the extension. They had wanted to build an extension and so then they came back and then we got much, much more involved again.

AM
Yes, we had another package of work that was about pushing it. But then I think that sort of dialogue feels interesting.

JH
Like an ongoing relationship with projects where input changes. Sort of like Glasgow. That was set up, and we kind of stepped away, and we were on the board.

AM
The ownership of the land has shifted a bit and so this required another set of interventions but it's a tricky one about how much you force your ideas through, and how much you step back, and how much you let something fail because actually, that's just the case that it might.

JH
I agree. It's just an ongoing conversation and a negotiation. I just think that's what it is.

D31
Moving to the structure of the collaborative, it's a rather interesting structure in that it's non-hierarchical. So could you talk about how productive that structure is for you? It is a rather unique structure that has produced impressive work so when there are so many active contributors?

JH
I think we're probably all in unison in saying that we all have achieved much more together than we would have individually. And I think we work better and in a more surprising way that it makes for a more interesting environment than if single parties had set up by themselves. And I think everyone believes that.

AM
I think actually in some ways, the more people makes it easier. If there is only three, then one person is always feeling very left out. Whereas with us, it's finely balanced and less personal because the personalities are more watered down. And I agree. It makes the work stronger. It sort of shakes things up a lot more. And I think it's also a way of working that we have been negotiating with ourselves for a long time so there's this idea of trust. A mutual trust. That means when someone criticizes something you do, you don't take it personally or you take it personally for a while but you can still accept that they're doing it for the best reason.

"...how much do you force through an idea and how much do you let it succeed or fail in its own terms..."

D31
Is there a cap to the amount of people that ideally works in the collaborative? Do you want to say, "Okay, 18." How do you envision the collaborative scaling up.

JH
It's never scaled up.

AM
It's scaled down a bit.

JH
It's got a bit smaller. I don't think we're particularly looking to expand or shrink.

AM
We never had this manifesto, we never had this thing, and so it's not like there is a target that makes sense. It's always evolved depending on how the work has changed. We might shift the way we work slightly—but it's very hard to predict what that is because it's always been reactive. We have always enjoyed working together, we have always had this belief that we're better as a group than as individuals. And it's changed loads in the last three years and, it will continue to change, and it's changing more. I think how we employ people is a big one. If we employ people. It's probably more about collaborating with other people rather than about taking on lots of employees. That would be my instinct. That's also untested.

JH
Yeah. I mean you get into a bit of hocus-pocus stuff now, but you get into group theory, right? A friend of mine's grandfather wrote a book on management. I think it's like 15 or 18 is the ideal group where you get a certain amount of variety without it becoming factioned. I don't know. Well, let's push it to the extreme. If we were to times by ten, we wouldn't be able to have 180 people. It would be unruly.

AM
No, you would end up with 18 bosses, which is a different thing.

JH
Yeah, so then you were to double and it was 36, I mean it would be difficult to eat lunch together. It starts becoming unruly. But it could be 20. It could also be 12.

AM
This number is probably about right.

JH
It's about right. But it's not that we're exclusive necessarily. There are people that we have worked with for a long time on construction projects and stuff. And there are always conversations about whether they want to join in and I think normally they don't, otherwise they would be in.

AM
Because there is also a particular way of working that has certain compromises that I enjoy personally, which is why I keep doing it. But the people who have left have done it for reasons about certain things they don't enjoy about the process, and wanting more stability.

JH
It's a lifestyle choice, isn't it?

AM
It's like we're all taking less security and less money ultimately in exchange for more freedom and work and the ability to work in certain ways. And that's a pay off. I could see people coming into individual bits of it potentially. The Granby workshop is an example which has its own employees. And I could see that potentially happening with other kind of spin offs, so if we're looking to get more into construction, then that might get its own team of people.

JH
Like specialist companies.

AM
Yes, which co-relate.

D31
Moving gear towards the workshop. Because you're here on a Third Century Initiative—talking about experimental pedagogies—I want to start by asking what lessons you want students to take away from the workshop and from these lectures, whether art or architecture students.

JH
There's a few things about the workshop. So it's art and architecture students in it, and they're working together, collectively, which I would imagine both of those things are unusual in school. I don't remember working with artists. I don't remember doing much group work. So there is a whole series of lessons and negotiations there, which I think that they all learn. It doesn't require so much teaching; that was just the brief.

AM
I guess you create the situation and it kind of teaches itself. You create the situation and you encourage conversation. It's kind of quite low-impact teaching, in a way.

JH
And then I think from the brief specifically, working in Detroit is so loaded. And I think we were very wary of trying to do something which claimed to be embedded or with the community, but only pays lip service to it because we're only here for two weeks and we have only ever been for two days previously, so the idea of being able to do something which has got most people's benefit is very short. I think it's impossible, isn't it? To do something that the local community wants when you don't know even who they are. So then we tried to set a brief that reflected on our experiences in Detroit and we had an amazing time with people telling us stories and histories about a place. And I think that those stories and histories are not visible. Literally in Detroit, a lot of the buildings aren't there anymore. And a lot is incidental and I think what's amazing about Detroit is that for a city which is not so old, it has an amazing depth of culture.

AM
It does.

JH
Like an international depth of culture. Even if you just look at being the home of the motor car, but also at the music in various periods of time from Motown through to techno, it is the home of these cultures. So we wanted to set something that was about exploring Detroit, so that we could explore it more as well and find out about and unearth these stories. And how these histories could be embedded in an object or something physical. Because I think that just through a lot of our work, if you look at the outcomes, hopefully they tell stories, whether they're stories about the construction and the economics that fund it, something like the cinema seat that's made out of scaffold boards tells you a lot about the project, or if it's like the 1,000 tiles which encrusts the front façade of a work space that were handmade by one of the people there. Or the mantle pieces that were made out of rubble, which speak of the demolition of

the streets in Liverpool. We're interested in architecture telling stories and having a narrative and objects being able to be more than just an object but something which tells a story. And I am interested in architecture which finds its design this way, where you get buildings and one of the main design tools will be the story, the history of the site, and making something that is particularly specific, that could only really exist because something happened once or it was the home of something. I think it makes richer architecture, richer cities, rather than a generic shape, or form, or block which has nothing to do with that particular place. I am much more interested in making an architecture which is materially based or programmatically based in the place that it exists.

AM
It is hard, and in some ways like it's like a distraction or obstruction of our working practice which looks very carefully at a situation and a context, which looks beyond the literal physical context, also in the history, and the culture. And then using that to think critically about the forms that you're making and why they're justified. Ultimately that's what it is. The forms, the processes, the things you're doing should be justified by the kind of situation you're in. And so you're not doing a thing because it's cool. You're doing a thing that's about an understanding of the place, an understanding of the impact and the effect you want.

D31
It sounds like your experience in narrative building in London has proved very useful in the Detroit context. And I appreciate your points on being wary of the historical loaded contexts of the city as well.

AM
I guess we were just realistic that we weren't going to fix anything in two weeks. And so what we felt was more useful or more interesting is actually looking at making the workshop simpler and about education and about the students.

JH
Which is what it is, it's architecture school. I think it's important to realize as well the responsibility of a teacher to a student.

AM
In a sense, you could do a little thing that was morally fixing something in Detroit, but for the potential longer-term impact, you could give people ideas they wouldn't otherwise encounter that will affect their practice for the rest of their life. I am not saying that would necessarily happen in the workshop. That makes it sound very arrogant, but we have the opportunity to tackle that. This virtue signaling in work is difficult because actually it prejudices a certain type of direct action like, "Well, you have to do something then and there that's fixing something right now." But sometimes taking longer-term and more nuanced ideas about what might have an impact is better. In this case, it's students thinking about ways of tackling spaces that they wouldn't have necessarily thought about before. Or if they have thought about it before, doing it again and reinforcing them.

Joseph Halligan and Anthony Meacock were interviewed by Jiaqi Xin and Jordan Laurila on September 26, 2017. Photographs: Panquat Kyesmu.
assemblestudio.co.uk

Débora Mesa + Antón García-Abril

Antón García-Abril and Débora Mesa lead Ensamble Studio. Founded in 2000, the firm privileges the combination of research, education, and practice. In addition to running Ensamble, Mesa and Garcia-Abril direct POPlab (Prototypes of Prefabrication Research Laboratory) at the Massachusetts Institute of Technology. Ensamble's work has been published and exhibited extensively, most recently in the Chicago Architecture Biennial 2017 and the Frac Centre Biennial 2017.

Débora Mesa and Antón García-Abril delivered a weekend workshop in October 2017 as part of Practice Sessions No.5 as funded by the Third Centuries Initiative. Practice Sessions seeks to engage experimental pedagogies by embedding a practice into the academy for a weekend and review.

Dimensions 31
I'd like to start our conversation with materiality. Do you prioritize working with raw and rough materials, materiality with a soul, as you brought up in your lecture last night?

Débora Mesa
We use a variety of materials and are not tied to one family in particular. We have intensely worked with stone, concrete, steel, foams, wood....We try to understand their properties to exploit the potential each material has and explore the technologies those materials can contribute to develop. Our approach varies per project, when we build site-specific works that capture the energies of a place, we might use raw materials that are local—like earth and stone and hay—and we use concrete as binder. Concrete, is a good ally in such projects because it takes the form of whatever you cast it against. It's also able to blend itself with other materials and suddenly stop being concrete to become something else: a rock. But in other investigations with steel or with foams, the rules of the game change and the outcome is completely different.

D31
And then even with the foam structure, though it was made out of foam, there was still the illusion of thickness and heaviness to it.

Antón García-Abril
The way we work with materials is trying to get a lot out of them. And getting the best out of stone does not necessarily mean slicing it in quarter of an inch slabs, right? For us it's more about preserving the purity of stone as much as possible since it is extracted from the quarry, understanding its mechanical and thermal properties, using its massiveness. So we are just as honest as we can be with the usage of materials. Maybe this honesty is transmitted as rawness, but I think it's about making the most of the materials that we are working with. When we work with foams, like in Cyclopean House, we place the foam in the core of the wall. And this corporality means that it has to have a certain firmness, a certain thickness. And this again translates into the space, into a firm structure that has a presence despite its reduced mass. Because of the presence of weight. This bold attitude towards materials and the structures we use them in, has become a constant in our work.

D31
Right. It makes us think of the work of OFFICE Kersten Geers David Van Severen, because they make frequent use of very thin lines, the thin line as enclosure. But you are dealing with weight....

AGA
Once the line is enclosed, thickness is not revealed. The contemporary relation between envelope and thickness has been very tortuous. While throughout history buildings have explored numerous ways of expressing thickness by openly revealing the dimensions of their different parts, contemporary architecture somehow has smoothened and tensed that line and has named it 'the envelope". The envelope as the last layer (or the first!), that has lost its presence. In my opinion, the approach to thinness and lightness needs to be given by the material that is used and if this is a thin sheet of glass, it makes sense that the glass doesn't exceed an inch of thickness and that is exposed and clearly revealed as part of the way the building interfaces with the exterior. But it might make no sense to fake the same quality with other materials that have other properties and values. So constructing with intelligence and sensibility involves a certain naturality or sincerity with the parts that are being assembled.

DM
And we don't think in terms of lines typically because all the materials have a mass and a density that is proper to them. We don't even think in terms of layers. We prefer to design thresholds, spaces of light and shade, or spaces of transparency. And we can create transparent spaces with heavy materials without faking their nature, working with scale and structure and defeating certain preconceptions of how materials need to operate or define architecture. So, as Antón stated, we are more interested in exploring the potential of materials and the structures and spaces they can build than thinking about lines and what's inside and what's outside. For us, it's difficult to describe

“The fact is that architecture is the art of construction. It’s as simple as this. It’s not the art of form-making.”

our projects in terms of envelope, because the position of the façade is many times unclear or multiplied or dissolved.

D31
The pedagogy of our architectural education doesn’t seem to be stressed on the concepts of fabrication or prefabrication but concerned much more with form making....

AGA
The fact is that architecture is the art of construction. It’s as simple as this. It’s not the art of form making. Construction is a much deeper and complete and rich work. Okay, it’s about giving order, it’s about structuring things, it’s about connecting. And it’s about building. So form construction is a compositional game. It’s embedded in the art of construction. But it’s not just that. So you’d better learn how to do good constructions, learn how to deal with those that are going to help you in this task, the builders, the craftmen, the people that will serve the higher mission of architecture.

And talking about prefabrication, the idea is very simple. To do a building on site is very inconvenient and unsafe. You are exposed to the weather, you don’t have your proper tools, you have to set up a team locally that might not be the most skilled to do the job. So the logic of pre-manufacturing is, “Okay, let’s leave the specialists who build the structure, those who connect electrical kits, those who make the windows, etc., work with optimum conditions to pre-assemble all these parts so when we go to the site, where all parts come together, the building, we have as much as possible pre-manufactured. Prefabrication today generally affects certain elements -structure, or façade, or MEPs, or finishes. The challenge is to arrive to the integral pre-manufacturing of a building. The industry is little by little facing this dilemma which is about efficiency and quality of the construction.

DM
Though our own practice we have discovered the potential of prefabrication by testing a variety of construction methods, that is, being builders and experiencing all the inefficiencies that take place in onsite construction.

We realize there is a very narrow understanding of what prefabrication means and a lot of prejudice. Many still associate prefabrication with poor quality construction, container-architecture or pre-assembled boxes.

D31
Like the modular unit.

DM
The potential is underestimated. Our interest in prefabrication comes from having built with our hands, as contractors, with other contractors, and having carefully analyzed what things can be improved, how can construction processes be optimized to improve quality and working conditions, and how can we better control the way in which everything comes together on the site. Because typically sites are full of conflicts. Especially if you are building in urban environments where neighbors are disturbed, infrastructures blocked, workers exposed to weather or height...the way to reduce a lot of the negative impact can be to do much of the work off-site. And doing it off-site for us implies putting a lot more thought, engineering and attention because you’re not allowed to improvise as much on the site. Actually a lot of the construction in cities are done off-site already, and many times very far away from destination. A skyscraper in New York City might be importing the steel structure from China or from Italy, the glass facade from Spain, and the stone slabs from who

knows where. So everything is really being transported. What we call today on-site construction is no longer using everything that's locally available. So once this is already the case, why not really pushing prefabrication and learn from what already happens in other industries, and why cannot architecture be highly engineered and designed like other beautiful products such as smartphones or cars. How can we bring that design quality into architecture to make it more affordable while still beautiful.

AGA

Now the extravaganza is to do a real on-site construction that mainly uses the materials of the site. We have built a few, like The Truffle of Structures of Landscape at Tippet Rise Art Center. These projects use available resources that can be found close by: the rocks and earth mixed with locally produced cement, hay bales, soil.... the cow of The Truffle. The neighbor's cow is the maximum expression of an idea where architecture is part of the land, belongs to the place. This speaks to our approach to on-site. And there is increasingly a distinction with those other projects we do off-site, where our research agenda focuses in advancing aspects of industrialization, automation, in making well studied portable assemblies, in achieving the maximum quality and integration possible. Going back to where we started the conversation, for us this is also a honest material categorization of projects. It's not formal. It's not about a language, even though it has formal consequences.

D31

In the lecture last night you brought up non-specialized labor a few times. Does your division of labor intentionally facilitate the use of non-specialized labor? Since you've concentrated all of the skilled labor off-site, can you simplify the on-site construction?

DM

When we talk about non-specialized labor we think about ourselves and how being architects / engineers and not trained in a specific construction craft or trade, we develop methods and systems that do not require high expertise to be used or built —be it on-site or off-site. So it means that some of the things that we build can be built by normal people like you or me. The Hemeroscopium House required a specialized precast concrete company to manufacture the structural parts, due to their weight, technology and logistics; and this brings certain limitations that we were willing to overcome. Cyclopean House learns from Hemeroscopium House in the way it is built with a few large scale elements that reduce the amount of maneuvers on the site, but eliminates the dependence on an external manufacturer and the limitations of weight. We become the manufacturers and develop a light-weight system that uses simple materials assembled in a simple way to produce a more sophisticated system. What is very relevant about Cyclopean House is the possibility that it opens to be fully made by hand—like we did—or completely automated in a factory, and that it uses materials that are available all around the world.

AGA

And specialization...this is an Anglo Saxon invention. Here in the US to do a building, an architect requires 25 consultants. The architect takes care of the form, and all the rest is in the hands of specialists... so you might have an elevator specialist, a façade specialist, a fire protection specialist, a code specialist, a kitchen specialist and so on.... and the architect is a specialist in nothing.

DM

Maybe in aesthetics...

AGA

We are totally against that. Let's think about specialization using the metaphor of a tree that reflects the structure of academia and has the branch of humanity, the branch of law, the branch of engineering, the branch of science....If instead of academia we use architecture, then we have the branch of program, the branch of structure, the branch of MEP, etc. Architecture has to control the tree. The architect has to be the master builder, the old school master builder. I think technology is going to give us the ability to become again non-specialized, but mastering everything that occurs in the construction of a building. If we go to the

site, a very similar thing has occurred. The general contractor, what we call a general contractor, doesn't build. He's a financial manager that hires hundreds, sometimes thousands of subcontractors, and in that enormous complexity (complication) is where all the inefficiencies occur. Technology can serve not only the creative and design processes but also the constructive one, to achieve the integral communion between design and building, here is where automation has great potential. I would say it's the immediate present of architecture. So we need to catch up with other disciplines that are already using it successfully. And maybe form creation is as easy as a computed algorithm that somebody could do with much more cultural intensity, and efficiencies, and beauty than many architects. And if someone is able to match the poetic, cultural, humanistic side of design with the technological, then we get Architecture. Somebody has to take care of this. Is the architect going to do so? Hopefully yes. But it's not evident. Because the game is very complex and many engineers who have transcended the discourse of problem solving, using technology, are increasingly embracing design, while architects are not becoming engineers. It's a very, very interesting moment where technology is becoming available, where all the crafts and resources are being integrated, where the building will not be built anymore on the site or like Le Corbusier taught us. First, you do the structure following the Domino System.

After you do the envelope, then you plug in all the MEPs, and later the finishes. The designer now can fully integrate the sequence using an automated process off-site and on-site assembly. And very soon the building will be built the same way a car is assembled. And manufacturing, construction and design will use the same tools. By the way, we should use the same language. And this is something about architects, we are always using words that nobody understands and therefore there is a total disconnection with the rest of the universe, so we would certainly have more impact if we were able to match our words with our actions. The fact is that architects have had historically a certain lead and sensibility in building cities and the habitable space that we enjoy, and this is somehow being lost. Okay, so let's not transform this into a soulless machine. It has to be a machine, but like Le Corbusier said, it's *la machine d'habiter.* It's the machine that has the ability to be inhabited, to be lived. "Live" requires a sensible and spiritual approach that Architecture can provide. If we lose our knowledge about technology, or the ability to engineer, or the capacity to dream, or the capacity to create form accordingly, without any of these architecture is weakened. If we are able to integrate them all, then architecture will continue to be a major human expression.

DM

The workshop we are doing here with the students at Taubman College brings an approach to design that is precisely about integrating different variables from the first sketches, and one of them is construction. So our sketching tool is the model, in that its less permissive than the paper or the computer and that makes it easier to think about material, structure, scale, space...simultaneously. That's how we practice, we cannot isolate key architectural qualities. And when professionally we have seen ourselves addressed as design consultants, as those

providing the aesthetics of the project, we do not feel identified at all, such limitation of the mission and responsibility of the architect is terrible, it deems our role absolutely superficial and—

AGA
evitable.

DM
Yes, evitable. Because then the work of the architect might be able to add some value, but suddenly it is unnecessary to answer the biggest questions. Like how to make the structure and infrastructure of the project work, how to make the project economically viable, and how to value engineer it when over budget, how to select the most adequate materials and technologies based on industry availability or clients' needs. And the architect becomes, I don't know what, but something that certainly is not what I've been educated for and that matches humanistic and technical sensibilities. Resisting and fighting not to lose our role in society, and making that role worth it is essential, because the problems that architecture has to address are so big that if the architect is just in charge of aesthetic decisions, very soon we will be irrelevant.

D31
I'm curious to talk about the construction and architectural—I don't want to say "manifesto"—but philosophy

that supports the practice. Is there a social ambition to replicate them? Is the function of academic workshops or a byproduct of these workshops to replicate this kind of thinking?

AGA

When Le Corbusier designed the Unité d'Habitation, his social agenda resided in the architectural typology, in the cross section, ultimately, in the genetics of a building as a replicable system. He failed to fully accomplish his vision. That's okay, because others can take the lead where he left it. Or if we think about a company like IKEA, it has significantly impacted our societies through design and fabrication processes that have disrupted the furniture industry, destabilizing its practice as a craft, affecting local trades, and then democratizing a design that many share independently of social, economic or cultural status. Social impact has been huge by making good quality design affordable, as a result of understanding fabrication techniques and market opportunities. If we translate this into our discipline, imagine making state-of-the-art architecture available to everybody. And here I am not just referring to lower-income families but middle-income people as well. In the US, these families are paying elevated mortgages and spending half of their income, if not more, into their home. By the way, their house is generally mediocre architecturally and constructively, and far away from work. This is a standard. Can architecture help to solve that? Yes, of course. Can architecture help to solve housing crisis? Yes. Is the way it is now done the most efficient way? Unfortunately, the facts tell us no, because there is still a big urban housing crisis that will go in crescendo in the next year because the population is growing and everybody wants to move to the cities. So is there here an urgent area of research and interest? Certainly yes.

And then we go back to your question. Is the capacity of architecture to be replicable a variable to socialize design? Definitely yes. Is The Truffle the solution to housing? Initially not evident but....if The Truffle is the origin of a technology that has to do with printing in concrete then it can trigger further exploration....So far, it's a rare, unique piece. Is Cyclopean House, as off-site, ultra-light, partially or fully automated, industrialized solution an origin for replicable low-to-medium-income housing systems? Certainly yes. Big projects usually start with a small essay and a small prototype, as proof of concept.

D31

In talking about the proof of concept, could we pivot to the Big Bang Tower? Do you think there is a moment in which, by using prefabrication, something unexpected contributes to the design?

DM

Part of our social agenda is about developing ideas and expertise at a scale that we can build and fund ourselves, to then take the findings to larger scales. Hemeroscopium House and Cyclopean House, both prefabricated, are part of this modus operandi. After building them, we are ready to scale up and find the right allies to do so. This is quite a scientific approach if you think it, where we test first and implement after. Big Bang Tower learns significantly from these previous built works....Prefabricability becomes even more fit and relevant for big architectures and is thus meaningful part of the agenda of such projects. We believe we will some day build it and that it will be an amazing contribution to high rise architecture for many reasons that have to do with the revision of the typology, with the fragmentation of the core that enhances the stability of the structure and provokes the decentralization of the access....It is a tower that is truly urban, that allows for multiple clients and multiple uses, because it offers a rich range of spatialities and contacts.

AGA

Big Bang Tower is our vision of the spatiality and the tectonics of the Hemeroscopium House in a vertical orientation. And I think it adds an important layer of practicality over the building body, because horizontal planes are structurally independent from each other and can take the height of two, three or four conventional levels. That means that between two platforms additional levels or architectures could be built and could be demolished, could be redone. And programmatically, we think that this

is a major advantage because historically buildings have been built for one purpose. And this might seem ridiculous, but think about it. You do a residential building, or an office building, or what is referred to as mixed use building, where actually uses are not mixed but separated. The uses now are changing and I think that there is not a clear, contemporary division between what you do for fun, what you do for work, where you sleep, where your social life is, where your intimate life is. All of these categories are being diluted or even erased. Architectonic typologies are not serving this, not even the mixed use because uses are not being mixed anymore. Uses are completely being transformed into something else. For example, coworking spaces are a mutation of an office building into something that is more social, has a different scale, a much more flexible organization. It has entertainment, a little bit of leisure, a little bit of food, you work. I mean these things are occurring. But in high-rise, we are still under the residential, or commercial, or office tower types. Ultimately, it's a structural design. The structure that is able to provide such potential freedom of configuration and reconfiguration is what we are trying to figure out. That's why we start with the skeleton, the Big Bang.

DM

Projects like Big Bang Tower reflect the way we understand the role of the architect. We don't think that the architect is just there to respond to specific questions that a client makes and therefore wait for the client to make the question. We think that the role of the architect is to understand the built environment and be able to provide visions on how to improve it, how to impact it positively and how to propose good scenarios for life. Because those visions, even if not requested, might actually provoke a debate that was not there before. Typically architects are not the ones that have the money. And that might be a good thing in many cases, right, because if you have the money, you don't need to ask anybody. You don't need to negotiate and negotiation is actually important, to be challenged by clients, by colleagues, by industry, and to find ways to make things happen with the support of many. That's a good tension. Sometimes it might destroy the project, but when everybody is playing their role, it's a good tension. And we like that position. We think the architect has the capacity to imagine and get others inspired and think about things that others had not thought before and that suddenly influence everyday spaces. High-rise buildings today are very monotonous repetitions of level after level, after level, after level. And that does not correspond to where science stands today, or culture. We are able to operate more creatively three-dimensionally with all the implications that has. Three-dimensional is not extruding the same thing up. We are able to make spaces that are more exciting for life and more profitable for life. So that's why we like this kind of projects that nobody asks but that allow us to engage in topics that we believe relevant to our practice. Versions of the Big Bang Tower concept have been exhibited in the Venice Biennale, the Chicago Biennale and other architecture forums. And what we find problematic about these exhibitions is that sometimes they become too endogamic, and the discussion enclosed in a circle of architects speaking to architects, where not much is really filtering out. This is a real concern. How can our ideas be shared as well with those people that need to hear, that need to be stimulated, and that need to be challenged? As architects if we just talk to ourselves, we are out of the game. So we need to get back in the game, in the real game. We get distracted while developers are really building the cities. Because they don't get the answers from the architects because we are not speaking their language.

D31

Is there an ambition to follow the John Portman path where you're the architect and you're the developer?

DM

In a way, yes! We have already played the developer in some of our projects in order to advance our research. But without losing the tension I was talking about earlier.

D31
Would you ever engage with developing more seriously?

AGA
I think that would be the ultimate ambition of every architect. Because you can really be like Steve Jobs, a visionary, design, be able to manufacture, be able to commercialize, and therefore impact people. This could be done in an extraordinary architectonic way, the same way extraordinary architecture can be done when a developer like Cosimo de Medici commissions a work to Brunelleschi, and Brunelleschi does the job and sets up everything, and solves the economics, and deploys all the technology. So we go back to the problem of specialization or distribution of responsibilities, where the architect is occupying the bottom of the food chain not the top. He is under the predators. And who are the predators? Capital is the predator. Who governs and controls the capital and therefore architecture? Not the architect. John Portman—who was an architect I admired—had a good vision on how to handle the economy and succeeded in carrying it out. Mies van der Rohe was very well engaged with the development world also, he argued that when designing the Seagram Building he mainly regarded the code and the market requirements, the rest was just hard work... By the way, he changed the rules of real estate. He mastered the core and shell and gave shape to the American city. He changed the scale. He developed a scheme that has been replicated, copied, perverted, followed, admired. And we don't need to go all the way through Mies van der Rohe. Many other fantastic architects have been able to work in favor of architecture, and in favor of human spirit, in favor of culture, and be able to build extraordinary buildings within economical constraints.

I am totally against the idea of the architect being a troubled, tormented, incomprehensible artist. No, no, no. An architect has to be able to engage with society. An architect has to be able to play his role, has to be able to serve communities without losing his sensible, personal, poetic, spiritual approach. So this is the problem of being an architect. You have to be a lot. You have to do a lot of jobs at the same time. It's multi-tasking. And there is no other way. Unfortunately, there is no other way. And only those that were capable to play all these instruments in the complex, human orchestra were the ones that have historically constructed the history of architecture. And that includes Le Corbusier, that includes Mies, that includes Norman Foster, that includes Peter Zumthor, that includes Paulo Mendes da Rocha, that includes Nader Tehrani, and that includes all the architects that are working in their different positions as designers, educators, cultural agents, working with the industry, working with developers, with institutions, etc.

“And God bless the digital era because it has connected us with our original roots technologically.”

D31
When you are dealing with Structures of Landscape, how do you position traditional orthographic drawings in relation to these architectural objects?

AGA
Our drawings are data. Cloud points, digital drawings, audio visual documents, those are our drawings. And our expression is the model. We express iterative creative and constructive processes through the model always. Not only Structures of Landscape but also projects like Big Bang Tower. These projects are designed in

action, a choreographed one of course, where Ensamble Studio people grab steel studs, and together improvise their location, introducing uncertainty as part of the spatial and structural conditions. Then our drawing becomes the representation, the formation, the 3D scanning, the photography of the model, that's why I call it data.

DM

Our best work ally is the physical model and the second the 3D model. Software like Revit has been an amazing discovery because suddenly we can all work in the same file doing the same project with no space for lies. When you know that you have to build it, you don't want to lie. You want to have it all right from the beginning, right? So the model is able to accommodate the work of everybody and eliminates the waste of time that conventional representation involves, like crafting plans and sections and making sure they correspond with each other... or manually calculating quantities of all building parts to estimate a budget. Technology now provides amazing tools to remove most of the work that serves for nothing, reduce project conflicts, and get people to work as a real team.

AGA

And God bless the digital era because it has connected us with our original roots technologically. And this is what we tried to explain yesterday. Some people might think that because we build masses that are so archetypical and so ancestral and primal, we may draw with blood in a cave. No, we use all the advantages of digital technology because that is what is really connecting us with that spirit. The technology is giving us the opportunity to connect matter to data. And this is the ultimate ambition of architecture. Architecture is a material practice. The technology is digital and the data is digital, but all that has to be transferred to matter ultimately: to wood, to stone, to sand. So how do we do the transfer in the most efficient way? Through the extreme, through data. And now we have interesting tools. That's why automation and prefabrication will enable total integration—the highway to matter. Until we can live in data. But that brings us to the hypothesis of Singularity and if you read about it, it's fascinating. But so far, we have to live in matter. And that's architecture. That's transfer from data to matter. That's what we do. So what we are doing in the workshop with Michigan students is reverse engineering the design process, starting with matter and transforming it into data. Generally it is done the other way around. But we are trying to share with students that this transfer is bidirectional. This is the fascinating moment that we are living in.

Débora Mesa and Antón García-Abril were interviewed by Le Yang and Jordan Laurila on October 21, 2017. Photographs: Chuchu Wu. ensamble.info

Thesis

David Deiss

Advisor: Perry Kulper

"BIM vs BIM or In the Penal Colony"

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The product of a year-long investigation, thesis occurs in the final semester of the graduate sequence. A self-directed creative project, students engage in the process of research, critique, and synthesis to create works that engage with architectural discourse. Capping the studio is a review by outside critics and a week long public exhibition of the work.

Featured Projects

BIM vs BIM or in the Penal Colony
David Deiss

Topokairos: Archaetectures for a Shadowtime Landscape
Chua Xin En Theresa

The Pedagogical Rug: Agency within Refuge
Courtney Krause

Line | Weight
Sophie Anstreicher
Scott Chriss
Alexandre Comas
Troy Huckendubler

Mischievous Gizmo
Masataka Yoshikawa

Plato's Cavern
Sijie Dai
James Howe III

Elemental Procedures
Onur Kamburoglu
Ssu-ing Wu
Jonathan Yates

Anxious Horizon
Tony Gonzalez

2017 Thesis Awards

Elemental Procedures
Onur Kamburoglu
Ssu-ing Wu
Jonathan Yates

A Little More Than Literal
Yibo Jiao

Mischievous Gizmo
Masataka Yoshikawa

No. 06: Acension's Variable Orientations
Samantha Okolita

A.R.C. + ARK: Animal Refugee Carrier
Shurui Wesley Wu

This thesis attempts to define a new role for drawing in the digital architecture era wherein the drawing, as a design medium, exists as a mere relic that will soon be consigned to history books.

This thesis is an architectural parable and presents "architecturalisation" of a Kafkaesque world by establishing new ways of structuring the conceptual and the representational base of the thesis, upon which the spatial qualities of design dwell. My goal is to reinforce the cultural role of the architect in the data driven multi-disciplinary design industry and to warn the discipline of architecture of the imminent danger of the disappearance of the medium that once set us into existence—drawing.

David Deiss

Advisor: Perry Kulper

"BIM vs BIM or In the Penal Colony"

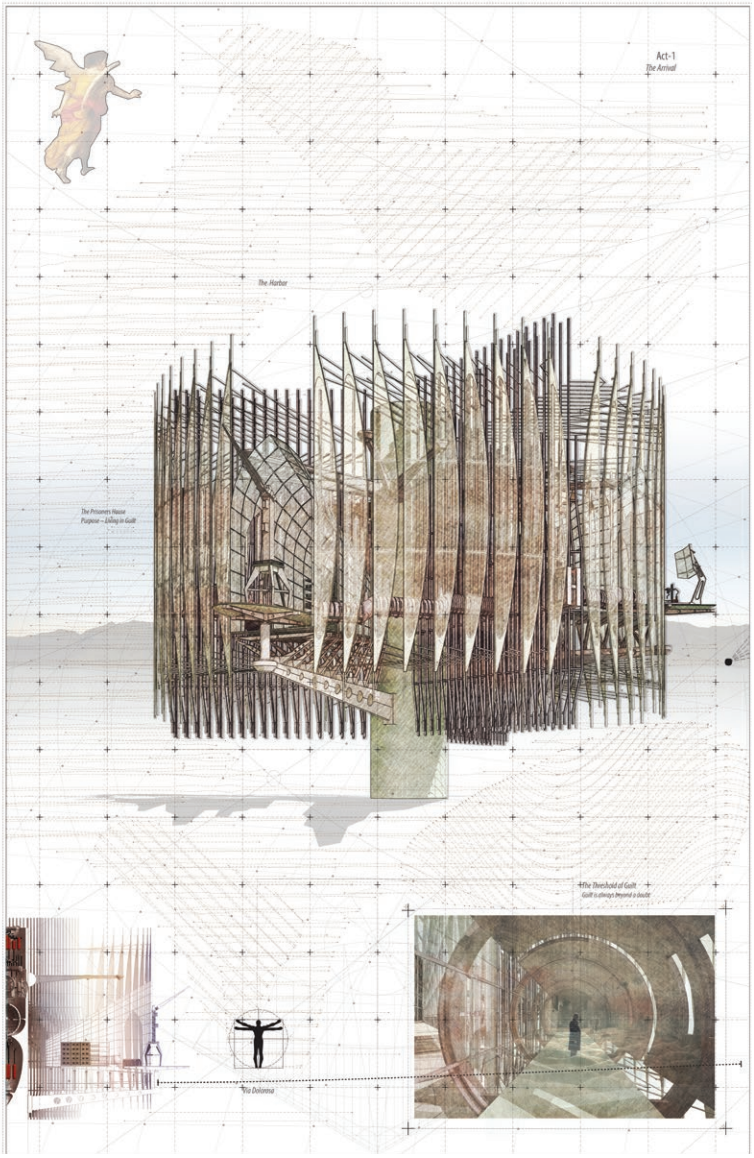

Act-2
The Punishment!
The Traveller
The Apparatus

The Tomb

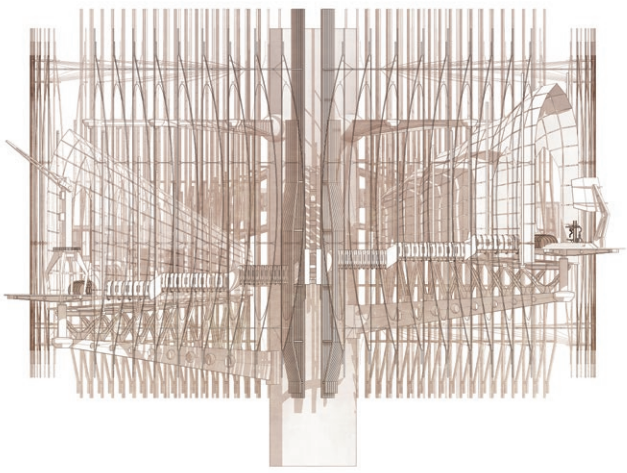
The Triptych

The Triptych drawing establishes the situational structure for the narrative of the story—In the Penal Colony, upon which the design rests. The drawing introduces the allegorical and dramatic aspects of Kafka's world alongside the key protagonist of the story.

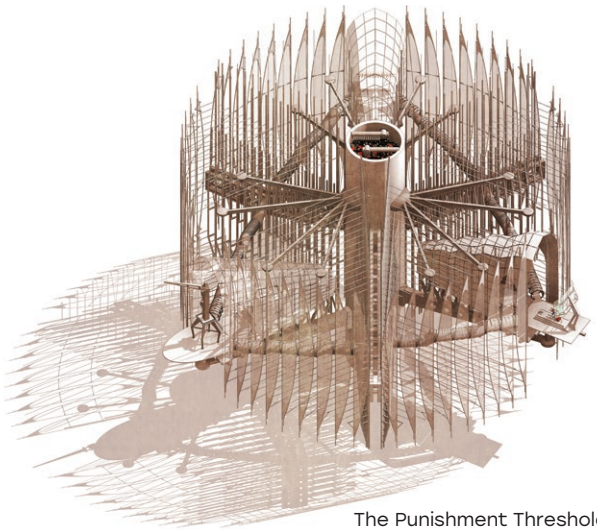
Each drawing shows each act of the story,
Act 1: The Arrival
Act 2: The Punishment
Act 3: The Tomb
Act 4: The Departure



The Arrival



From The Harbor to The Apparatus

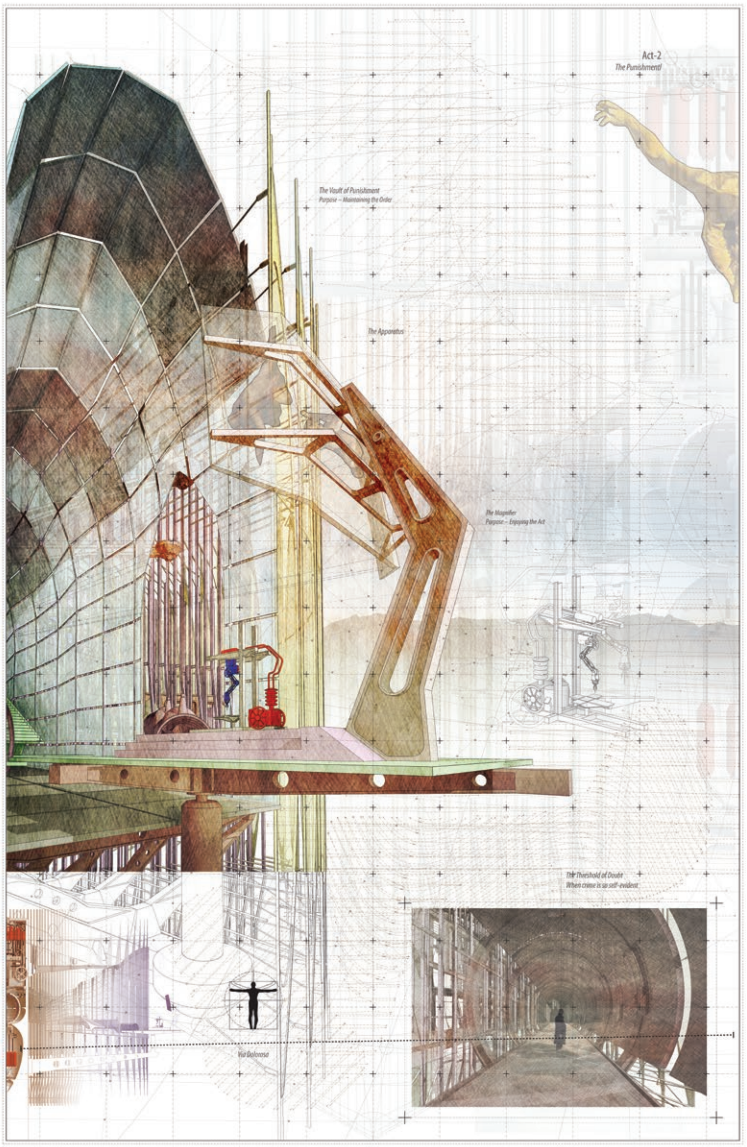


The Punishment Threshold

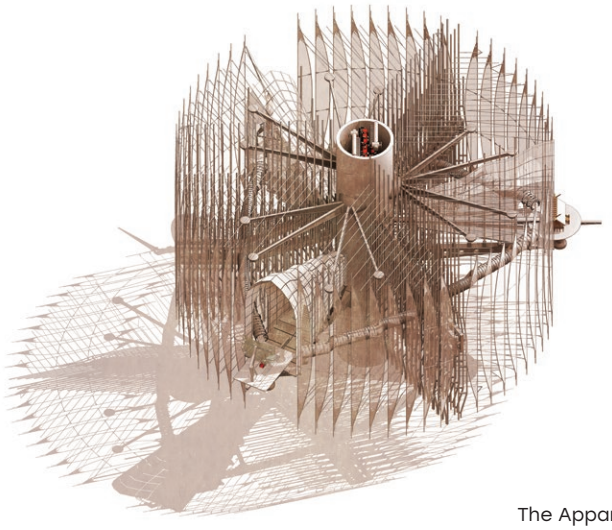
The Quadriptych

The quadriptych drawing corresponds with the characteristics of the narrative structure of the triptych drawing and the story as well. However, the quadriptych drawing becomes specific to the architecture of the island in terms of spatial qualities and experience of those qualities. The spatial experience of the design repeats the same phenomenological experience of the characters of the colony.

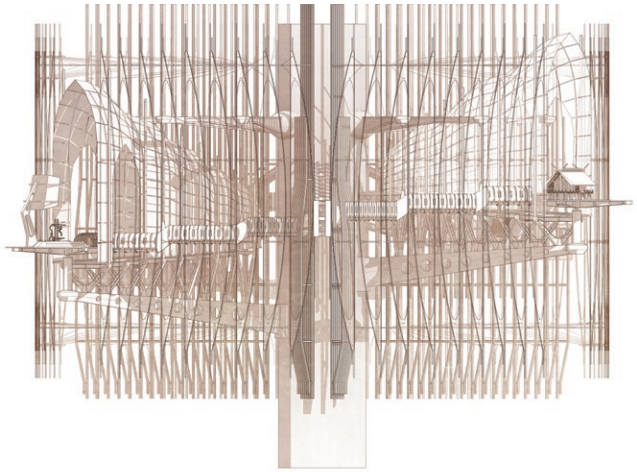
Here, each drawing shows each part of the colony that is associated with each act,
Act 1: The Harbor
Act 2: The Apparatus
Act 3: The Tomb
Act 4: The Harbor



The Punishment



The Apparatus



From The Apparatus to The Teahouse

Drawing is dead, long live the drawing!

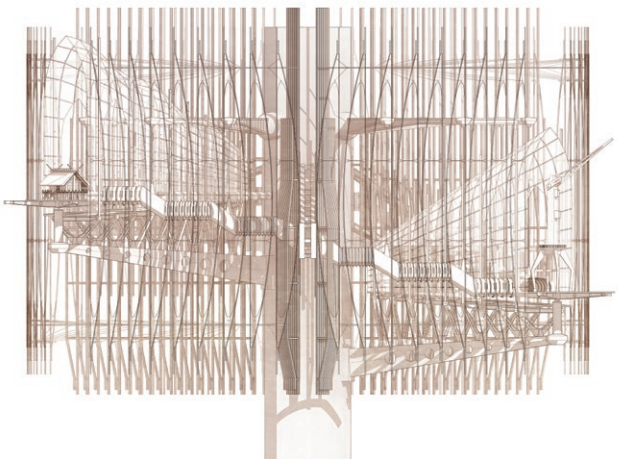
Drawing can no longer compete against BIM (Building Information Modeling) at delivering information of a building's constructability and other physical or spatial qualities. Part of the thesis claim is: from now on drawing must relinquish its right over architecture's physical qualities and become a critical tool that expresses the theoretical and allegorical qualities of architecture.

The Supplementary Views

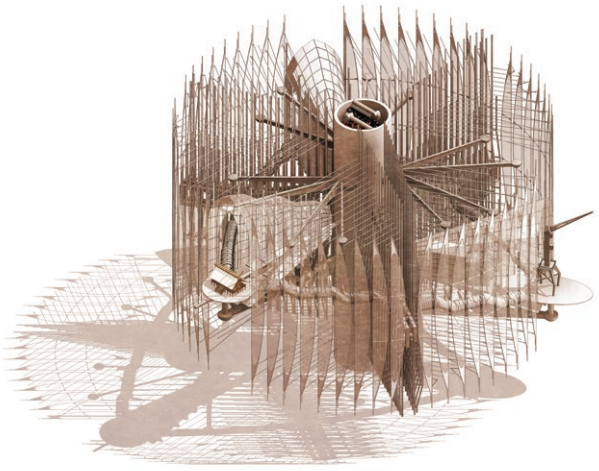
Each drawing supplements the each drawing of the quadriptych.

The drawings are structured according to sequence of the narrative,
1. The Harbor
2. From The Harbor to The Apparatus
3. The Apparatus
4. From The Apparatus to The Teahouse
5. The Teahouse
6. From The Teahouse to The Harbor
7. The Punishment Threshold
8. Visiting the Tomb of the Old General

The Tomb of The Old General



From The Teahouse to The Harbor



The Teahouse

The thesis—Building Information Modeling vs Being Imaginary Mechanism—attempts to establish a new dialectical relationship between drawing and BIM while it presents a design based on Franz Kafka's penal colony. Kafka's "In the penal colony" establishes a situational structure where the physical and spatial qualities of the design are established through a BIM model, while the narrative and the allegory of the design (and the story) remain in the realm of the drawing.

The statement is that the new type of drawing—Being Imaginary Mechanism—is to be a new medium to represent the allegory of a design as opposed to the drawing's original purpose. Part of the claim is that there is room for both, for BIM and for BIM, and only by establishing the clear roles of each will drawing be saved. The BIM model demonstrates the spatial and physical qualities of the design along with the richness of the data, while the drawing demonstrates the richness of the narrative and other dramatic aspects of the design.

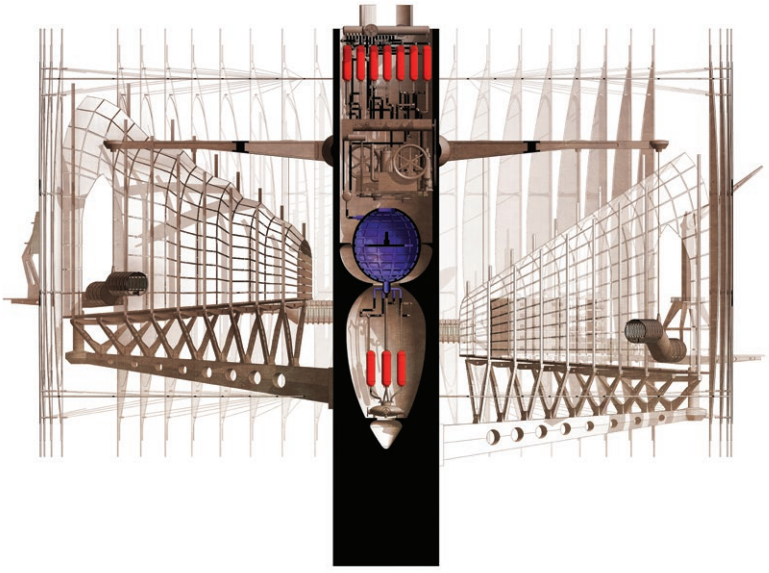
Thus the design follows the sequence of the narrative and presents the key parts of the story which carry most of the allegory. The design of the penal colony shares similarities with Terrgani's Danteum, such as narrative structure corresponding with spatial or architectural qualities or the sequence of the experience. However, the thesis differs from its design methodology. The drawing becomes a compositional tapestry upon which the design of the thesis rests on. The design establishes the spatial structure of the key spatial qualities of the penal colony: the mist, the ambiguity, the isolationism, and human's inability to comprehend the meta-structure. It somewhat resembles gothic architecture and its details, in order to catch up with concept of the great architectural movement that had never known the architect.

The Departure

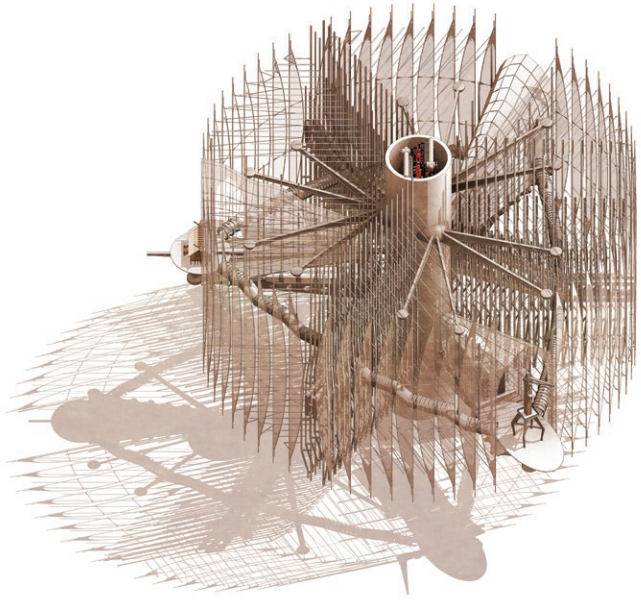
From now on, Building Information Modeling is a concern of the question of HOW, while Being Imaginary Mechanism, a new type of drawing, is a concern of the question of the philosophical question WHY. Thus, this new dialectical relationship shall produce a critically driven design that can exist even without being built!

Thou shalt draw lines of the wall no more, but the lines of the life of the building!

Drawing is dead, Long live the drawing!



Visting the Tomb of the Old General



The Harbor

David Deiss

Topokairos: Archaetectures for a Shadowtime Landscape is an experimental preservation project for the archaeological site of Notion, Turkey. The thesis takes the form of a book that emerges from a rumination of architecture embedded in an archaeological framework. The question addressed is: how does one build an architecture for the archaeological site?

The ruminated excavation of the site produces three propositions—namely a Columbarium for the artifacts in the Agora as a response to the (Re) production of artifacts and things in the site, a Necropolis for the Bouleuterion as a response to the (Re)burial landscape of the site, and finally a Cenotaph to the lost histories of Notion as a response to the (Re)construction of multiple histories of the site.

Chua Xin En Theresa

Advisor: Kathy Velikov

Topokairos

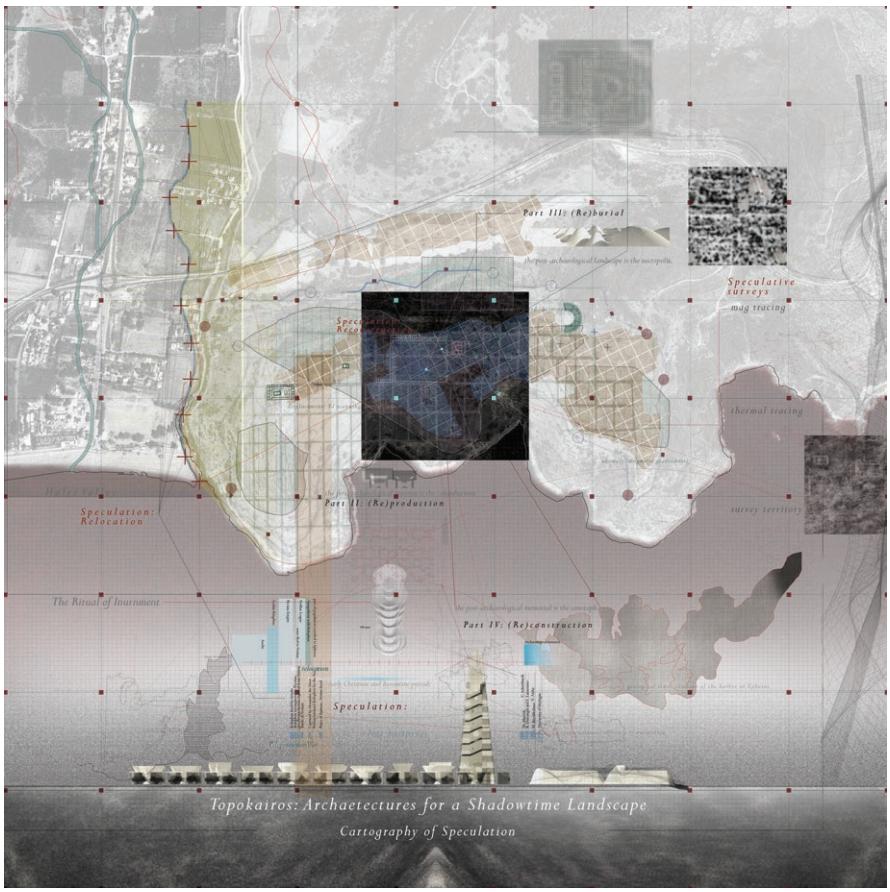
Archaetectures for a Shadowtime Landscape

PREAMBLE

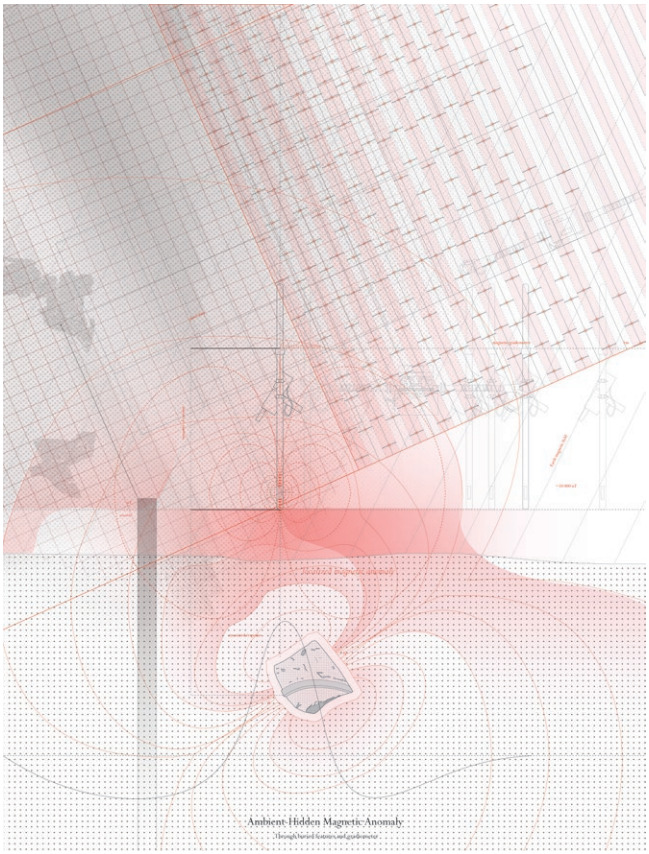
walk across,
under and above.
//parallel// lines,
adjacent t i m e scales.
across the city now,
engulfed under an untouchable whole—
the sky.
the museum.
above fragments yesterday,
of which I know not
since when
they came into being
Ruined, unchanging
beneath me,
above me
growing rapidly.
I grasp things
in states of entropy
artifacts
architectures
earth
Cranes scramble to rebuild.
Hands fumble to preserve.
They collide ahead of me
They breathe to me
their memories.
I inhale
the dust of the artifacts,
the fragments of the architecture,
the remnants of the earth.
They shift, twitch, rise, fall. No structure.
They return.
Dust to Dust,
Fragment to Fragment,
Remnant to Remnant.

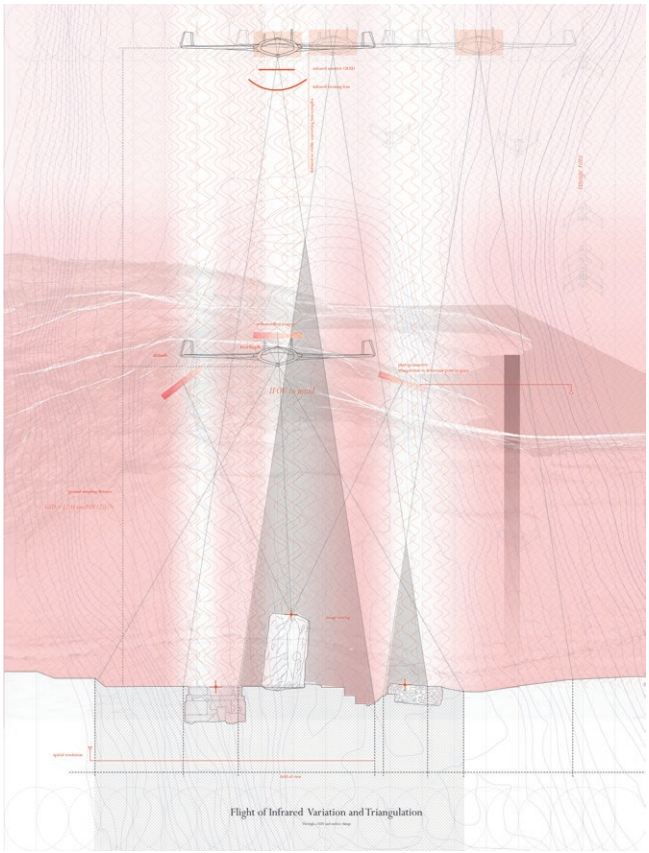
I am always in shadows
Finding a place.
TOPO
Walking in the flicker
between horizon (infinity) and moment.
KAIROS
I dig, I test, I guess, I find.
Archaeology.
I bury, I imagine, I draw, I rebuild.
Architecture.
ARCHAETECTURE?
The rhythm of my breath
Is still, always slipping
in shadows.
//parallel// to what is above, across,
below.

SHADOWTIME.
TOPOKAIROS:
ARCHAETECTURES FOR A
SHADOWTIME LANDSCAPE



The site of Notion: A Cartography of Speculation

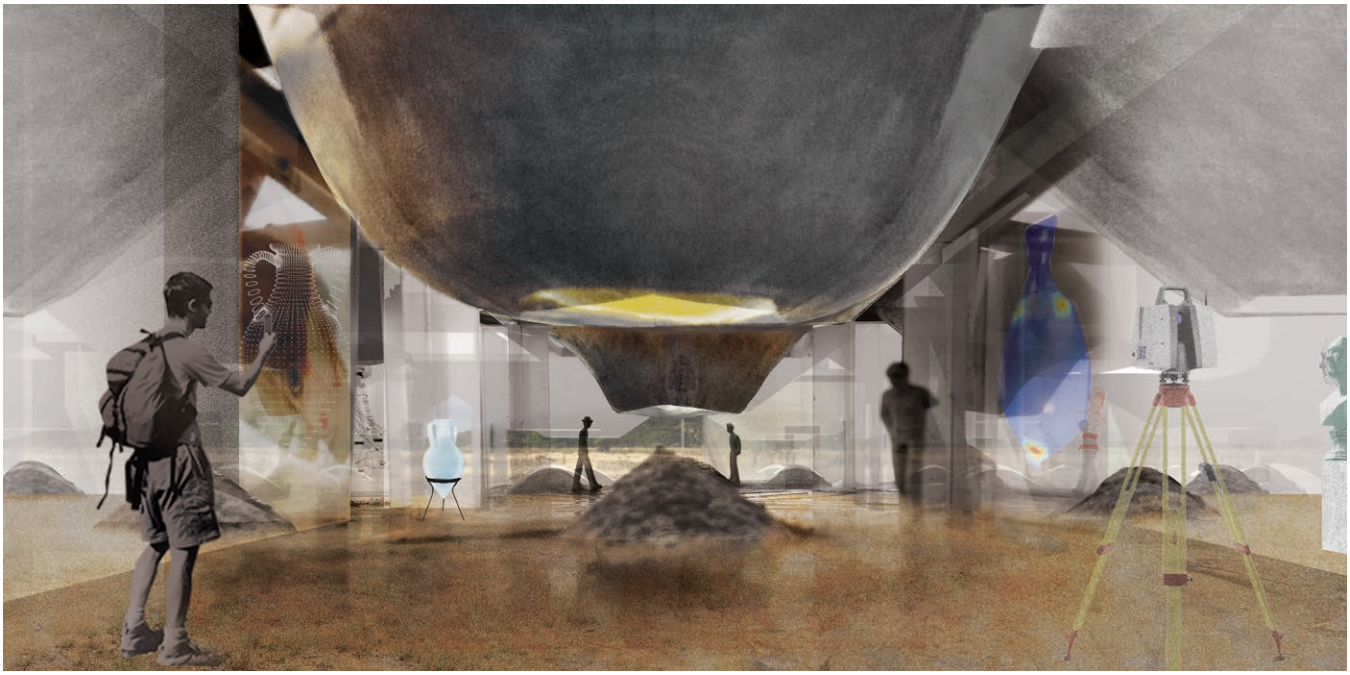




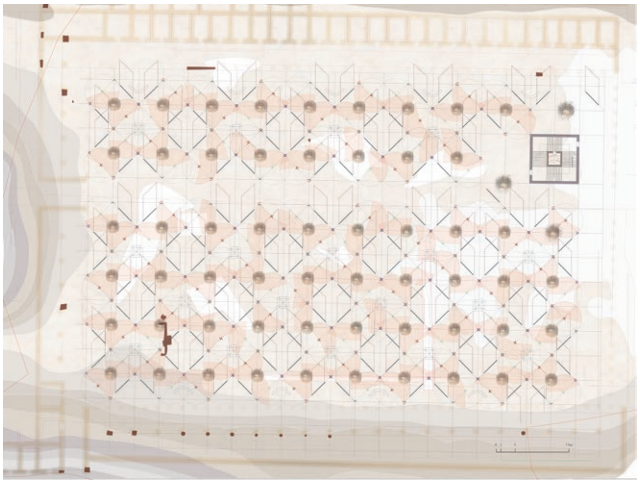
Part I: Excavation

Mapping the Ritual of Archaeological Survey

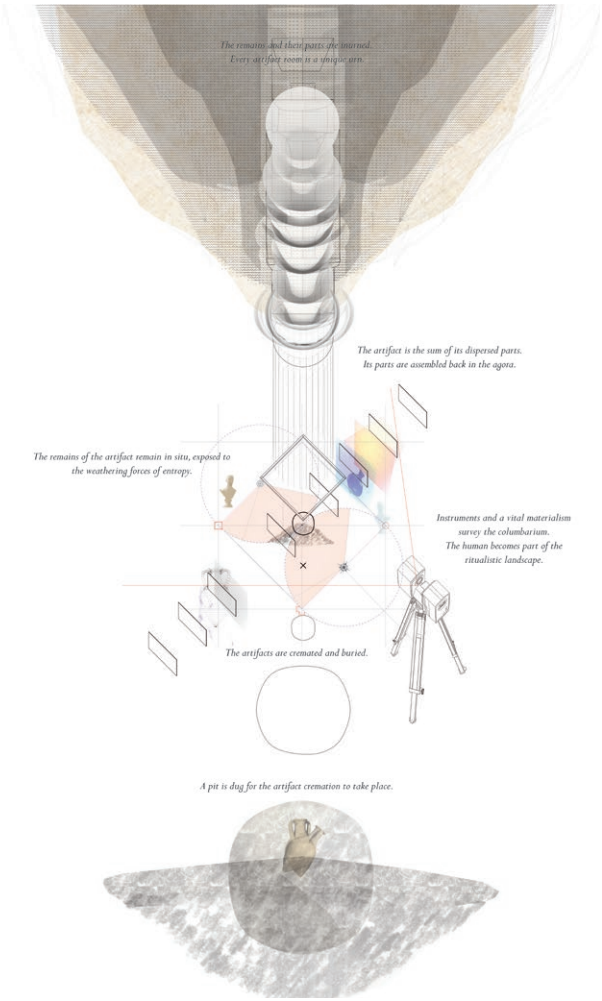
The 3D Scanner capturing Visible Light Phase Shifts;
The Gradiometer detecting Ambient Magnetic Anomalies;
The Unmanned Aerial Vehicle in its Photogrammetric Flight of Infrared Triangulation.



The museum of artifacts, post-excavation and post-replication, is a columbarium



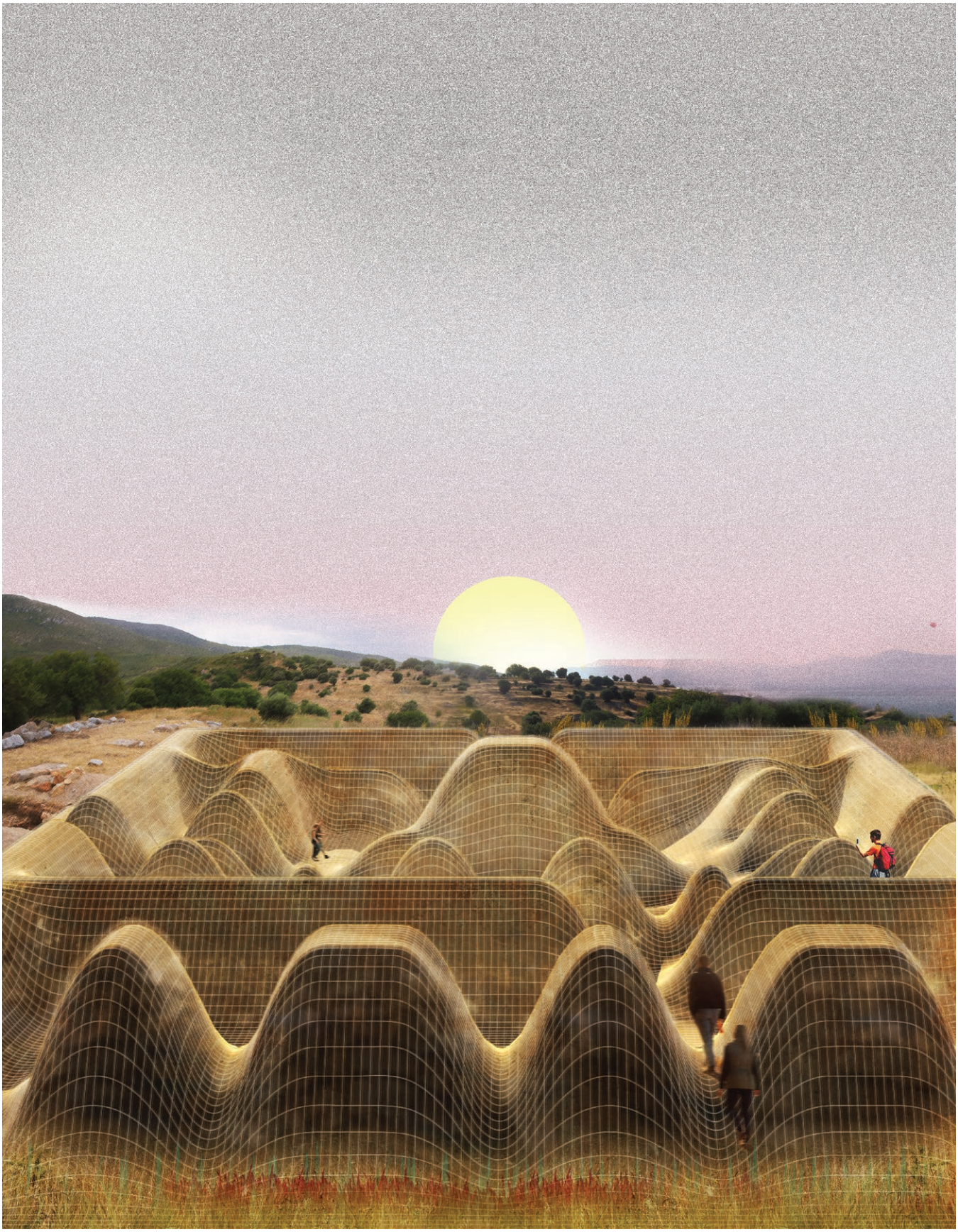
The things are assembled in the field of the agora

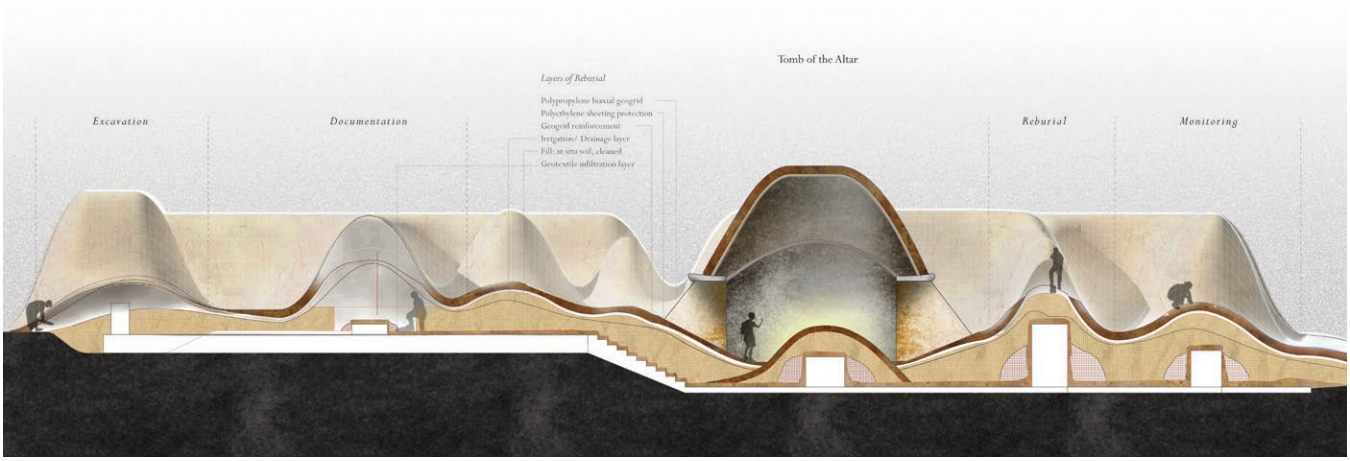


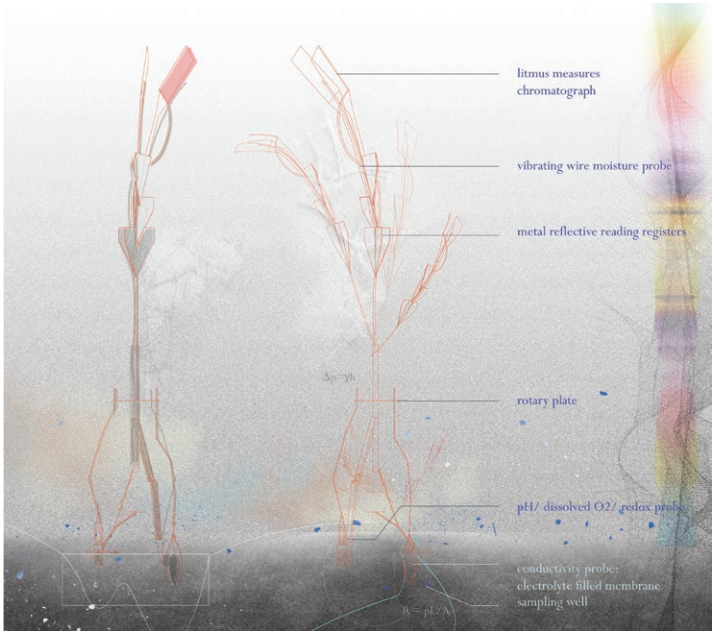
Part II: (Re)production

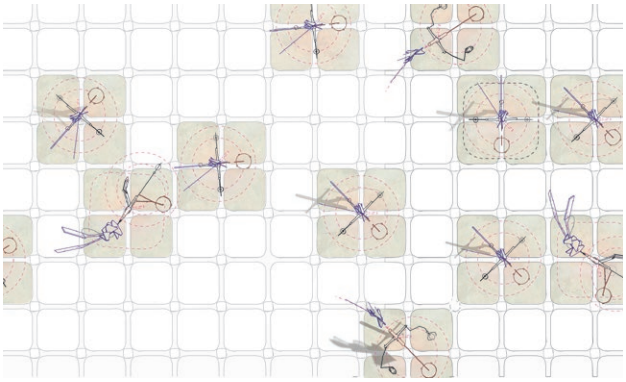
The Artifacts of the Archaeological Site

The Museum is a tomb for cremated artifact remains.
The artifact-monuments, its ashes;
The walls of the museum, its urns.
The things of the site are preserved eternally in death.
Yet they live eternally through their replicated remains.
Casts and molds tell their story, the instruments interpret their profiles. Metals scan the horizons of the columbarium.
Everything becomes captured in digital sight—Artifact, wall, roof, ground, human, become one image.

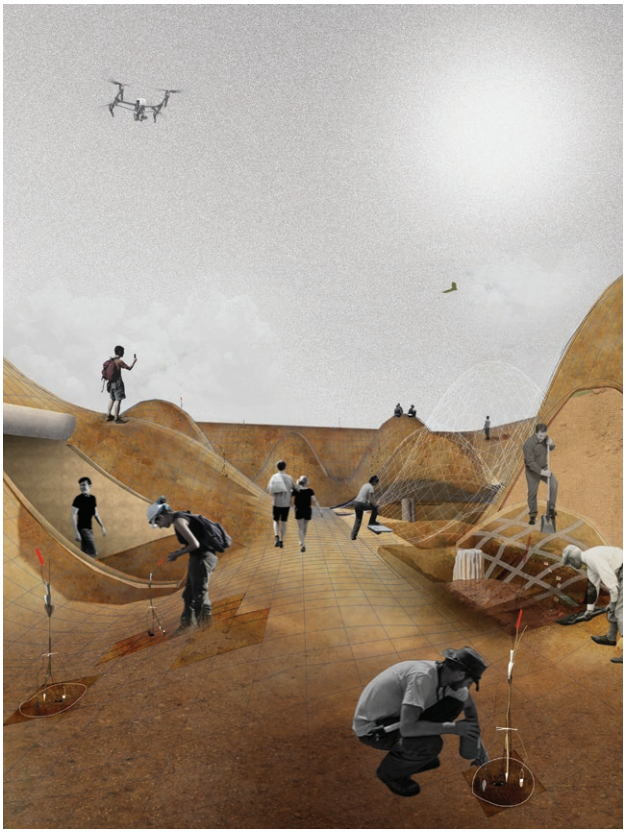








Geotextile of probes monitoring soil conditions through sampling wells blooming, collapsing, eroding, and replanted.



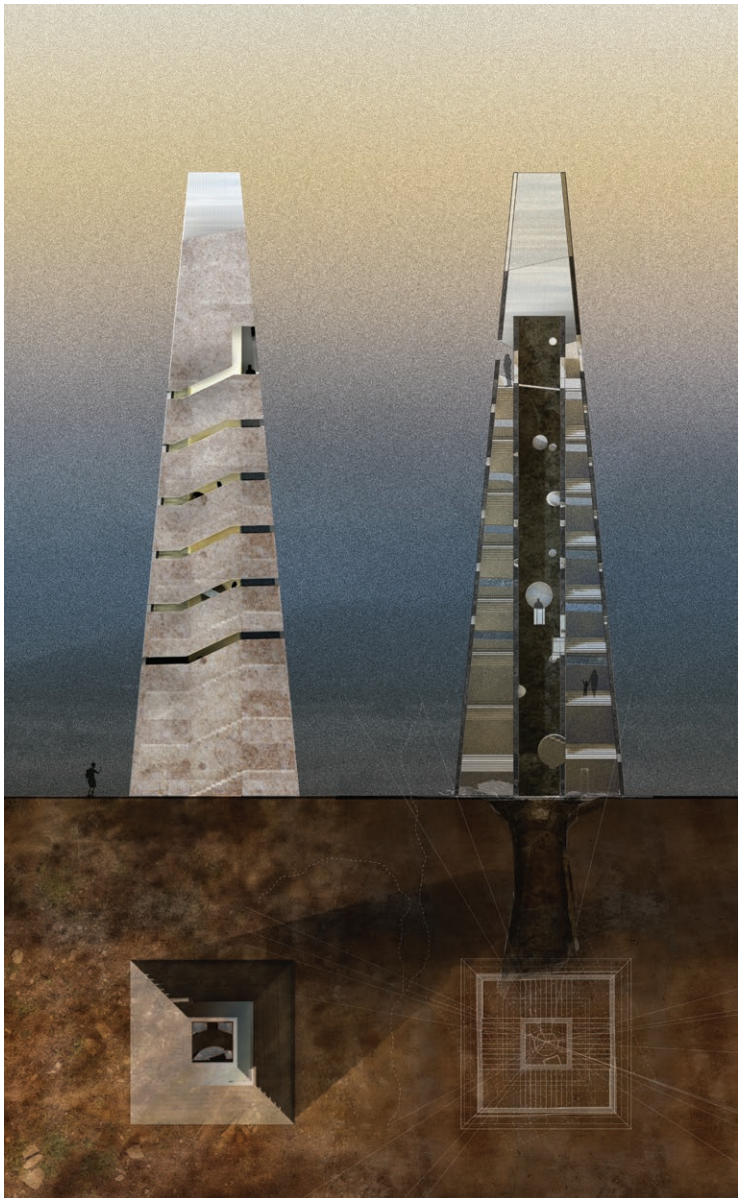
Part III: (Re)burial

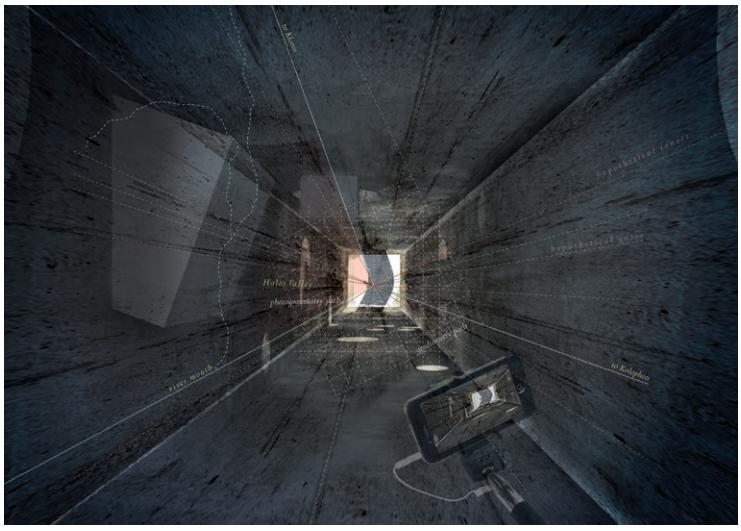
The Landscape of the Archaeological Site

The modern human sings an ode to Mound City,
commemorates all the Necropoli of the ancient cultures.
The tumulus is a new language,where past, present, and future
become one temporarily.

The human excavates, documents, reburies, and monitors.
Hands fumble, record, preserve, and experiment in the ground.

The Post-archaeological ground is the new tumulus.





Part IV: (Re)construction

The Histories of the Archaeological Site

The Cenotaph for Notion is a monument to lost histories.

One Tower
Still looking to its sympolity with Colophon.
The ambition of the history of Notion
Remains glazed with mystery.
Till today the tomb scans the terrain,
For hints of its past in the Hales Valley.
Marking the possibilities through the fortifications of its citadel.

Carved by the voids of archaeological memories, its walls are scribed by silence.
A proud structure gathers the forces of its landscape.
Commemorates the flickering temporality of the region.

The space of Topokairos is to be explored as a discordant assemblage.
The architectural project is sited within a field of artifacts, theories, vessels, monuments, and rituals.

Stability is an unfamiliar term for refugee children, as their world is defined by the provisional, the temporary, the impermanent. Education resists this instability, as it manifests itself in the physical space of a school and the conceptual space of a learning environment. This thesis aims to instill the intangible permanence that school provides in the lives of displaced children with the creation of a rug as an educational asylum. The architecture of this rug derives from Montessori pedagogy as an element that is set up and torn down multiple times throughout the day by each child. This ritual promotes learning rooted in nomadic behavior.

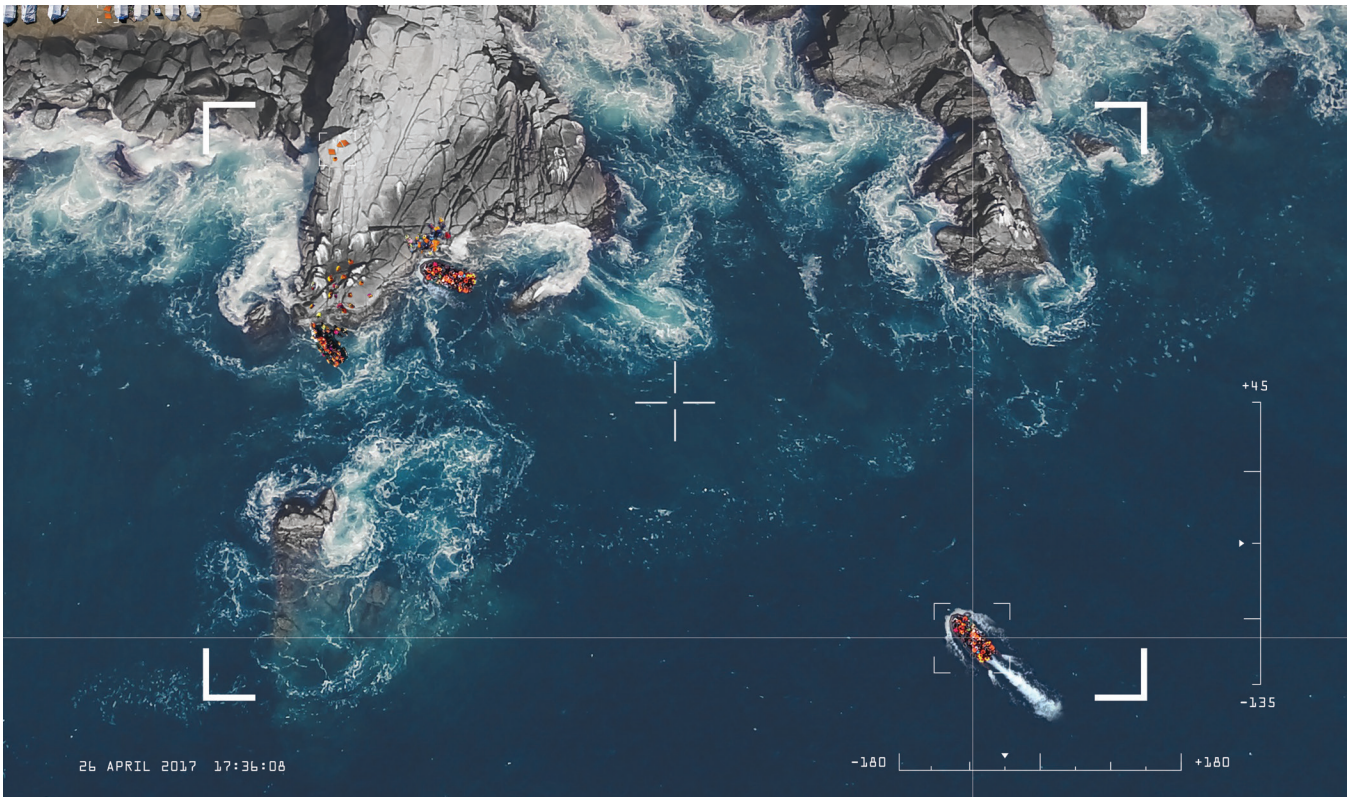
The Pedagogical Rug is a practice of learning that manifests itself in a series of backpacks for refugee children. This thesis has developed three within the series: the life pack, the sleep pack, and the cape pack. Each pack has three responsibilities—to protect, to carry, and to teach. To protect, the packs perform as a life jacket, sleeping bag, or coat. To carry, each pack transforms into a backpack. To teach, each pack holds a rug—the most critical component. Each rug is unique and belongs to a community of rugs that promote both individual and collective learning.

Courtney Krause

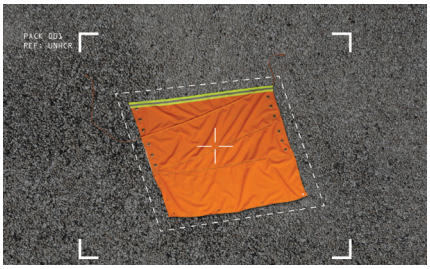
Advisor: Robert Adams

The Pedagogical Rug

Agency Within Refuge



Drone's-eye-perspective of the refugee migration



Drone's-eye-perspective identifying The Pedagogical Rug

Historically, the rug defines boundaries, aids in ritual, and exudes ownership. The goal of The Pedagogical Rug is to give agency to the refugee child in the creation and manipulation of their environment. To liberate the child from distress is at the forefront of design. In her book, Education and Peace, Maria Montessori states, "The child is capable of developing and giving us tangible proof of the possibility of a better humanity. He has shown us the true process of construction of the human being. We have seen children change as they acquire a love for things and as their sense of order, discipline, and self-control develops within them.... The child is both a hope and a promise for mankind." This quote aligns with the founding principles of The Pedagogical Rug, as it acknowledges a child's innocence and innate joy as critical components for the healing of humanity. The Pedagogical Rug aims to unleash imagination and creativity, yielding an interiorized asylum unique and precious to each child. The rug becomes a scaffold, an infrastructure nurturing the creative impulse, affording each child the opportunity to define and create their asylum in infinite ways. This thesis seeks an escape from everyday trauma in the deployment of The Pedagogical Rug.

‘Pedagogical Rug’ rendered within a Refugee Camp

Three backpacks
(life pack, sleep pack, and cape pack)
provide the infrastructure for The
Pedagogical Rug

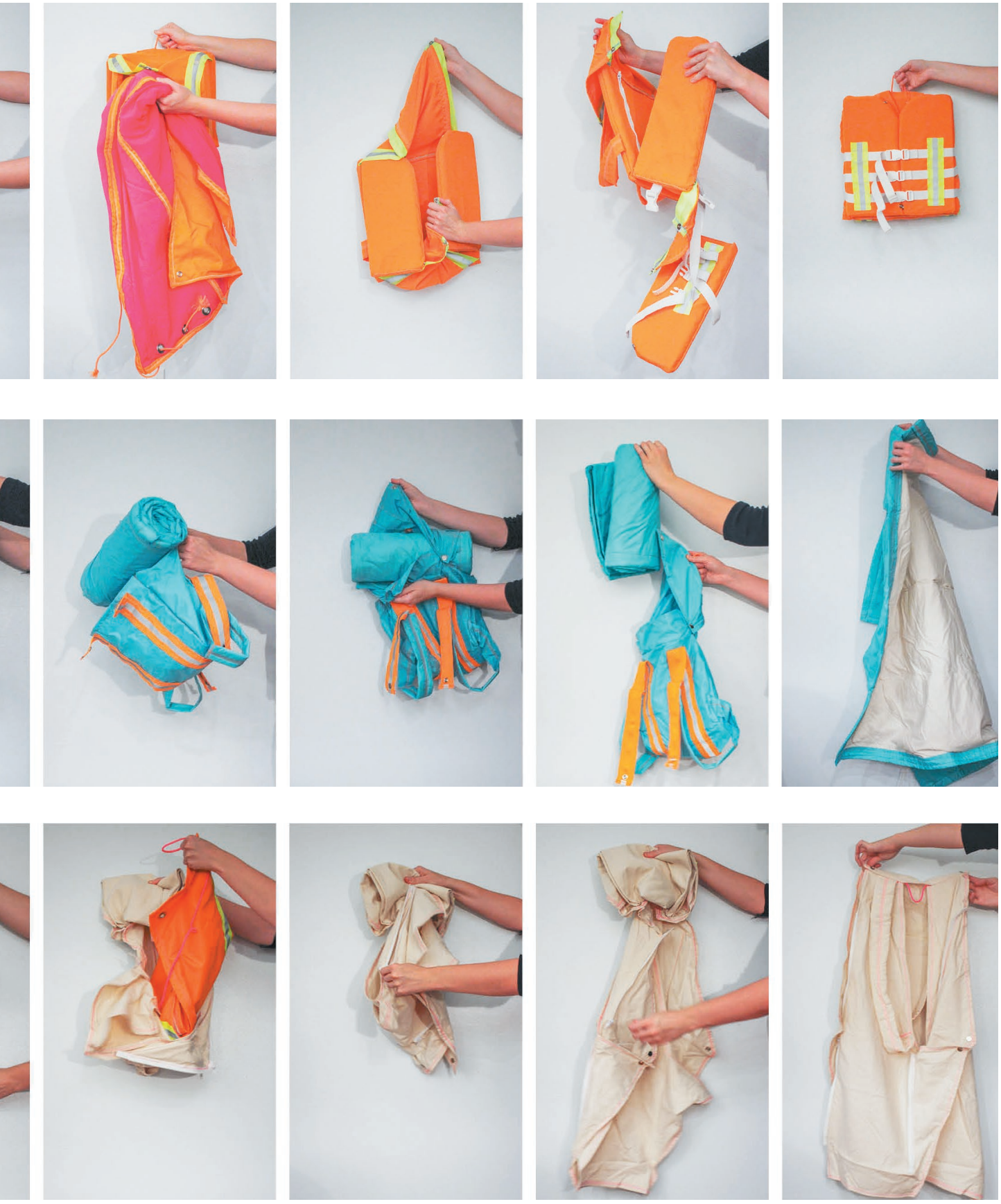
Each bag has three functions: backpack, rug, and safety devise. The backpack secures the child's belongings, the rug gives the child agency in defining their personal space of asylum, and the safety device provides utilitarian support for the nomadic, refugee child. The transformative nature of these objects is displayed in these photographs.

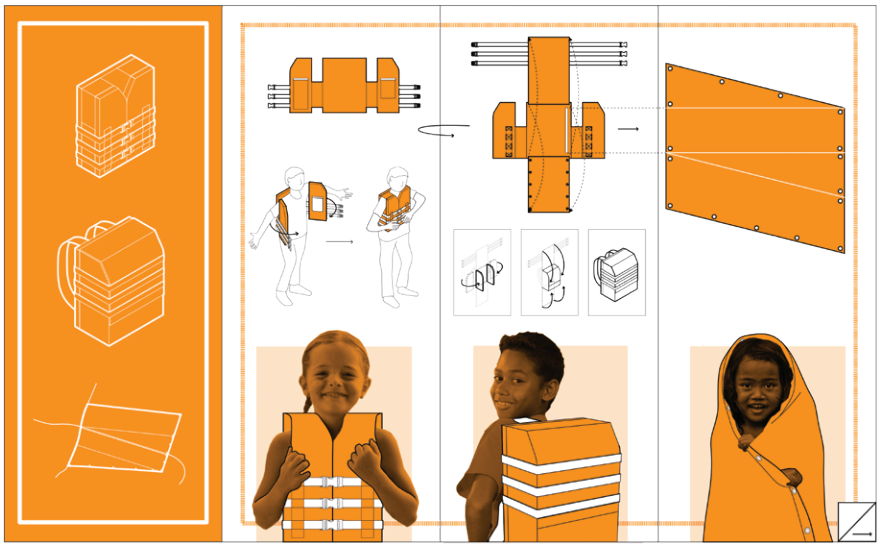


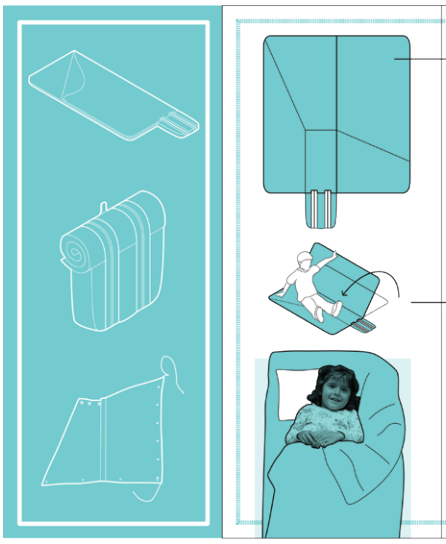


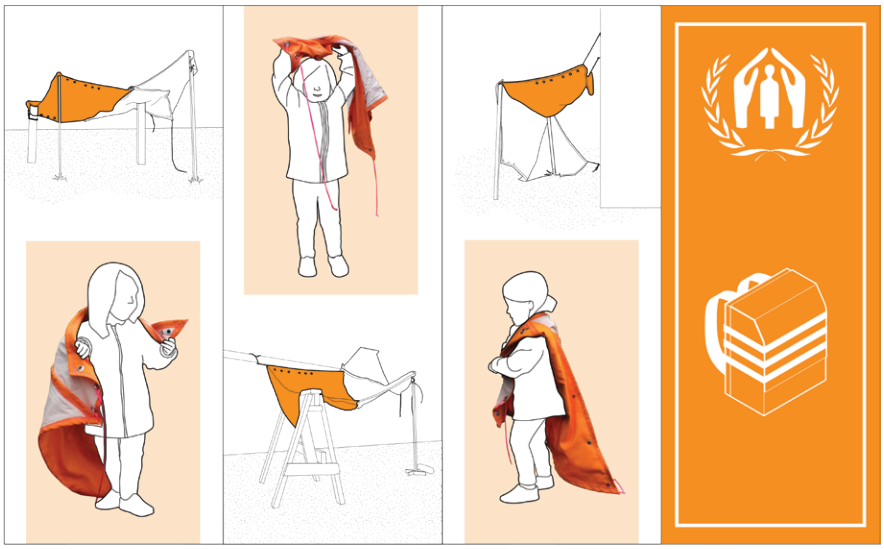


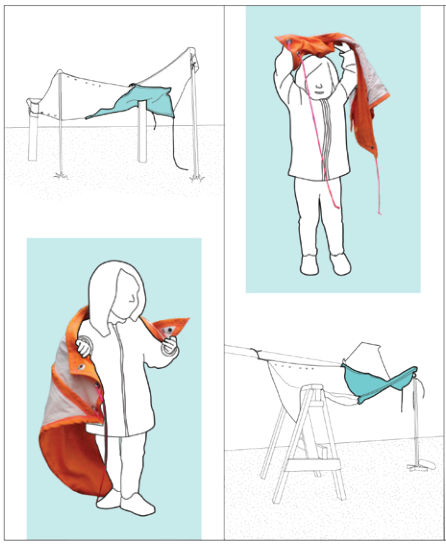


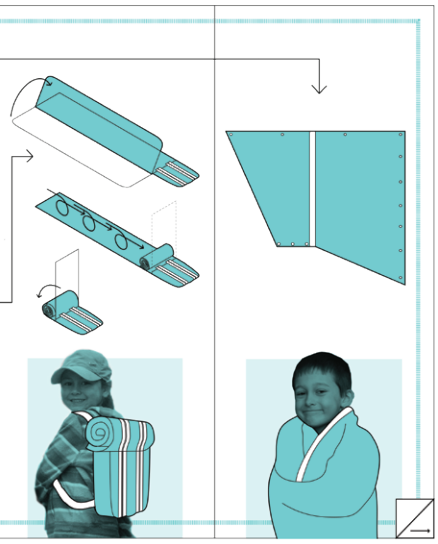


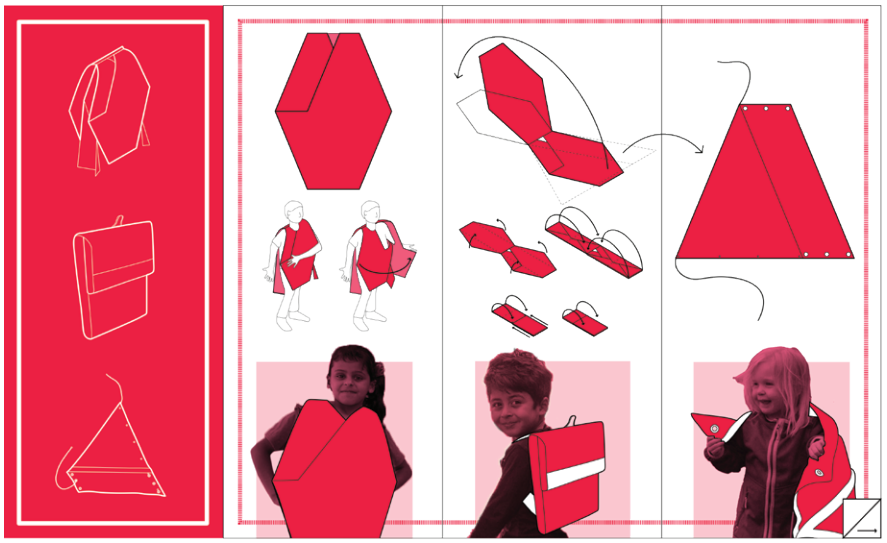


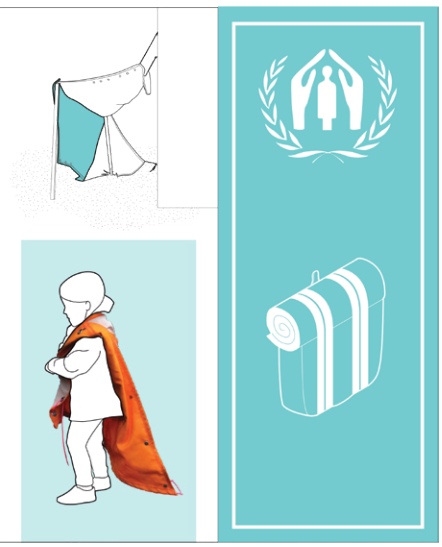


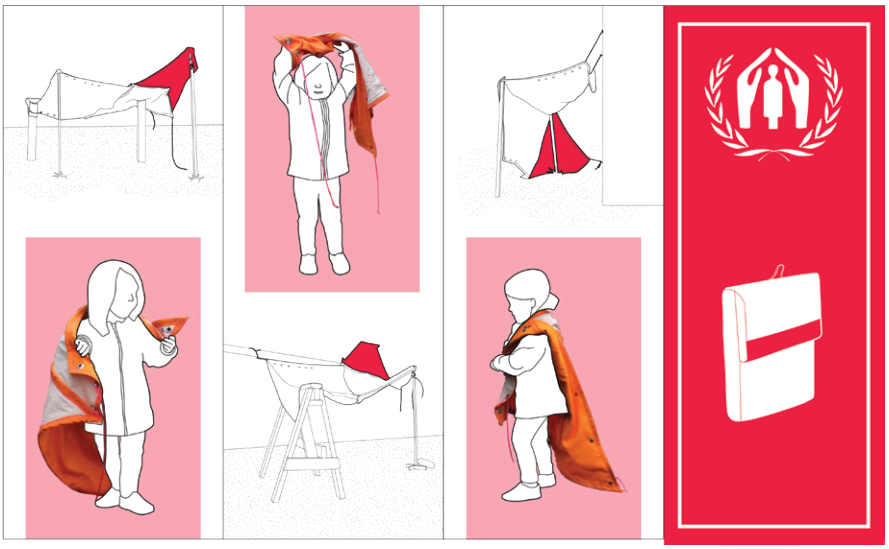




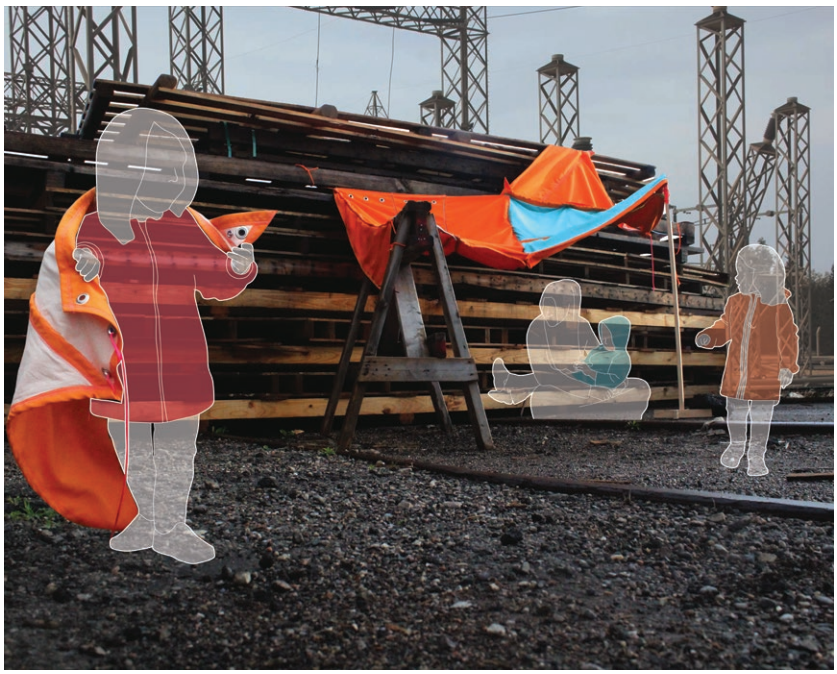








Accompanies to Accompany



Deployments of The Pedagogical Rug

The project comprises two parts: a steel fence, articulated through bent-and-welded 3/8" rod arrayed across the 120-foot site—where a community garden meets McPherson Street—and a series of coated foam masses intended to complement, intersect, but also interrupt the rhythm of the metal. Through this interaction, the project plays with ideas of the definition of threshold and subverts the concept of a purely exclusionary boundary by testing the limits of porosity, transparency, and functionality in creating an edge.

Within the space of the project, which is both a boundary and a common ground yet not fully either one, new modes of interaction can begin to occur between neighbors of different racial and socioeconomic backgrounds.

Sophie Anstreicher
Scott Chriss
Alexandre Comas
Troy Huckendubler

Advisors: Tsz Yan Ng + Wes McGee

Line | Weight

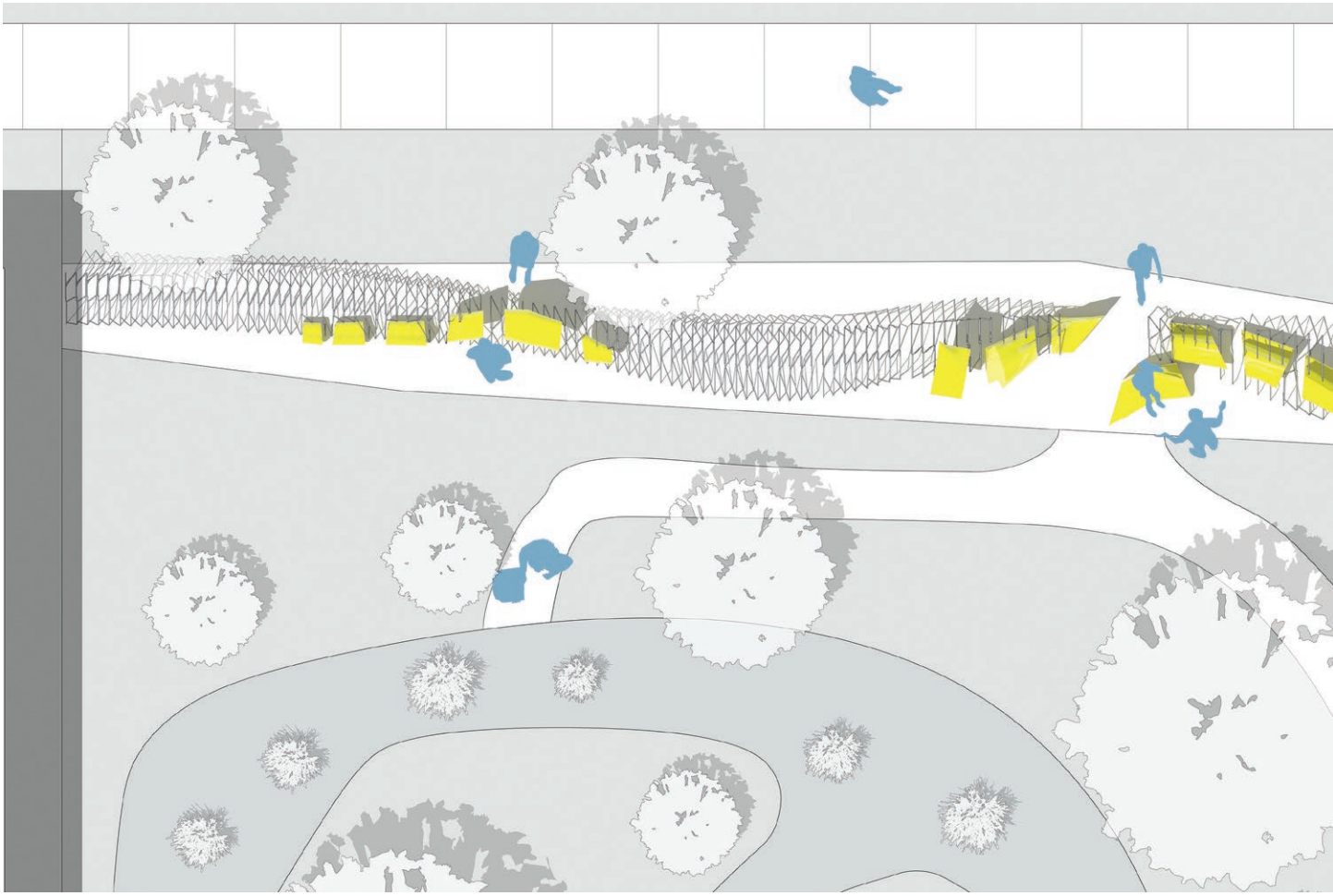
It replaces a common space in Detroit architecture: the porch, a transitional space where public (street) and private (home) intersect in Detroit's residential neighborhoods. These zones are gone because the houses are gone, so the project aims to fill that void. But it does so without rebuilding what existed there in the past.

Replicating the lost fabric of Detroit is not economically viable. Instead, the project intentionally disrupts the status quo: while it reads as a fence, its novel form is based on the idea that new forms and new ideas can foment new interactions among neighbors within a pre-existing context.

The project's formal simplicity belies a complex digital logic and novel fabrication processes. Both elements of the project—steel and foam—were modeled digitally, and the result was two intersecting loft forms. These lofts were translated into the given materials using digital fabrication techniques: rod-bending to create metal profiles that could be aggregated into the lofted form, and hot-wire cutting used to cut diverse three-dimensional foam elements.

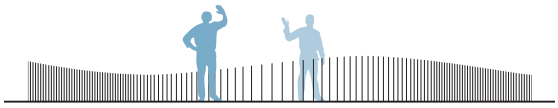
The project's thickness belies conventional definitions of boundary as two-dimensional, creating a more ambiguously three-dimensional, weaving form. And the materials themselves subvert common reading: while the steel profiles are spaced to create the illusion of porosity and transparency, in reality they are immobile. The foam masses—read as solid and immobile—are light, and designed to be easily moved away from the boundary the fence defines, further blurring its reading and inviting interaction.

Often, privacy and property rights are being emphasized in modern society to the detriment of space for public use. This project not only addresses the idea of ambiguity in the public use of ostensibly private property, it embraces such conditions and highlights the ways in which private land can still be transformed for the public benefit. The project is a fence, and yet its primary goal is to create community engagement.

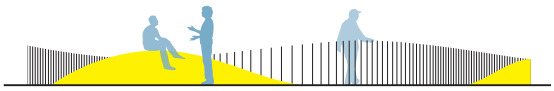


Create Boundary

Introduce Porosity

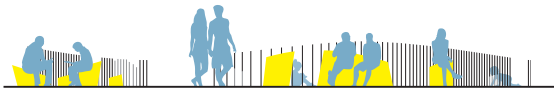


Vary Height

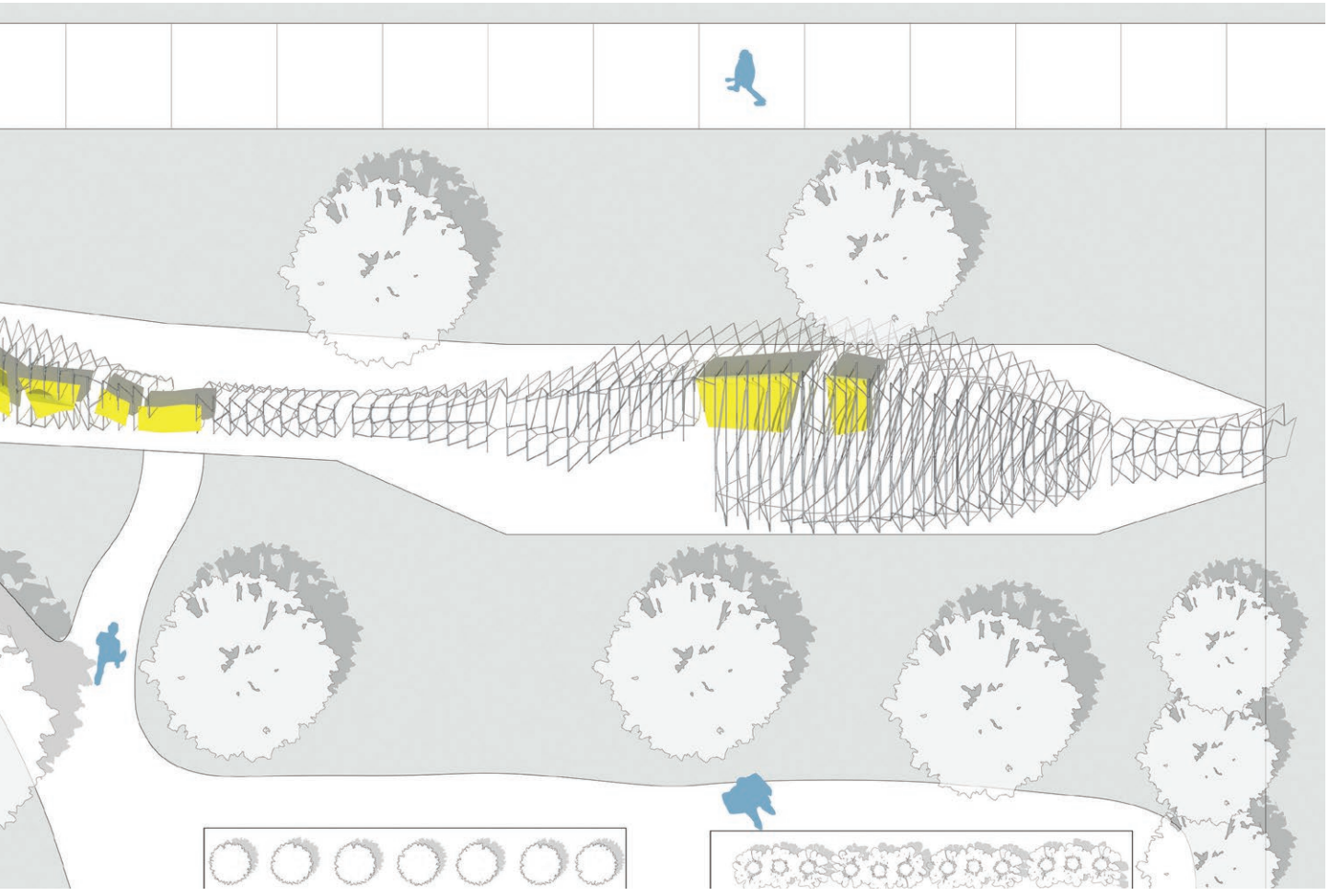


Introduce Solid

Break Apart Masses

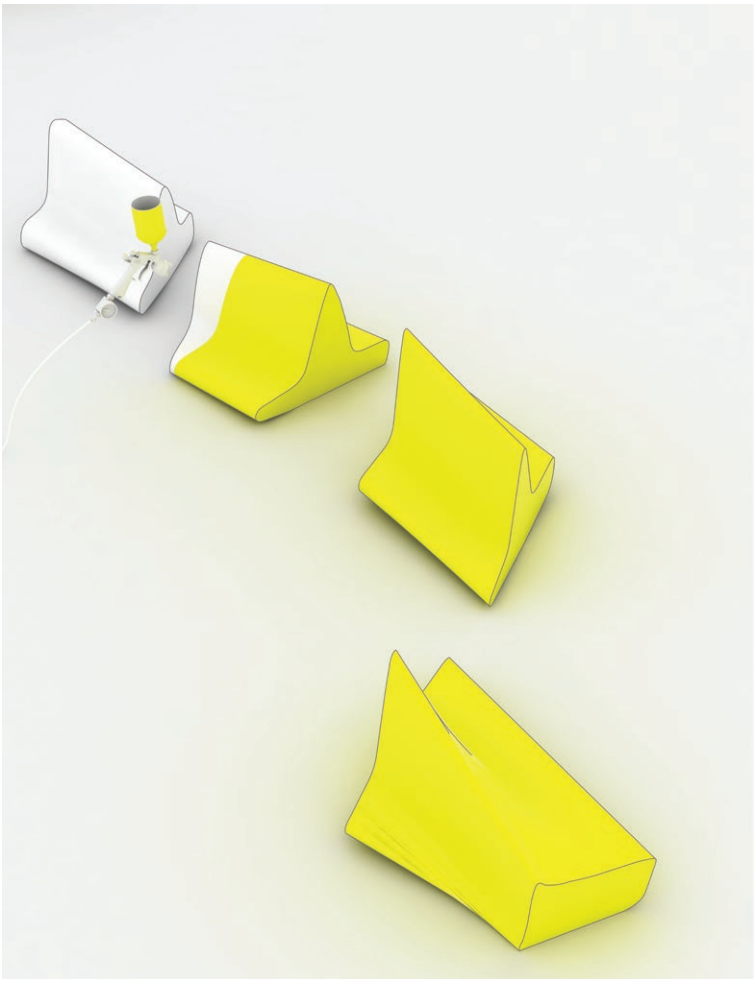


Rearrange Parts

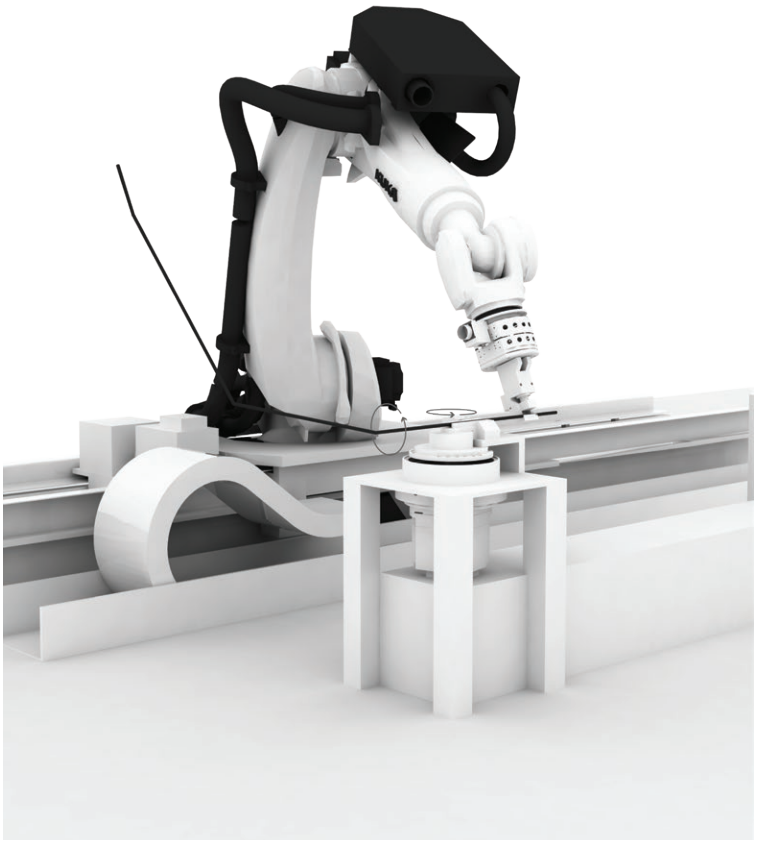


Hot Wire Cutting

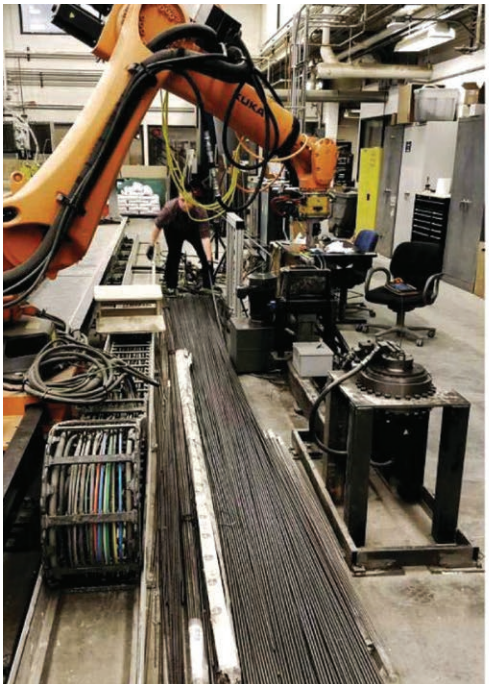
Piece Together



Coat

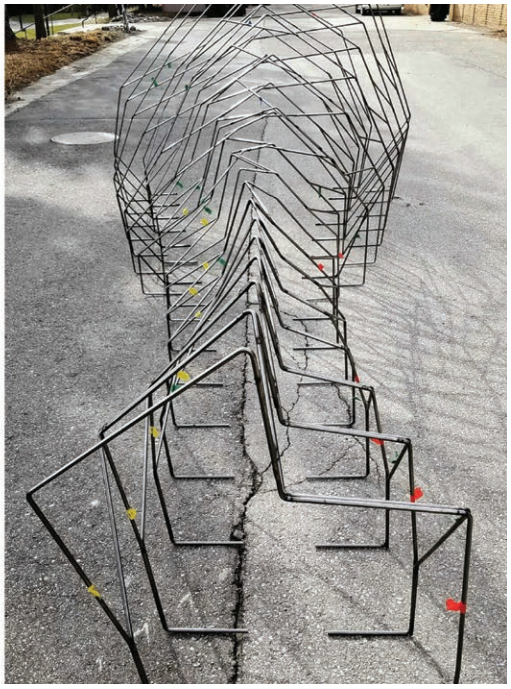


Rod Bending



Weld Parallel Contours

Weld Diagonal Bracing



Public Engagement

Sophie Anstreicher + Scott Chriss +
Alexandre Comas + Troy Huckendubler

Systems exist in objects, nature, and social structures. Mischievous Gizmo looks for a way to unfold and deconstruct these systems and create a device that works differently from its original conditions. It is a chimera of systems and the mismatch of its components create opportunities for constructive imaginations. The reconstructed system, with a fine grain of local linkages, is a continuously connected, intricate structure that works in a way where totality or whole is operative.

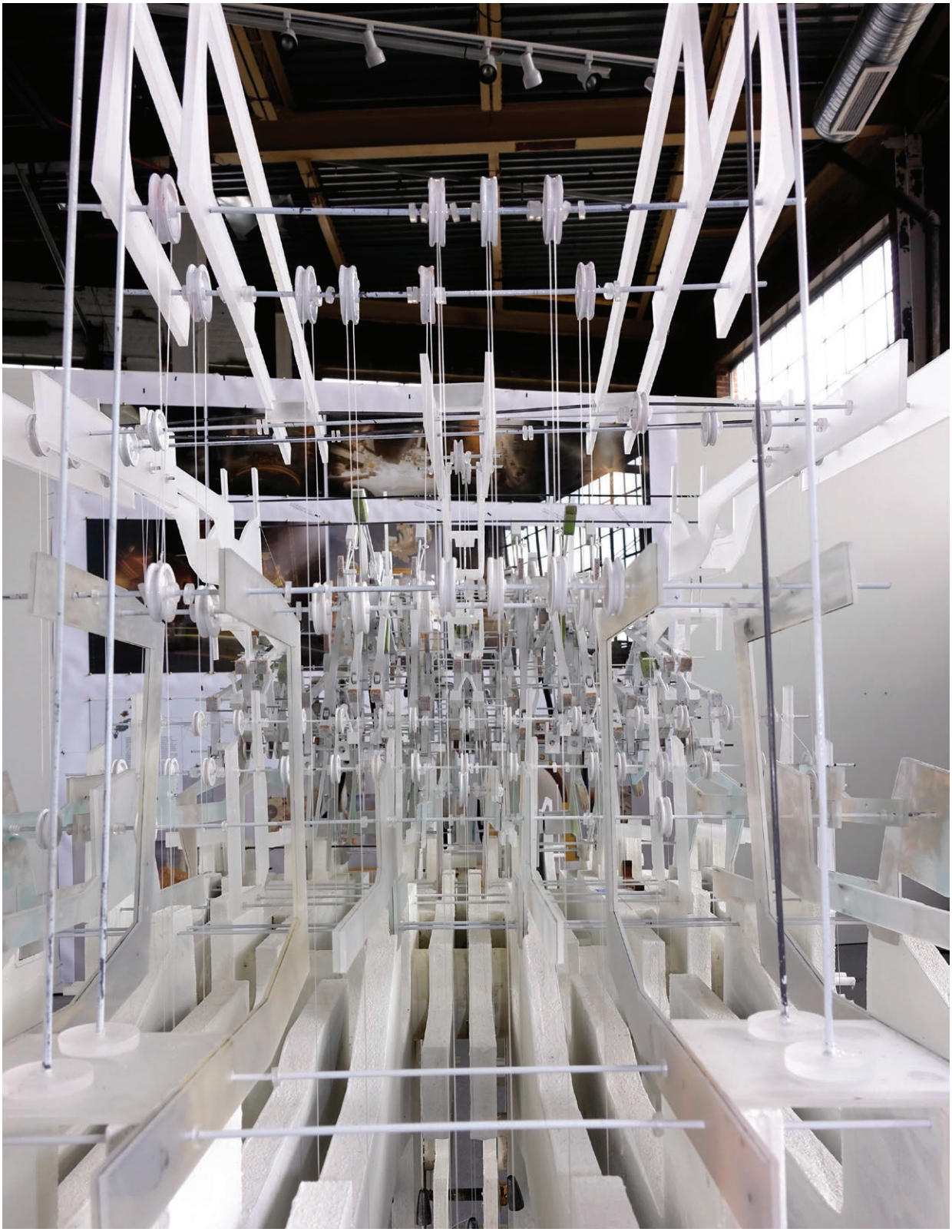
Mischievous Gizmo also probes the design process and categorizes it in six pillars:
1) On Element, 2) On Situation, 3) On Antiquities, 4) On (Relational) Articulation, 5) On Construct and 6) On Application.

'On Element' looks at components creating systems at smaller scales. It presents opportunities to be taken over or to be reassigned new attributes. 'On Situation' reorganizes elements in different manners, creating opportunities to restructure through local connections. 'On Antiquities' finds existing arrangements that can be integrated into the restructured construct. 'On (Relational) Articulation' intertwines the ingredients found in 'On Antiquities' into a construct. 'On Construct' organizes all elements in such a way that clues presented in the restructured construct have enough but are not expressive. This balanced, spatial construct provides constructive gaps that allow creative thinkers to imagine their own ideas. Finally, 'On Application' examines how this process can be implemented to architecture. These six pillars together construct a design method that is applicable to solve architectural problems. The Mischievous Gizmo, the reconstructed systems from a piano, and other panels at the exhibition exist as trails of discovery to reach the six pillars.

Masataka Yoshikawa

Advisor: Perry Kulper

Mischievous Gizmo



Physical Model Assembly

Situational Assembly Early Studies:

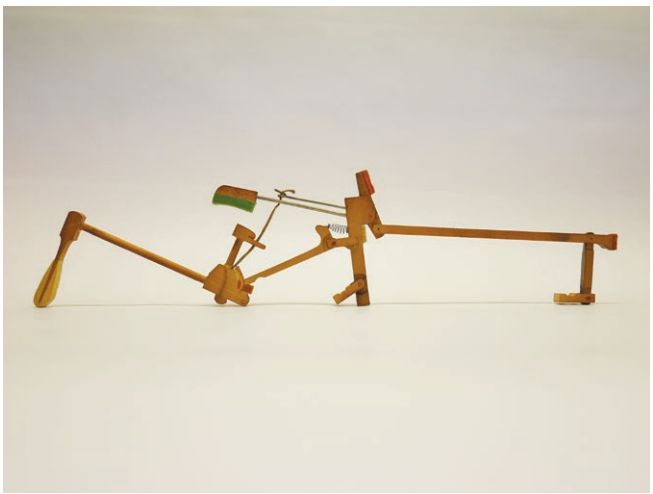
The early study of reconstruction of the deconstructed system is to investigate the intensity of "systemness" in system elements. The investigation is also extended to their material properties, the way they are assembled, colors, and their reaction to various surroundings.

While they were reconstructed from pieces, new attributes and alternate functions were assigned. The assignment of new attributes is essential to create a system from an existing system, although it was observed that there are limits to how far the reconstructed system can go apart from its original state without changing its appearance.

The discussion then moved to a debate of colors and its possibility for giving stronger new identities to the reconstructed system. This study also led to discussions of moving through different medium to work on.

The experiment started with physical object, and moved on to digitizing them to allow further development in a 3D modeling program. Later on, the 3D model was translated into a 2D drawing to be able to weave different information as a part of the model and to be worked on in a form of drawing.

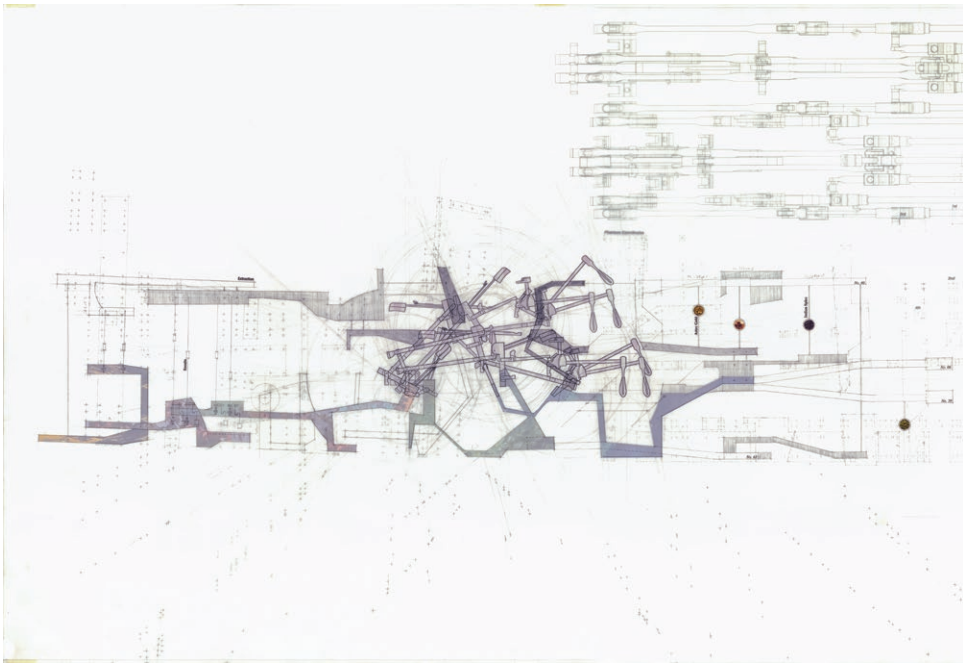
This drawing resulted as an archetype of Mischievous Gizmo at the later stage, which then enabled the digital fabrication of the Gizmo for 1:1 scale construction for one to experience the relationally designed device.



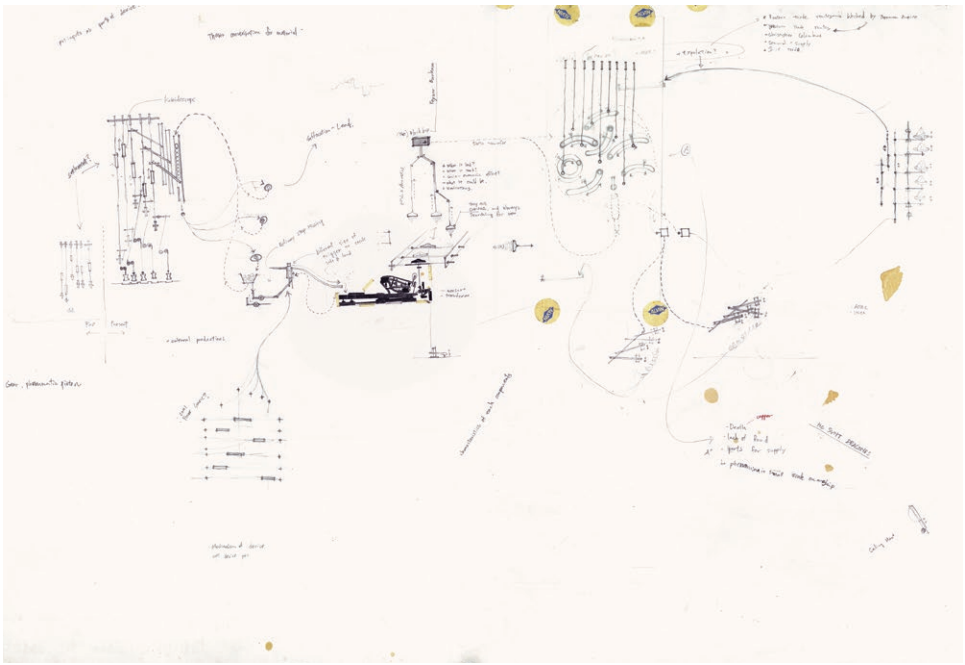
Situational Assembly Early Studies
Model Photographs

Physical Model (01)

Physical Model (02)
Photographs of final thesis presentation



Gizmo Archetype



Mechanical Transformation
Mapping information and its effect in relation to their interrelationships

Info Diagram (01)
Tracing the voyages of Christopher Columbus in 1492 to 1503

Info Diagram (02)

Physical Model (01)

Physical Model (02)

The proposal of this studio is to develop speculations for the Future Circular Collider, currently in design phase at CERN in Geneva, Switzerland. This new development aspires to provide greater amounts of energy for the particle collisions. Reactions occur when particles are accelerated in opposite directions through a circular tunnel at velocities nearing the speed of light.

When the path of these particles intersect, the particles which collide together cause reactions which are then analyzed in the detection chamber. Because the amount of energy created is directly related to the length of the collider tunnel, CERN has decided to maximize the tunnel's radius given the current landscape around Geneva.

The new collider tunnel is anticipated to be up to one hundred kilometers in circumference and consisting of several large detection chambers used to analyze particle collisions. There is also a proposal for a new campus, similar in function as the old. Because there is a significant increase in the size of the new collider tunnel and detector, certain considerations must be made regarding the local community as well as the logistics of the new site. As our analysis continued, it became clear that in order for the new collider and campus to be built, there must first be support at both a localized and global scale. The development of the new complex hinges on support from various political forces, many of which prioritize technology and material resources over architecture and quality of life.

The focus of this project is to demonstrate the significance of architecture as a spectacle and how this formal demonstration can bring global validation to the experiments performed at CERN.

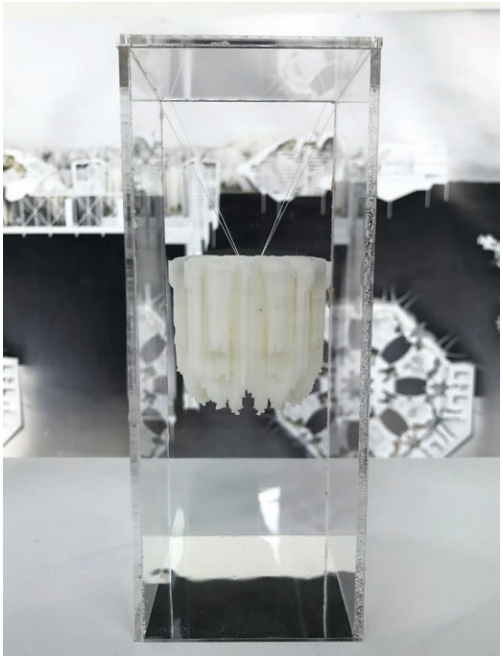
Sijie Dai
James Howe III

Advisor: Matias del Campo

Plato's Cavern

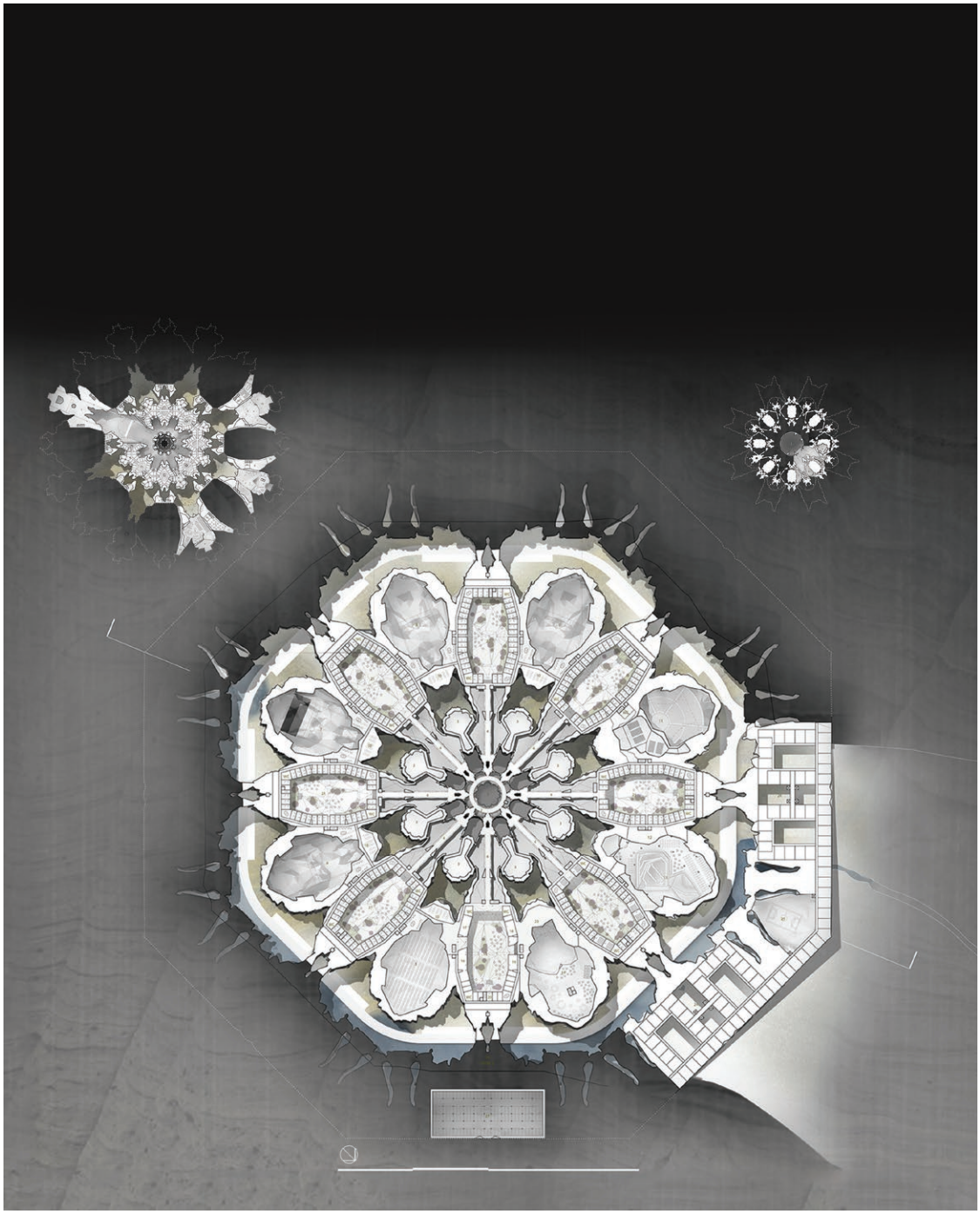
Model (01)

Model (02)

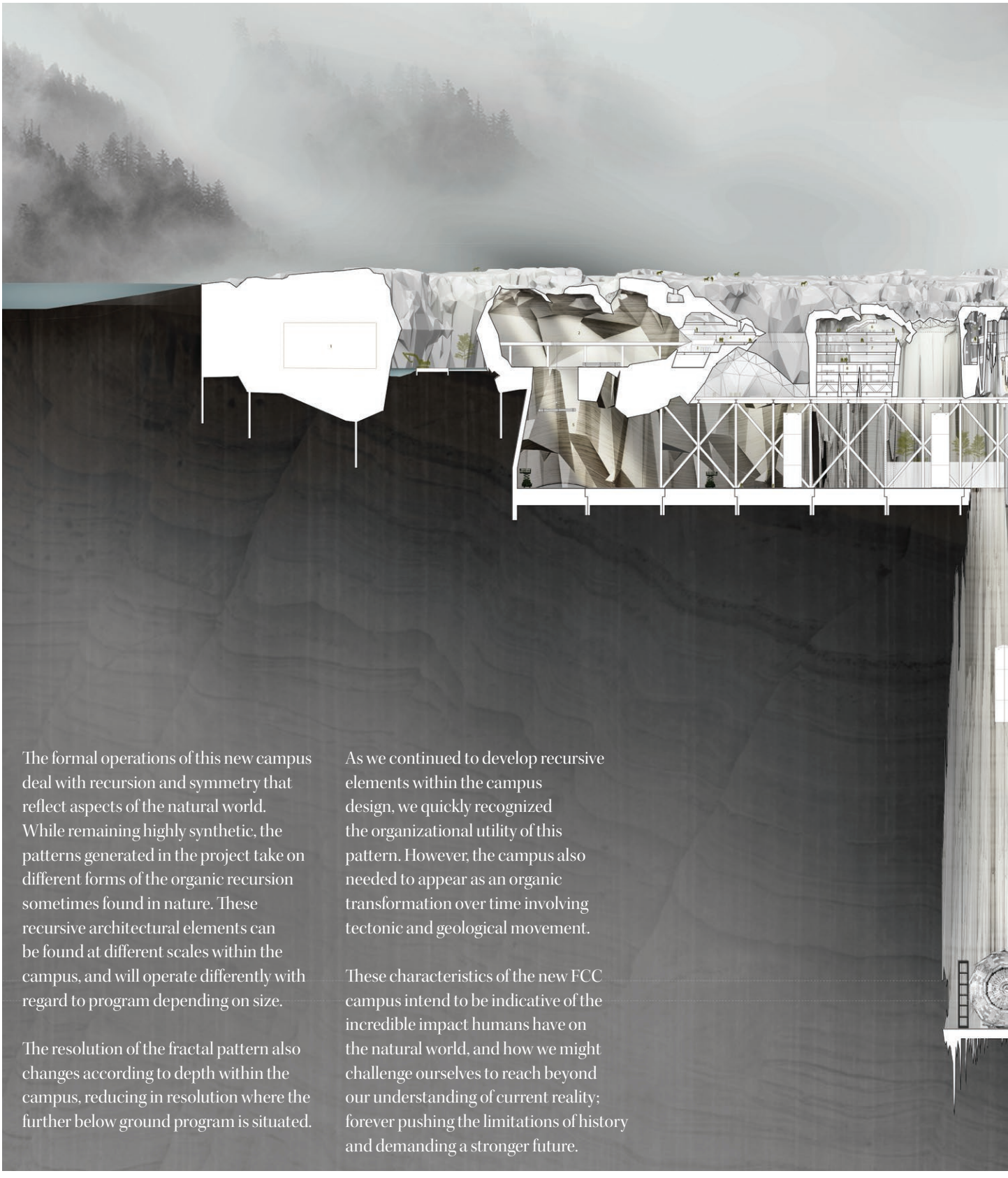


Model (03)

Model (04)



Spectacular Anthropocene (Plan)



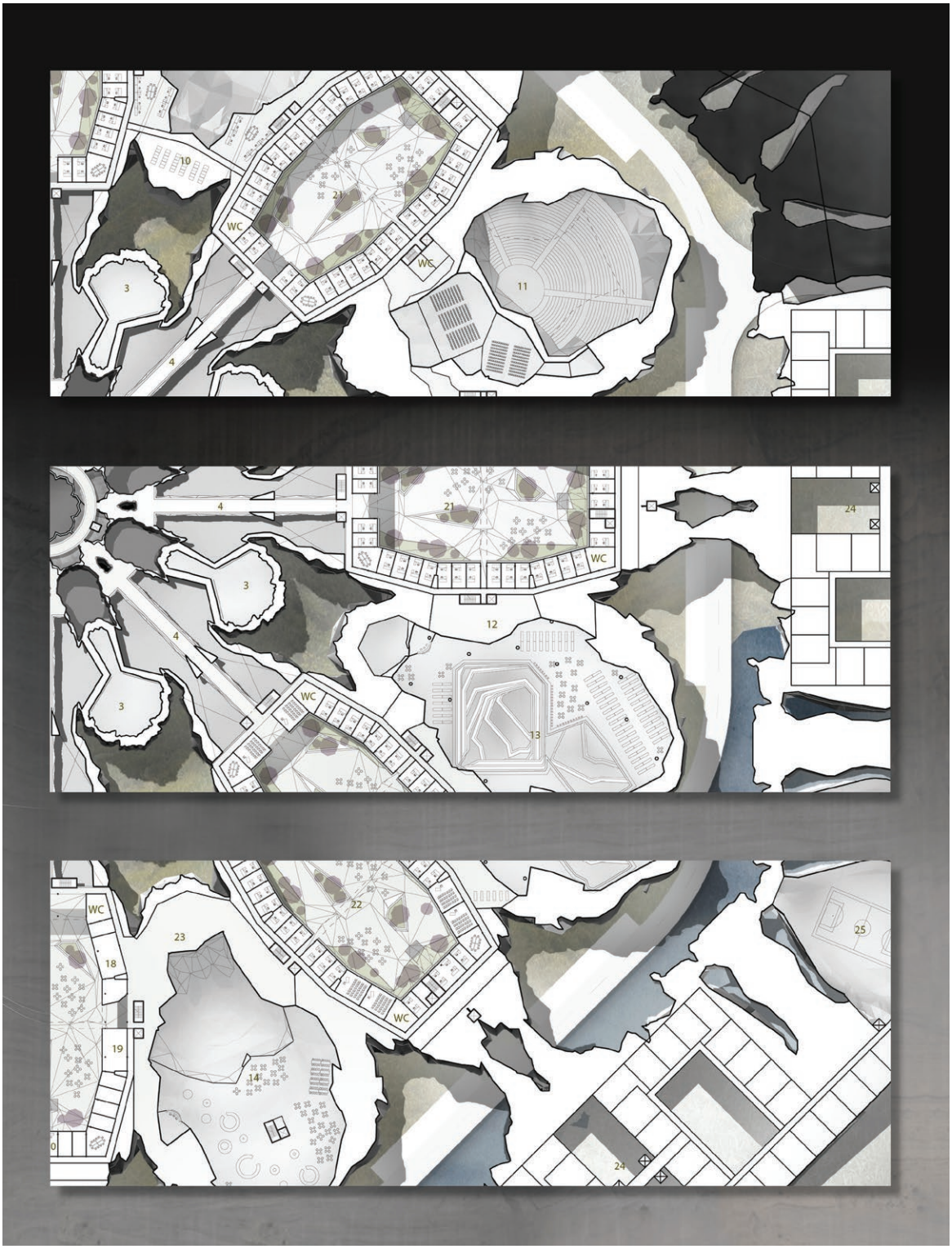
The formal operations of this new campus deal with recursion and symmetry that reflect aspects of the natural world. While remaining highly synthetic, the patterns generated in the project take on different forms of the organic recursion sometimes found in nature. These recursive architectural elements can be found at different scales within the campus, and will operate differently with regard to program depending on size.

The resolution of the fractal pattern also changes according to depth within the campus, reducing in resolution where the further below ground program is situated.

As we continued to develop recursive elements within the campus design, we quickly recognized the organizational utility of this pattern. However, the campus also needed to appear as an organic transformation over time involving tectonic and geological movement.

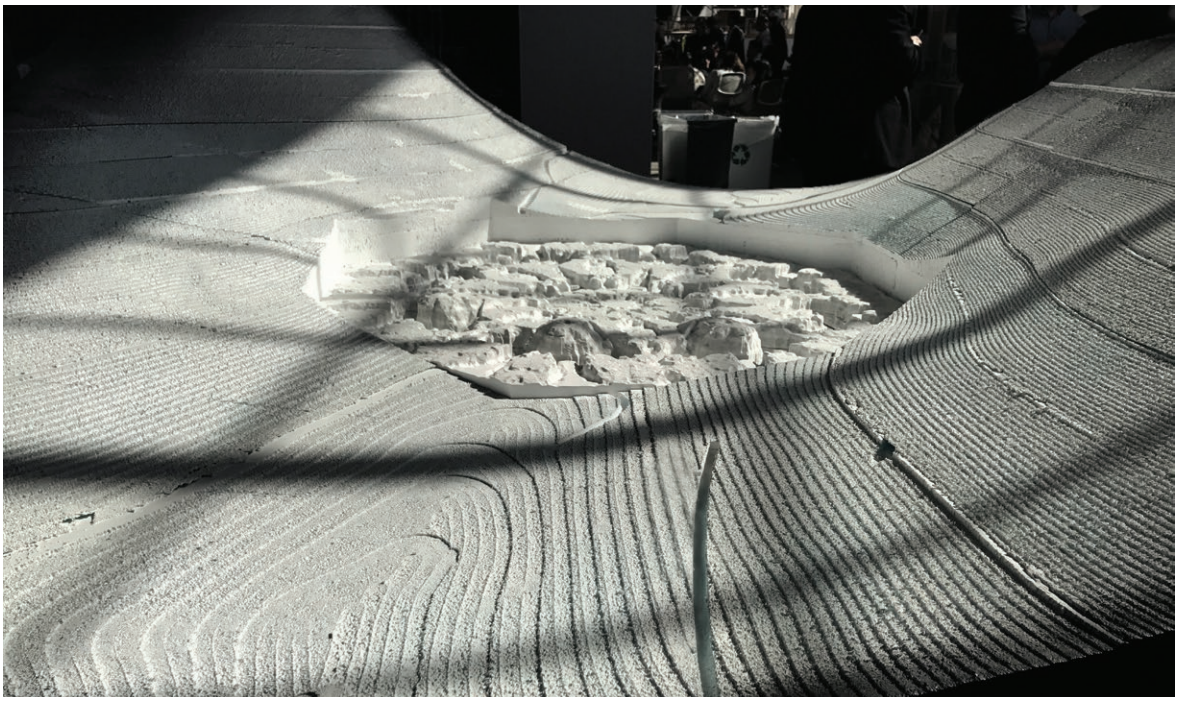
These characteristics of the new FCC campus intend to be indicative of the incredible impact humans have on the natural world, and how we might challenge ourselves to reach beyond our understanding of current reality; forever pushing the limitations of history and demanding a stronger future.

Section Drawing



Spectacular Anthropocene (Part Plan)

Physical Model (01)
Photographs from thesis exhibit at the Liberty Research Annex



Physical Model (02)

Perspective (01)
Plateau View

Perspective (02)

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Ssu-ing Wu
Jonathan Yates

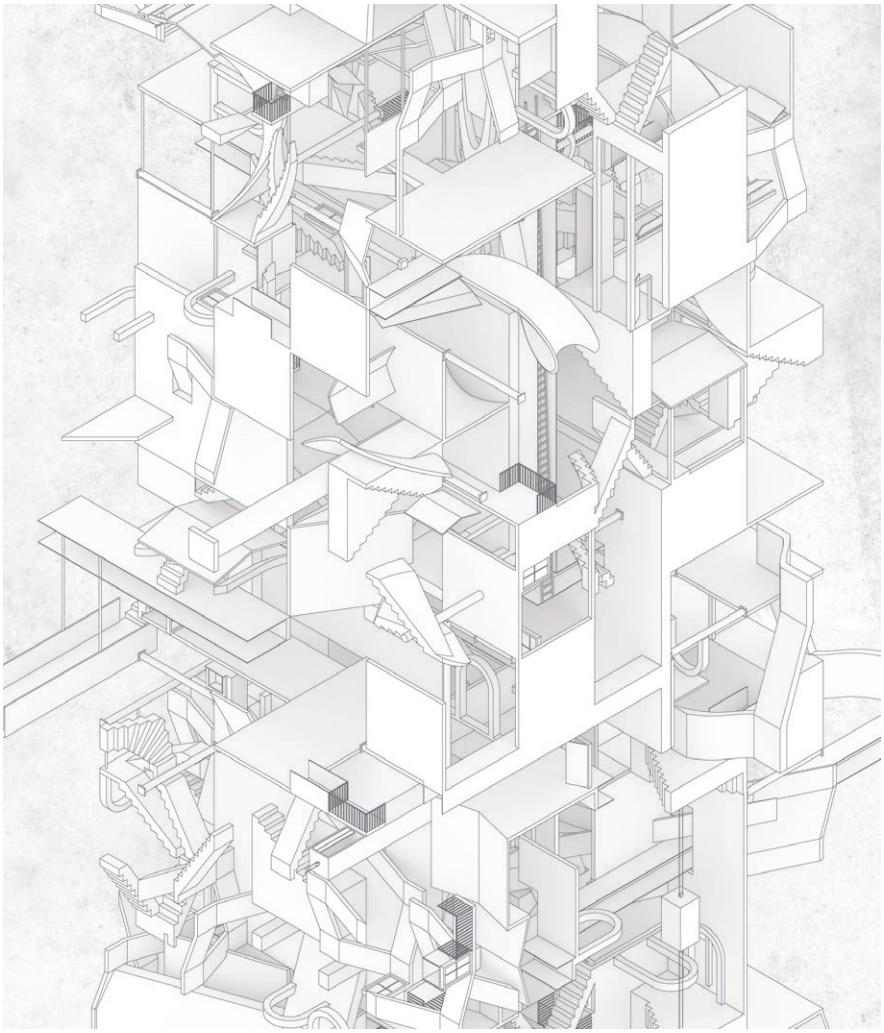
Advisors: Ellie Abrons + Adam Fure

Elemental Procedures

Elemental Procedures proposes a new form of architectural digitization, where architecture is conceptualized as a digital configuration and the relationships between individually significant aggregated objects create a larger construction of space and form. The curation of architectural elements both acknowledges and subverts their significance, offering new potentials for function and occupation. The project combines the cultural coding of architectural elements related to typical use and expectation with digital coding that manipulates the geometries. Elemental Procedures creates a symbiotic relationship between the digital tools and the analog impulses of the designer. It creates an architecture that is both physically and conceptually between physical and digital, analog and indexical, familiar and foreign.

The term digital, rather than relating to computation or technology, is truly defined as a method of indexing using a series of digits. In essence, anything sorted, quantified, and indexed is digital. Elemental Procedures argues that architecture has always been digital. It quantifies and indexes the way we relate to space and program. Spaces are typically considered discrete and individual, containing a predefined program and contents.

Categories, dichotomies and taxonomies are prevalent throughout our culture, dividing spaces into public or private, interior or exterior, and various typologies. Elemental Procedures proposes a new form of architectural digitization, where architecture is conceptualized as a digital configuration and relationships between individually significant aggregated objects compose larger constructs of space and form. In this way, space is not the indexed quantity, rather the resultant created between elements, each with their own significance and affordances to human occupation.

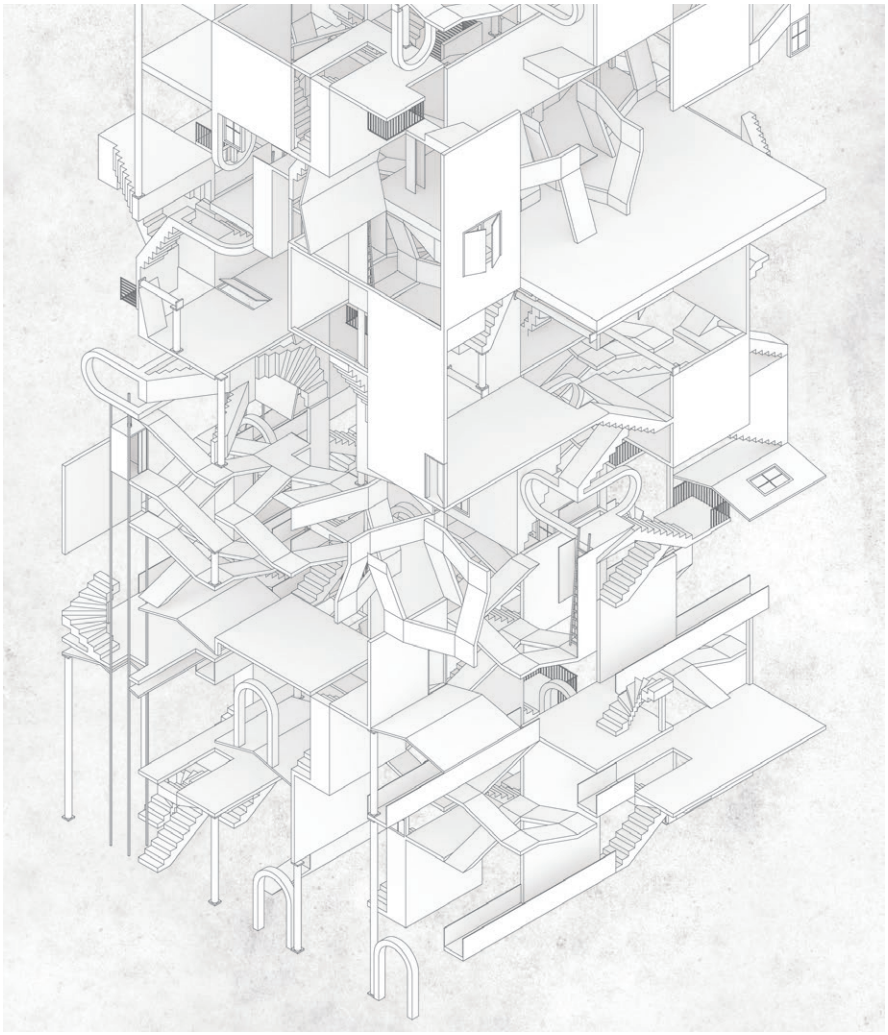


Isometric View (North East)

Elemental Procedures proposes that the curation of architectural elements both acknowledges and subverts their significance, offering new potentials for function and occupation. The project combines the cultural coding of architectural elements related to typical use and expectation with digital coding that manipulates geometry unrestricted by gravity, physical materiality, solidity, rigidity, or orientation.

The project is both a tool used to create space, as well as an individual digital artifact. Working through a developed series of staged manipulations, rules and options are prescribed, but the distinct selection from these options is made by the digital tool. Beginning with an architectural mass, the form is divided into a series of grids to be aggregated. Moving vertically, the process catalogs the procedure of manipulations on the elements. Beginning with the placement of the largest scale elements, the process iteratively introduces another manipulation with each stage, proceeding through rotating, scaling, shearing, stretching, twisting, tapering, and bending.

Following this, smaller elements are procedurally introduced to aid and inspire the occupation of the space.



Isometric View (South East)

After this computational process, the designers proceed through the created spaces, investigating and interpreting their opportunities. Misusing familiar elements frees them of their cultural coding, reassessing what architectural space can afford the human, speculating on new spatial relationships along with programmatic opportunities, methods of interaction, and elemental occupation.

Occupation and interaction are resultants of the created space, allowing inhabitants to be more connected and aligned with the architecture. Furniture, decoration, and smaller scale items are introduced into the space, further facilitating the inhabitation. Elemental Procedures creates a symbiotic relationship between the digital tools and the analog impulses of the designer, expanding on the capacity of each. It creates an architecture that is both physically and conceptually between things, existing somewhere between physical and digital, analog and indexical, familiar and foreign.

Model (01)

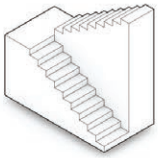
Model (02)

Model (03)

Model (04)

Floor

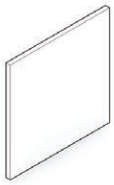
Balcony



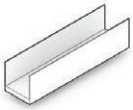
Escalator

Place

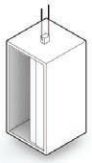
Stretch



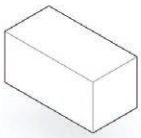
Wall



Corridor

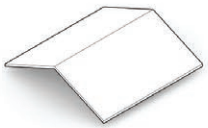


Elevator

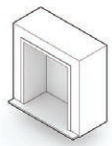


Rotate

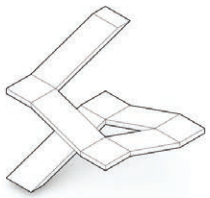
Twist



Roof



Fireplace



Ramp

Scale

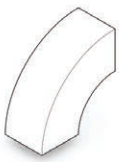
Taper

Door

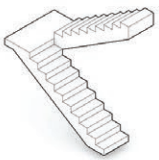
Toilet

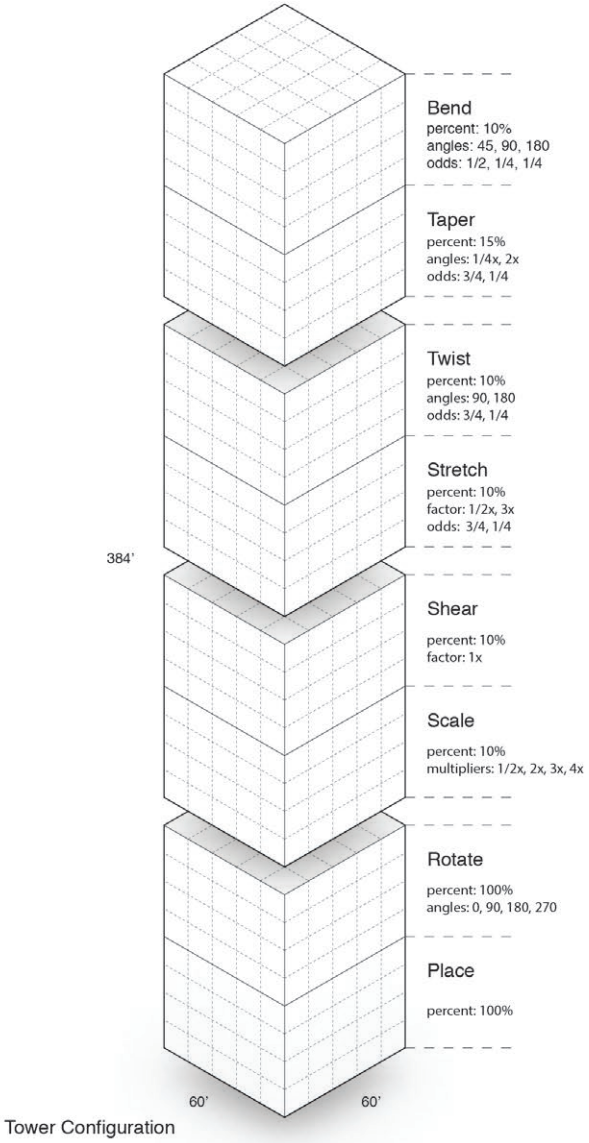
Column

Shear

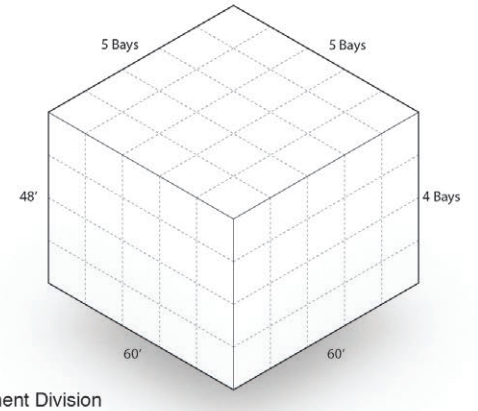


Bend





Tower Configuration



Segment Division

Tower Diagram

Perspective (01)

Perspective (02)

Perspective (03)

Perspective (04)

Digital Rendering (01)

This project presents the design of an office using three distinct modes of representation, each disciplined by the anxieties of the others. Line drawing is used to outline the graphic composition of the plan and demonstrate the limitless scale of the proposal, a quality usually reserved for an algorithmically-derived digital model. The physical model describes the motion of mirrored components that mimic Photoshop's content-aware-fill operation. Lastly, the render reveals architectural qualities and the hidden devices required to construct photographs of the physical model. The collective imagery of this thesis proposes a possible future for architectural representation in a post-digital age.

In his seminal essay, *Translations from Drawing to Building,* Robin Evans posits that architects do not make buildings, architects make representations of buildings. In doing so, he points out that biases inherent in the representation of designed architecture are carried forward into the built work through the process of translation. In a drawing, for example, the flatness of the paper compels the designer to arrange architectural elements graphically, thus imposing certain compositional tendencies on the design of a building.

These biases are unavoidable, and have been made into a powerful tool within the discipline of architecture. Within this example, there is a vast history of architects whom have taken on flatness as a project within the discipline. Alberti's facade for Santa Maria Novella in Florence, VSBA's facade for Gordon Wu Hall at Princeton, and HdM's facade for the Ricola Production and Storage Building all carry forward the instrumentality of the tools which produced their representations.

Architectural Representation seems to be different now.

Tony Gonzalez

Advisor: Cyrus Peñarroyo

Anxious Horizon

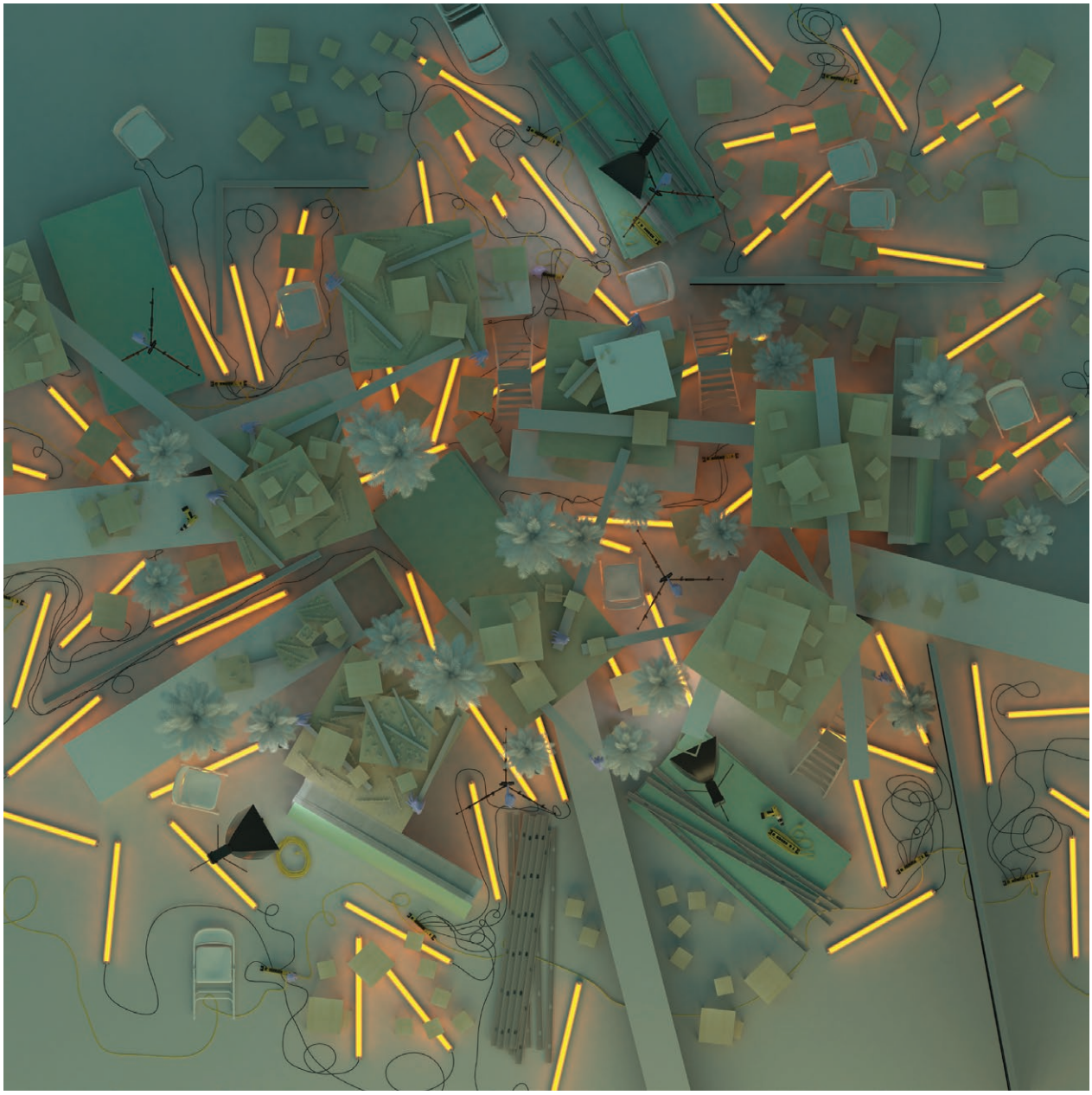
Digital Photograph (01)
Physical model assembly

Photographic Diagram (01)

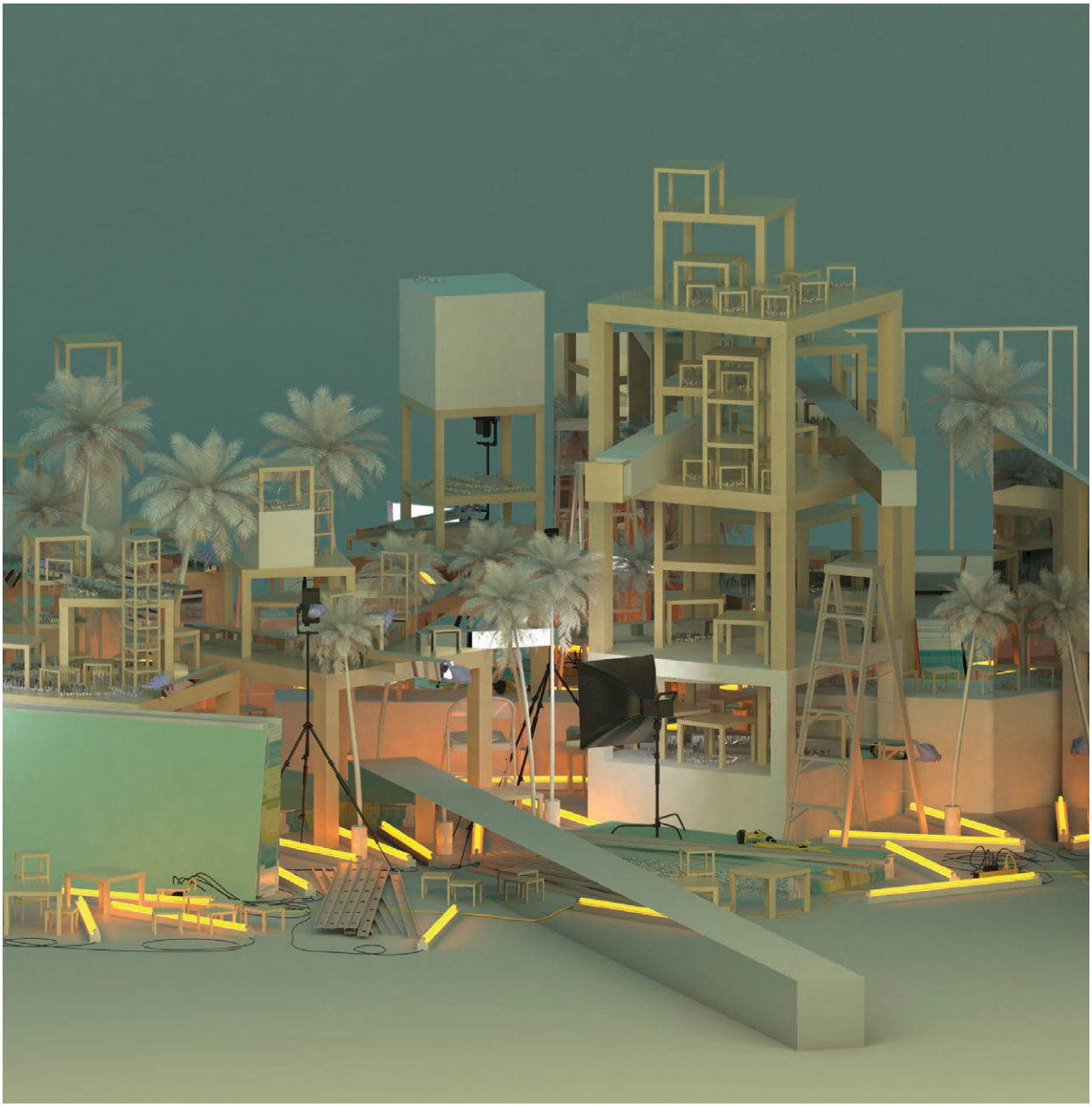
Photographic Diagram (02)

Photographic Diagram (03)

Photographic Diagram (04)

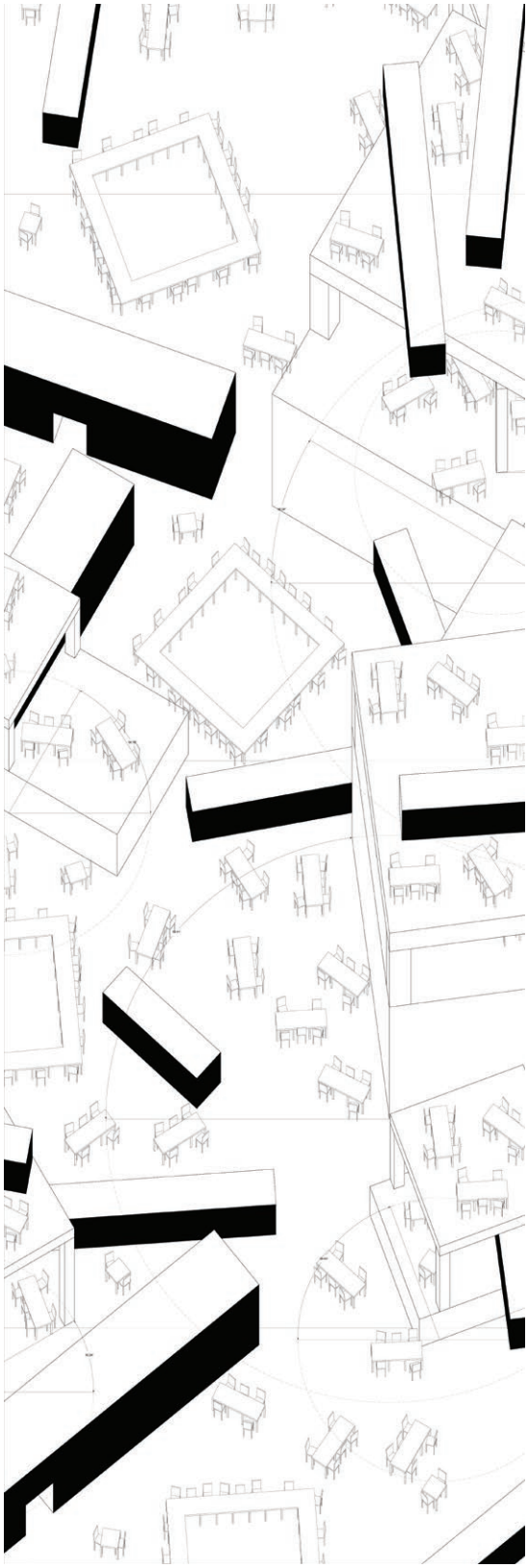


Digital Rendering (01)



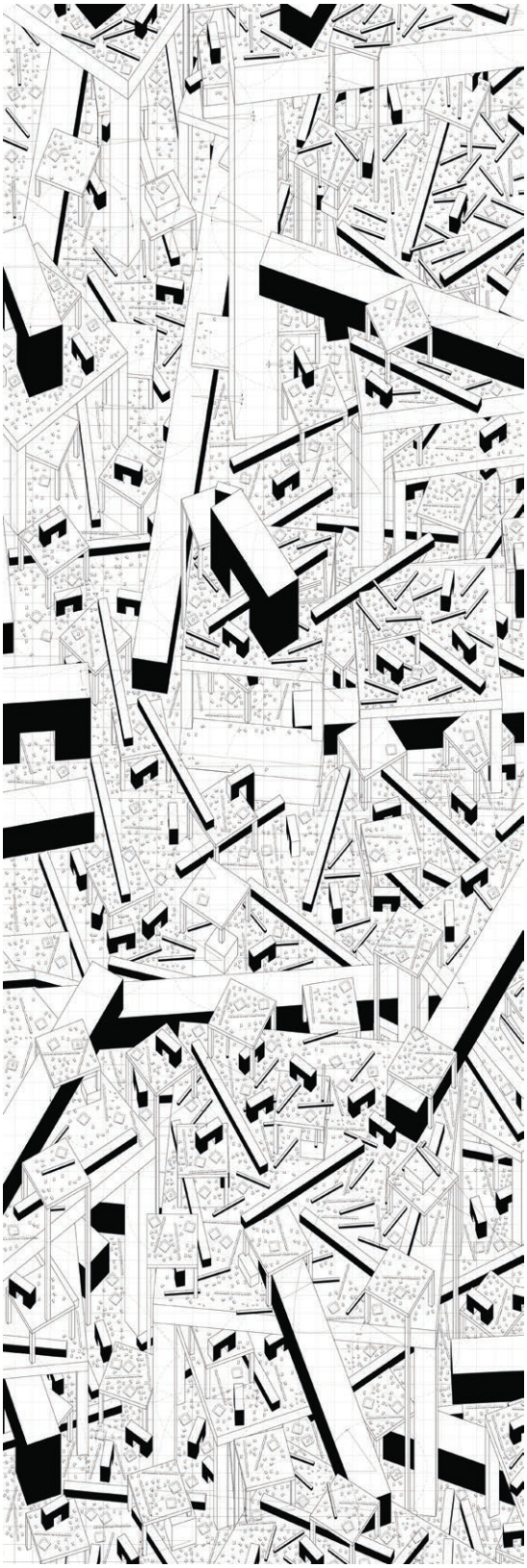
Digital Rendering (02)

After the digital turn (as theorized by Mario Carpo), the relationship between the architect, the designed object, and its representations has evolved beyond the paradigm described by Evans. Architectural representation has been completely subsumed by the digital. As it operates, the digital flattens out categorical differences between separate types of representations and the objects and phenomena they describe by converting them into infinitely mutable digital files. In theorizing the digital, David Berry offers the "Digital Iceberg" moving from the most accessible at the top to the least accessible at the bottom. The screenic interface of the digital, in this way, is supported by an ocean of computational processes. I want to argue that these processes do for the discipline of architecture now what flatness did for the discipline before the digital turn. In this way, this thesis posits the fundamental shift in a architecture as the horizon of an emerging post-digital paradigm.



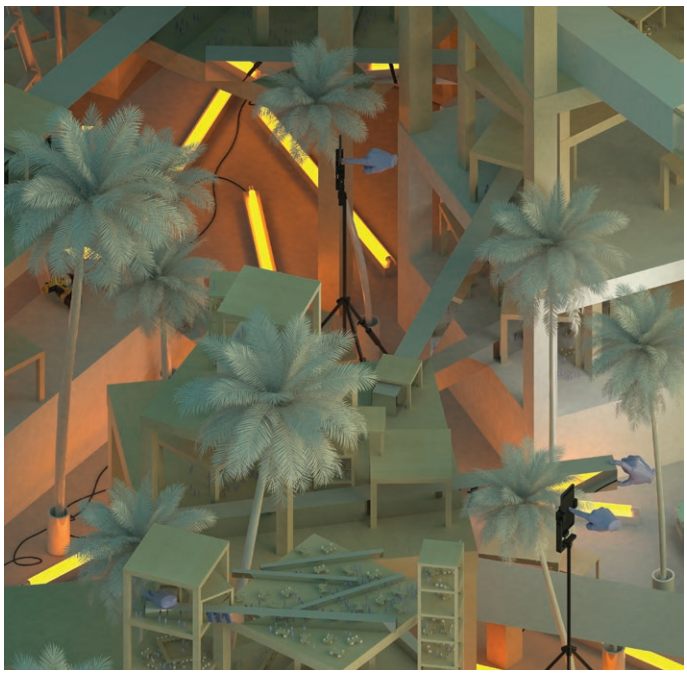
Plan Drawing (01)
First BüRolandschaft

Plan Drawing (02)
Second BüRolandschaft



Plan Drawing (03)
Third BüRolandschaft

Digital Rendering (03)

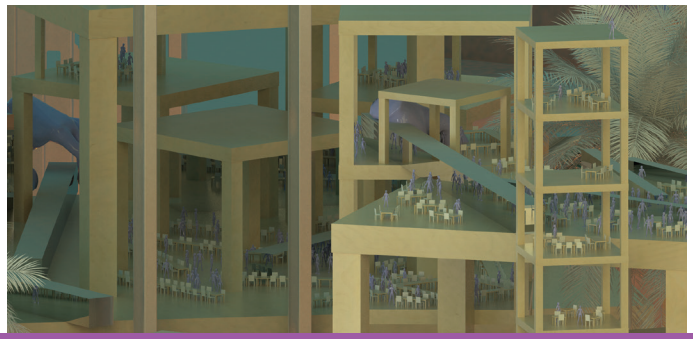


Digital Rendering (04)

Jiashi Yu

Advisor: Neal Robinson

Chicken Republic



Raoul Wallenberg graduated from the University of Michigan with a degree in architecture in 1935. In honor of his memory, the Raoul Wallenberg Endowment was established by the Benard Maas Foundation. Wallenberg's legacy is "architecture/design as a humane social art." During WWII, Wallenberg was responsible for setting up safe houses and issued "passports" that spared thousands from the concentration camps. Each year the architecture program exhibits and juries the best work from the final undergraduate design studio. Awards, funded by the Raoul Wallenberg Endowment, are offered in the form of a stipend for international travel to a country of the student's choosing.

Featured Projects

Chicken Republic
Jiashi Yu

Mass Inurement: Commodity King
Karen Duan

Horizontal Resilience in a Vertical Landscape
Yoonwon Kang

Seeing-Through Spaces of Marginality
Yankun Wang

2017 Wallenberg Awards

Mass Inurement: Commodity King
Karen Duan

Flutterby: A Memorial to Migration Across the U.S. Mexico Border
Sasha Pfeiffer

Under the Counter
Sarah "Jordan" Turkomani

Not Mine
Taylor Boes

Chicken Republic
Jiashi Yu

When KFC stepped into the Chinese market, its fried chicken became an allegory for a young wave of social and political dissidence. In 1987, the first KFC in China opened by Tiananmen Square in Beijing, immediately becoming the most popular spot in the city. Two years later in 1989, the Chinese Democratic Movement was incited to address the growing pains of China's inflating economy and cultural uncertainty. Student leaders from all over the country gathered at the Tiananmen KFC for secret organizational meetings. Here, in the double-sided spaces of acculturation and appropriation, KFC and its architecture of POP transformed into a place of refuge.

The KFC in Tiananmen Square, like the chicken, has morphed to meet the conflicting demands of its site—however complicit and clandestine. Extenuated movements, grandeur gestures and exaggerated features become the centerfold for what we should aspire to as progress—only to be reeled in at the discovery of detrimental consequences.

Take the chicken, whose body has become a tortured prison of expanding flesh and bone at a rate guided by decades of selective breeding and the introduction of hormones. The chicken breast is larger per bird, the gut is smaller; this is progress. To compel progress, the project spaces are exaggerated in accordance with their desired purpose—the design follows suit with the desires of the idealized culture of the spaces.

On this site specifically, KFC is dissident, discordant but not in denial of its peripheral cultures. It celebrates the freedom of speech, curates the nature of liberty, and acknowledges the persecution of making (a) difference.

Jiashi Yu

Advisor: Neal Robinson

Chicken Republic

Mao

In the precedent studies, a series of drawings were made using a surrealist style; each depicts a story of a dissident. Liu Xiao Bo, has been striving for the democracy rights in China over the past decades, he was formally arrested in 2009 on suspicion of "inciting subversion of state power." He was the winner of Nobel Peace Prize in 2010. Without being able to show up to the ceremony in person, the committee decided to use an empty chair on the stage to represent his presence.

Raoul Wallenberg, was a diplomat for Sweden in Budapest during WWII. The moment he put his suit on and took the role as a diplomat, he improvised power on himself. Wallenberg handed out hundreds of passports to Jewish residents, called 'Schutz Passes,' and sheltered many in dozens of protective houses, where he ordered the Swedish flag flown, thus converting them into embassy annexes and shielding the inhabitants from the Nazis.

Edward Snowden, left for Hong Kong on May 20, 2013 and hid in a hotel room for over three weeks. During this time, he was deeply worried about being spied on. He lined the door of his hotel room with pillows to prevent eavesdropping. He put a large red blanket over his head and laptop when entering his passwords to prevent any hidden cameras from detecting them.

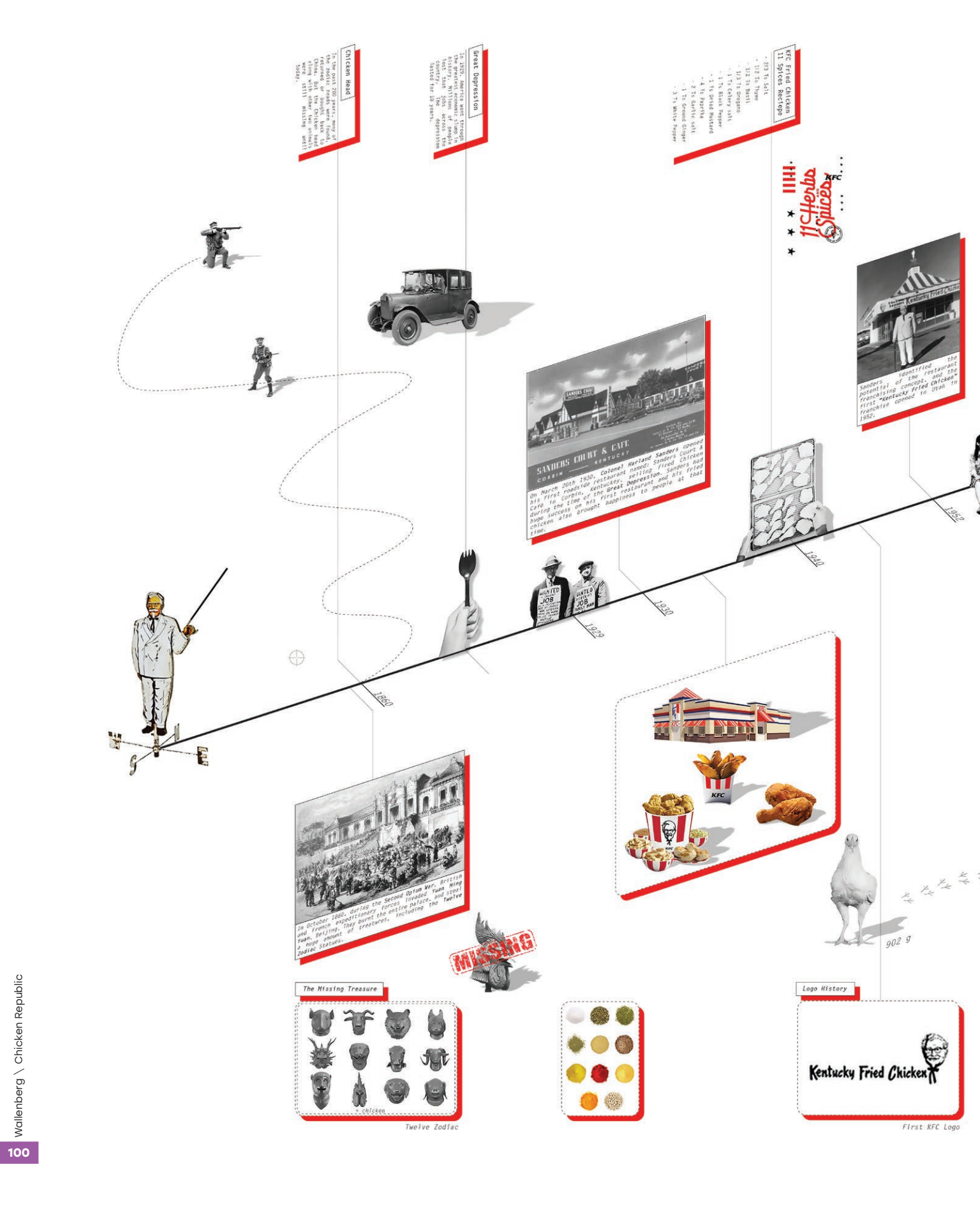
Muslims from Seven Islamic Countries were banned from entering the U.S. since January 31, 2017 due to an order from President Trump. The seven countries include: Iran, Iraq, Libya, Somalia, Sudan, Syria and Yemen. It also bans all refugees for 120 days, and Syrian refugees indefinitely. More than 100,000 visas for foreigners inside and outside the United States have been revoked, at least temporarily, a government lawyer said in federal court on Friday, February 3, 2017.

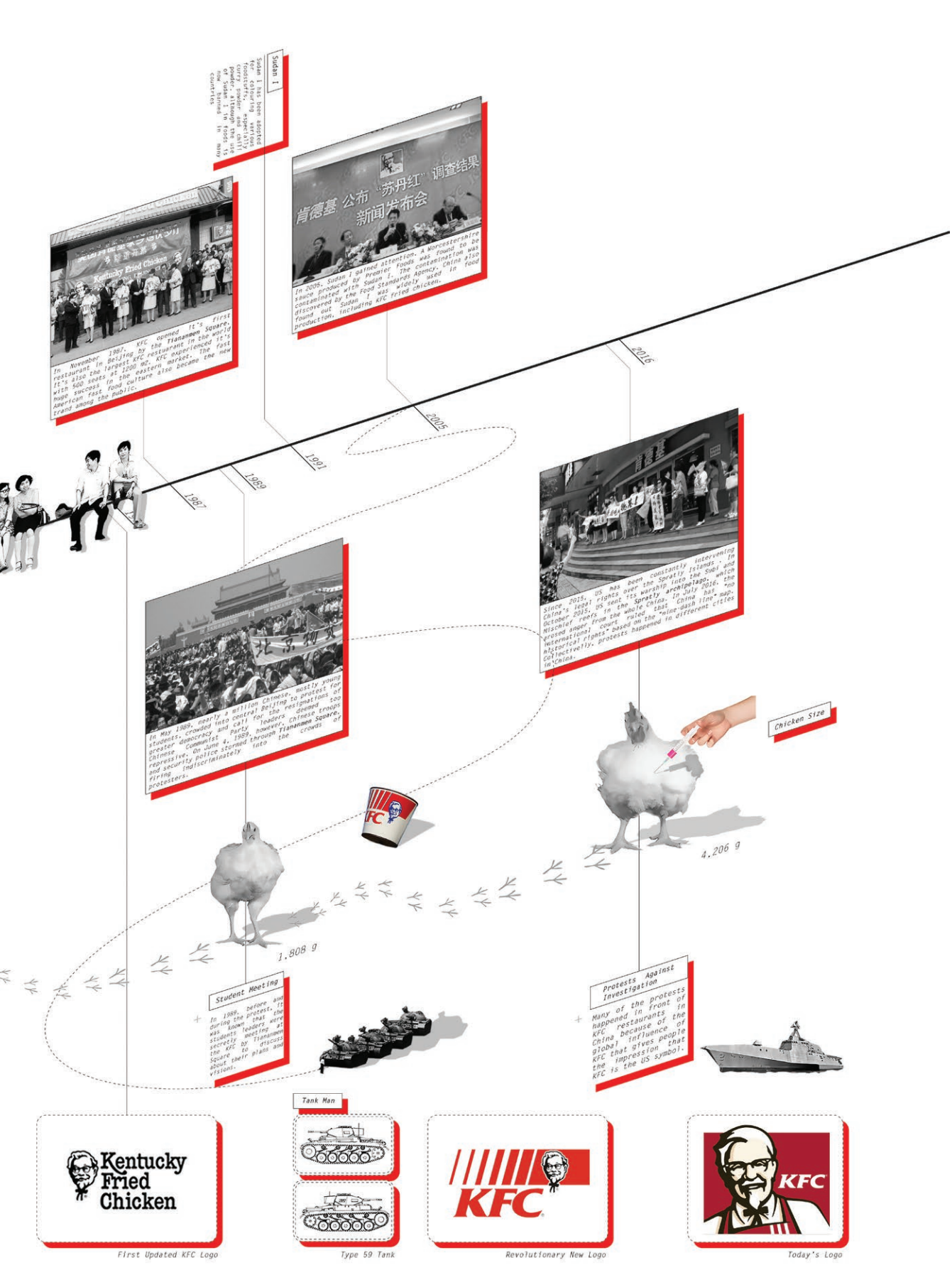
Liu Xiao Bo
Chinese Dissident, Nobel Peace Prize Winner

Raoul Wallenberg
Swedish Diplomat, rescued over 20,000 Jewish Residents in WWII

Edward Snowden
Former CIA Employee, U.S. dissident

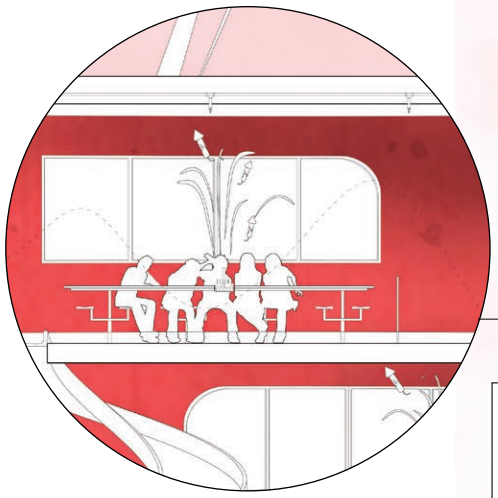
Muslims from seven Islamic Countries
Former CIA Employee, U.S. dissident


Chicken Head
In the past 200 years, many of the zodiac heads were found, but the Chicken head is always missing. It's being with other two animals was still missing until today.
Great Depression
In 1929, America went through the most severe depression in history. Millions of people lost their jobs. The depression lasted for 10 years.
KFC Fried Chicken 11 Spices Recipe
- 2/3 Ts Salt
- 1/2 Ts Thyme
- 1/2 Ts Basil
- 1/3 Ts Oregano
- 1 Ts Celery salt
- 1 Ts Black Pepper
- 1 Ts Dried Mustard
- 4 Ts Paprika
- 2 Ts Garlic salt
- 1 Ts Ground Ginger
- 3 Ts White Pepper
11 Herbs & Spices
SANDERS COURT & CAFE
KENTUCKY
CORBIN
On March 20th 1930, Colonel Harland Sanders opened his first roadside restaurant named: Sanders Court & Cafe in corbin, Kentucky. Depression, fried Chicken during the time of the Great Depression and his fried huge success on his first restaurant and his fried chicken also brought happiness to people at that time.
Kentucky Fried Chicken
Sanders identified the potentital concept, and the first "Kentucky Fried Chicken" franchise opened in Utah in 1952.
1860
1929
1930
1940
1952
HUNTED JOB
WANTED JOB
In October 1860, during the Second Opium War, British and French expeditionary forces invaded Yuan Ming Yuan, Beijing. They burnt the entire palace, and steal a huge amount of treasures, including the Twelve Zodiac Statues.
MISSING
902 g
The Missing Treasure
Twelve Zodiac
Logo History
Kentucky Fried Chicken
First KFC Logo


Sudan I
Sudan I has been adopted for colouring various foodstuffs, especially chilli powder, although the use of Sudan I in foods is banned in many countries
肯德基 公布 "苏丹红" 调查结果
新闻发布会
In 2005, Sudan I gained attention. A Worcestershire sauce produced by Premier Foods was found to be contaminated with Sudan I. The contamination was discovered by the Food Standards Agency. China also found out Sudan I was widely used in food production, including KFC fried chicken.
Kentucky Fried Chicken
In November 1987, KFC opened it's first restaurant in Beijing by the Tiananmen Square, it's also the largest KFC restaurant in the world with 600 seats at 1200 m2. KFC experienced it's huge success in the eastern market. The fast American fast food culture also became the new trend among the public.
1987
1989
1991
2005
2016
In May 1989, nearly a million Chinese, mostly young students, crowded into central Beijing to protest for greater democracy and Party leaders convened to call for the resignations of Chinese Communist. On June 4, 1989, however, deemed too repressive, police stormed through Tiananmen Square, and security indiscriminately fired into the crowds of protesters.
Since 2015, US has been constantly intervening China's legal rights over the Spratly Islands. In October 2015, US sent its warship into Subi and Mischief reefs in the Spratly archipelago, which aroused anger from the ruled China. In July 2016, the international court ruled that China has no historical rights based on the "nine-dash line" map. Collectively, protests happened in different cities in China.
Chicken Size
4,206 g
1,808 g
Student Meeting
In 1989, before and during the protest, the was known that were students leaders secretly at the KFC by Tiananmen Square to discuss about their plans and visions.
Protests Against Investigation
Many of the protests happened in front of KFC restaurants in China because of the global influence of KFC that gives people the impression that KFC is the US symbol.
Tank Man
Kentucky Fried Chicken
First Updated KFC Logo
Type 59 Tank
KFC
Revolutionary New Logo
KFC
Today's Logo

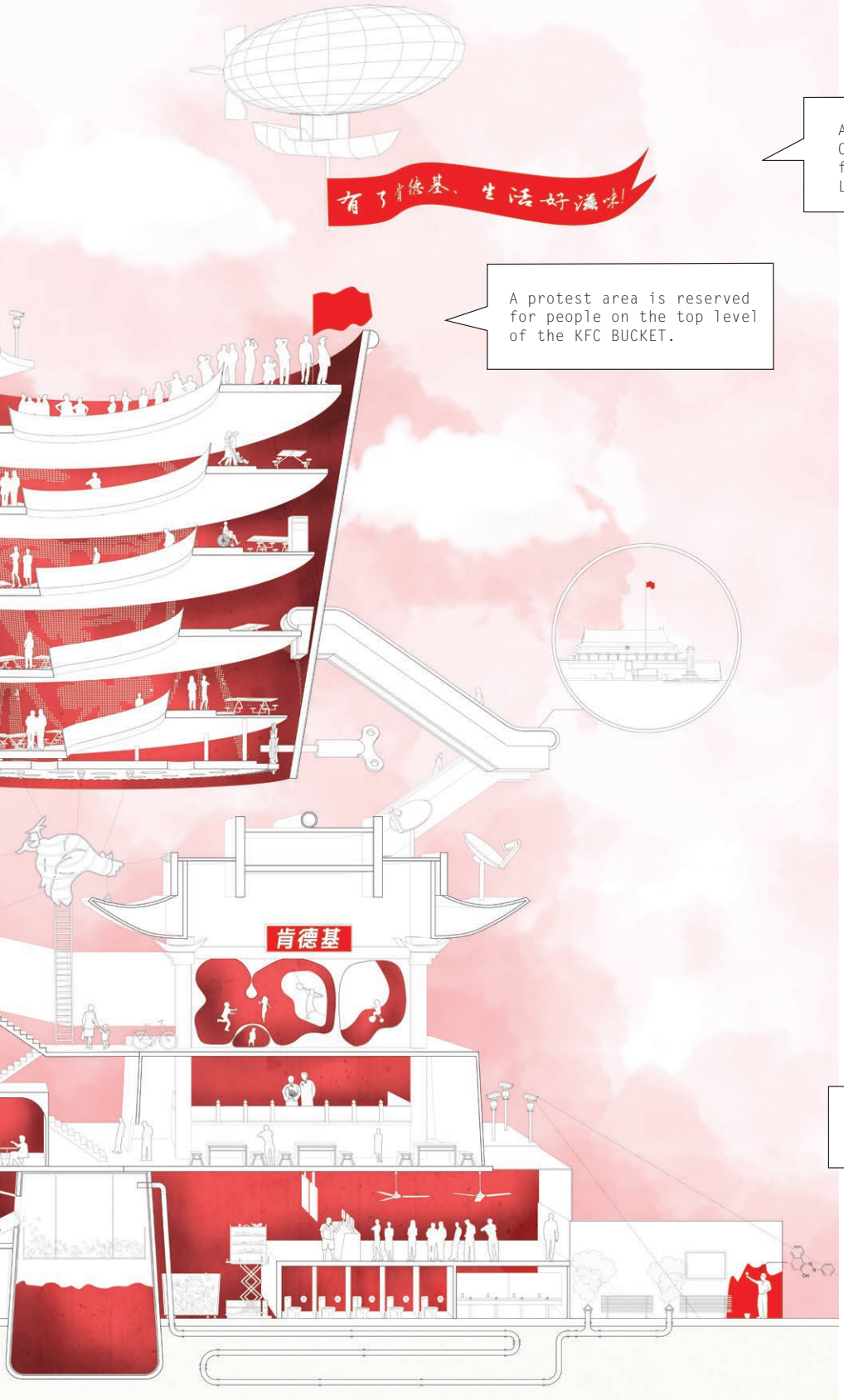
A secret meeting room with its entrance connected to the KFC trash can in the dinning area.

A tank transformed into a planter and a walkway for the customers.



A KFC birthday section designed with special care of sprinkler system allows you to celebrate with firework candles.

A chicken farm at the back of the house of KFC providing organic chicken to the customers.



A blimp displays the Chinese version of KFC's famous slogan:"Finger Licking Good"

A protest area is reserved for people on the top level of the KFC BUCKET.

A view to the Tiananmen Square on the escalator to the dinning lobby.

Seating area that opens 24/7 free to the public.

Painters are using Sudan I to paint the red KFC facade.

The secret making of Sudan I happens under the ground.

[In the 1989 Protest, hundreds of protesters were killed, their blood soaked into the ground of Tiananmen Square.]

The pipe brings the delicious smell of the chicken from kitchen to the store front.

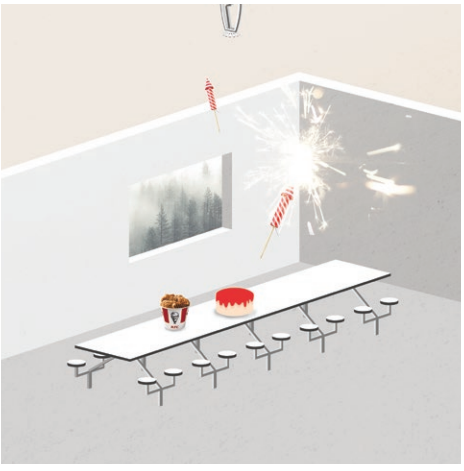
1989-Blood

The KFC Meeting

Meet-Up Spot

Tank Man

Protest



Fireworks Ban

Jiashi Yu

Globalization redefined our relationship between body and work, superseding holistic making with streamlined assembly. Through mass production, it generated boundless material options, but also the boundless expanse of a global market.

Yiwu, a coastal Chinese city, rose to renown by harnessing new international consumer demand and constructing the world's largest small commodities market. Every day, Yiwu ships billions of socks, Christmas ornaments, and other small commodities, cheap in isolation but lucrative in bulk, to wholesale buyers worldwide.

To maintain this scale of trade, Yiwu's production speed is hyper-efficient and ruthless. For the bodies behind its labor, movement is a choreographed practice constricted by either the repetitive production sequence or the product stall itself. Acts of improvisation within these highly scripted environments thus carry incredible weight, manifesting moments of relief within a relentless workplace.

The cycle of inurement in Yiwu ties indelibly to its history of frenetic production. Work is principle in Yiwu, and work goes on even at the expense of the bodies and minds that toil behind its progression. Decay is thus embedded into these cyclical work rotations, resurfacing until its presence is mundane, to be expected.

Architecture can disrupt such a cycle of inurement, exposing the dynamic between relief and repression, the single part versus the collective whole. Yiwu's binary relationships offer a glimpse into its incessant production, where rest is an improvised pause from the scripted repetition of work, and the monochrome is a visual break from the slew of polychrome commodities.

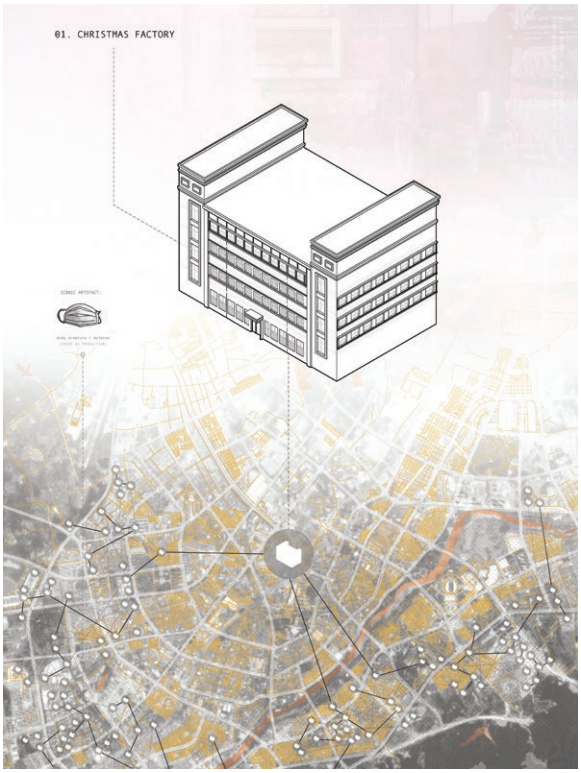
This project is thus one of relationships across scales, which we begin to understand only through the rigorous pursuit of clarity. The proposed objects of care—operating within this realm—suggest new product forms that question the commodities, processes, and gluttonous consumption the city of Yiwu has surrendered to.

Karen Duan

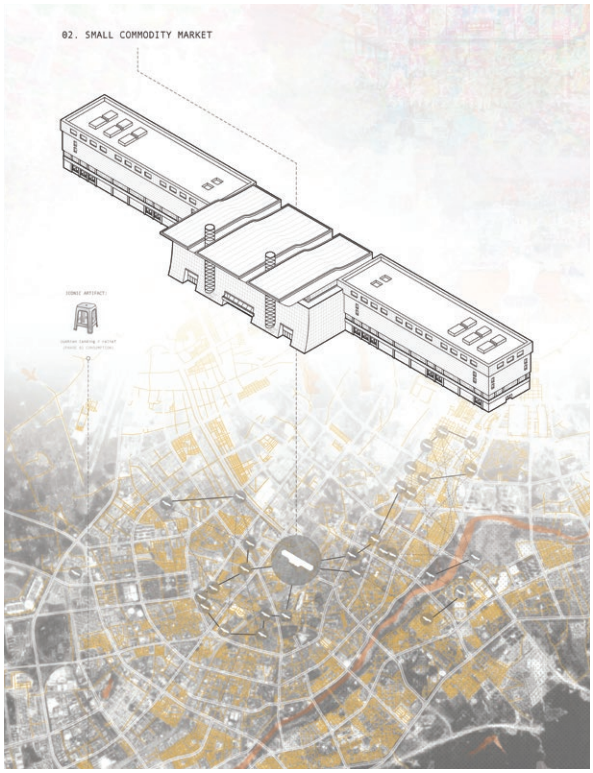
Advisor: Dawn Gilpin

Mass Inurement: Commodity King

Rebirth of the Silk Road

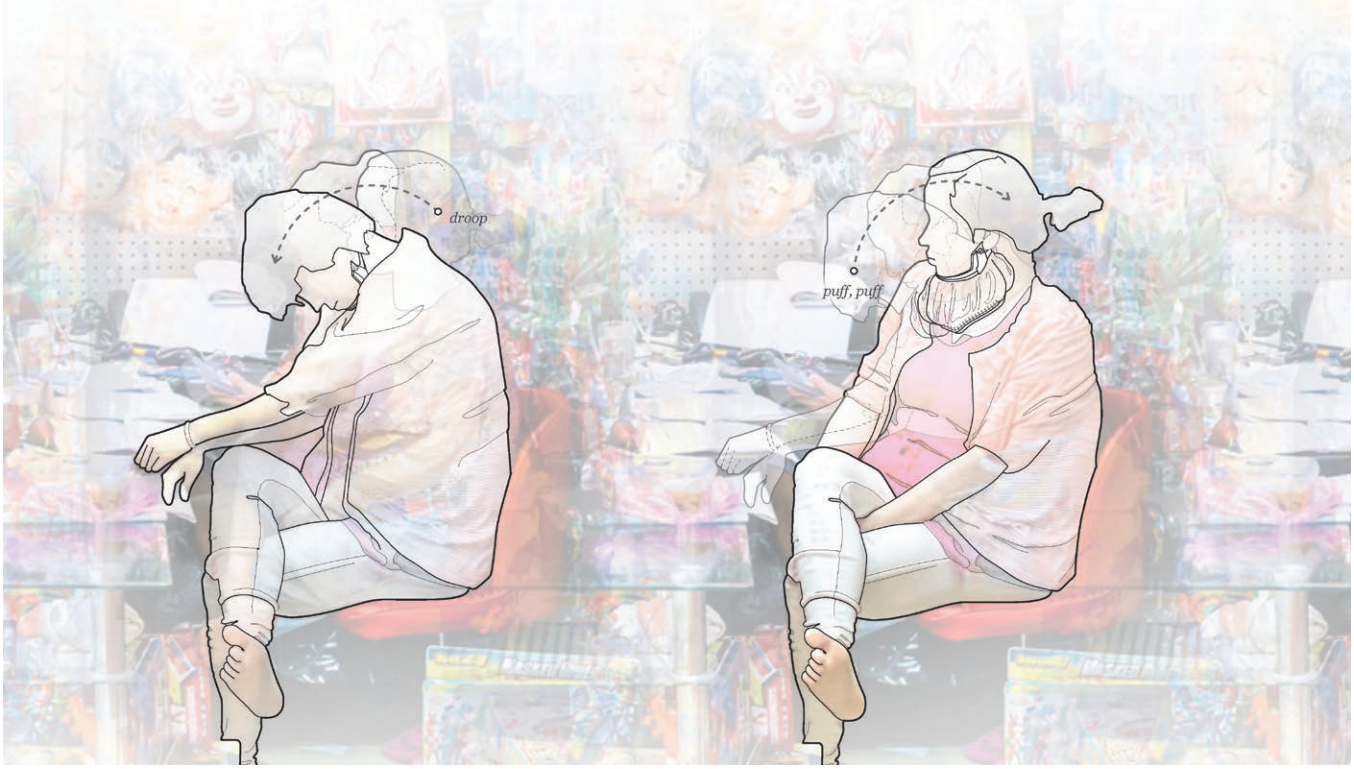


Christmas Factory



Small Commodity Market

Powder Guard



Wake-up Bag

ARMATURES: DEFENSE / headgear

PHASE 01: PRODUCTION

1.makeshift helmets

softshell protection of head from contamination. snug, powder-absorpent, resistant to movement.


1a.


1b.


1c.

temporary respiration guard against exhaustive fumes. disposable, powder absorpent, regularly replaced.


1d.


1e.


1f.

PHASE 01: PRODUCTION

2.artifacts of assembly

time narrated through layers of caked glue and packed powder, all hinging the passage of snowflakes


2a.

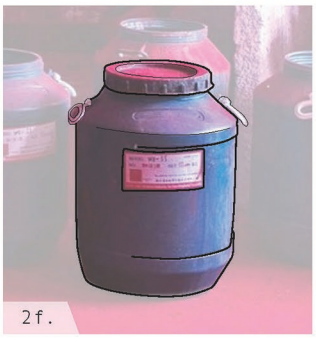

2b.


2c.

elements of construction, hyper specialized and hyper-specific to the production of specialty products


2d.


2e.


2f.


1a.


1b.

1. nap stands

portraits of fatigue across stalls from stagnancy, tedium, habitual spatial confinement.


1c.


1d.


1e.

most common posture of relief: hunch of the spine and droop of the head onto a tabletop surface, over time: compression of the arm

PHASE 02: CONSUMPTION


2a.


2b.

2. table tops

improvised flat surfaces of extreme spatial efficiency. the stool as the corner unit of the bazaar stall


3a.


3b.


3c.

3. foot stools

stretch extensions to ease the constant clench of the knee in its tu[oca; bent position

PHASE 02: CONSUMPTION


LANSWYE
ACE

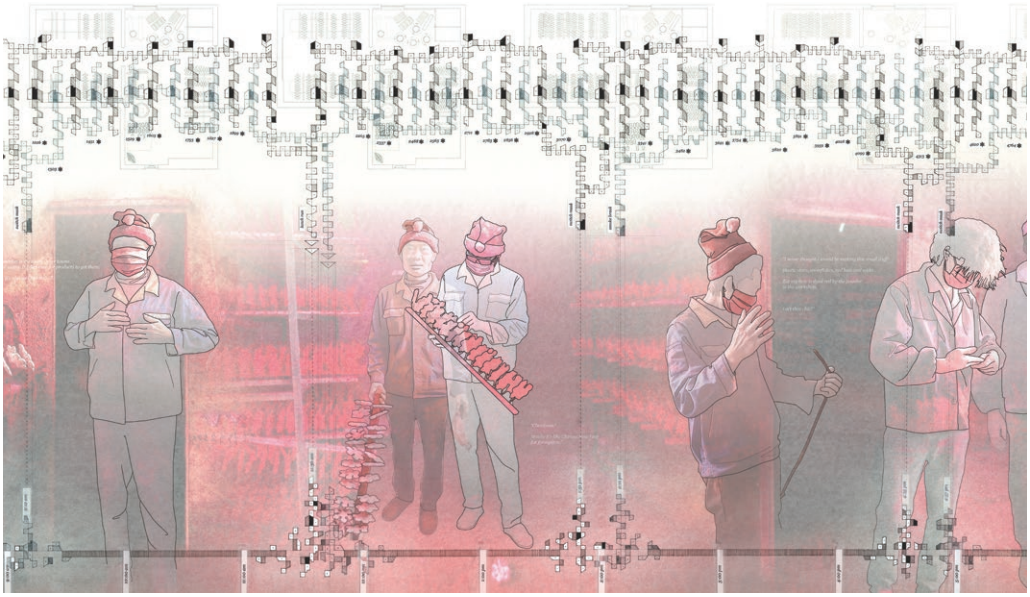

三街
LANSWYE
HAIXIN


LANSWYE
ACE


LANSWYE
ACE
welcome


拉链 - 车
小商品海洋修中

Elevational study of the immaculate polychrome density of the small commodity market



Movement mapping of two Christmas factory workers

Movement mapping of three flower vendors

Karen Duan

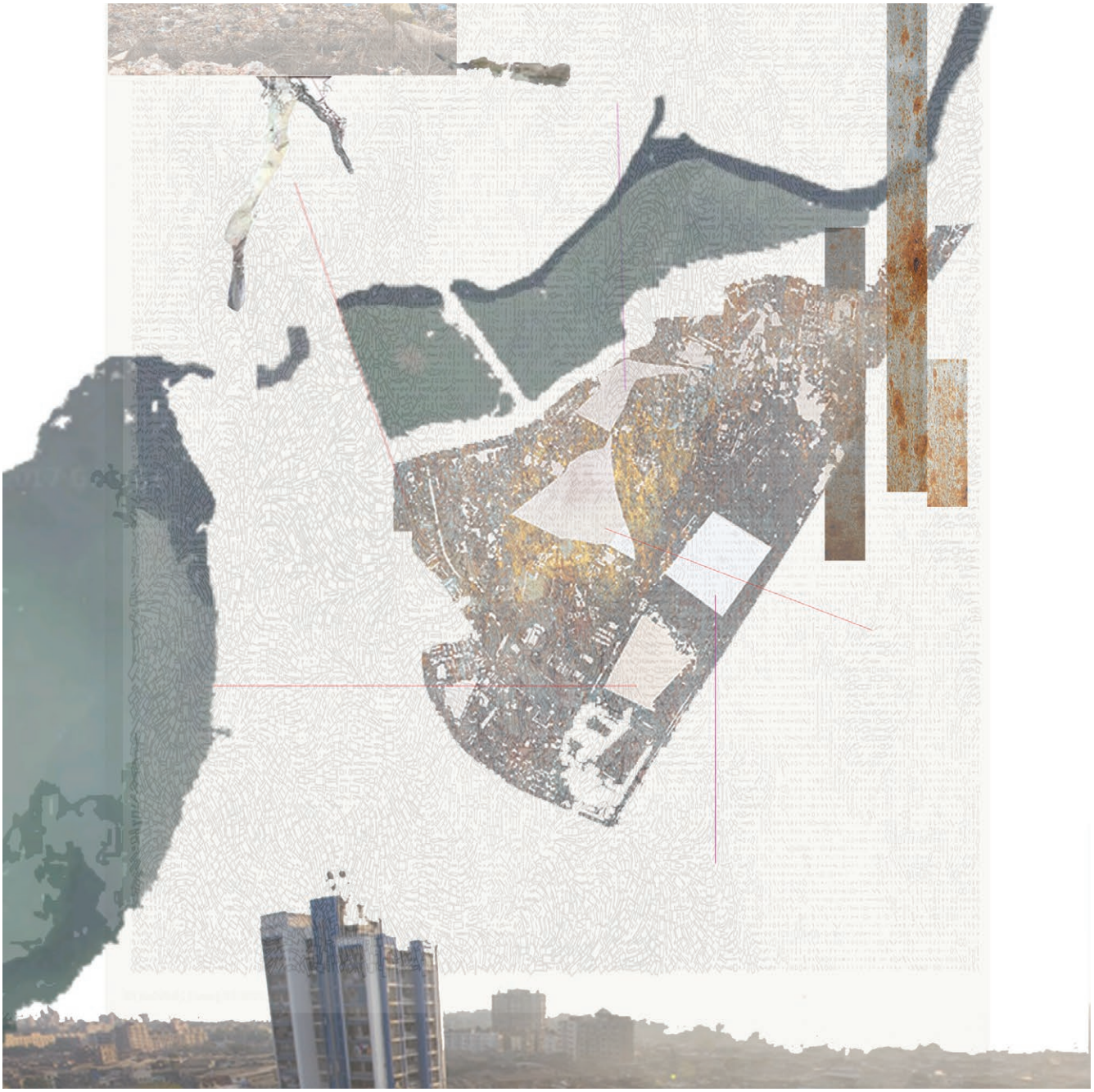
The project focuses on the conflicts between the verticality of high-rise apartments that are built through the recent redevelopments in the slum of Dharavi in Mumbai with the horizontality of self-organized spaces that are formed through the resilient acts of improvisation by the residents of the slum. When vertical structures invade the domain of Dharavi, they apprehend slum identity.

The project proposes three architectural interventions that mitigate the conflicts and fight against the common perception of the slum as a place of static despair. Rather than impose practical solutions to the issue, the project addresses the severity of the issue with the speculative and radical designs of three architectural interventions, which depict the vertical structures' violent act of superimposing over the horizontality and expanse of self-organized spaces in the slum.

Yoonwon Kang

Advisor: Dawn Gilpin

Horizontal Resilience in a Vertical Landscape

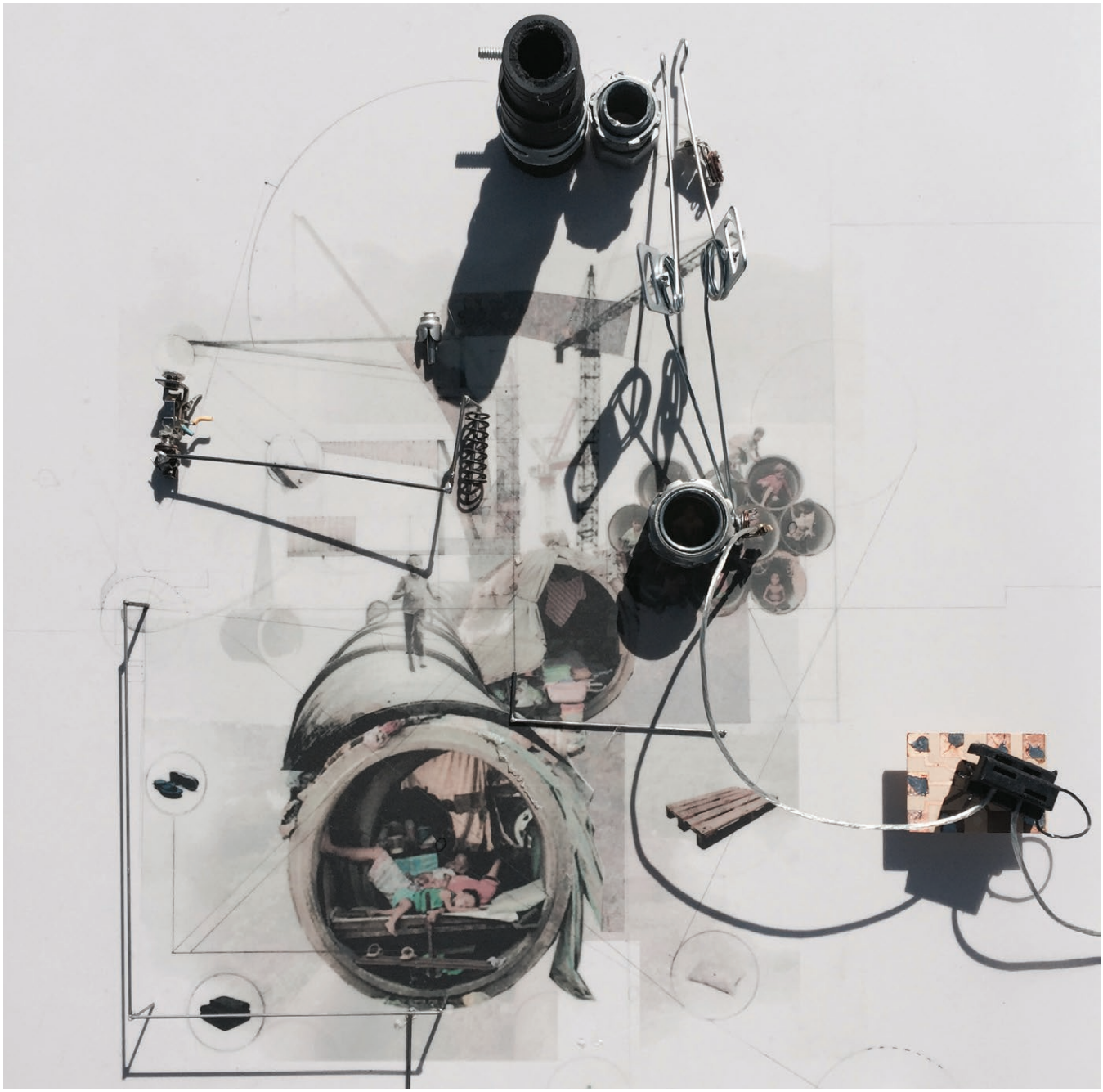


Dharavi Map

During the past two decades, there were several attempts to develop Dharavi, a slum in Mumbai, that sprawls over 590 acres. However, residents have opposed many of them, stating that the development plans do not consider their own interests.

Dharavi is—and has always been—a magnet for migrants from across India. Many residents have lived there for decades, and their one-room tenements and low-rise homes are dwarfed by the gleaming glass and chrome office towers and luxury hotels around the city.

Slums can be described as self-organized spaces that are formed through resilient acts of improvisation by the residents. The site is the slum Dharavi, which is the second largest slum in the world. People typically consider slums as places of static despair. However, Dharavi is an ecosystem buzzing with activities.

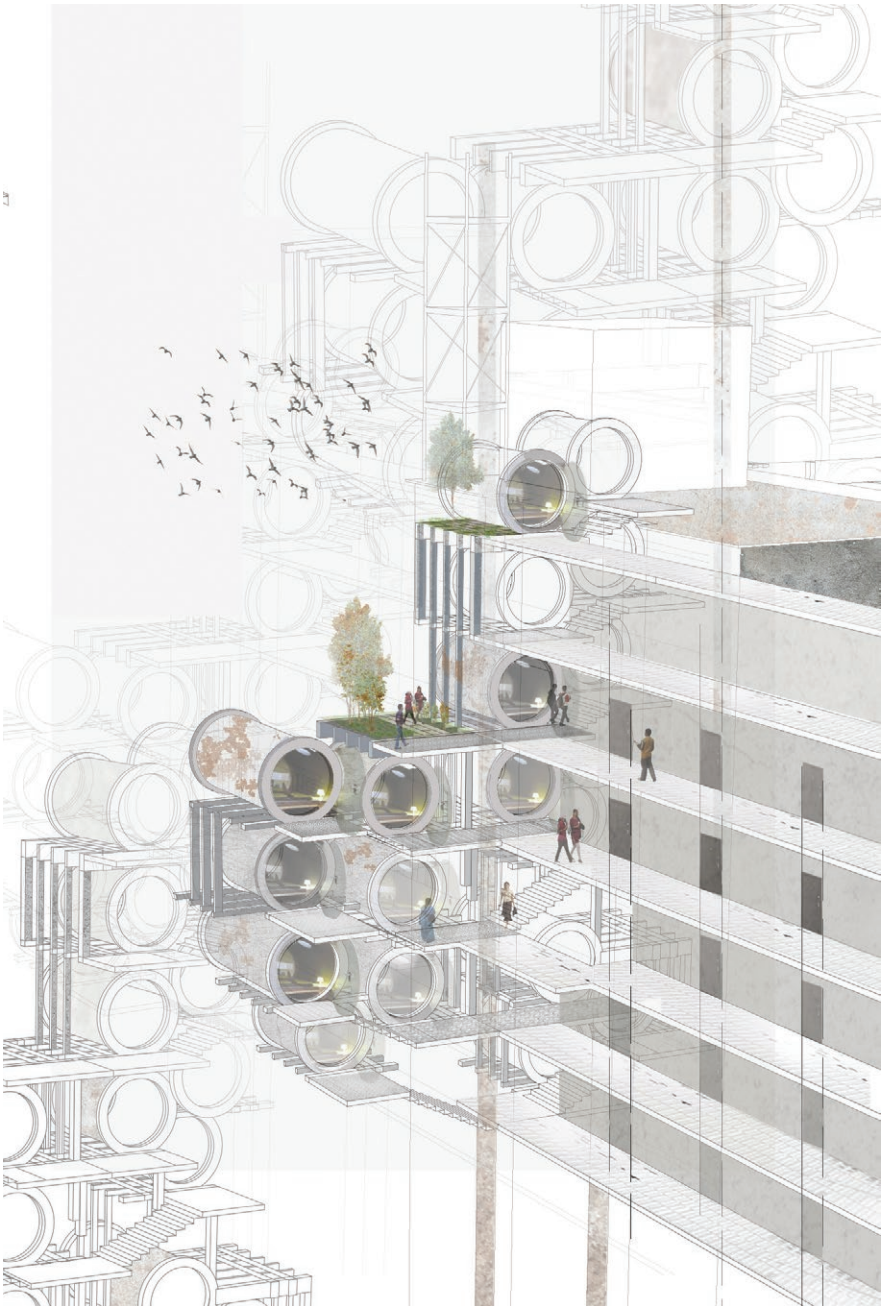


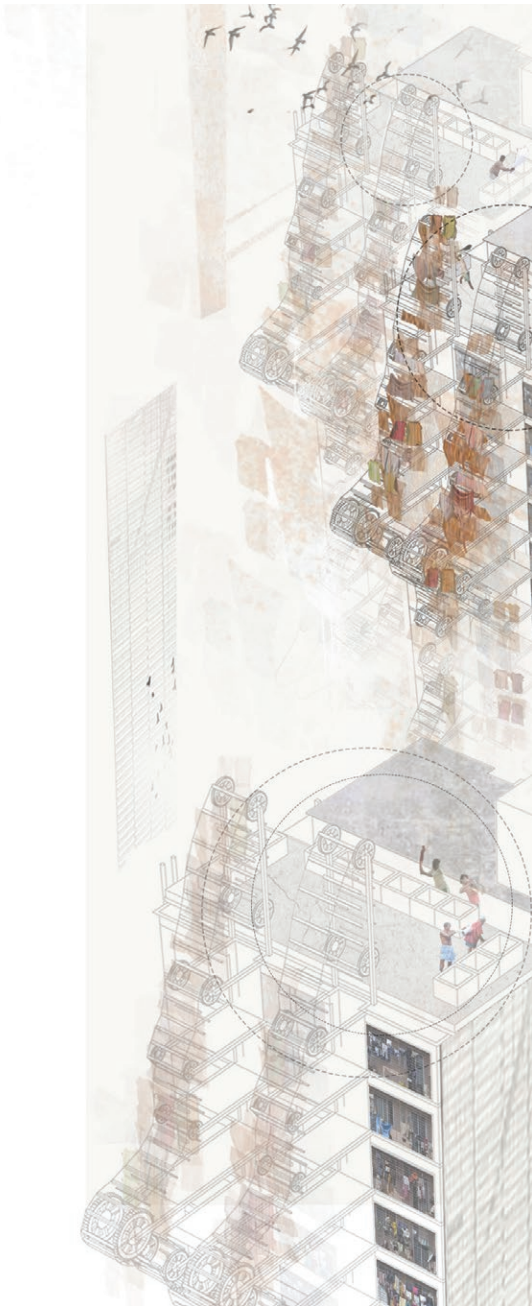
Pipe Base

There are numerous water pipes that pass through Dharavi to provide water to the wealthier neighborhoods of Mumbai. Some pipes travel underground beneath the slum; others travel above the ground, altering the landscape of the slum. These water pipes are symbols of apathy and indifference. However, the residents of the slum began to occupy abandoned structures of the pipes to repurpose them in their favor.

Additionally, people began to inhabit in and under abandoned trucks and school buses, which are placed throughout Dharavi by governmental organizations in an attempt to mitigate the slum's living situations. The way in which the slum residents create their own architecture is striking and resists compliance with a conventional concept of architectural design.

Laundry
As a communal activity, as a way of defining domains





Appendage 1

Utopia

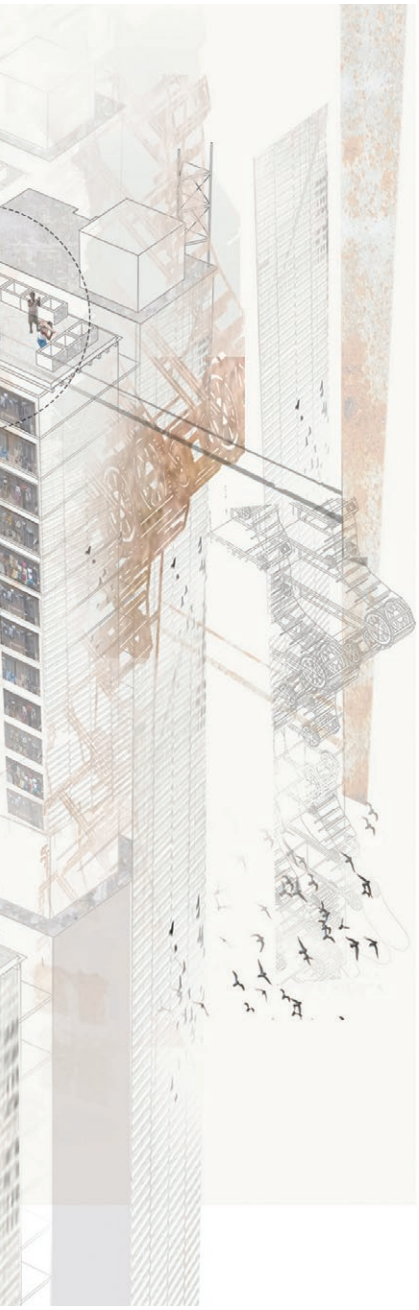
"Utopias are sites with no real space. They are sites that have a general relation of direct or inverted analogy without the real space of society. They present society itself in a perfected form, or else society turned upside down, but in any case these utopias are fundamentally unreal spaces."
—Foucault

Heterotopia

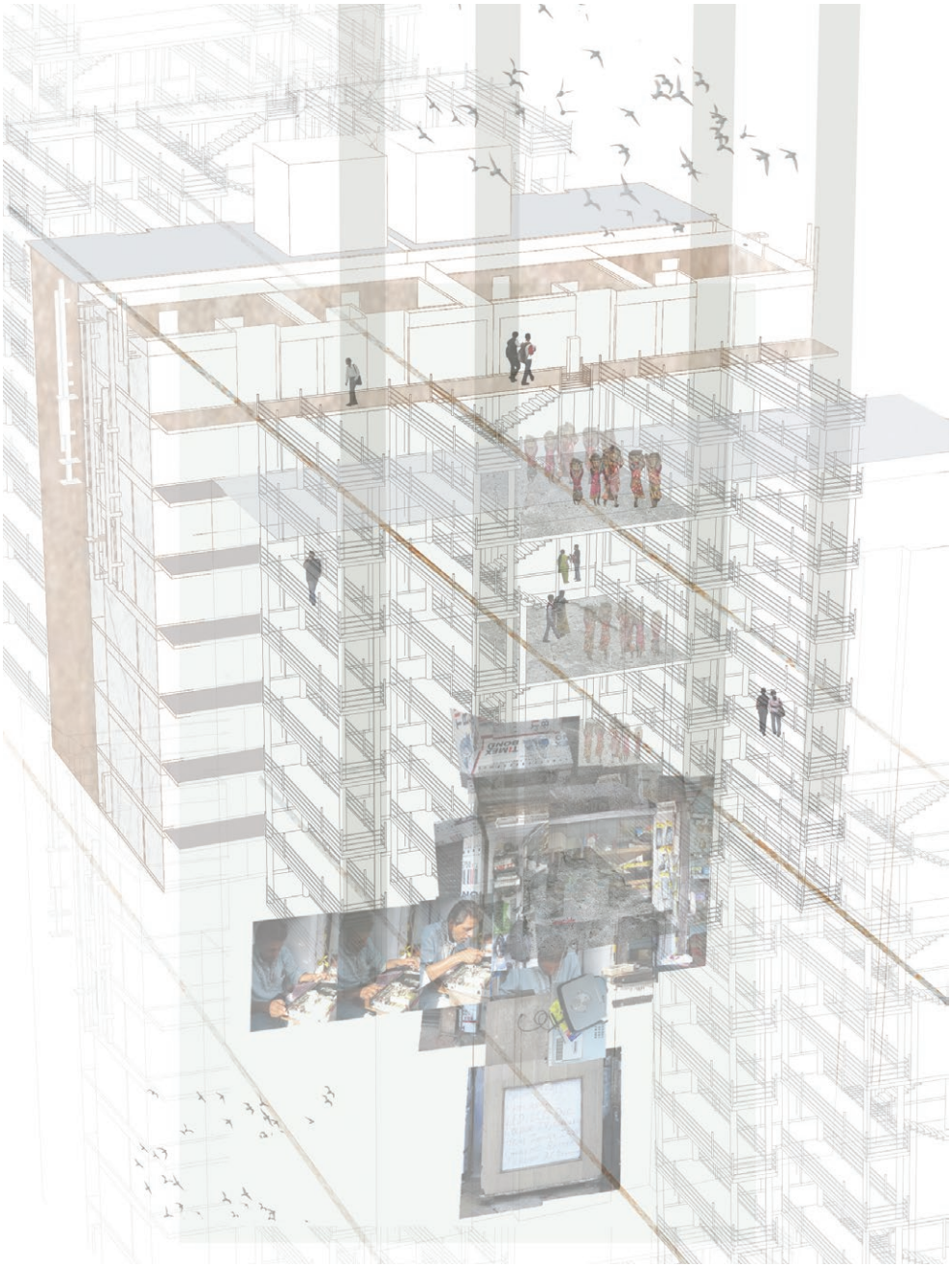
There are also, in every culture and civilization, real places—places that exist and were formed in the very founding of society. They act like counter-sites, a kind of effectively enacted utopia in which the real sites that can be found within the culture are simultaneously represented, contested, and inverted.

The final stage of the project responds to the three elements of the slum: spatial pockets, laundry, and informal economy.

The interventions, or appendages, take a core element of the slum and situate themselves on vertical structures. While preserving the three elements of the slum, the vertical structures, provide permanence, which the residents lack.



Appendage 2

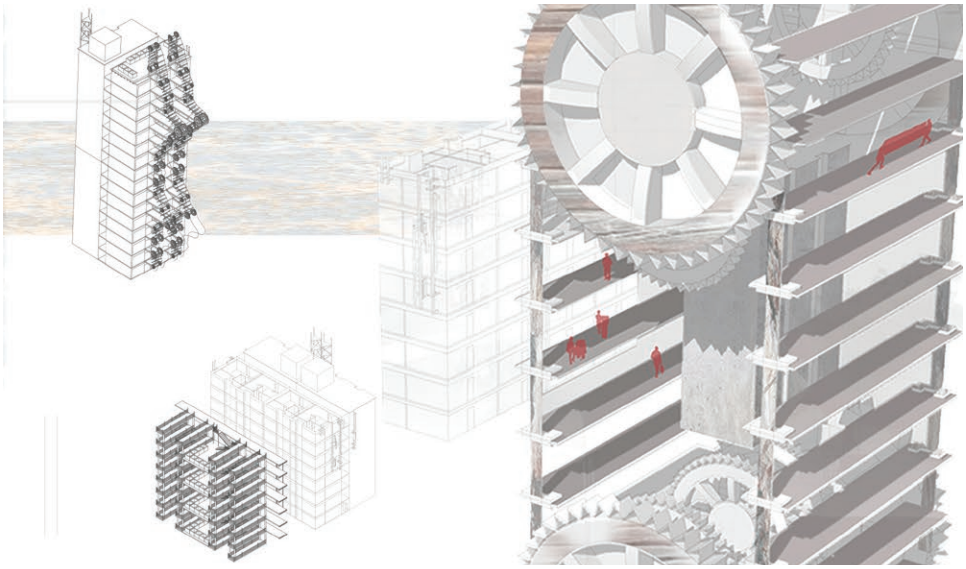


Appendage 3

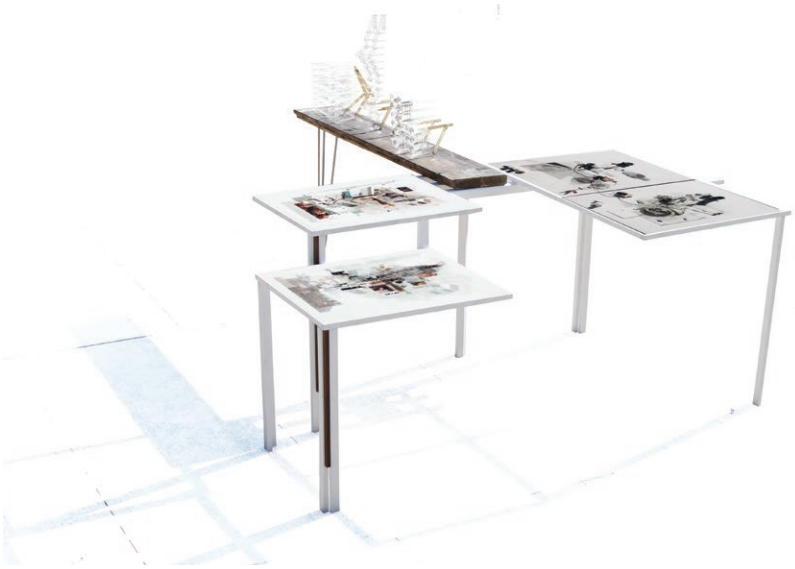
Appendage 1 was born from the already existing pipe structures on the site. It is a temporary and mobile structure that provides shelter for people who have not been displaced to the high-rise apartments. It plays vital roles during monsoon seasons because it provides firm, elevated shelters while latching on to the existing vertical structures.

Appendage 2 is a monumental-scale apparatus, and it uses a pulley mechanism to enable the residents to move their laundry to the top of the vertical structure with very little effort. At the top of the structure, laundry facilities can be found. Without the appendage, the residents would constantly have to encounter countless flights of stairs with their heavy laundry.

Appendage 3 is a collection of extruded spaces, which could be inserted in between vertical structures to connect isolated, individual homes as well as to provide working spaces. The appendage is an aggressive and direct gesture for improved interactions between the residents.



Development of Interventions



Final Exhibition

Yoonwon Kang

This project is a response to current social disruption and the neglect of those marginalized by structures of power. This proposal is an attempt to find relationships that stage new social practices and awareness in the spaces with people of the city that—while invisible and silent—are indispensable.

Wall Street, the Trump Hotel in Washington, D.C., and the Pentagon are well-known sites of power where the elite class receives service and support by this silent population while the elite class neglects their rights. When defined and given presence, marginal spaces provide autonomy to those who serve through enabling communal practices that build identity.

"The infinite distance, countless people, are all about me. I exist, I live, I will live, I start feel more tangible. Now I have the desire to move."
–Lu Xun

Yankun Wang

Advisor: Dawn Gilpin

Seeing-Through Spaces of Marginality

Site

For the first role of this proposal, architecture creates spaces for conversation, organization, education and realizing the common values of those without a voice in society.

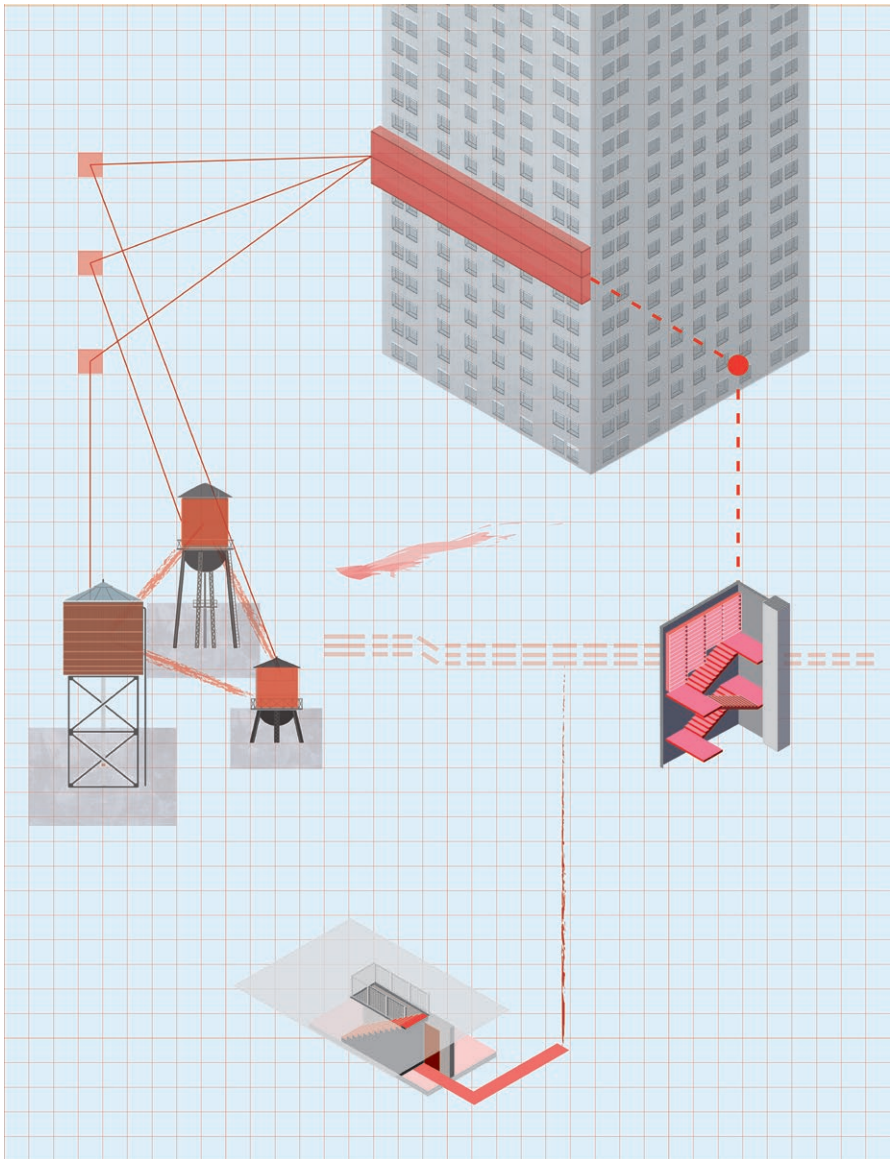
For the second role, architecture acts on both the marginalized spaces and the spaces of power to stage proximities and adjacencies, which give presence and awareness to the role this ever-expanding group of people play in society. Demanding notice of its presence, the red non-spaces are attached to sites of power producing a threshold of obscurity and existence.

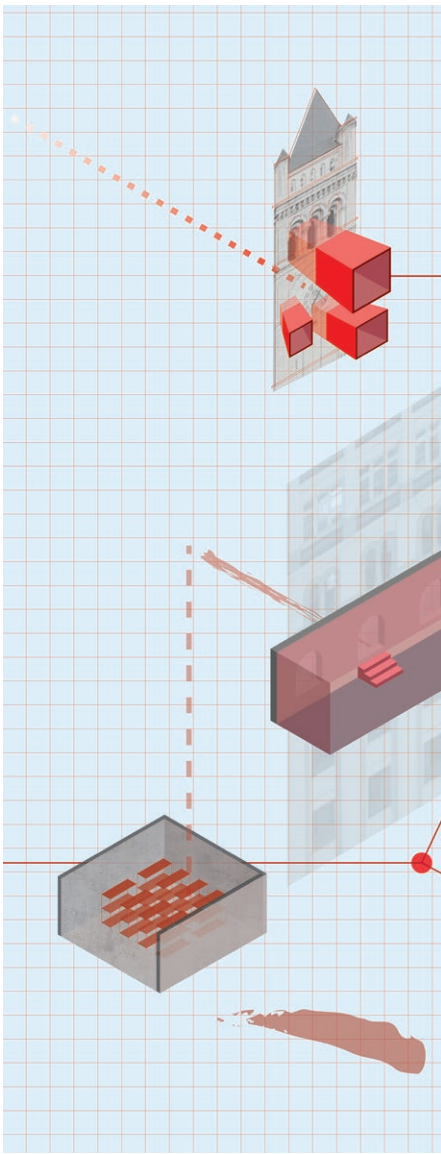
Acts of Improvisation

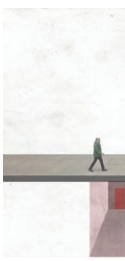
In seeing through the practices of power and the labor of the marginalized, we build awareness and stage exchanges.

When closed, the dumb boxes are without presence, waiting to serve. When opened, the box constructs provocative relationships through the act of staging the see-through, the juxtaposition of the marginalized and the powerful. Acts of Improvisation play out in this architectural threshold as identity is built through definition, autonomy, and presence of everyday practices of the marginalized.

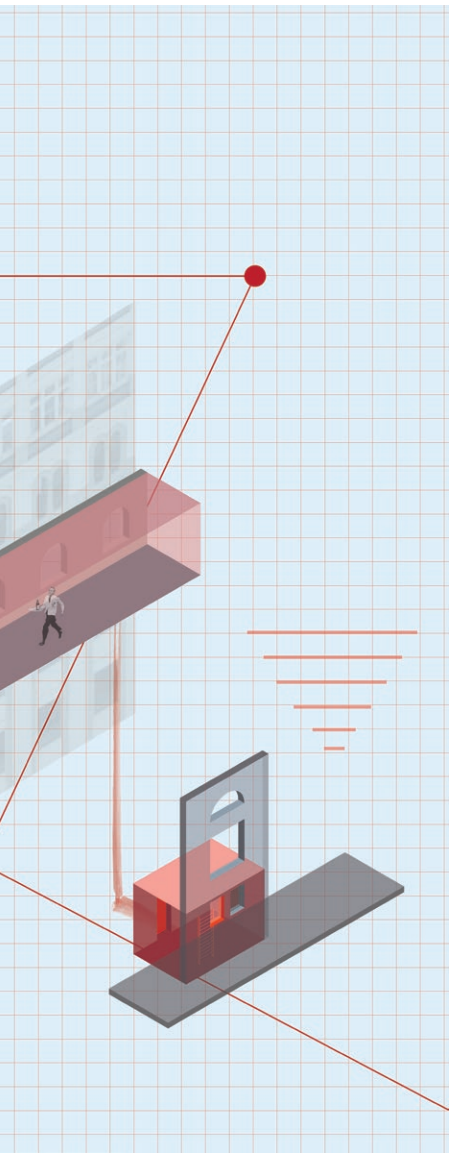
Installation (01)

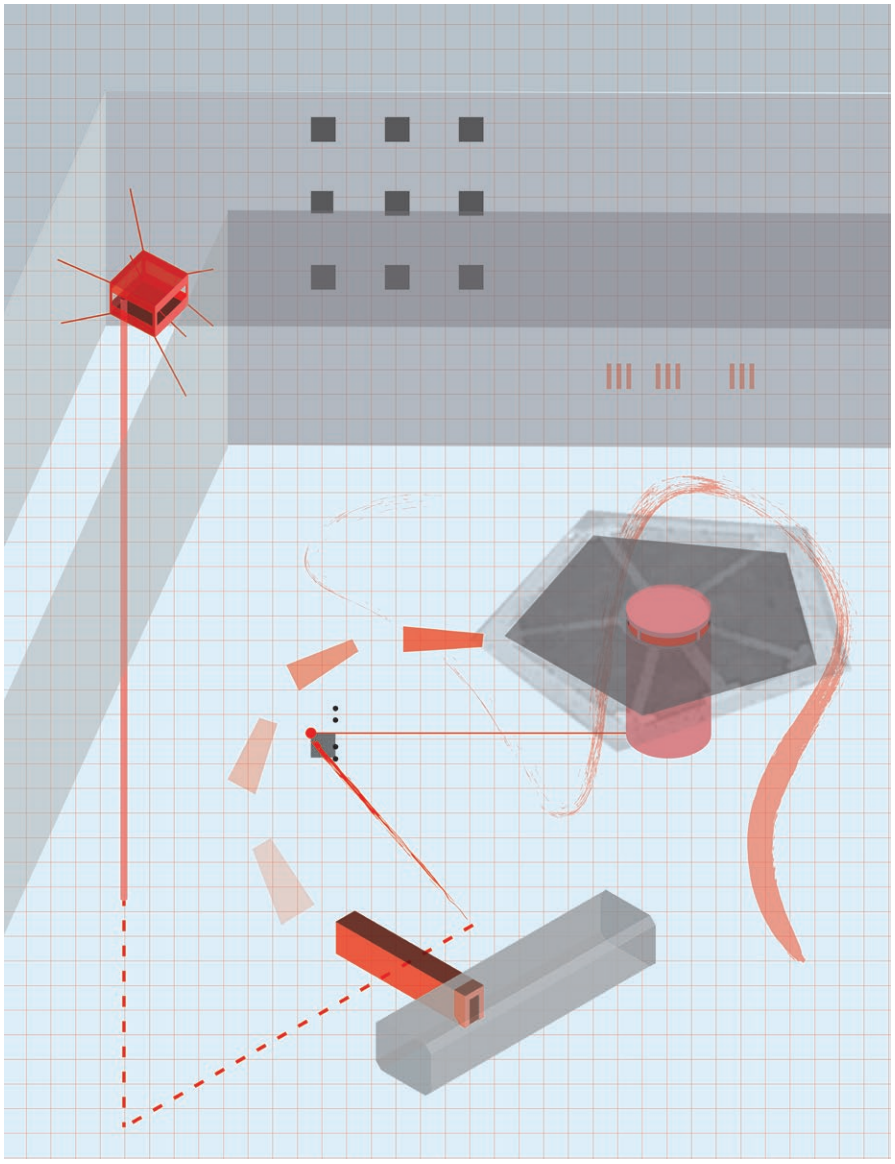




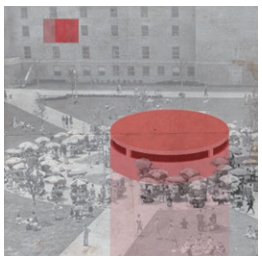


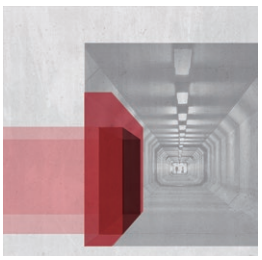
Wall St.





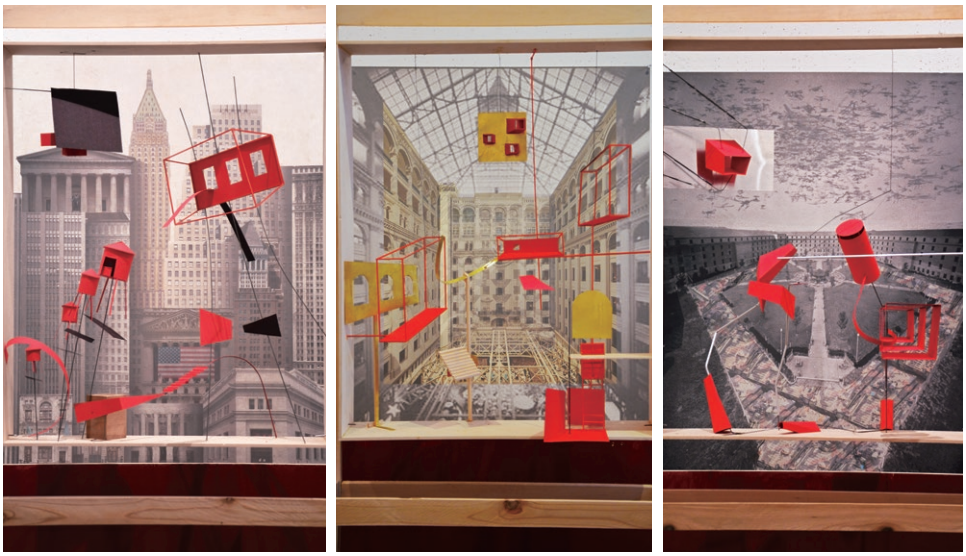
Trump Hotel in D.C.





The Pentagon

Installation (02)



Installation (Detail)

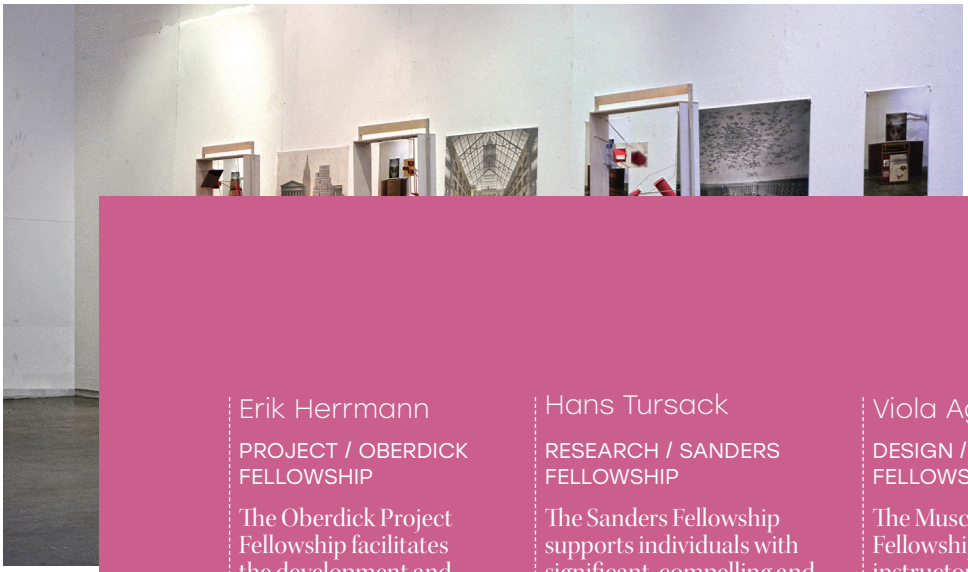
Yankun Wang

Fellows

Erik Herrmann

Walter B. Sanders Fellow

Another Digital



Erik Herrmann

PROJECT / OBERDICK FELLOWSHIP

The Oberdick Project Fellowship facilitates the development and realization of a significant exploration into some aspect of architectural speculation and production. Fellows are provided with resources for the execution of a project that may take the form of an exhibit, publication, installation, or any other material construction. Projects may range from the exploration of emergent building, fabrication, and environmental technologies to the realization of architectural works and endeavors typically unsupported within conventional models of practice.

Hans Tursack

RESEARCH / SANDERS FELLOWSHIP

The Sanders Fellowship supports individuals with significant, compelling and timely research dealing with architectural issues. Research could dwell within architectural, urban, landscape, or cultural history or theory; architectural or environmental technology; or design studies. These agendas could emerge from recently-completed doctoral dissertations or other intense and rigorous research format. The fellowship will support both research and the development of research-related curriculum.

Viola Ago

DESIGN / MUSCHENHEIM FELLOWSHIP

The Muschenheim Fellowship offers design instructors early in their career the opportunity to develop a body of work in the context of teaching. Muschenheim fellows play a significant role in the definition of studio culture while pursuing their own creative endeavors. Proposals for the Muschenheim Fellowship focus upon the development of a specific project individually or with students, outside of teaching or center upon a particular set of pedagogical themes to be engaged in the studio context.

Another Digital

Another Digital is a growing body of research into alternative forms of the digital project, one that bears little resemblance to design work we have become accustomed to associating with the problematic label 'digital architecture.' This collection of work occupies and transgresses the spurious boundary that persists today between programming and broader design culture. The installation explores this new territory through a fragmentary and discursive form of computational design research. Specifically, this form of digital design invites the return of disciplinary concerns cast out in the recent wave of design digitalization, including typology, primitives, and architecture's conventions—both representational and constructive.

The Objects

The installation is a physical database of design experiments generated over the course of the fellowship year. The collection of over 100 objects and images includes formal geometric studies, drawing experiments with historical fragments and propositions for architecture at all scales, from villas to expansive urban-scale proposals. Formal tropes and organizational structures recur throughout the collection with repeating motifs producing affinity between discrete objects rendered in different materials and at multiple scales.

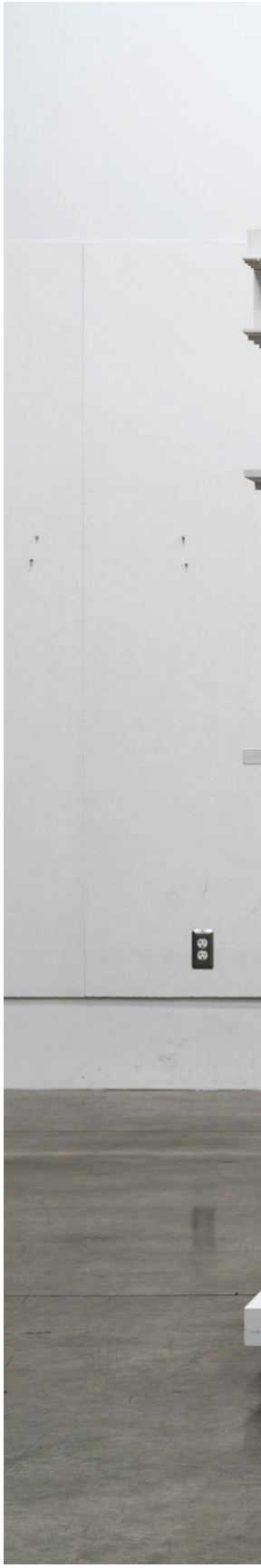
Erik Herrmann

2016–17 Walter B. Sanders Fellow

Another Digital

The formal elemental language of these experiments references the hard-edged geometric abstraction that characterized the Concrete Art movement and, by extension, early computer art. First wave digital design from this period was generated without interfaces. Instead, designers were required to translate their design intentions to clear, explicit algorithmic protocols organized through code. In these early experiments, it was just as typical for designers to execute algorithms by hand as to compile their code with a mainframe computer. This installation follows suit through the disciplined application of algorithms and code to produce a series of corresponding formal studies. Each object begins as a software sketch. Some algorithms are complex. Most are not. The digital primitives presented in the exhibition are derived from a variety of algorithms including space-filling curves and other methods for drawing mazes and labyrinths, such as Prim's Algorithm. The figure of the labyrinth or maze is a recurring figure in the work, as its manifold pathways result from the interplay of space and logic.

The installation's collection of objects is proposed as a new genre of digital primitives. The influence of digitalization is found not in the shape of parts, but instead in their organization and arrangement. The artifacts eschew clear digital signature in their formalism and instead expose how the digital as a format operates at a more fundamental level. As a universal format, the digital and its native medium, the database, introduce biases and tendencies that challenge fundamental premises of the design process. Aside from the generative aspect of digital design, the particular interest in this work is the way the digital format destabilizes the act of designing objects in two particular ways: First, databases put disparate things into conversation with one another, inviting comparisons and equivalencies that seem unlikely, impossible or even inappropriate. Second, it opens objects to infinite alternatives of configurations, scale, materiality, and converting any given object into a situation of apparently infinite perceptual possibilities, a condition Umberto Eco would refer to as an Open Work.



An Open Work resists static interpretation. The overwhelming volume and scale of the installation's production similarly resists stasis for both objects and viewers. In a swiftly moving contemporary culture of ceaseless beta production, the condition of stasis appears increasingly inadequate, irrational and fraught. The digital environment is a format that converts objects to possibilities through the medium of information. In the digital realm, all information is constantly re-scaled or re-situated. As a response to this condition, Another Digital is a highly dispersed project, revealing the tendencies and biases of digitalization in design through a diverse body of work.

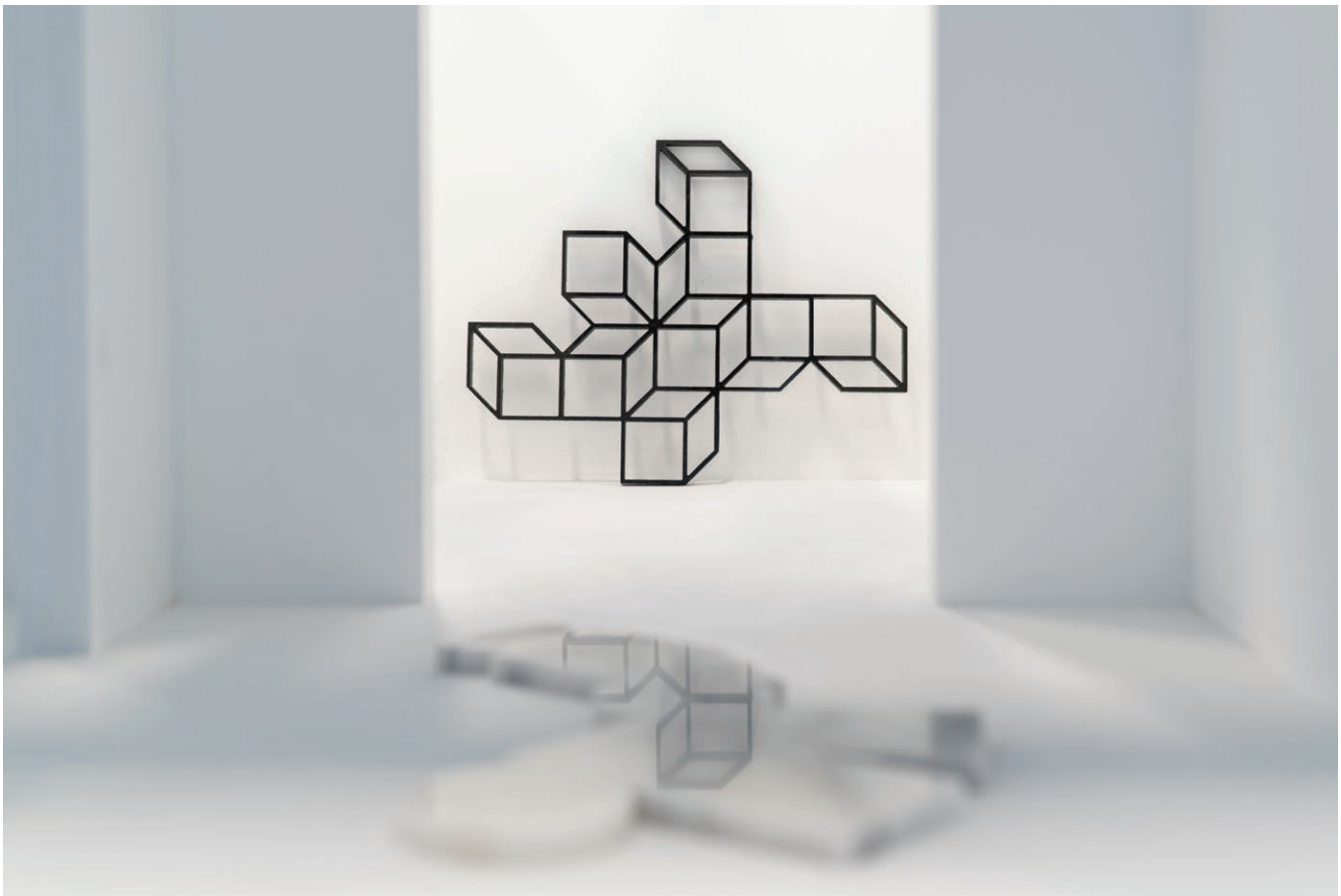
The Cabinet

Visitors entering the gallery are confronted with an enormous labyrinth-like cabinet composed of 420 separate galleries densely packed with hundreds of objects and drawings. These objects recur throughout the cabinet in varied representations, materials and scales, transfiguring in form, scale or materiality as they recur throughout. The format of a large shelf invites comparison between objects, presenting them at an uncanny scale between furniture and architecture. The conceptual frustration of scale is furthered by presenting each object or drawing in its own "room." The scale and density of the objects is exaggerated by the recursive splitting of the cabinet volume from bottom to top. The cabinet builds from a simple set of four open

rooms at the lowest level to a diffused and opaque field of enfilades at the zenith.

The structure is an inverted cabinet of curiosities, offering not a human-focused interior, but instead an alienating, complex, frustrating volume. As the visitor circumambulates the cabinet, they find they are able to peer into most spaces, but not all. Like digital space, there are dark areas and blind spots throughout. Less of a mere shelf, the cabinet is almost like a server in the space, holding and formatting information in a database indifferent to human consideration.

This alienation and indifference is also present in the individual rooms, which radically shift in scale and resemble plausible generic architectural spaces at times, but at other times reveal themselves to be impossible conditions—the project at times seems to organize the information, but on closer inspection it simply holds it. The organization of objects in the cabinet is not random, but quite opaque. It is up to the viewer to begin to construct meaning by capturing discrete moments in the structure and inviting new comparisons between disparate projects held in the varied field of rooms. Another Digital reveals the increasing influence of the digital format in contemporary design culture not through authored signature, but through simple acts of translation, organization and formatting.



Erik Herrmann

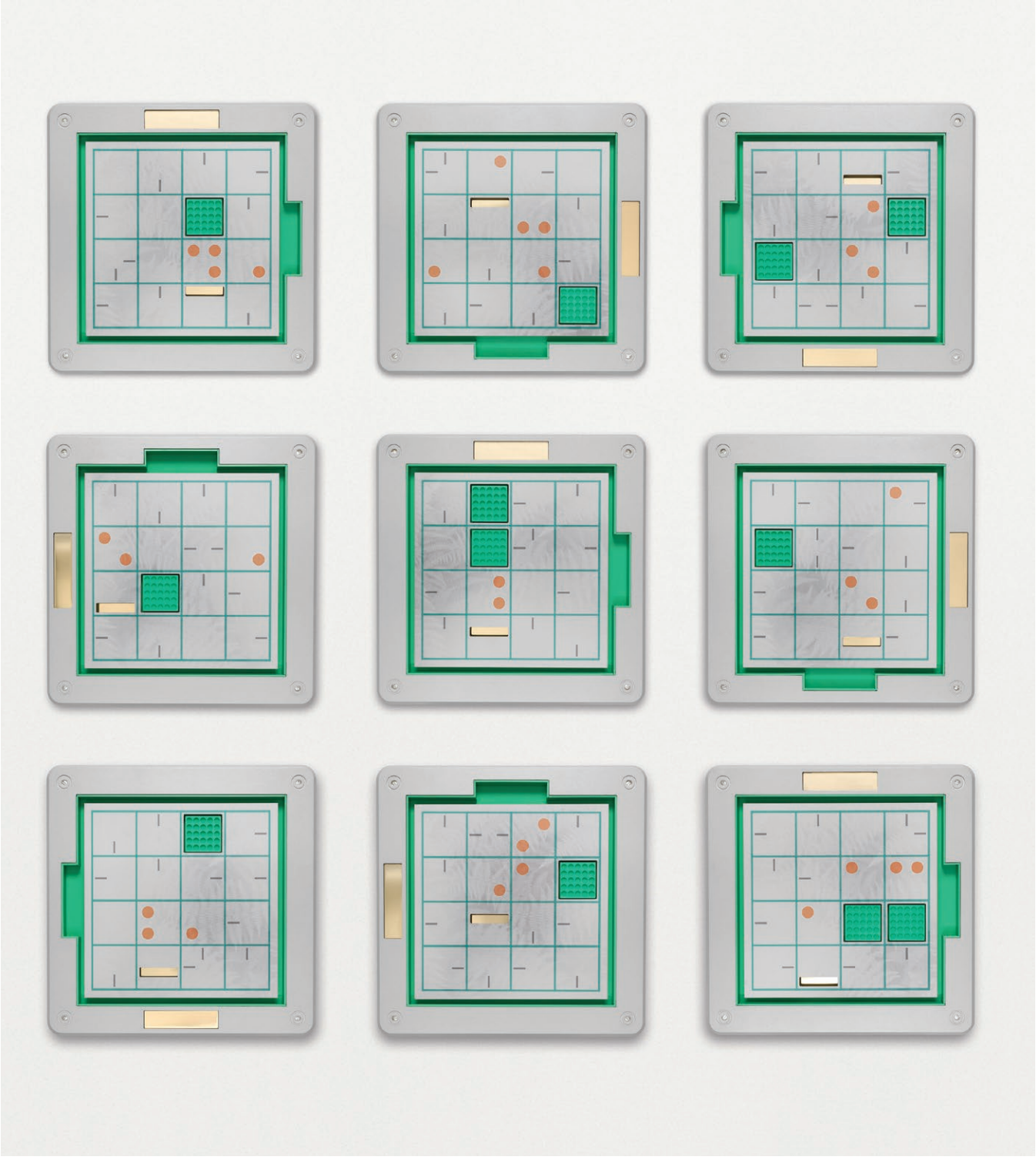
The formal argument of the Desert House project begins with a cube conceptualized as a flat, unfolded box, composed of six, two-dimensional surfaces. Each surface is structured with a grid, and understood as a graphic problem. Taking a cue from Swiss Modernist graphic design manuals, the surfaces of the box are cast as improvisatory games where particulate elements are distributed within the bounds of a sixteen or nine-square grid. Four drawings, nine elevation studies, two furniture elements and a short pamphlet construct a visual narrative around the design at different scales and levels of resolution.

The aesthetic program of the house is situated within a historical, formalist discourse exploring the relationship between painting or graphic problems, architectural surfaces, and tectonics. The narrative begins with the collapse of hard-edged, geometric painting and Modernist architecture through the De Stijl discovery of the "screen" as a primary or base compositional element in the conception of three-dimensional form. The Postwar neo-avant garde took this problem as the foundation of their gestaltist investigations of complex elevation logics and striated spaces in plan. The ambition of the formal language embedded in the Desert House is to offer an elaboration or extension of these theories catered to the speed, surface-centric material sensibilities and graphic, hyper-flatness that characterize a more contemporary elevation sensibility.

Hans Tursack

2016–17 Willard A. Oberdick Fellow

Desert House



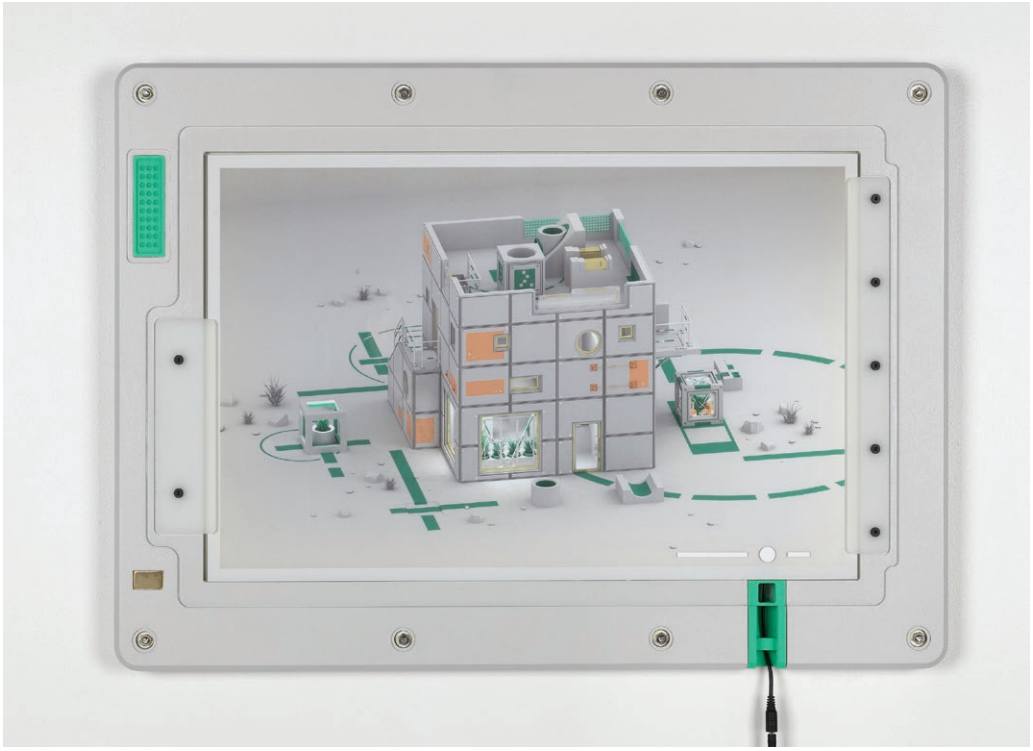
Panel Studies Installation View

Panel Studies III

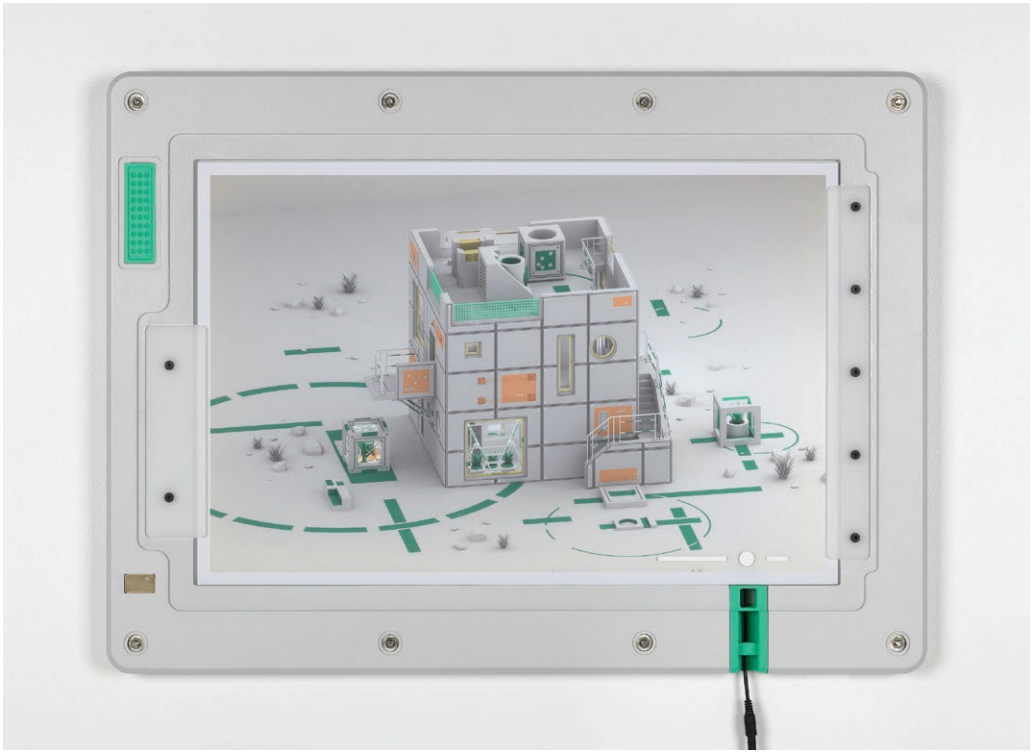
Panel Studies IX

Elevation Rendering (East)

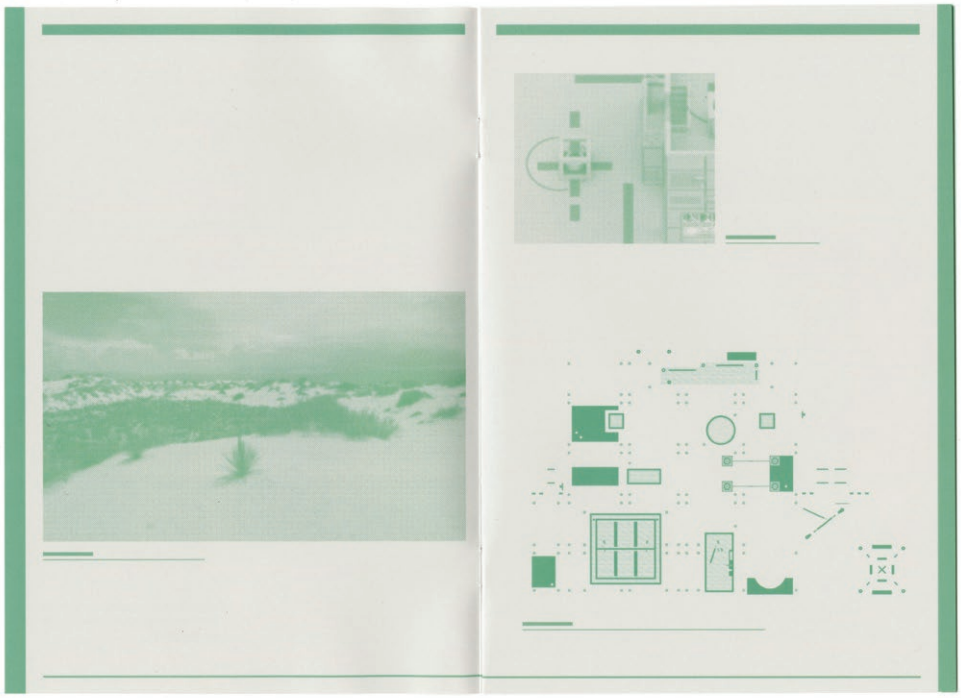
Elevation Rendering (West)



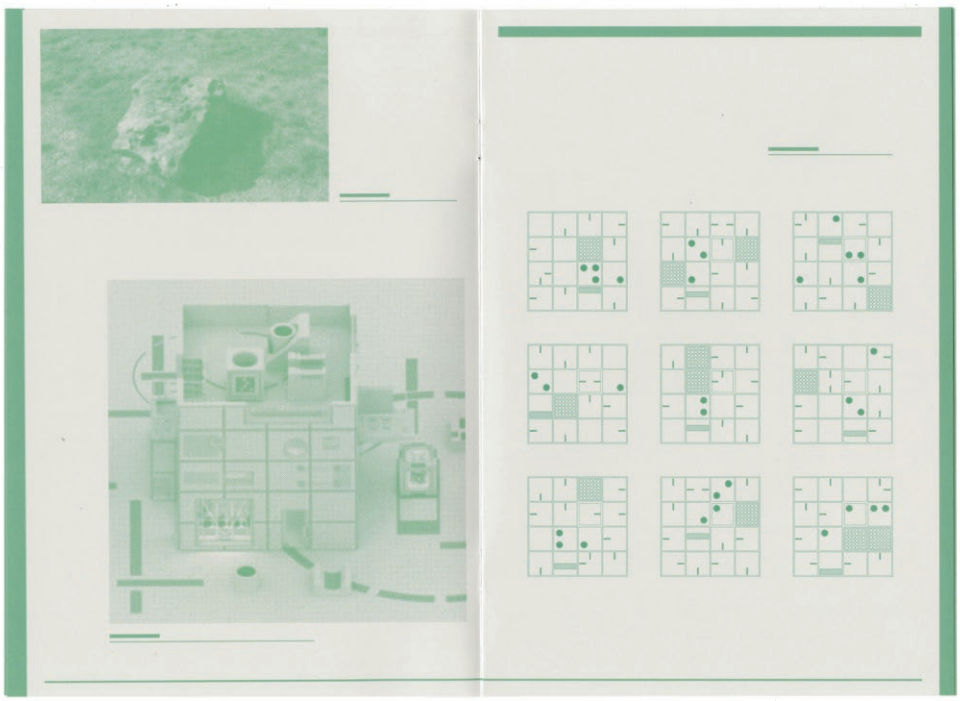
Parallel Projection (01)



Parallel Projection (02)



Printed Matter (01)



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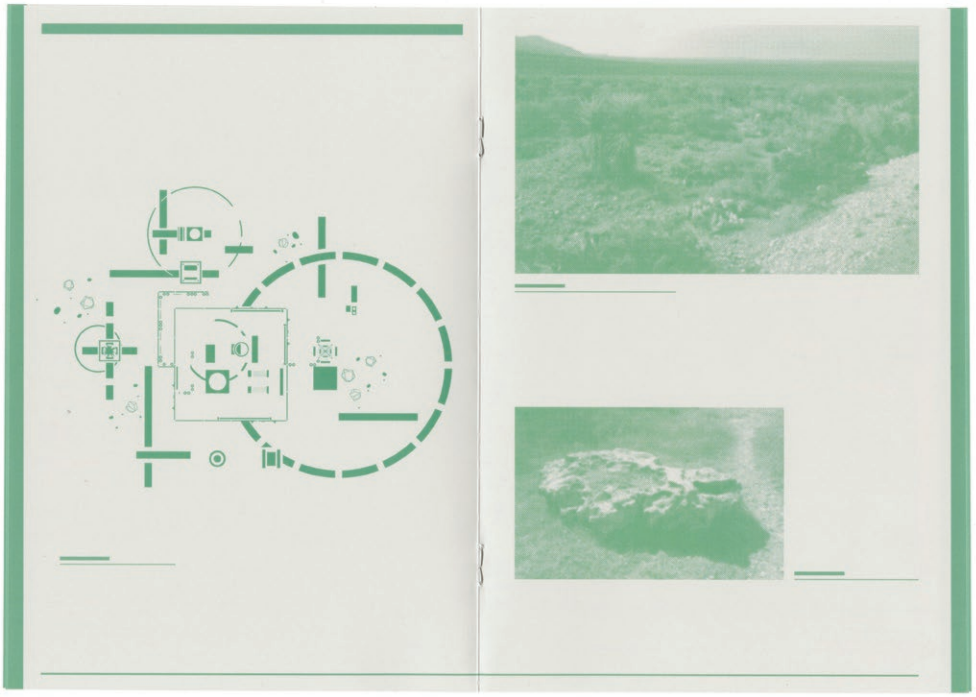
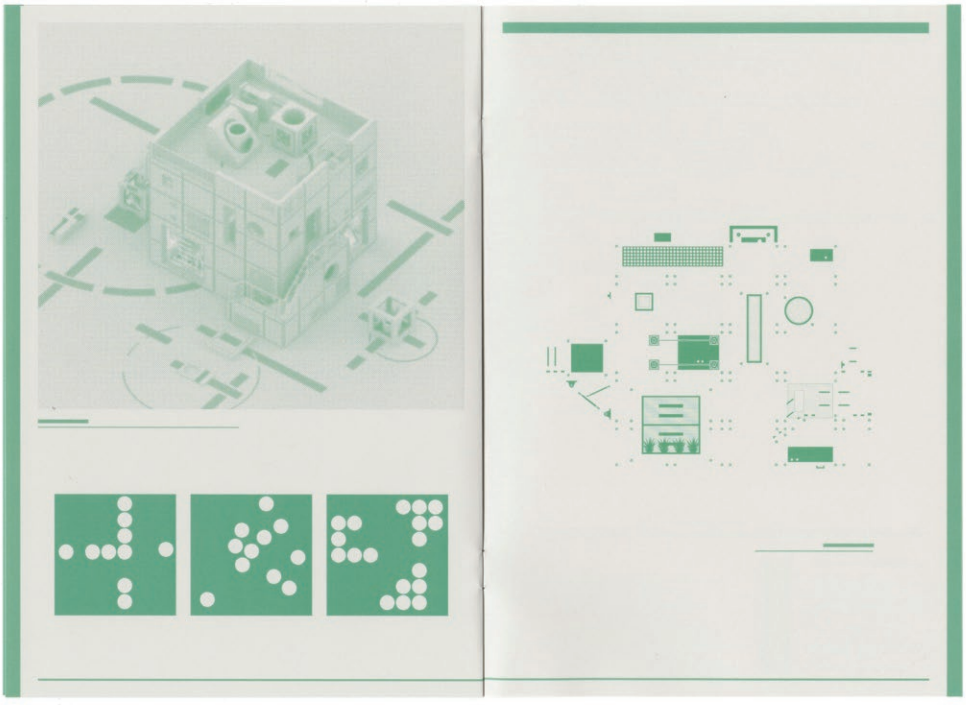


Printed Matter (03)



Printed Matter (04)

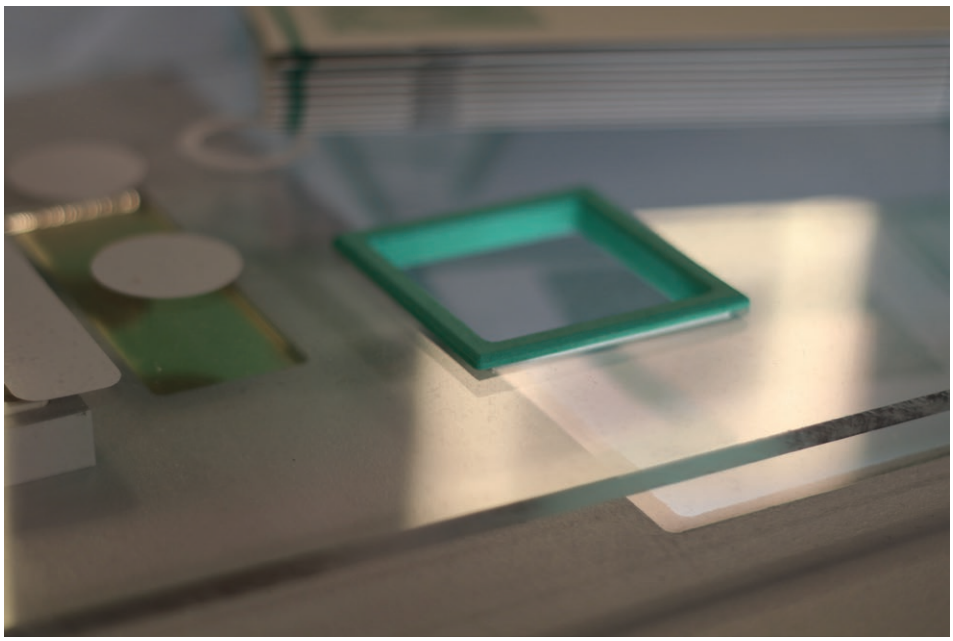


Table and Printed Matter (01)

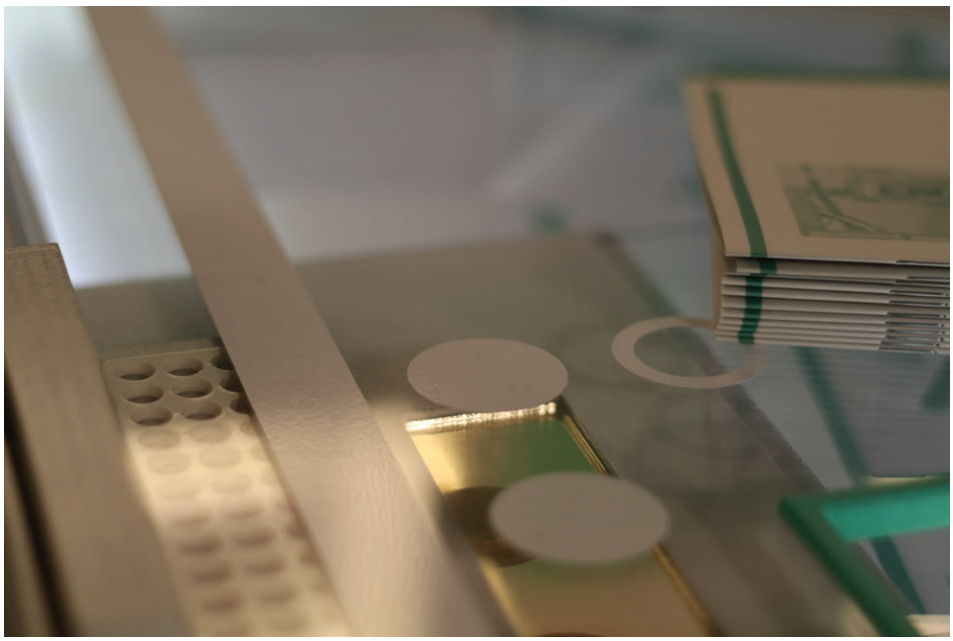


Table and Printed Matter (02)

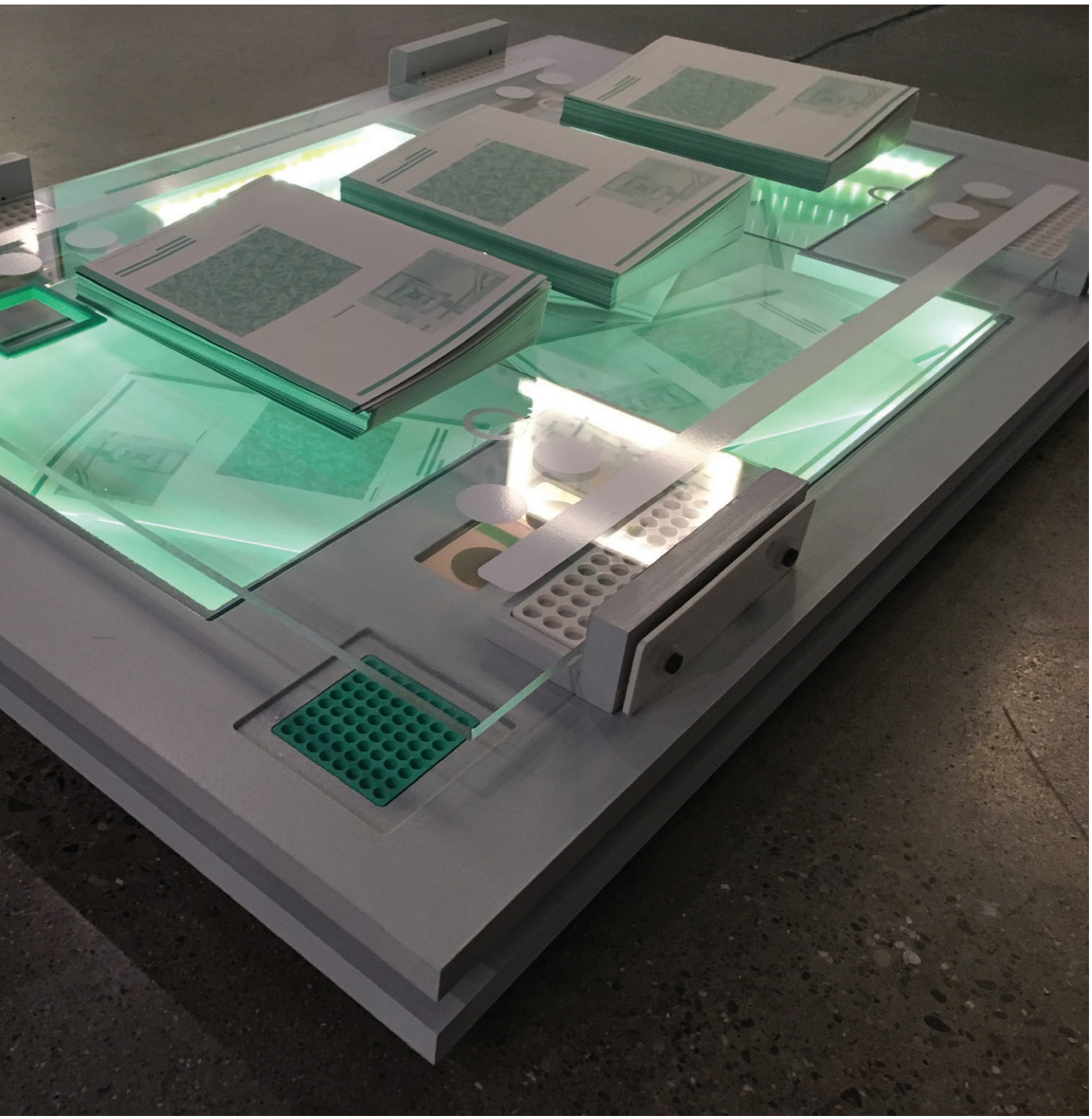


Table and Printed Matter (03)

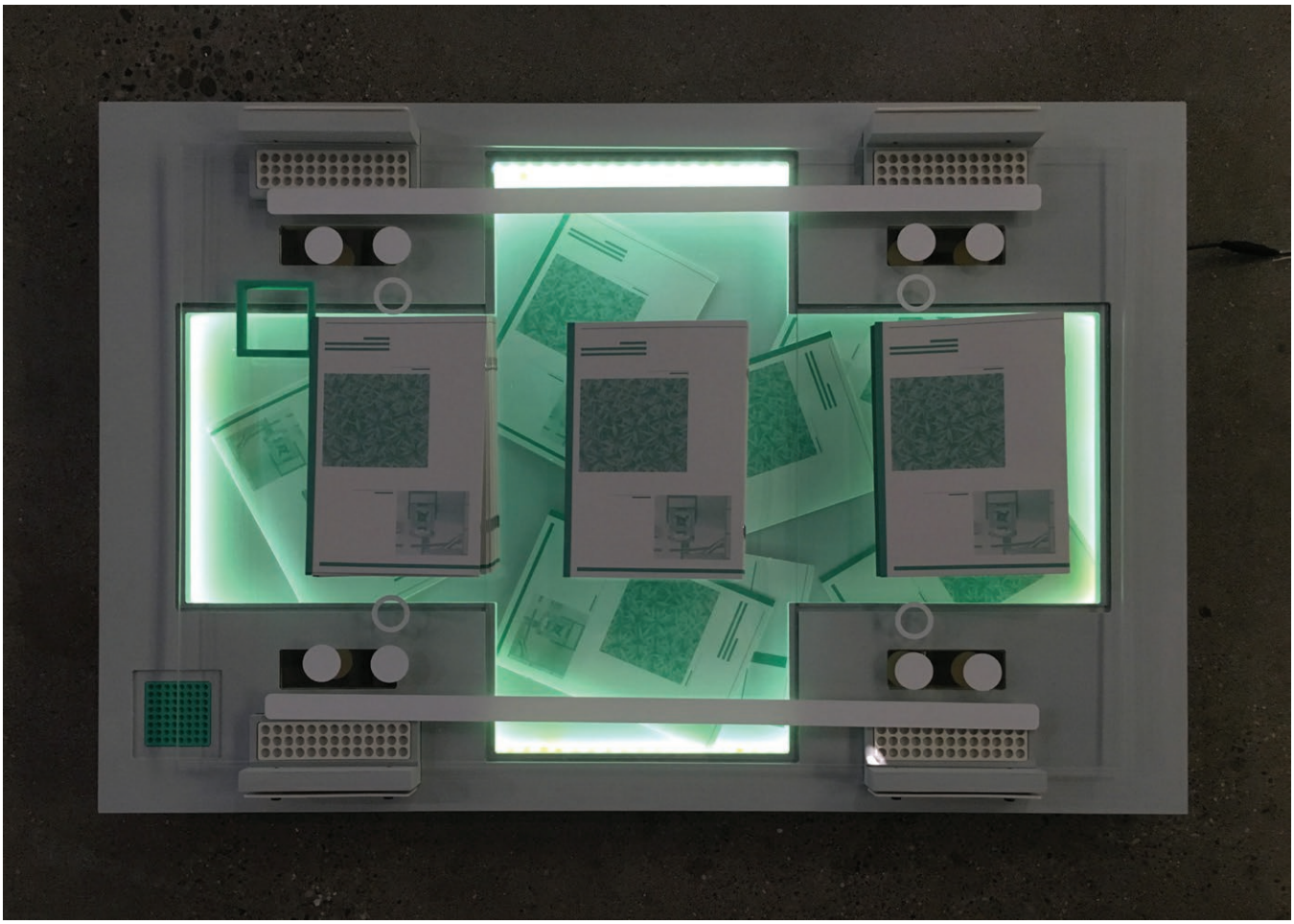


Table and Printed Matter (04)

Hans Tursack

Models are Drawings That Believed in Miracles is an exhibition of work that explores conventions of orthogonal projection in architecture. The project reveals and interrogates latent visual structures in architectural drawing procedures; specifically the tectonics of the line.

A cross-section of drawing objects and models reveal physical, material, and translations of digital information. The objects, produced in series, challenge linear processes of design; a mindset that privileges a one-way movement between conception (immaterial) and production (material). Instead, the work advocates methods of making that are embedded in, and inextricably wedded to, a dynamic design process with no fixed endpoint within a serial attitude.

The relationship between image, support and viewer is problematized in the printed matter. The drawings borrow conventions from painting, but are meant to be viewed from above as a horizontal plane. The models, on the other hand, are framed as vertical images on the wall. In both cases, the re-orientation of the picture plane challenges given notions of exhibition-culture (pinned-up drawings and pedestalled models).

Conceptually, the project explores diachronic notions of form-generation and aesthetically, the work approaches "novelty" as a matter of difference, banality and variety within strict geometric exercises. Procedurally, these experiments exploit methods of parallel projection drawing, and printing processes, to discover a more timely definition of "line." Collectively, this series is meant to be viewed as the beginnings of an investigation, not so much beautiful or technically adept as interesting and "on its way there."

Viola Ago

2016–17 William Muschenheim Fellow

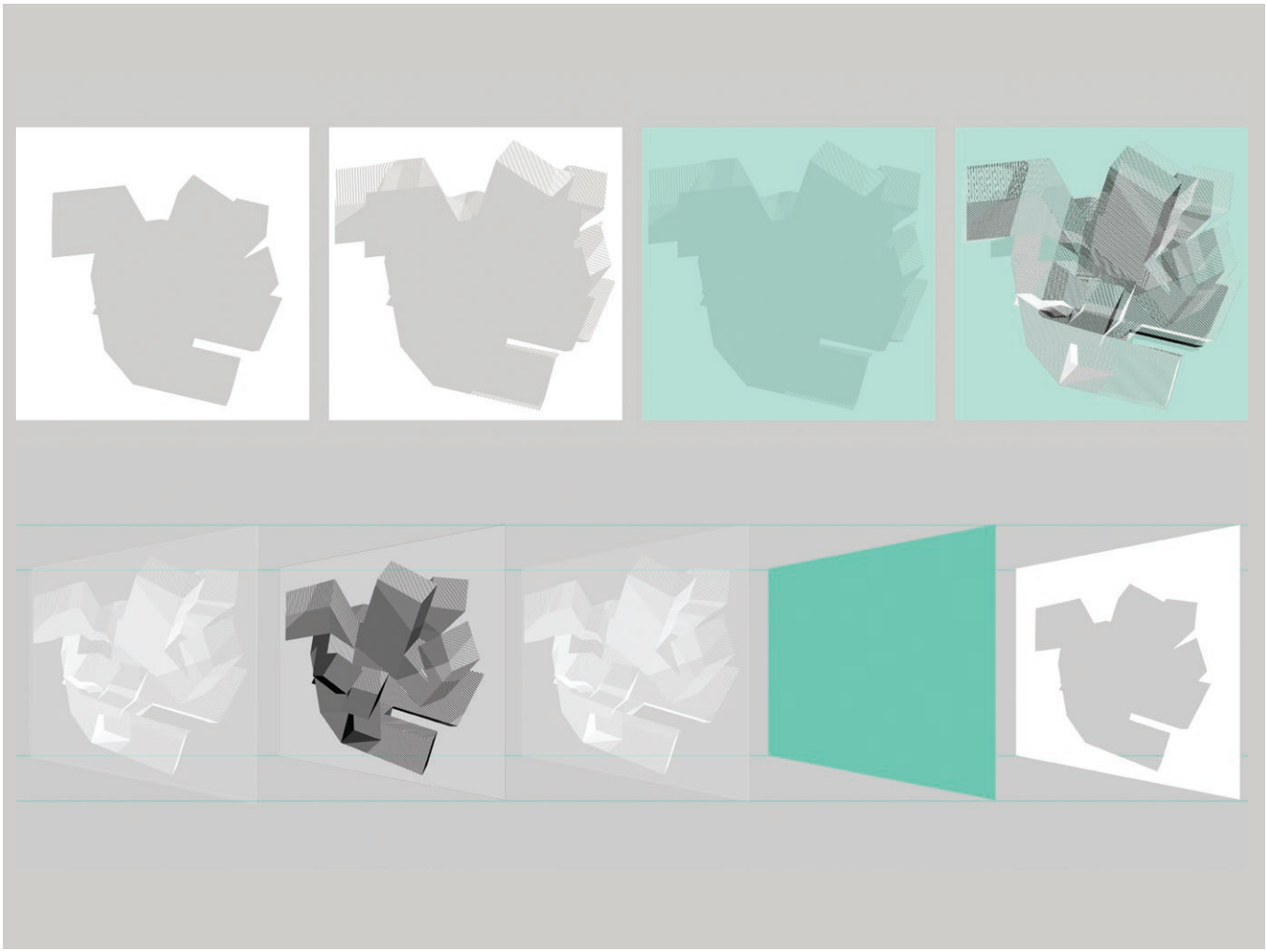
Models are Drawings that Believed in Miracles

Installation View (Top)

Models are Drawings That Believed in Miracles

The Roman author, naturalist, and naturalist philosopher Pliny the Elder, tells an anecdote about the origins of linework in Ancient Greece in his book *The Natural History* in 79 A.D. The story characterizes the rivalry between two master painters, Apelles and Protogenes. In Pliny's accounts, Apelles, makes an appearance at Protogenes' house unannounced, and takes the liberty to showcase his artistic expertise by drawing a single line on his competitor's drawing board. Upon his return, Protogenes, rises to the challenge by drawing a second, single line, much finer than the first mark. Retaliating, Apelles appears again and draws a third line in a different color (the finest of the set) that bridges the first and second strokes. At this point, both artists agree that the composite drawing displays impeccable creative virtuosity—thus creating the first, purely linear abstract drawing. The painting was displayed prominently at the Palace of Augustus in Rome until it was lost during a fire in 4 A.D.[1] This story displays the potentialities of the line to produce abstract drawings from an early time of artistic creation.

Line drawings have a long and contested history in architecture; they also appear in histories of philosophy, painting, sculpture, engineering, physics and even the medical sciences. Today, line drawings still maintained presence in contemporary visual culture. Conceptual art and minimal art in the 1960s and 70s helped elevate the act of drawing from the diagrammatic ghetto it had fallen into during the scientific revolutions of the 19th and 20th centuries. In Conceptual art and Minimalism, drawing made claims once again to a status as a stand-alone, and self-sufficient work of art.[2] In architecture, line drawings occupy a more complex place in the discipline. The drawing has taken on various roles as a tool for communication, as an autonomous art object, and as a device used in the representation and construction



Drawing Structure Diagram (Object 1)

of complex physical objects.[3]

The architectural drawing is a volatile concept. Its definitions range from instructional tool to representational artifact. Architectural drawings can be factual or high-level abstractions; material or ambiguously virtual. Sub-genres of the architectural drawing include: plan, section, elevation, renderings, diagrams, digital drawings, computational drawings and so on. Over the last decade, the concept sustained an exhaustive (and at times exhausting) period of ontological investigation (what is an architectural drawing?), research and historical-theoretical examination. The contemporary moment in drafting culture might be characterized as a state of sustained anxiety, or frenzy—inundated with freedoms and opportunities created by experiments that resisted the traditional representational orthographic projections (plan, section, elevation). The following is a brief discussion of three distinct areas of interest that support the expansion of the line drawing as an architectural object—spatial and atmospheric; simultaneously carrying technical and visual information while engaging with material specificities.

Line as a Trace of Motion

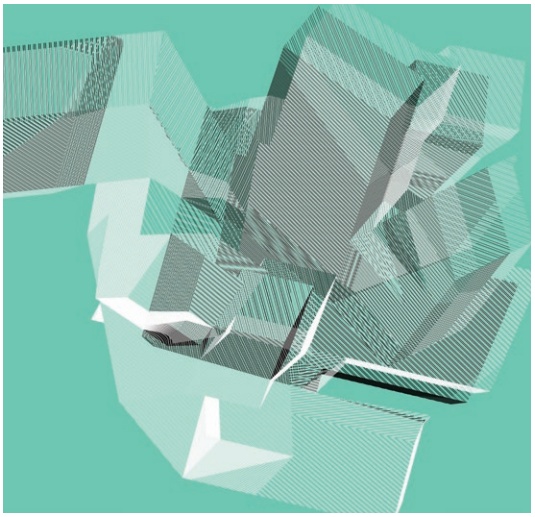
The line drawing served as a catalyst in the binary between the illusionistic and the actual as Modernism started to operate in the liminal zone of the virtual and real.

Absorbing, and at times misreading lessons from significant rifts and aberrations in the history of the line, my work explores the possibilities of the drawing as a system that integrates modes of ambivalence, precision, motion, and delay. Echoing ambitions of emergent figures, Preliminary Study for a Wall Relief (from Models are Drawing that Believed in Miracles), operates on techniques of trace, multiplicity, and projection to generate lines that also produce figuration.

The Architectonics of the Digital File and Materializing the Line

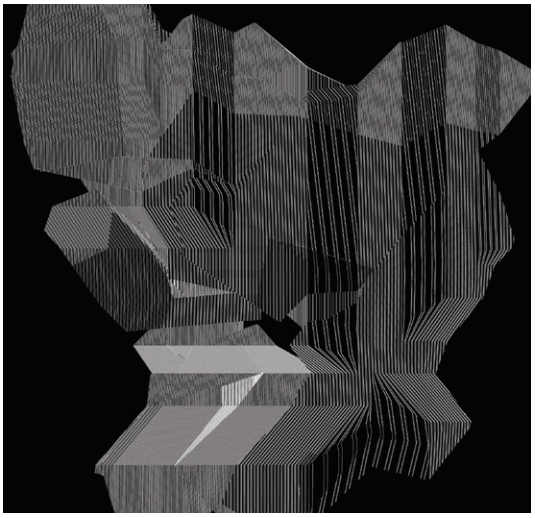
The Models are Drawing that Believed in Miracles exhibition explored the tectonic possibilities of the line. The advent of the post-processing digital file in architecture started to challenge the conventions of architectural representation; the line evolved from black outlines that confined a boundary filled with color, to white lines confining boundaries filled with color. The typical single-step process of printing flattened digital images reduces the tectonic expression of the white line. In other words, there is no authentic translation for the white line; it is instead a void on the printed surface, containing no color or material substance. In the art world, as the drawing started to gain stature, white lines were not restricted to the same covenants.

Object 2, one of the nine objects from the Models are Drawing that Believed in Miracles exhibition; challenges the conventional use of the drawing and the



Object 1 (Drawing)

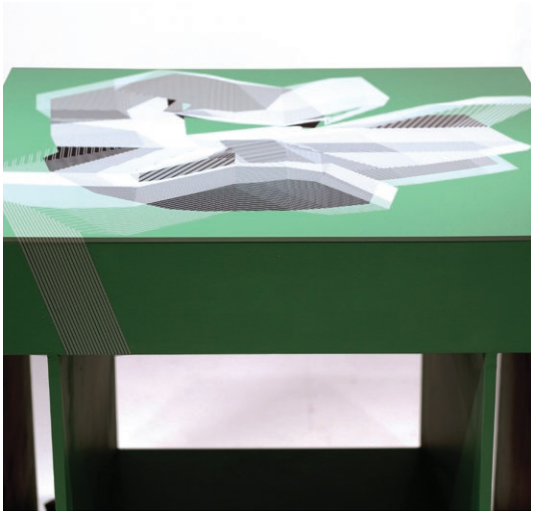
Line Drawing



Object 9 (Drawing)

model as respondents to representation and fabrication. The nine object-drawings consisted of ink prints on rigid material. These prints were situated in material constructs that obfuscated the boundary between the drawing and its support. The drawings consisted of multiple printed layers; each one playing a significant role in the material construction of the emerging figure. For most of the object-drawings, the top-most layer comprised of marching parallel white lines that spilled the drawing from one physical plane onto the next.

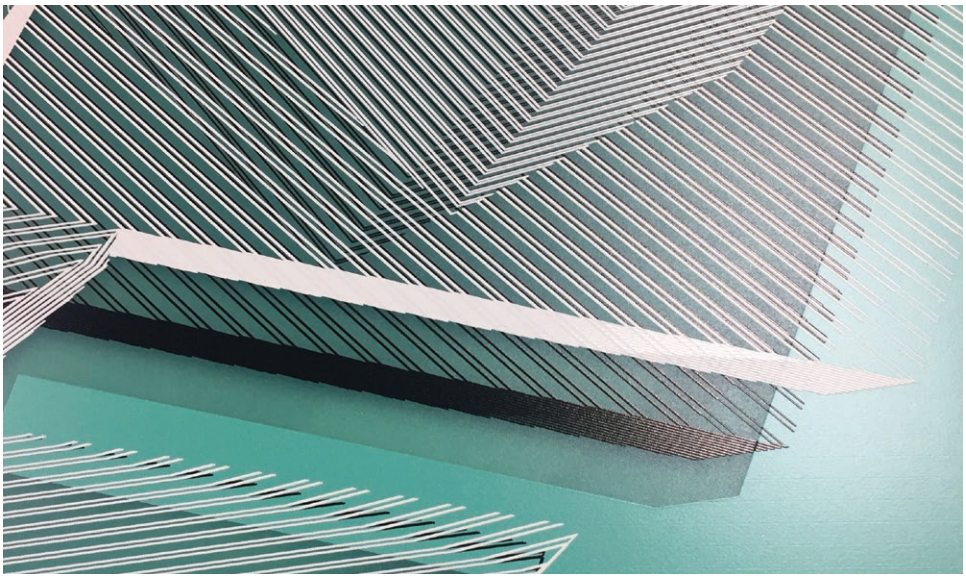
This structural diagram indicates the layer structure of the Object 2 drawing; illustrating the route from the virtual to the real. The objective of this system is to forge an indistinct relationship between the digital file construction and the printing process. The white fill layer, which acts as a masking layer, is the first act that marks the figure on the drawing plane. The second layer, which is the first layer of white lines, conflates the mask boundary by wisping the edges of the explicit outline of the marked figure from the mask layer. The first two layers exclusively service the construct of the frailed figure. The addition of color indexes the areas of varying transparencies imposed on the material; maintaining higher levels of transparency on the figure (masked) zone, than the rest of the drawing plane. The line drawing (which in this instance comprises of two layers—the black lines and the white lines) is then finally printed as separate layers on the drawing plane, creating low reliefs of ink deposits.



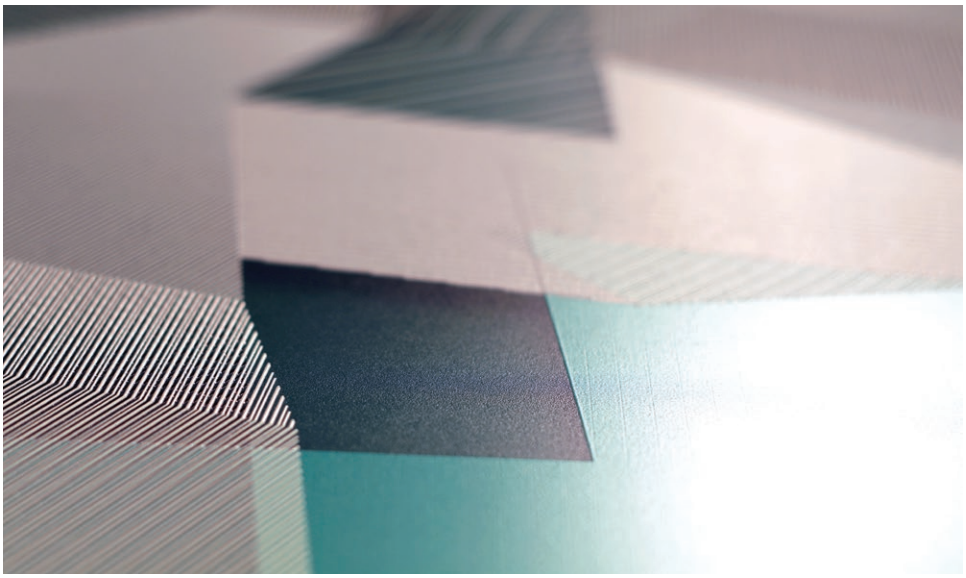
Object 3

Object 2

Object 1

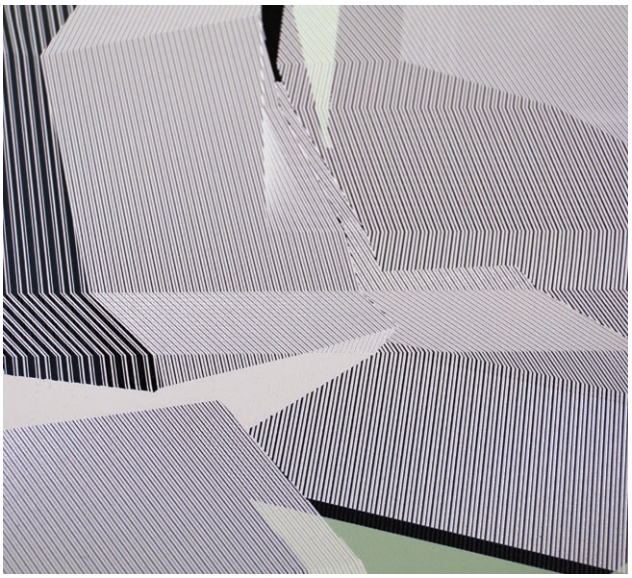


Object 1 (Detail)



Object 1 (Detail)

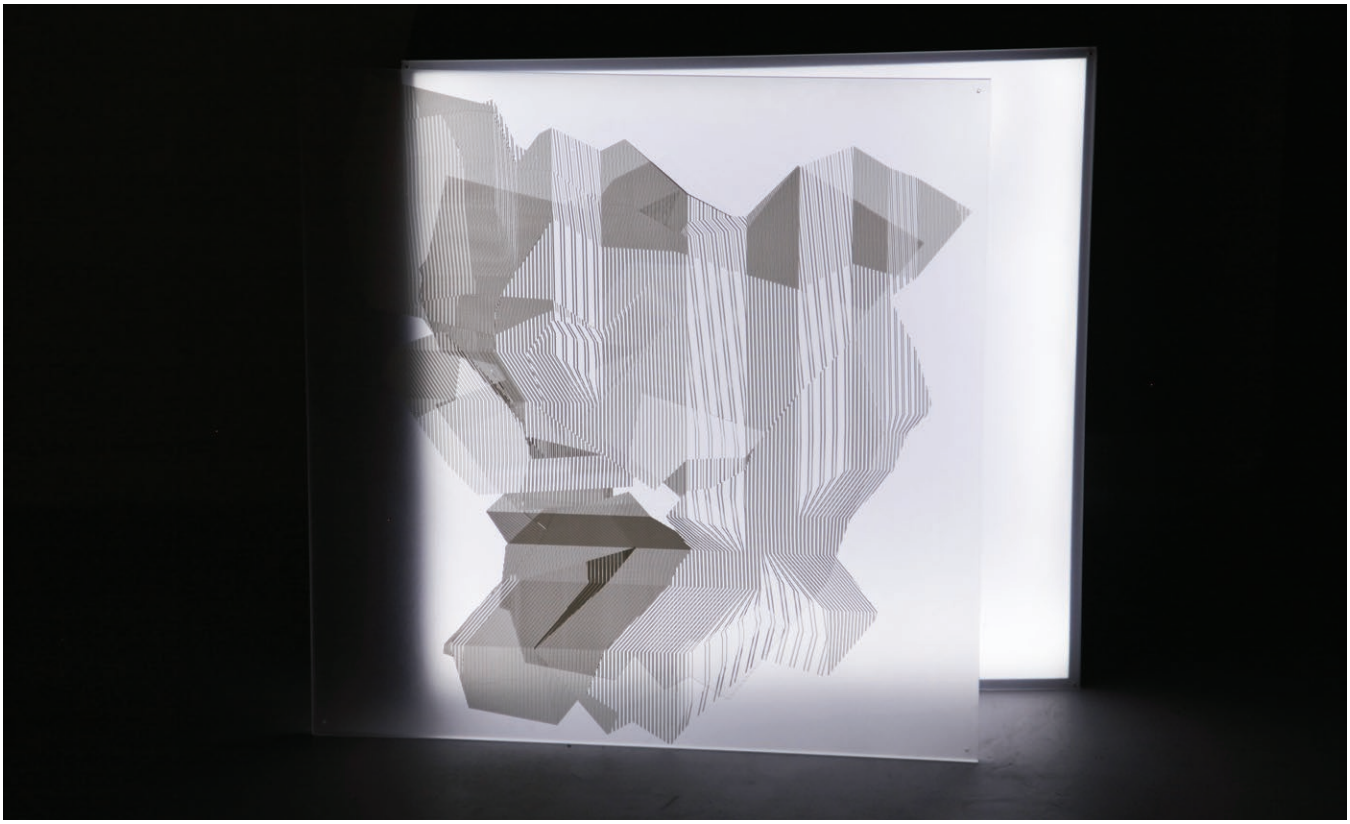
Object 3 (Detail)



Object 7 (Detail)

Object 8 (Detail)

Object 2 (Detail)



Object 9 (01)

Line as Atmosphere

Object 9, from Models are Drawing that Believed in Miracles, in a similar fashion, tries to introduce new possibilities for the line as it relates to material, atmosphere, and space. The physical component of the drawing element of Object 9 is comprised of two sets of line networks, white ink-printed lines, and lines formed into the substrate of the material stock via computer numerically controlled (or CNC) tooling. In this work, the drawing board is intentionally displaced and positioned on the floor. Delaminated from its support (the fallen pedestal), Object 9 engages the double-sidedness of the drawing and the space it occupies. Further, the line drawing is activated by illumination in order to produce extra atmospheric effects on the picture plane, as well as the space created between the drawing board and fallen pedestal. The sequence of white opaque lines (printed) and white translucent lines (formed) produces a drawing that invites the viewer to engage with the composition, and experience the spatial effects of the undulating, low-relief landscape of lines from different vantage points. Favoring an expanded field of spatial illusion, the object-drawing phenomena has now bypassed the pedestaled-object and the pinned-up drawing format.

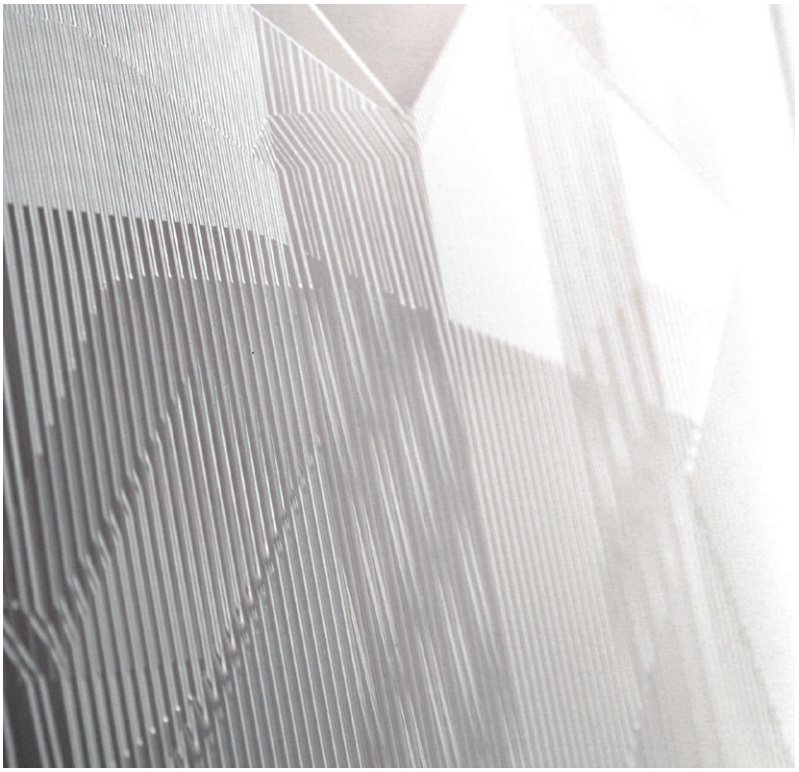
Footnotes:

1. Gianfranco Verna, “Preface” in: Sandback—Drawings 1968-2000. Düsseldorf: Richter Verlag, 2005.

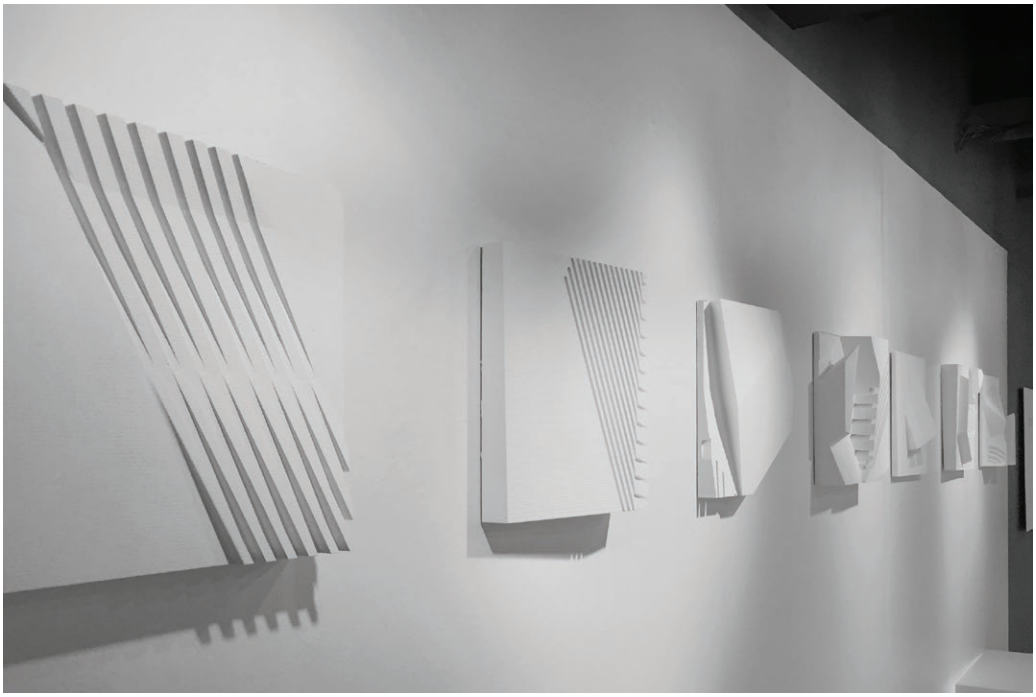
2. Carl Andre, Christo, Walter De Maria, Mark Di Suvero, Dan Flavin, Michael Heizer, Don Judd, Sol LeWitt, Robert Morris, Bruce Nauman, Claes Oldenburg, Richard Serra, Robert Smithson. Diagrams & Drawings. Otterlo, Netherlands: s.n., 1972.

3. Of Process, Mark, and Figure was part of the DRAWING CODES: Experimental Protocols of Architectural Representation Exhibition at the California College of the Arts in San Francisco California, 2017.

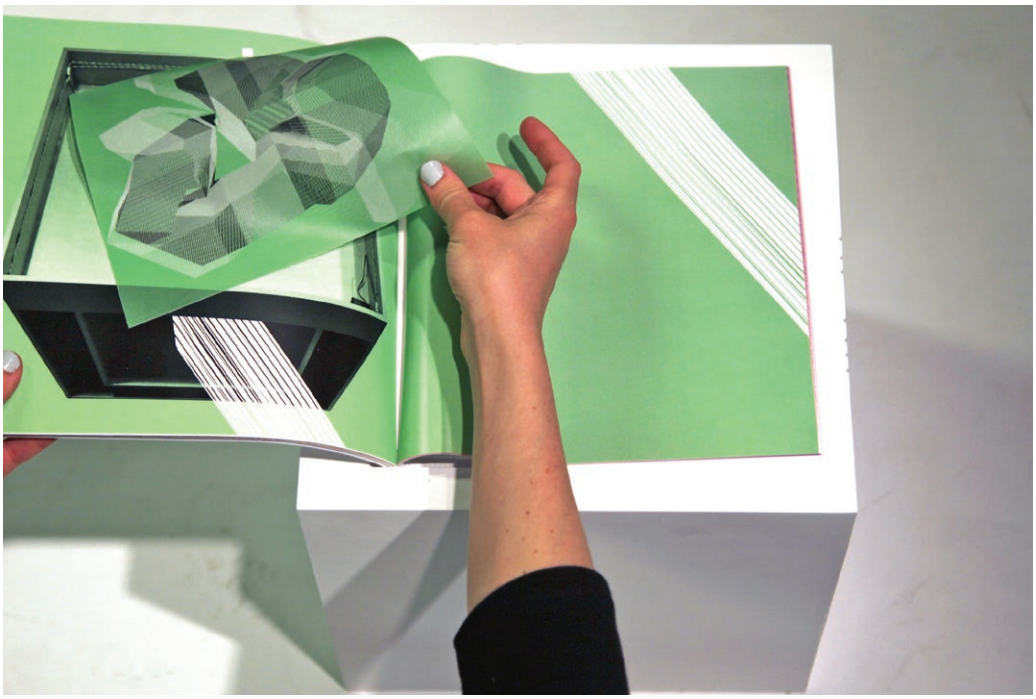
Object 9 (02)



Object 9 (03)



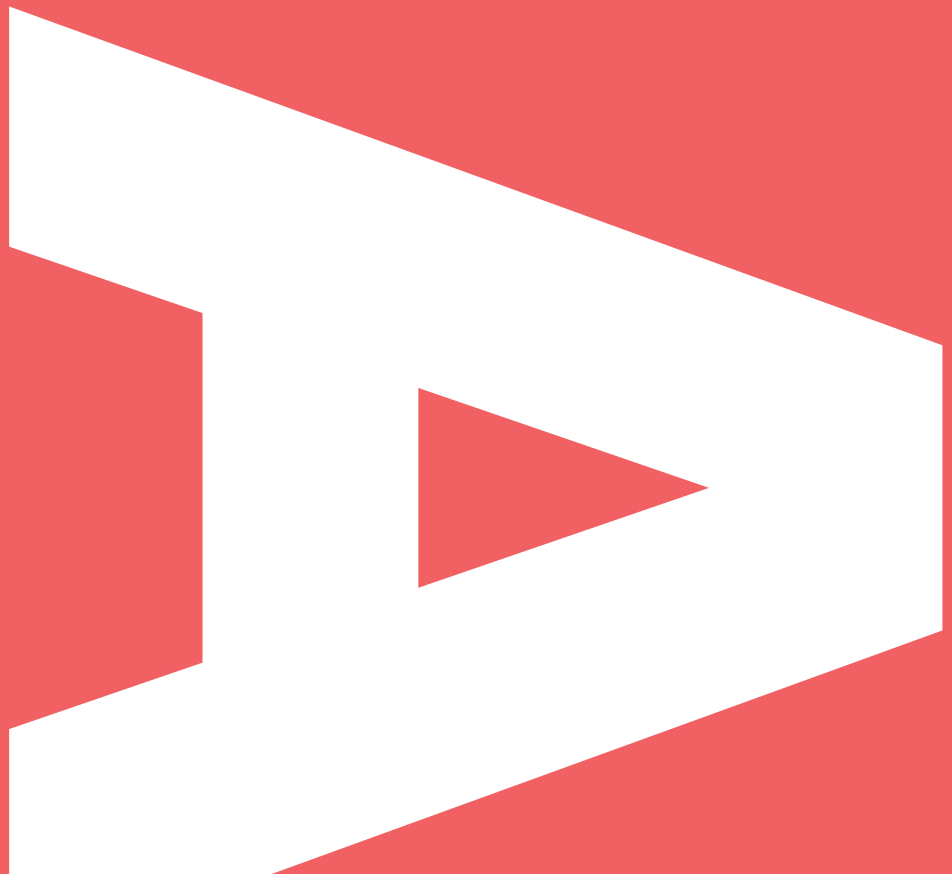
Model Studies of Drawings



Book and Book Stand

Viola Ago

ASRG



Cassandra Rota

2016–17 ASRG Awardee

Specific Spaces

The annual Architecture Student Research Grant (ASRG), initiated by the Class of 2013, provides a unique opportunity for student research projects. The Architecture Student Research Grant in 2017 called for projects that push the boundaries and possibilities of the discipline of architecture. These projects successfully proposed new forms and methods of working, making, and representing.

ASRG Awardees

Architectural Elements
Naree Byun
Bo Zou

Flat Diorama
Jihye Julie Choe

Specific Spaces
Cassandra Rota

Knot
Ali AlYousefi
Scott Deisher
Laura Devine

The objects that surround us inherently guide the way that we live. As consumers, we look to our objects to define us, and as we are increasingly alienated from their making, we begin to lose the ways that we can meaningfully connect to them.

The popularity of alternative, more participatory modes of making (CNC routers, maker spaces, etc.) has brought forward an opportunity to flip this trajectory. These relatively affordable and accessible options put us in a unique position to move towards places and objects that we can connect to in a real way — ones with purpose and aesthetic integrity. Specific Spaces, as an exploration, looks at how fabrication and representation can contribute to a conversation around our agency in populating our domestic environment.

With these self-guided modes of making, material and tectonic specificities are able to be highly intentional, and an expression of those logics in design can allow them to be meaningful beyond just process. Kenneth Frampton's writing on construction and process explains the importance of the built construct and the expression of the construction process as a formal argument. His writing affirms the building, or object, as meaningful in itself, explaining that meaning should be derived from the way that buildings are made, felt, and perceived, and that it needn't precede those things. This belief that material and construction are important, effective and potentially profound aspects of a building promotes an experimental and candid way of designing; and also one concerned with aesthetic experience. This is especially true in his discussion of construction logics being meaningfully integrated into the design of a piece, which allows them to contribute to not just process but also to a formal argument.

Cassandra Rota

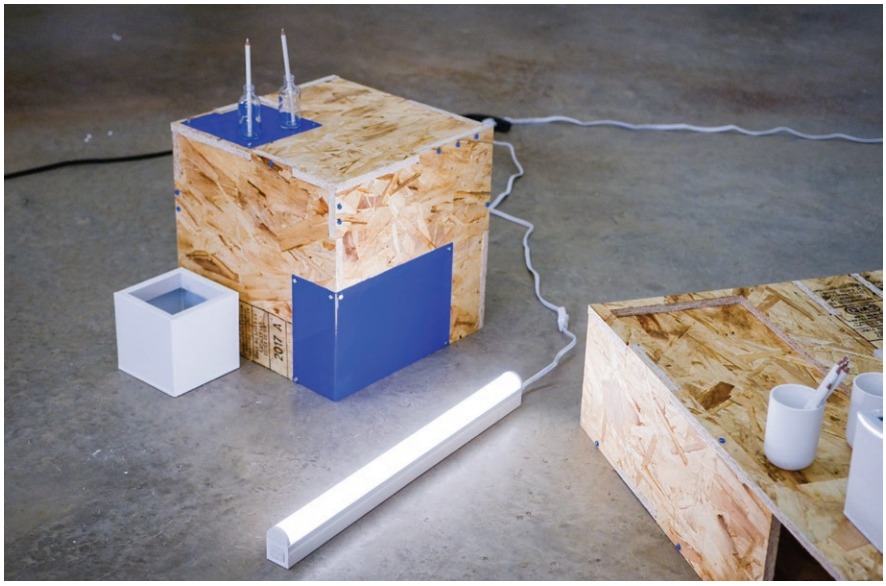
2016–17 ASRG Awardee

Specific Spaces

Within a domestic setting, objects can set the stage for a particular way of living at the scale of the individual. This notion of objects as situational and event-creating is not new—the Brazilian Neo-Concrete movement in particular created objects with these aims. These artists built geometric constructs and environments that explored the ability for objects to make space and interact with the body, emphasizing objects as social platforms.

American minimalists were similarly interested in the ways that pieces, when brought together, were able to create charged spaces and spatial experiences. Their use of methods such as working in series and with fields let an importance lie in the connections between objects (their similarities, the charged negative space between them) and their influence on the body. The situations created by these pieces were spatial rather than illustrative, and a shift of emphasis from the constructs to the space between them allowed perception to become important in the experience of the work. Emphasis was placed on position and situation—architectural effect over decorative function. As in the Neo-Concrete movement, the body was meant to be engaged as well as the mind.

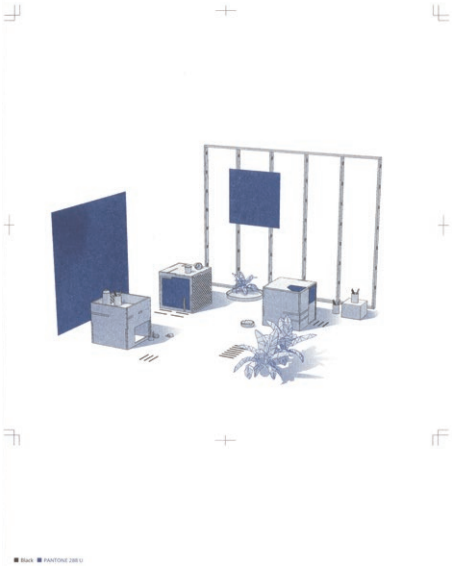
These broad claims about phenomenology and perception and their effect on experience seem somewhat limited when confined to the gallery, begging a question of reach within traditional minimalist work. Specific Spaces looks to combine the spatial intentions of Brazilian Neo-Concrete work and American minimalist work with the design of everyday life through the use of contemporary modes of making and the formal expression of a construction logic. The project as a whole exists as an exploration of economic fabrication, representation, composition, and form, reaching towards new methods of reclaiming domestic space.



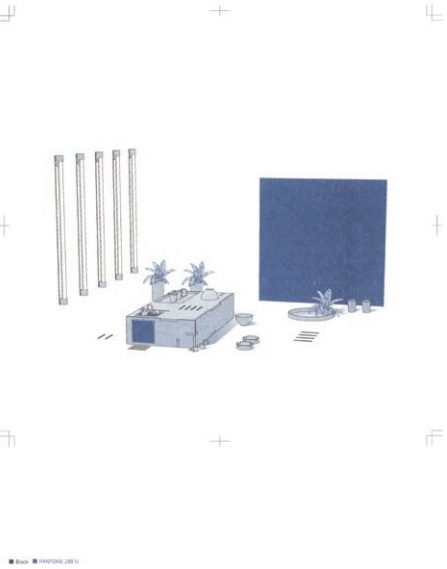
Exhibition Detail (01)
Taubman College Gallery, 2017

Exhibition Detail (02)
Taubman College Gallery, 2017

Exhibition Detail (03)
Taubman College Gallery, 2017



Risograph Prints (01)
Edition of 7, 11 x 11"



Risograph Prints (02)
Edition of 7, 11 x 11"

Full Installation View
Taubman College Commons, 2017

Installation Detail
Taubman College Commons, 2017

Cassandra Rota
Advisor: Hans Tursack
Photographs: Julia Muntean

Jihye Julie Choe

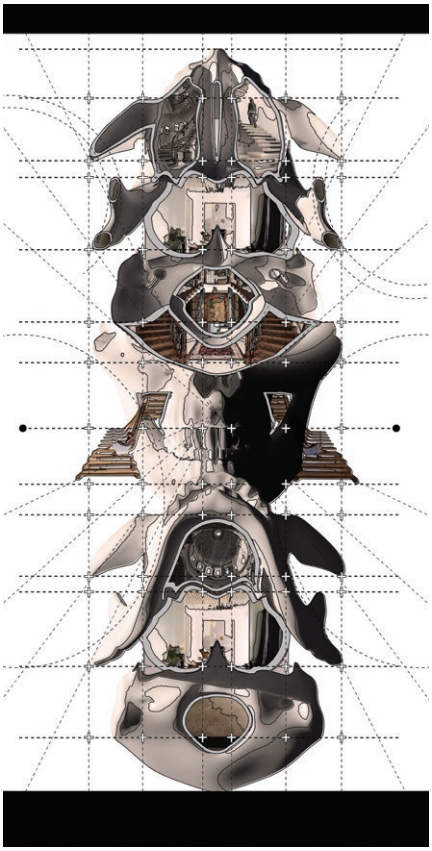
2016–17 ASRG Awardee

Flat Diorama: The Eye of the Viewer

A Romance of Dimensions

The research project, Flat Diorama aims to immerse the viewer within the image with its illusionary representation and to generate a new awareness of the limits of ordinary perception. The research was initiated from questioning the conventional relationship between viewer and canvas. The use of linear perspective demands the viewers to be situated at an elevated point in order to read its depth of the space. The observers are required to occupy an ideal viewpoint and imagine themselves into the scene.

Drawing, with no depth, represents one moment in a continuous story with a particular position so that on its two-dimensional plane, the author frames the view and the audience perceives the given in formation by standing right in front of it.



Proto-speciation (01)
Hybrid Drawing of a Mouth

Part 01. This World
History of Perspective and Diorama

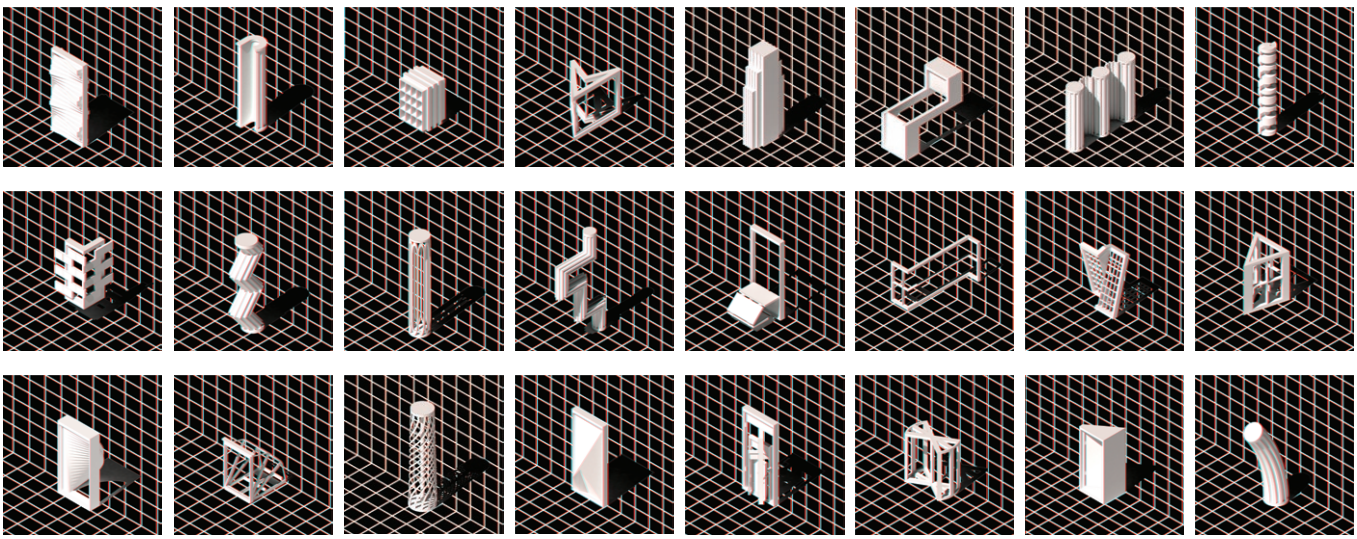
Louis Daguerre and Charles Bouton, the inventors of the diorama, created the canvas with two sides so that a scene would appear differently by the effect of illumination. The scene creates an illusion of space going back to a vanishing point, and it is composed through a false perspective like the panoramas. Daguerre painted over the real object to stimulate people's imagination, that is, the Diorama is founded on the object that exists. Lately, the cutting edge of digital technology have enabled us to envision the space in a virtual world.

Part 02. Other World
Stereoscopic Drawing

In Architectural discourse, the drawing creates a dialogue by looking at them, and by showing them to other people. The research raises a question to the possibility of a spatial quality in drawings by exploring further the diorama.

The Flat Diorama suggests a new approach toward the spatial drawing with a false perspective. As an illustration, it composes three interior scenes with a combination of three architectural elements: the door, window, and column. Transformed architectural elements open the possibilities for viewers to find unexpected figures by giving another glimpse to the same scene by standing beside. It is based on a premise that what we've known as a conventional shape of the element is the shape seen from the front view, and it also contains various hidden aspects which cannot be found from flat drawing.

As one way to explore the spatial effect, the Flat Diorama researches a stereoscopic drawing—also known as an anaglyph—to exceed the flatness of the drawing. It is aided by 3D glasses as a way to bring depth into a drawing through a binocular disparity.



Anaglyph Drawing
24 Variations of Transformed element and its shadow (profile)

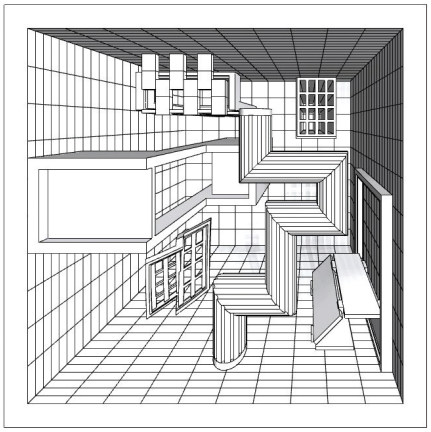
Part 03. New World

Flat Diorama and the Vantage Points

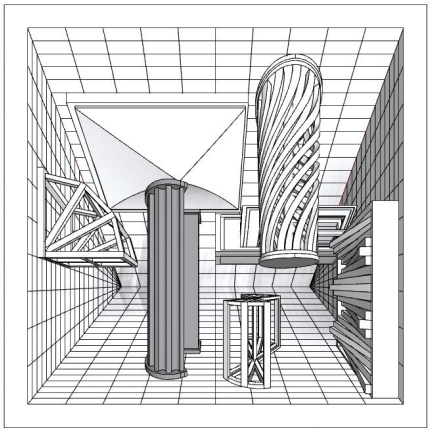
Three interior sets of diorama represent three different vanishing points and they are named as the point, line and plane room. The vanishing point has the power to enable drawings to have spatial depth, but it's usually represented on a flat image which requires a viewer to stand at a particular position. As opposed to its convention, the Flat Diorama is designed to embrace all viewers and let them read a scene from multiple angles and have a varied perceptions.

Based on the history of perspective from Brunelleschi who invented one-point linear perspective with a single vanishing point to Andrea Pozzo who sought for the homology between a two dimensional drawing and its projection in three dimensional space. His way of drawing perspective includes the geometric construction of a third point in space and occupies the volume of the projective space itself. Likewise, in its long history of perspective, many architects and artists have invented various ways of depicting a real world by positioning a vantage point in a diverse way within the scene.

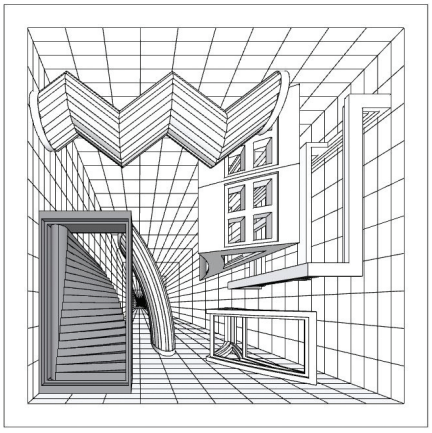
In the same vain, the research starts to open possibilities for viewers to read a scene from multiple angels and have a varied imagination by breaking the threshold of the method of representation.



Plane Room
Different Profiles of One Object



Line Room
A View Upside Down



Point Room
A Vanishing Point Effect

Preternominal Drawing Preternominal
Results unforeseen or unexplainable by the original plan

References

1. Gernsheim, Helmut, and Alison Gernsheim. The history of the Diorama and the Daguerreotype. New York: Dover Publications, 1968.

2. Fra Angelico, Annunciation of Cortona, 1434, Cortona, Diocesan Museum.

3. Lyutizh bridgehead, Battle for Kyiv, 1943, Ukraine, The National Museum.

Special Thanks to Faculty advisor, Dawn Gilpin and Ana Morcillo Pallarés Classmates, Hans Hyunseong Min and Tommy Nam.

Jihye Julie Choe
Advisor: Dawn Gilpin + Ana Morcillo Pallarés

Bo Zou
Naree Byun

2016–17 ASRG Awardee

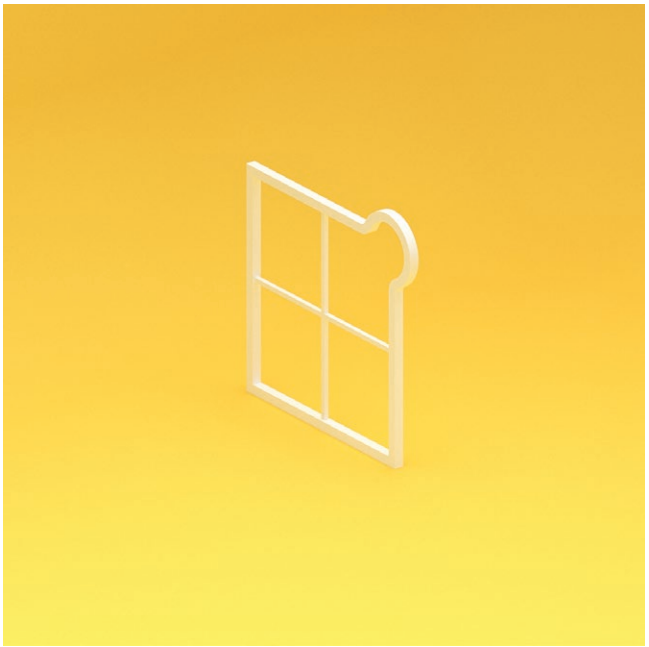
Architectural Elements

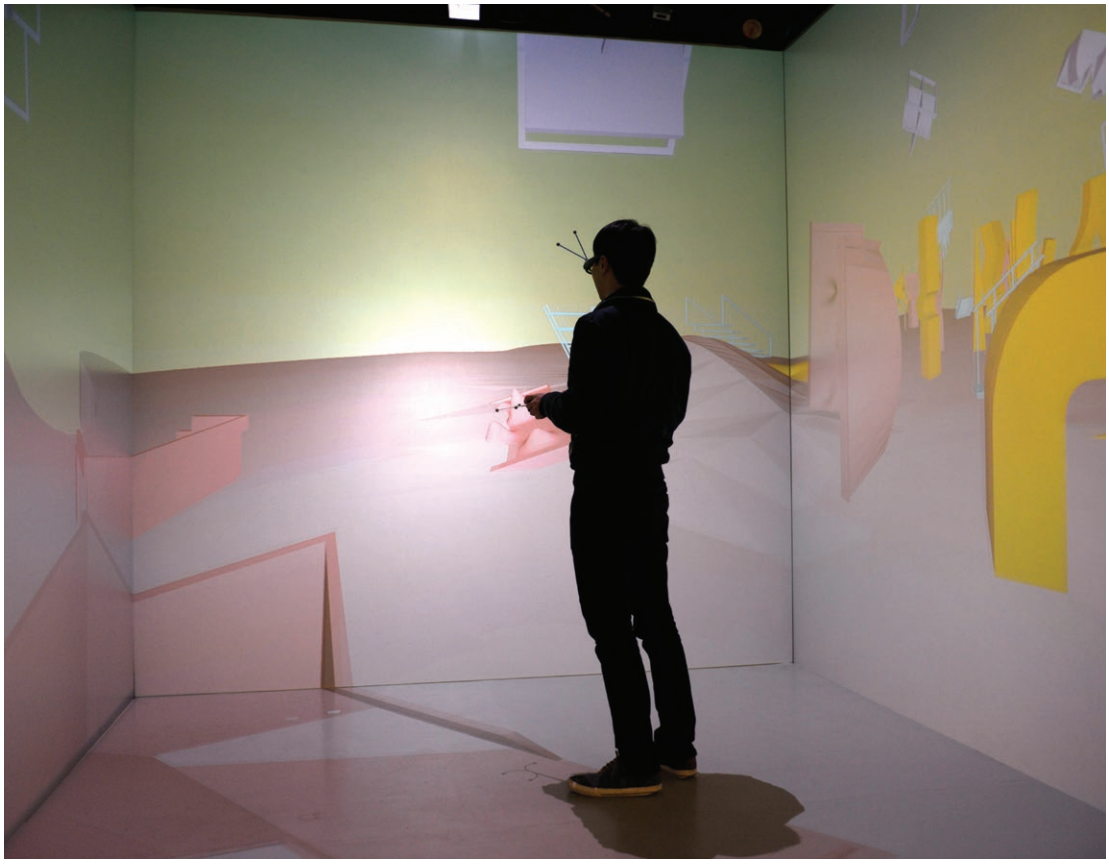
New technologies, economic restructures, and cultural evolution have transformed the architectural elements such as a door, window, stair, and column that together shapes the design of buildings. Since the beginning of the 20th century, Modernism emerged as one of the most influential architectural styles in history. In contrast to Classicism, Modernism focused on minimalism, functionality, and the efficient use of space. The reminiscence of Modernism era is still prevalent today.

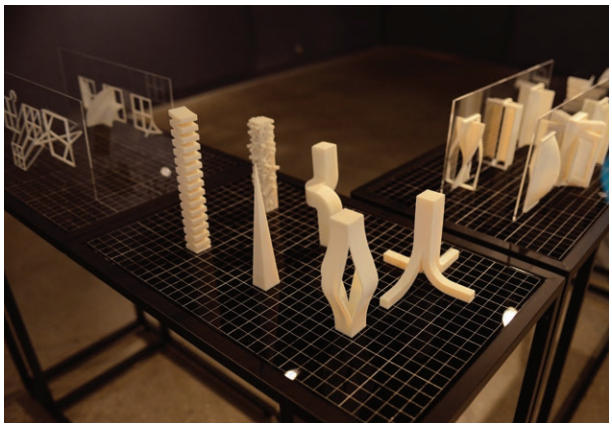
Architectural elements developed during this era have become standardized and universal to the public's eye. Although the minimalistic characteristics of elements developed from Modernism provide efficiency, the style simplifies the functionality by creating architectural stereotypes.

With rapidly changing technology, contemporary architectural practice enters the phase of digital architecture and opens endless possibilities to invent new architectural functions. In order to challenge not only the perception on the functional use of elements, but also the stereotypical looks while maintaining rationality and efficiency, we propose to invent new architectural prototypes. The new architectural prototypes include a collection of experimental and ambiguous architectural elements that reconstructs existing styles, features, and patterns. The research focuses on eliminating the stereotypical function of an element by transforming and generating new purpose for architectural elements through digital modeling technology.

The standard architectural elements are explored to invent new perceptions and functions by using digital technology. Digital technology allows modeling and programming interactive in a virtual space where Architects can test and simulate creative structures. For instance, all the structures can be built in a digital space without restraints associated with materials and gravity. Through series of distortion and mutations, new prototypes establish non-hierarchical relationships that speak new purposes and create new bodily interactions. Ultimately prototypes will no longer be influenced by ceiling, wall, or floor, but will exist as separate entities, pertaining their own character and function.







Bo Zou + Naree Byun
Advisor: Viola Ago

What is Knot?

Knot is a quick platform for discourse and dialogue. It aims to provide students a voice to engage academically the numerous events that take place within the college and beyond. Knot's mission is to collect students' contributions, record them, and present them through various media to the widest audience possible in order to facilitate school-wide conversations.

For each bi-weekly issue, the editors will post a call for submissions, soliciting thoughts on current issues both at Taubman and in the discipline of architecture in general. In print, Knot is a phyiscal artifact. Digitally, Knot's website and Instagram account are an archive of all submissions, printed or not. Submissions can be frayed, tight, and frustrating, or they can be straight out of the Boy Scout's Handbook.

Why Knot?

At Taubman College, many distinct architectural agendas overlap, intertwine, and knot. The ideological frictions produced here—between revolutionaries and traditionalists, between architects and planners, between pastel-colored gradients and black-and-white line drawings—are passionate and productive. Our training as design students demands that we be critical of our surroundings and education, and the space of that criticism extends beyond the confines of the studio walls. Debates sparked in the Mash basement, grievances uncovered around late-night bonfires, and discoveries shared at the Duderstadt Center are all acts of criticism with embodied potential. Knot is here to capitalize on that potential by bringing these disparate conversations together into a public forum.

Ali AlYousefi
Scott Deisher
Laura Devine

2016–17 ASRG Awardee

Knot

Your Knot

A discursive knot might be the result of too many complex movements, or it might be tied in a pretty little bow. It might get tighter when pulled, or it might loosen and unravel. Knots exist in countless forms; each is a product of outside forces, but follows an internal logic and self-defined purpose. We look forward to contributions that do the same.

Metal sheets were cut on the FabLab waterjet machine, folded, and spot welded into wall-mountable holders. The holders were mounted to various high-traffic areas around the college, and hold the most up-to-date issues of Knot.

Call 01: Passing (K)notes to the New Dean

After two years of limbo, Taubman College now has a permanent dean in Jonathan Massey. The editors of Knot invite you to write a note to the new dean about the state of architecture and its position at Taubman College, expressing hopes and concerns for the future, praise and criticism of the past, and/or addressing the state of the contemporary.

Call 02: The Addition Edition

On September 8th, we celebrated the opening of the new A. Alfred Taubman Wing. As students of the built environment, we will inevitably formulate opinions about its design and construction. For Issue 02: The Addition Edition, we are asking for thoughtfully considered commentary and criticism of the new space. Responses might range from the strictly architectural to the overtly political, the spatial to the logistical, the raving to the...

Call 03: Posting on the Postnatural

Starting Thursday, October 5th, Taubman College is hosting a symposium and concurrent exhibition entitled Ambiguous Territory: Architecture, Landscape, and the Postnatural. Symposia, like this one, are a prime location where radical ideas are championed, old paradigms are dismantled, and the future paths for Architecture are forged. What is your unambiguous stance on Architecture, Landscape, and the Postnatural? You are invited to engage with the symposium's events and take a position with regards to a specific presentation or exhibition piece.

(Left) Issues are posted on the publication's website. The site is also home to a photo gallery and a portal for contributors to submit directly to the editors.

Call 04: Stories from the Third Floor

Studio and studio culture are the backbone of our education. As an act of group therapy, tell us a studio-related short story. Use one of the below prompts to start your story, or come up with your own. Blur the lines between reality and fiction, fame and failure, comedy and tragedy.

Surprise surprise, laser cutter 3 broke...
After my best review ever I...
My hopes to avoid an all-nighter vanished when...
So then, I got in a fight with...
It all started when the Media Center printers...

Call 05: Scroll, Post, Like

"It's easy to make fun of Bjarke Ingels on Instagram. Selfie, LEGO selfie, girlfriend (I hope), Gaga, monograph, fog, fox socks." This is how Alexandra Lange started her opinion piece on architecture and social media. She proposed that "social media can do more for architecture than showcase pretty faces and soundbites."

As a member of Taubman College, where the school itself, its students, faculty, faculty's practices, studios, courses, projects, and publications are substantial consumers and producers of Instagram content, how do you understand the relationship between Instagram and architecture? How do you leverage Instagram to your advantage? How does it impact what you produce and/or teach in school?

Call 06: No Mo Po Mo Fo Yo?

The online quarrel between Sean Griffiths (FAT Architecture) and Martin Lammprecht about whether architecture is experiencing a "postmodern revivalism" resonates with discussions occurring at Taubman. While Griffiths argues that a postmodern comeback signals a dangerous rise of political indifference among a younger generation of architects, Lammprecht makes the case that the "contemporary ornamentalists" to which Griffiths refers actually embody ideals that actively negate those of the post- truth/alt-right populism.

What purpose does the current rise (or return) of certain projection techniques, use of signifiers, colorful shapes, employment of irony and humor, or even plain indifference serve? Is the emphasis on striking representational techniques and iconic imagery– comparable to postmodern aesthetics and clearly visible here at Taubman– a return to a historical style or a novel exploration of an uncharted future?

Call 07: Call for Calls

The semester is coming to a close, and with it, the first round of knots have been tied, untied, tightened, and unraveled. We, the editors, have written each call for submissions based on our own personal, biased views on the conversations that might benefit from Knot's discursive format. For Knot's return in 2018, the editors are calling for calls for submissions. Students, faculty, and staff alike: what issues at Taubman or in the discipline of architecture at large warrant the type of discussion disseminated as an issue of Knot? What topics did we overlook in our first ound of issues? Calls can be genuine proposals for future issues, or can be speculative, satirical, or ridiculous.

Exhibition at Taubman College Gallery, 2017

Ali AlYousefi + Scott Deisher + Laura Devine
Advisor: John McMorrough
knotumich.com/

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Afterword

This year I have learned a lot about Taubman College from reading up, looking around, and listening.

Our strength at preparing students for professional practice comes in part from ramping up in the early and mid 20th century, when Michigan architects such as Albert Kahn, Eliel and Eero Saarinen, Minoru Yamasaki, and Gunnar Birkerts led the field. Our preeminence in digital making draws on the adjacent automotive and furniture industries--as well as on the memory of faculty who invented the Unistrut rack system and lift-slab concrete construction. Deeply theorized design practice has marked the college from its early days with Emil Lorch to our current conversations about post-digital culture and design. And undergirding our work to promote diversity, equity, and inclusion is Taubman's small but meaningful history as a place of African-American achievement in academia and practice.

Constant across past, present, and future are the intelligence, talent, ambition, and team spirit of Michigan students. You excel in studio and classroom. In design and theory and making. At launching initiatives, leading organizations, publishing journals. At tailgating and lamb roasting. Gathered from across state, nation, and globe, brought together by the big Block M, you join a deep roster of alumni proving the strength of our college daily in practice and leadership.

By collaborating with exceptional colleagues from campus and worlds beyond, we are generating the knowledge and creative capacity to address the world's grand challenges. In parallel, we are launching a human-centered redesign of education that will increase our impact and promote equity. By collecting work from the leaders and best among future architects and design thinkers, this volume of Dimensions shows that Taubman students are ready to build better futures.

Jonathan Massey
Dean and Professor

Post-Postscript

P.S. 17: A large group trying to figure the whole thing out (along with me). Two covers, but hard to tell the difference. In 2004, there was no Postscript.

P.S. 18: Rigid grids and informal notes. Built-in perforated 'markmark' on all sheets to bookmark a page. 2005 Postscript as a very brief history of Dimensions.

P.S. 19: The vernacular perimeter expressed through Cooper Black. 2006 Postscript in the form of a conversation between the editors and advisor.

P.S. 20: Diagrams and organizational mappings extends to the edges of all pages. 2007 Postscript quotes Sparky Anderson and how advising might be like managing baseball. (It probably isn't.)

P.S. 21: Figures and fine linework. 2008 Postscript about the thankless yet rewarding task of editing a journal, and the difficulty of expressing it in a few hundred words.

P.S. 22: Flows and word clouds, with a nearly imperceptible spot varnish. 2009 Postscript celebrating inside jokes, making the difficult look easy, and pondering on the book in the face of new 'social' media.

P.S. 23: Big and bold with thick 100# paper and a built-in die-cut to stencil one's own cover. 2010 Postscript speculates on printing at the dawn of the iPad era.

P.S. 24: Magazine-like and energetic due to the many first-year 3Gs working on it. Thom Mayne interview checks in on his conversation with Dimensions vol. 6 to see how his positions have changed. 2011 Postscript also checks in on what it was like to make a journal back then.

P.S. 25: A handsome edition for a landmark year. Included a fold-out catalogue tracking statistics of the journal on its inside covers. 2012 Postscript reflects, and invites readers to turn the page.

P.S. 26: Restrained AND graphic, with a reversible cover jacket. 2013 Postscript plays off the letter from the editors, and the benefits of not being in control. Bonus: Chair's foreword includes Peter Saville's album art for New Order's Technique.

P.S. 27: Printed entirely on French Paper Construction Grout Grey paper, which required the paper mill's entire stock. 2014 Postscript further discusses the fluctuating forces of supply & demand.

P.S. 28: Old forms of bookmaking intersect with new forms of production and communication, with group communication platform Slack replacing email for the team. 2015 Postscript: emoji's only! [Insert emoji here]

P.S. 29: Vibrant gradients subtly shift through the book countered by strong typographic openers. 2016 Postscript cites Joy Division's Digital as a cautionary tail of daily repetition and reminds us of each day's new dawn.

P.S. 30: A Letter from the Editors is the pearl within the oyster. Roughly half of the covers have an embossed upside down pearlescent profile of the Lorch Column. 2017 Postscript celebrates innovation through skateboarding culture, and current states of inversion.

P.S. 31: In the spirit of the 'post-script,' this annual reflection acknowledges the script and it's completion: The students' hard work of the last seven months is over, the proofs are approved, and the 2018 edition is headed to press!

Christian Unverzagt
Dimensions Advisor
April 12, 2018
Detroit, MI

This volume is dedicated to the memory of
Jacqueline Chavis-Wei (Dimensions 17)

Dimensions 31 would like to thank the Victor Gondos, Jr. Archives Fund for their support. This fund was established as a memorial to Dr. Gondos('25) by his widow, Dorothy Gondos Beers. Dr. Gondos was a distinguished archivist and historian who served twenty-three years with the National Archives in Washington, D. C. Mrs. Gondos Beer' intention was that the fund be used to assist architecture students in exercising and improving their writhing skills. Since its inception, the fund has supported the publication of this journal for many years. Upon her passing, Mrs Gondos Beers left a substantial bequest for the Victor Gondos, Jr. Archives Fund, which generously funds writing projects like *Dimensions*.

Dimensions 31 would also like to thank the following people for their efforts & assistance to the staff for this year's publication:

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DIMENSIONS

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Dimensions seeks to contribute to the critical discourse of architectural education by documenting the most compelling work produced by its students, fellows, and visiting lecturers.

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Paige Gibson, Jordan Laurila, Liam Li, Vaishnavi Magar, Chuchu Wu, Jiaqi Xin and Le Yang

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