The Cast of a House

An Index of Place

v.1

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Independent Directed Research Project | 2024

Syracuse University School of Architecture

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Preface 4
Acknowledgements 5
Introduction 8

Chapter 1 - Landscape of the In-Between 12
Chapter 2 - Casa Malaparte and the Object House 14
Chapter 3 - Interview w/ Luis Callejas 17
Chapter 4 - a83: Between 6th Street and The Garden Pavilion 20
Chapter 5 - Working on the Grid 30
Chapter 6 - Exercise 1 37
Chapter 7 - Exercise 2 46
Chapter 8 - Exercise 3 52
Chapter 9 - Images 57

End Notes 64

Preface

This project, while initially broad and always meandering, was guided by two primary concerns which sit on uncertain ground within the discipline of architecture today. These concerns are drawing and the house. Approaching an advisor about such topics for an independently directed research project might seem dizzying, as drawing has been our mode of working for nearly half a millennium, and the “house” has been a typological mode of architectural inquiry for even longer. Yet, these two topics, while omnipresent, require direct questioning today.

This project does not provide a measured answer for what a house is, it only provides an answer for what a house can be. The same goes for drawing. Drawing today resides within an expanded definition of the medium. It is defined by a constant mediation between analog and digital ways of working where the method of collage is used just as much as that of drafting. Drawing has never just been about pencil marks on paper.

These initial concerns allowed me to arrive at a body of research that was not limited by a narrow point of view defined by architecture alone, as they became a foundation to move into the expanses of landscape, it’s representation, and land use.

This document presents research from the past year which situates a design proposal. The contents of this research are the journey to arrive at a specific question, all the while building a world for the project to exist within.

Acknowledgements

I am indebted to my primary advisor in the School of Architecture, Edgar Rodriguez, for pushing me to broaden my point of view, aiding me in piecing together a constellation of disciplinary interests, and helping me understand the underpinnings of an architectural argument which is contemporary.

Thank you to my reader Samuel Johnson for pointing me the right directions in order to dissect the artistic forces present in the architectural histories I was examining. And for helping me identify the art practices whose concerns parallel those of the architecture presented in this project.

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Thank you to the Renée Crown Honors Program for supporting my research trip to the a83 Gallery and supporting the production of the drawings, models, and books which present this project.

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Most importantly, thank you to my family for your endless support.

Introduction

Landscapes, real or imaginary, are intricately tied to forms of representation. For a landscape is something impossible to behold by seeing alone. A landscape is understood through different mediums such as painting, mapping, or photography. This project situates landscape representation first as a concern that has existed in art, and then a concern that can be addressed through architecture.

By beginning this project with anecdotal experiences of a painting and a house respectively, the motive force of the project can be understood as a method of historical archaeology that slips between characters and works from a history of art and characters and works from a history of architecture.

The Landscape of the In-Between is a vignette of a profound encounter with Casa Malaparte – a house which demonstrates a modern idea of architecture. This house sits within the boundary of what is liquid and what is solid, in a landscape weathered by atmospheric changes. It is impossible for this kind of house, a hermetic object for viewing the landscape, to be contemporary today. Casa Malaparte is emblematic of an architecture where the person and the landscape are separate.

The Interview w/ Luis Callejas was a conversation where I came to learn that a truly contemporary understanding of a house is one where a landscape, and the enclosures on it, are bound to one another. Callejas, an architect and landscape architect, argues that the gardens between these enclosures are considered rooms just like the spaces wrapped in concrete and glass. Therefore, both the landscape and the enclosures, together, are the house.

In the essay, a83: Between 6th Street and The Garden Pavilion, I was in search of the representational qualities of the house within the confines of the discipline of architecture. In the discipline, the house has been a platform for experimentation where critical form and ideas of living were tested. I wanted to understand how two architects working within this typology were representing their work. I wanted to know what it meant for Thom Mayne and Anthony Ames to draw a house. I came to understand that their works resided in an expanded definition of drawing where drafting with a pencil was in service of the design of an art object made of paper: the screenprint. From a trip to the architectural printmaker and gallery, a83, to see Mayne's and Ames' work, it was understood that even drawings before the first digital turn were not pure works of drafting. They were presented and disseminated through the medium of printmaking, something undeniably flat: a surface.

In the essay, Working On the Grid, I grapple with how orthographic drawing manifested itself in our world outside the discipline of architecture. At the scale far beyond the house, at the scale of a new country, a cartesian grid to guide and divide all of America's westward expansion was proposed by Thomas Jefferson and implemented in 1785. This system, as it exists today, is called the Public Land Survey System, and has been a form of measured control on the American landscape since its inception. Today, the grid's effects are no more apparent than in the American Southwest where the landscape, once wild

and filled with nomadic hunter-gatherers, has become an industrial surface to provide a 'back of house' support to the rest of the country.

In the design proposal in volume 2, I intend to not only offer an expanded definition of the house, but I intend to convey a new narrative of architecture which acknowledges our contemporary disciplinary pressures of medium and typology to respond to the current situation of land use and landscape in America. This design proposal misappropriates the tools of land surveying to represent a gridded portion of the American Southwest anew.

1 Landscape of the In-Between

Albert Bierstadt - Farallon Island (1887) | © Carnegie Museum of Art

Repeated visits to a work of art have moments of redefinition. What you saw last year isn't there today. It feels different. Maybe better. Or maybe worse. The colors changed. The blue is actually green. And the rocks are a much deeper brown. But the wave didn't change. The wave is still there, almost lost in the sky, yet still standing with impunity representing an undeniable force of nature.

At eight years old, I was drawn to a large painting of a wave, because of the drama within the incredibly thick frame. And when I was eight years older, I didn't care about drama or even notice the frame. I was captivated by a space frozen in time, where a crisp mass of water—whose latent energy could not be measured—was ready to slam into an arched mass of rocks. It was fleeting. And the next year, and the next year, and the next year, the work was different. Farallon Island is still hanging in the same spot in the Carnegie Museum of Art of Pittsburgh. From year to year, this painting has always been there to see me. And while this landscape depicted is specific to an island in Northern California, the intensity of the nature within the painting is not specific to this locale.

The arched rock, steep peaks, and angry ocean speak to the contrast and chaos that define this space. The drama, tension, and sense of intrusion makes it appear almost impossible to exist within. And this impossi-

bility speaks to the painting's draw. Farallon Island is a painting I have seen over and over again, which helps me understand a landscape I have never been to –a landscape outside of my own experience, in some ways a landscape of pure fiction.

Made more than a hundred years later, one hundred fifty kilometers north of Santiago, there is a footpath along the Chilean coast where one can pass through another point of tension between what is solid and what is liquid. Teresa Moller's Punta Pite is almost invisible. It is made of the same granite that makes up this coastline[1]. The constructed granite, however, has clearly defined edges, making the path become sculptural against the rough rocks.

While seeing images of this project, a project I have never visited, I think back to my visits to the painting Farallon Island. While a dramatized depiction of a coast, it helps me understand the essence of the forces present on the landscape Punta Pite is embedded within.

Punta Pite By Teresa Moller (2005) | Photo © Chloe Humphreys

2 Casa Malaparte and the Object House

The Faraglioni (1927) | Photo © Eugene Popel

For thousands of years, the rocks that make up the island of Capri have sat draped in the sun, shaped by wind and water, continuously inhabited and rediscovered by those who seek its landscape. Where the Faraglioni rise from the flat horizon of the Tyrrhenian Sea, Capri becomes a geological wonder. These rock formations, whose verticality contrasts the flat blue desert they emerge from, serve as symbols for the drama encountered within and around the island—a place where rocks frame water as much as the sky. These rocks are not only the fabric of nature, but they dictate the patterns of life which follow ridge lines, valleys, groves, and grottos.

When I visited the island in September of 2022, rain poured down from a colorless autumn sky. The rain, becoming concentrated, formed a stream that ran against a friend and I as we followed a path between rows of houses, stucco walls, and named gates. The stream of water wasn't strong, and after a moment staring at my feet, I looked up to realize that the sky, which was bright blue just the day before, matched the grey of the stone beneath my feet. As we moved upstream with intention, we were under a looming time constraint. The last ferry to Naples was at two o'clock, and we had overslept.

Our guide to the eastern edge of the island was a poor collection of screenshots of a map, capturing the course of our walk – a loosely collaged pathway to combat our lack of service. That is until the road broke and we were met with a fork. To the left, the road continued. To the right, a long winding staircase beneath a stream of rushing water appeared. The stairs wove down into a valley of trees. Against Robert Frost's advice, we walked to a nearby restaurant that had just closed. We asked the lonely worker:

"Dov'é Malaparte?"

They pointed in the direction of the pathway to the staircase. And we went on our way, down the stairs, and into the trees, trying not to slip. We quickly passed through a short tunnel with a high ceiling, and began to incline again. By the time the path was flat, every rock outcropping I could see looked like the one where Casa Malaparte sat. Every time we turned a corner or reached a clearing in the trees, it felt as if the house would appear.

Photo © Noah Fritsch

Finally, the house did appear. The white arc sitting on top of the house poked through the trees. And we walked a little more for the house to reveal itself in its entirety. Standing there, I could see this rectilinear object of a house, a singular entity sitting on top of a rock outcropping as if it were a ship marooned. The house has existed in a space between stone and water, in a landscape in constant flux, for over eighty years.

Photo © Noah Fritsch

Casa Malaparte is an example of a modern attitude toward architecture and landscape. An attitude which defines architecture and landscape as separate entities where one is the device for viewing the other. Curzio Malaparte, "the controversial(fascist) journalist and self taught architect made no concessions to nature"[2] where the hard lines of the house's form become sculptural against the rough rocks. From the interior, one can view the surrounding horizon, rocks, and sea within large wooden frames. The windows are like paintings of a landscape between water and stone. However, unlike Punta Pite, the experience of the landscape from

the house is mediated through frames, or the stairs to the roof, where the viewer is always at a distance from the space they see. They are never actually in it.

When thinking of the house today, I intend to explore how can these barriers between architecture and landscape can begin to erode.

Photo © Mimmo Jodice (1998)

3 Interview w/ Luis Callejas

Luis Callejas is an architect, Full Professor at the Oslo School of Architecture, and visiting professor in Landscape Architecture at the Harvard Graduate School of Design. Founder of LCLA, Callejas' practice works between the disciplines of architecture and landscape architecture. LCLA works at many different scales from small structures for the Norwegian Scenic Routes program to the Aquatic Sports Center for the IX South American games in Medellín. In 2020, works by LCLA were acquired by the Carnegie Museum of Art.

The text for this interview was reconstructed from memory.

NF: How can the house act as a representational device of the landscape in which it is situated? And what are some techniques which allow this to happen? (ex. Ballen House quotes the stair to an idealized plane and the large windows acting like tableau paintings from Casas Malaparte) Can you describe the relationship between the figural forms of the Ballen House and the landscape they sit within?

LC: My houses do not act as representational devices. They are objects made from a selective number of alignments and positionings. The house is then focused on a few openings that reveal the landscape. That is why the house is stripped down. Often there is too much refined detailing in these types of buildings and it detracts from the landscape they are within. The figures of these two houses are opposed to one another. They are different answers to the same problem.

NF: Broadly, can you speak on the interplay of analog and digital modes of production in the design process of these houses?

LC: These houses are very analog. From sketching, model making, and 2d CAD. I even consider 2d CAD an analog process. The computer is used in an analog way. So, there is no interplay between analog and digital modes of production.

Even the images in the 3 Under 3 book are considered analog. The clearings come from a point cloud model. This model is used as a 2-dimensional representation of the clearings which can be interpreted as thresholds.

Ballen House | *© LCLA OFFICE*

NF: In looking at Duchamp's Large Glass, one can understand that the material used to make the artwork is a physical index for the passage of time, much like a landscape. In your project, Kuwait/The Desert Model, you reference Man Ray's photograph of Duchamp's Large Glass to illustrate this. What is the architectural potential of the index as it relates to the desert?

LC: I have read Krauss, and it's good. It's a project in itself. I find it very interesting, but the index has nothing to do with my work. I think it is because you are in thesis, and we are in North America, but not everything has to be thought of like hermeneutics.

Man Ray had an associative mind. It was in the thirties that aerial photography first came around; and this type of photography was something Ray saw in Duchamp's work. He saw something like a landscape. In this instance, what Man Ray was doing with aerial photography is what we are doing with lidar. In Kuwait, we acknowledged our own ignorance. We knew nothing, so we completely abstracted the desert as many have done before us, from Man Ray to Sophia Ristelheuber's aerial photographs of the aftermath of the Gulf War. In Ristelheuber's photography, you can not tell what lines are trenches or roads. We looked for associations in these images. Our proposal can be read as what comes after these other artists. It is one more way to abstract the desert. Moreover, the US would use the term "sandbox" to describe where they would train in the desert. It is this kind of abstraction of the landscape that the project is critical of.

Shapes of the Forest no. 10 | *© Luis Callejas*

NF: It seems that these two projects I have had you elaborate on, El Retiro and the Kuwait project, work on opposite ends of the spectrum of scale. Can you explain how working at the scale of what would be aerially pho-

tographed and the scale of the doorknobs of the Ballen houses relate?

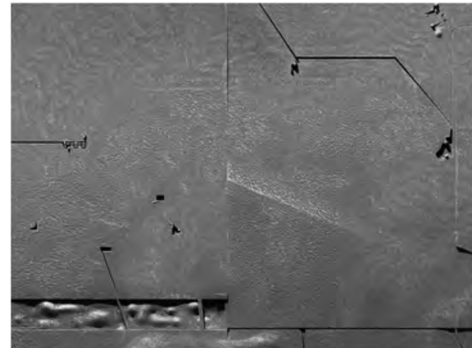
LC: Yes, they are related, but not directly. When we work on projects for a biennale, there is only so much time, say two weeks or a month. And it is most productive for us that whatever is explored in this project is something that lives beyond just that project. The Kuwait proposal deals with a fundamental problem of ours, that of a form intersecting a slope. In order for us to approach a project in a country I have never visited, the project was an experiment in technique. I was very open about this with the curators and their interest in the project stemmed from the fact that the project was only an experiment in technique.

I don't know about the scale of the doorknob in El Retiro, however, the houses were designed around the same time as the Kuwait proposal. So, there was an interplay between ideas explored in both.

NF: Can you elaborate on your interest in the clearing, or the enclosure, and why it has been a subject of fascination for you and your office?

LC: We enjoy things that are voids... For example, in a forest the format is a treeless space. The material which allows this space to be read as a void is low resolution. This resolution is tied to the trees which are placed 2 or 3 or 5 meters apart. It's like a haircut as a sculptural problem. You are subtracting from a mass that grows, dies, and changes over time. In the desert it is completely different. You are subtracting from sand.

Man Ray - Dust Breeding (1920) © The Metropolitan Museum of Art



KUWAIT \ The Desert Model | © LCLA OFFICE

4 a83: Between 6th Street and The Garden Pavilion

There is a basement in Soho, located on 83 Grand Street and going by the name a83, that acts as a kind of reliquary to paper and ink constructions of architecture. On my visit, after walking down a staircase surrounded by white walls, I was greeted by steel flat-file cabinets that flanked both sides of the room. On each drawer, orange masking tape marked the resting place of a multigenerational cohort of inventive architects. This group of works ranges from the seventies to today with screen prints from the contemporary moment, like the Young brothers and Sean Canty. Then there are the fragments of a recent history: prints by Anthony Ames and Thom Mayne along with Diller, Holl, Eisenman, and Graves. For these architects, their drawings were their buildings. And their prints were produced right in this basement.

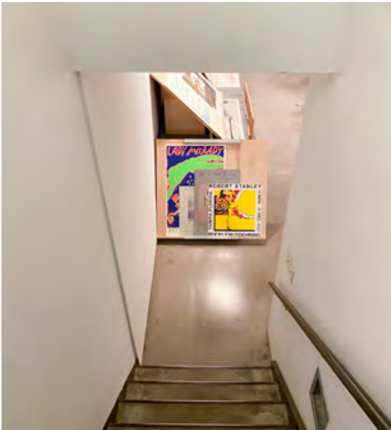


Photo © Noah Fritsch

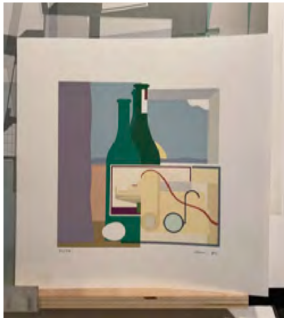
Unlike the large printouts that populate the walls of any architecture school at the end of the semester, these prints are constructed in physical space, not digital. Seeing them gives a similar feeling to seeing the architecture itself. They have a presence, an undeniable material presence. In some ways, this makes the prints feel inevitable, where the fiction presented before our eyes is the only possible answer to an architectural problem. As an art object, they become too beautiful to critique, too careful to ruin by analysis, and too finished to ask “What’s next?” as they are removed from any design related utility.

The prints and their resultant compositions become Architecture in and of themselves. What is recognizable as the elements of building within the prints– the walls, the columns, the fenestration, the stairs, the table's edge –become elements of composition in service of building a world specific to each architect's point of view.

Screen printing, while artisanal, is about reproduction. As ephemera, these prints acted as museum objects to be disseminated to the metropolitan aesthete of an architectural scene long past. However, unlike the Max Protetch Gallery, which had the same market share as the John Nichols Printmakers and Publishers, the predecessor to the a83, the focus of the operation was more tied to image making and teaching image making, rather than selling editioned works. So much so, that John eventually moved his image making workshop to Princeton NJ, to be closer to where he taught.[3]

Sometime in the nineties, about when the Nichols Printmakers left New York, American architects began to stop drawing. Seduced by images, their reading habits slowed too with the decline in printed journals and the rise of 'post-critique.'[4] The arrival of a83 in 2020 coincided with the ever growing need for a space of a materially based architectural discourse. So, when the lease ended for a commercial gallery in the Nichols building, there was room for a new iteration of the printmakers that once occupied it. The a83 gallery was founded by Owen Nichols, Clara Syme, and Phillip Denny.[5] Owen is carrying on the efforts of his father who began teaching architects and students new forms of representation in the seventies.

This space which advances architecture in a way that is both outside the profession and the academy is a necessary force to drive experimentation in the discipline. This is why the a83 archive, which holds editions and outtakes from the years of the John Nichols Printmakers and Publishers, contains a wealth of important projects. I visited this gallery and printmaker to immerse myself in a moment of architectural history, and see the work of two particular architects: Anthony Ames and Thom Mayne.

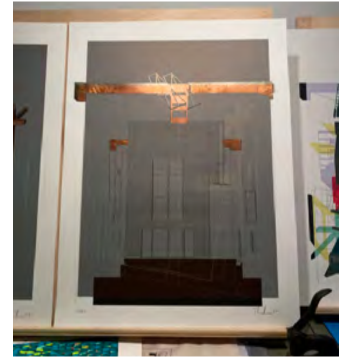


Anthony Ames - Cornice, Angel, and Egg (1989) | © a83

Upon arrival, I walked up the steel steps to the entrance between two corinthian columns, walked through the modestly labeled door, and passed a pair of well-worn Marcel Breuer B5 chairs. I was greeted by Owen who walked me through the current show "Architectural Image Making in 1980s New York, Part III, Happenings." The materials on the wall– lecture posters, invitations, photographs, sketches, and unfinished prints –were all of the floating points that surrounded the architecture culture of the period. This exhibition, whose materials are all related to the activities of the John Nichols Printmakers and Publishers, lays a historical ground work to frame the contemporary activities of a83. The exhibition prior to this more self referential one, was called "Correspondence." Eight architects were invited to inventively renovate Arata Isozaki's first project, the Shinjuku White House.[6] This exhibition commissioned new work and pulled from other archives. Therefore, the a83 practice, which is in a selective dialogue with their own archive, is still committed to a fresh production and discussion of architectural work. This dialogue presents the rich tradition the gallery works within and is very much like the relationship a museum has to its permanent collection.

We then made our way to the printing room. The two processes that a83 specializes in are lithography and screenprinting. We looked at the lithography of Steven Holl's House at Martha's Vineyard. Which, as Owen described, was almost a one to one transfer of a drawing. Moving away from the large metal lithograph press, we then started to look at a stack of screens used to make a screenprint. Seeing how large a stack of eight aluminum framed screens were, I began to understand the intense process of layering that a screenprint requires. Moreover, the drawings and the architecture depicted must be abstracted and reinterpreted into these flat layers. As all these layers usually are in the same perspective, any idea of projection is lost in this abstraction. A new architecture is made on the workbench where these screens lay.

The prints I had asked Owen to display for me were the editions of Thome Mayne's Sixth Street House and Anthony Ames' Cornice, Angel, and Egg prints. These prints were made in 1990 and 1989 the era of their production was the eclipse of a period of growing artistic activity in the neighborhood. There were many other artists working in Soho in the same historical moment. "As a result of deindustrialization, abandoned urban renewal projects, and a housing crisis, 'SoHo' ostensibly emerged as an artists' sanctuary that would enhance the city's culture and strengthen its economy."[7] This idea of a recognized urban pocket for artists emerged after the winter of 1971, when the City Planning Commission made it legal for artists to live and work in the industrial lofts south of Houston Street. So this gallery, a space of architectural culture and discourse, was positioned within the surrounding art world. It was an artistic subculture, within a broader artist culture. The artists in the neighborhood included Donald Judd, Suzanne Harris, Robert Rauschenberg, and many others. Rauschenberg's nearby studio at 381 Lafayette Street was a popular gathering spot for the art world at this time where there "were parties, wild parties."[8] This concentration of artists nourished the development of a social milieu which supported each artist as they lived and worked. As I was standing in the archive room, I could recognize the names Rauschenberg and Warhol written on the orange tape of the flat file cabinets. These were presumably some jobs Johns Nichols had undertaken for some neighbors.



Thome Mayne - Sixth Street House (1990) | © a83

The archive was the final stop of my tour. Owen and I sat on stools in the middle of the room discussing the prints propped up on plywood stands. On one side of the room, sitting upright were a series of three of Anthony Ames' compositions: Cornice, Angel, and Egg. On the other side of the room, sitting upright, were Mayne's prints of the Sixth Street House. They are ostensibly opposites. However, the second look reveals a peculiarity that binds these separate works together. While the relationship of their production is obvious, they are both screenprints, it is in the conceptualization of this medium which pulls these prints closer together. The prints

were designed in layers made horizontally. Each layer of the screen is a flat figure conceived in the horizontal plane. To read these screenprints vertically, on plywood easels, obscures this fact.

Robert Rauschemberg worked in a mode, as defined by Leo Steinberg, called the flatbed picture plane. Closer to a carpenter's workbench than Alberti's grid, the flatbed picture plane characterized Rauschenberg's artwork as not only made in the horizontal, but read through the horizontal where "any flat documentary surface that tabulates information is a relevant analogue of his picture plane."[9] When I was confronted with the screenprinting space at a83, I began to understand how the design of these prints was a kind of reinterpretation of an author's architecture. And like Rauschenberg's flatbed picture plane, the screen-print as it relates to architecture revolves around a field of abstract fragments, on a flat plane, whose composition only registers in relation to each layer and how they are stacked. The print maker works by looking down onto a horizontal plane to assemble these layers. In order to design the prints, the drawings of the architecture have to be finished, so the design of the architecture is complete prior to the design of the print. A new relationship between the architect, the architecture's image, and the viewer emerges.

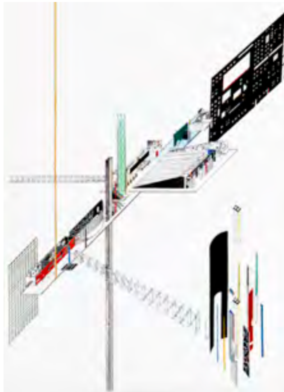
The relationships between architect, medium, method, and representational outcome illustrate what the screenprint has done for architecture. Without screenprinting, groups of drawings describe the essence of an architecture. With screenprinting, these drawings can be collapsed onto a single plane. The essence of the Architecture does not exist in the multiple drawings and images of the building. Instead, the essence of the architecture can be conveyed in a single print which collapses all types of viewing planes into one. The architecture is no longer understood through a conventional projection method where the true nature of the building is shown, one that is grounded. The architecture is understood through the process of layering in the horizontal.

While in the archive, Owen and I began to focus our discussion on the prints by Anthony Ames on the other side of the room. They had an unmixed color palette, a postmodern dictionary whose contents were of early modernism, and humorous traces of life in all the compositions. The works are idealized and hold a precise balance between abstraction and specificity to reveal the works fiction and, subsequently, the authorship.

These prints, which take still life objects and reduce them to pure forms, work in the manner of Corbusian Purism. They move beyond Purism in that these three prints collapse what is vertical (wine glass and building elevations) and what is horizontal (nolli map, bow-tie, and trace paper) into the flatbed plane. Purism is more focused on a collapse of the vertical, while Ames gives us some views from above, even those of a tabletop.

There is a lineage of Corbusian interpretation in America, which begins with William Lescaze. In the thirties, he was bringing glass block, functionalist living wrapped in white, and interjected planar wiggles, to New York.[10] Then we go to the publication of "Five Architects" in 1975. Of this set, most began to diverge from this early modern vocabulary, except Richard Meier. Corbusier was always on his mind, working the language over his entire career. As Peter Eisenman remarks in the lecture Architecture, Ideology, The City in 2006 at the Architectural Association, "Now there's a guy who made a lot of money. He did the same damn thing, over and over again." Then, the third degree is Ames. Who was educated in an era where as "institutionalized policy in the American profession... you had to do Mies or Corb."[11] And for his whole career, he did in fact do the same damn thing over and over again. However, unlike Meier, whose built and unbuilt work is decidedly lifeless and often at the institutional scale, Ames imbues a sense of narrative and symbolism in the work. In the Martinelli residence, he employs the early modern language to work at the scale and program of a McMansion: a modern narrative play on the American

Villa Chang Perspective | © Anthony Ames


Zaha Hadid - The Ambulatory and its Connections (1978) | © Drawing Matter

Aldo Rossi - Teatro del Mondo (1980) | © DOMUS

suburb. In the Villa Chang, there is a sense of absence and longing present in the perspectives. Much like a Eugéne Atget photograph, this perspective shows the traces of someone who has just left or is standing around the corner.

Was Ames reviving the elements of a dead language? In looking at the work today, it seems that way. But when the work was made, he was pushing against this idea. The discipline in this moment was moving away from the formlessness that theorists like Reiner Banham championed in the sixties. “For Banham, any system referring to regular solids or symbolic forms would be merely a resurrection of a dead language.”[12] From architecture’s consumption of Theory and Design in the First Machine Age to the nineteen-eighty Venice Biennale, there was a swing from a formless engagement with society like Cedric Price’s Fun Palace to platonic and iconic forms floating in space or a canal.

Where Ames kept everything whole, Mayne broke it all apart. While educated in a similar academic environment, he was in the same class at the Harvard graduate School of Design as Ames, Mayne’s work departed from his teachers’ and classmates’ methods. Where early modernists looked to the machine for metaphor, Mayne looked to the machine for an image. “In the work’s theatrical, sometimes scenographic artifice, the machine is often the central actor.”[13] This actor is usually mute and sedentary. Yet, this actor has the unique ability to imply movement and suggest dynamism. The essence of Mayne’s early houses is a fetishization of a mechanical nature. In these houses, the mechanical is used as a language to achieve an ordering system. The work has almost classical outcomes in that the architecture deals with light, space, and order. But, the elements used to get there are quite unconventional.

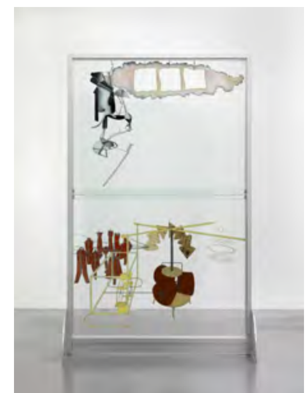
In discussing the Sixth Street House with Owen, we kept coming back to how Thom Mayne was working in favor of complexity. His tectonic language was new–ish. But, his drawing methods were not. The

representation recalled the presentation of Beaux Arts drawings in that each illustrative plate was made to the scale of a drafting board.[14] The labels on each element in the drawing relied on the same labeling methods as any technical drawing made at the turn of the 19th century. This combination of an artistic tableaux with the intricacies of a technical drawing signify the meaning of the underlying design of the Sixth Street House.

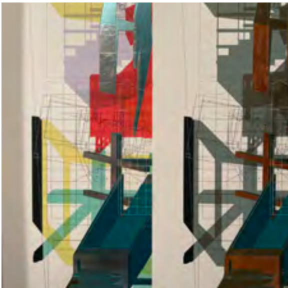
The house is organized around a series of eleven elements which are labelled “A” through “K.” These elements are parts of discarded machinery or “dead tech” that recall a kind of industrial archaeology where the machines are “freed from the obedience to utility, instead to serve beauty and expression.”[15] These elements are not only design objects represented anew within the domestic context, but they become programmatic nodes to which varying levels of function are assigned. From the fireplace to the stairway, the architectural use of these pieces of dead machinery were assigned by Mayne and those working in his office Morphosis. Much like the contradiction of the drawings being presented in a beaux arts tableau while quoting from utilitarian technical drawings, the rough elements of machinery puncture the standard idea of the house. They break any normative typological associations. For example, the shower protrudes into a living space and the hearth slips into the edge of the house by a stairway. The house is made of contradictions and this contributes to a dynamic reading.

The way in which Mayne uses these elements pulls from Duchamp’s idea of the readymade. In Rosalind Krauss’s comparison of the readymade to the photograph, her description parallels the effect of these elements of dead tech becoming the organizing logic for a house. “It is about the physical transposition of an object from the continuum of reality into the fixed condition of the art-image by a moment of isolation, selection.” When these pieces of industrial archaeology are selectively placed in the domestic context, they become isolated and frozen as something between a design object and architecture. They become crystalized and free from utility. They become readymades.

Thom Mayne - Sixth Street House Plan and Isometrics (1990) | © MoMA


Marcel Duchamp - The Bride Stripped Bare by her Bachelors, Even (The Large Glass) (1915-1923) | © Tate Modern

Mayne was designing a house for himself. A house for his family. And the academic project of the tableau drawings, and the prints, came later. However, the Duchampian dialogue did not end with the design of the house. Duchamp reappeared in the design of the screenprints. The eleven readymades which order the design are abstracted to a new level. They are removed from the domestic realm and left floating in space. Only governed by composition, these elements are not bound by gravity or any standard projection method. Much like Duchamp's large glass.


© a83

This screen-print has copper leaf collaged on the paper to give a sense of the materiality of these elements, to further reinforce the reading of their industrial past. One can see stairs, windows, and structure. But, due to the process of screen printing, these colors, which recall the true materiality of the readymades, can be interchanged. These colors further abstract these elements.

Because the plans, sections, and isometrics are layered on top of each other, this breaks any real visual field. Instead, the standard forms of architectural information become erased from their original associations of groundedness based on a vertical viewing. They make a new picture plane, the kind Raushemberg talks about, where everything is recorded on one horizontal surface. And on this horizontal surface, the colors, textures, and lines can be interchanged.

In my desire to visit the a83 Gallery to learn something new about design, I was unsure what I would find. Like the titles of the exhibitions that have been on show, the gallery seems to capture the essence of the material fragments which precede design or are left over after its finished. These fragments then go on to define the process, and in a world of digital flatness, these screen-prints are more like models or buildings, than images. This essence is paramount to experience today where the digital cannot be escaped. These prints, with their weight in paper and careful layers of

ink, cut through our oversaturation of imagery like a knife.

Through a material presence, a new picture plane, and a kit of parts which pull from a slew of iconic languages, the prints of Anthony Ames and Thom Mayne are important to consider today. They are emblematic of a period of architecture with a primary concern of a visual erudition which governed meticulous assemblages of historical, cultural, industrial, and mechanistic symbols. They create dialectics of pure and rough, idealized and found, static and in-motion, of things strewn across a picture plane, influenced by the screen press, and looked at from above... only before they are hung up on the wall.

5 Working on the Grid

"Dear Mom, Van Horn Texas. 1260 Population. Nice Town Beautiful Country Mountains. - Love Don 1946, Dec 17, 5:45 PM"[16]

Photo © The Metropolitan Museum of Art

This telegram, from Donald Judd to his mother, coincides with the beginning of the artist's interest in the desert, and with the American West. From 1968 to 1972, he spent his time roaming from Arizona to California looking for a place to rest his artworks and his discontentment with New York. Far away from his Spring Street studio in Soho, he decided on Marfa, Texas, 1 hour from Van Horn. Over time, Judd organized the conversion of the town's buildings into dedicated permanent exhibitions of his, and his contemporaries' work. He liked the land in Marfa, because like the land in Tucson, you could see it in totality, against the horizon.[17]

Judd falls into a category of artists that, as outsiders, have used the American West, broadly speaking to include the Southwest, as their source and occasionally their canvas. From Albert Bierstadt's romantic pictorialism, Edward Curtis' photographs, and to Michael Heizer's earthworks, the Anglo-American imaginary of American-Western art has cast an inescapable shadow over how a large portion of the country was represented, and mythologized.

Albert Beirstadt was a painter, trained in the European romantic tradition, who painted landscapes "of swirling atmospheric forces, of primordial geological drama, of natural –almost supernatural wonder."[18] The Rocky Mountains – Lander's Peak (1863) was his first painting to reach incredible popularity with the general public. The painting drew people in through a number of dramatic creative liberties where "the artist dared not merely a literal transcription of nature, but an act of creation."[19] Moreover, the great scale and minute detail presented a sublime version of the American landscape, which stoked an air of nationalism during the Civil War. Bierstadt's populism staggered large crowds of viewers just as much in the 1860s as today, where this painting is hung across from Emmanuel Lutz's Washington Crossing the Delaware (1851) in the Metropolitan Museum of Art. Because of the paintings' presence, Bierstadt's artwork exists as a benchmark of popular representations of the American landscape.

Finding this myth in a new medium, a couple decades later, Edward Curtis embarked on a trip to document the continually displaced and subjugated cultures of those who originally inhabited the land. At the turn of the 19th century, as development of the west continued, he took a photo capturing a group of Navajo Indians crossing the desert at the base of Arizona's Canyon de Chelly. In Curtis' eyes, this image is a last grasp at a truly migratory group of people. This image falls into Curtis' oeuvre which is marred by many staged photographs where he manufactured an "aboriginal west that never existed."[20] And while the works of Curtis and Bierstadt are marked by a perspective whose character is emblematic of their respective periods, their images of vast horizons, landforms of an immense scale, and grand spaces of absence capture an idealized American landscape.

Photo © The J. Paul Getty Museum

One hundred years later, when the forceful displacement of the indigenous peoples who roamed the Southwest made space for a sedentary and industrial society, a new understanding of land arose. This idea of land was grand in scale, but entirely against

nature and the Hunter-gatherers' idea of space where "hunter-gatherers did not conceive of land as a surface, but as a constellation of specific marks."[21] The wide expanses of space were defined by stopping points like a watering hole or a stream. The current understanding of land as a surface was a product of America's desire, as a newly formed country, to expand. In this endeavor, Thomas Jefferson decided on a grid to guide the appropriation of land beyond the original 13 colonies. Jefferson's Grid, implemented as the Land Ordinance of 1785, was a plan to divide all of the western land into squares, 6 miles on each side, called townships. Within the townships, the square is subdivided into 36 squares of land.[22] This grid is what we now call the Public Land Survey System (PLSS).

The PLSS is the medium with which our contemporary relationship to landscape unfolds. Where Bierstadt and Curtis used vastness as a technique to provide the viewer with a sense of awe, the PLSS organizes vastness as a store and display of capital. In Annie Schneider's Off-(Jefferson's)Grid, Schneider refers to the surplus generating capacity of the Southwest as a kind of 'back of house' for the rest of the country. Through the grid, the land becomes an industrialized infrastructure where every inch is designed to be productive for solar farms, feedlots, monoculture, and highways.[23] When this gridded surface is sought by contemporary artists looking to represent a western sublime against the horizon, they are met with very different realities than the early landscape painters like Bierstadt. The tableau images produced reveal a narrative that one hopes to be pictorial. Instead, the images are documents of the truths of land uses.

© Bureau of Land Management

The photographer George Steinmetz, while on assignment for National Geographic, was paragliding over a feedlot near Garden City, Kansas, to capture images of a vast livestock operation. Later, Steinmetz and his assistant were arrested on charges for trespassing.[24] The images taken, much like this photograph of an Idaho feedlot also taken by the artist, are incriminating, not only for those directly involved in the operation of

the lot, but anyone of the general public who has yet to see an image like this. Where Farallon Island[25] inspired a kind of continuous awe every time I went to visit the painting, Steinmetz's images of cattle cities inspired a kind of dread of the same gravity.

The arrest of a landscape photographer raises questions around the quality and accessibility of landscape representation in a country whose territory is as large and diverse as the US. It is impossible for any citizen to understand the complexities of, and forces acting on, the entirety of the land in which they live. For the past 30 years, the Center For Land Use Interpretation(CLUI), a joint art and geography practice, has had the guiding concern of landscape representation "from books and lectures to multimedia bus tours."[26] The sites they choose to document and archive are categorized as having unusual and exemplary criteria. One of these sites, as described by Mathew Coolidge, CLUI founder, is "the Bingham Pit, an open-pit copper mine they call 'the biggest hole on earth'... It's stirring, it's moving, it's horrible and beautiful—in a kind of Keatsian sense where beauty becomes truth."[27] Coolidge emphasizes how these sites are double-edged. They are either terrible scars on the earth or triumphs of science, technology, and will. The sober presentation of these sites gives room for a range of interpretations. Coolidge and his colleagues picked the right name for their institution. The CLUI has considerable documentation of not just industrial and military land uses, but agricultural land use as well. These include everything from the meat and sugar processing plants to the Beltsville Agricultural Research Center.[28]

Photo © 2016 George Steinmetz

Within the agricultural industries that both Steimetz and the CLUI depict, there are economic factors at play influencing the sector's boundless activities. The prices of the commodities are priced artificially low. Farmers are in constant competition, which incentivizes a surplus that often gets wasted. When asked about the most dramatic changes in American agriculture, Mark Watne, president of the North Dakota Farmers Union says that "In the US we went away from supply manage-

ment systems—like acreage control or conservation reserves—and instead challenged our farmers to produce more and do it for less."[29] Over time, this unsustainable method of food production becomes too big for the land that supports it. And the grid acts as the great enabler for such problems.

The grid and our current situation with agriculture speak to America's relationship with land as a primary means of commerce. In order for the land to be commodified, the land first must be measured through surveying. Surveying has roots as an essential act in early America, one that inevitably produced a national identity centered on growth and expansion, leaving behind a legacy which encouraged unsustainable land use practices. Many American presidents in the first century of the US cut their teeth as land surveyors. James Fenimore Cooper's 1845 novel, The Chainbearer, characterizes George Washington as a heroic example of someone in the surveying profession.[30] Abraham Lincoln began surveying in Illinois at twenty-three.[31] Measuring and claiming land was not only a necessary activity in the era of westward expansion, it became a symbolic act of national identity.

Thoreau's Cabin at Walden Pond | Public Domain

Henry David Thoreau embodied this sense of pride as a surveyor, albeit with less hubris His profession allowed for sporadic work, extended time to observe nature, and a principled refusal to work for any client who had him measure land for the sake of purely commercial development.[32] Thoreau saw surveying as a modest profession, especially in the way in which he practiced. This is the same type of modesty which defined the architecture of his cabin at Walden Pond. If the act of land surveying were to be critically re-evaluated today, one would reject the expansionist desires of the surveying which defined the early US. Instead, surveying through Thoreau's outlook would be an activity that brought an intimate connection to nature and a respectful understanding of existing land forms. And in the case of the CLUI, an appraisal of land use.

The Public Land Survey System grid, which

was implemented on an expansionist perspective, opposite of Thoreau's, shows a "national sense of manifest destiny...(where) buildings and sidewalks, rural roads and agricultural fields became the arbitrary, circumstantial coordinates, of a singular, universal spatial continuum."[33] This spatial continuum is defined as the abstract 'surface' of the grid, whose intersections have a profound influence on the eventual planning and development of the land.

Much like the development of cities prior to the first digital turn in architecture, the PLSS grid was developed out of orthographic thinking. The city was "an orthographic idea-object born out of the continual interplay, over several thousand years, between writing and drawing."[34] In the same manner, the grid was developed out of the interplay between an ideology of growth and the drawn system which represented it. As an abstract system, "the Jeffersonian Grid allowed any settler using rudimentary instruments to survey a property."[35]

In those early days of land surveying, the tools of the trade were the compass and the chain. The chain had standard links, and the compass determined the cardinal direction and angles. The theodolite was later introduced as the more precise tool to measure these angles, which also worked in the vertical axis. In order to measure for maps, these tools were applied to a method called triangulation that allowed the surveyors to efficiently measure swaths of land through systems of triangles.[36] Where one side and two angles are known, the rest of the faces of the triangle can be computed. On the basis of work done by this method of surveying, the grid could exist. "The topographic map of the country, which is essential to all engineering work involving the extension of highway systems, flood control of rivers and their utilization for transportation, the development of hydroelectric power, the development of the network of telegraph and telephone lines for communication and power lines to transmit electricity, must be based on accurate geographic positions which can be determined by triangulation only."[37]

Ex. 1 - Drawing 2 | © Noah Fritsch

There is a tension between the abstract nature of the PLSS grid, where the points are only defined by its self-referencial coordinate system, and the definite understanding of landforms from triangulation. While there is a discrepancy between the underpinnings of these two methods of claiming land, they are mutually dependent. In order for accurate maps to exist prior to satellite imagery, triangulation was an essential activity for map making and the siting of infrastructure. And without accurate maps, the grid would have nothing to be superimposed onto. Or there would be no way of accurately surveying large swathes of land.

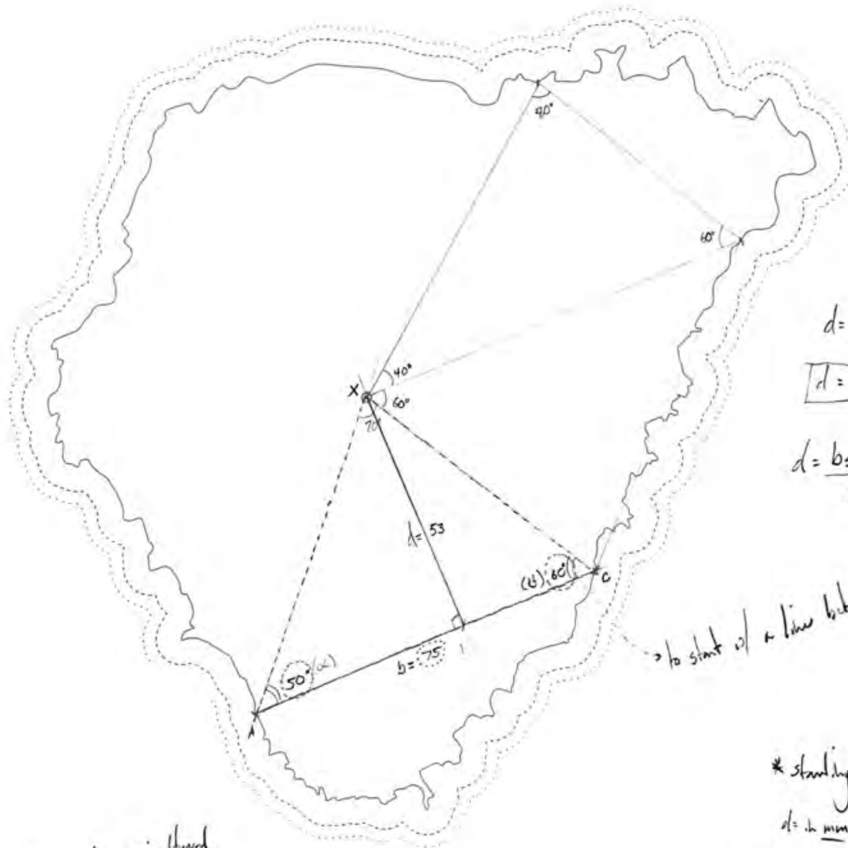
The landscape representation of the American West has followed a distinct path from the romantic art which captured the essence of an idealized landscape to the objective presentation of contemporary land use as fact. On either end of the spectrum from pictorial to documentary, there is always an incredible scale associated with what is depicted. Where once only large landforms and open space characterized this scale of the West, now a grid defines this vastness of the land-scape. George Steinmetz captures this dirty sublime, and the CLUI presents it to a discerning public. However, these extraordinary instances of land use exist due to a once foundational national desire to measure and claim land, enabled through the orthographic tools and methods of surveying. These tools and methods deserve a critical re-appropriation in order to subvert their symbolic control over a once wild, now industrial, landscape.

6 Ex. 1

In order to understand the method of surveying that will eventually misappropriate, this first exercise explores the various techniques of triangulation. Each drawing measures a portion of a fictional landmass through a different types of triangulation.

Ex. 1 - Drawing 1 (Quadrilateral Triangulation) | © Noah Fritsch

01


x
40°
60°
70
90°
60°
d= 53
(B) 60°
c
50° (α)
b= 75
A
d= 75 Sin(50) Sin(60) / Sin(110)
d = 53
d= b sin(α) Sin(B) / Sin(α+B)
→ to start w/ a line between 2 points
* starting w/ random line
d= in mm
A and C are known spots.
* use of landmarks. In the grid, agricultural grid, it is filled with points for this method.
- Don't start w/ perpendiculars
- Only use Well [illegible] triangles
02

$a_5 = 34.8 \frac{\sin(38)}{\sin(45)}$

$= 30.4$

$a_1 = 39 \frac{\sin(80)}{\sin(54)}$

$= 39(1.2)$

$= 47.2$

$a_2 = 47.2 \frac{\sin(40)}{\sin(77)}$

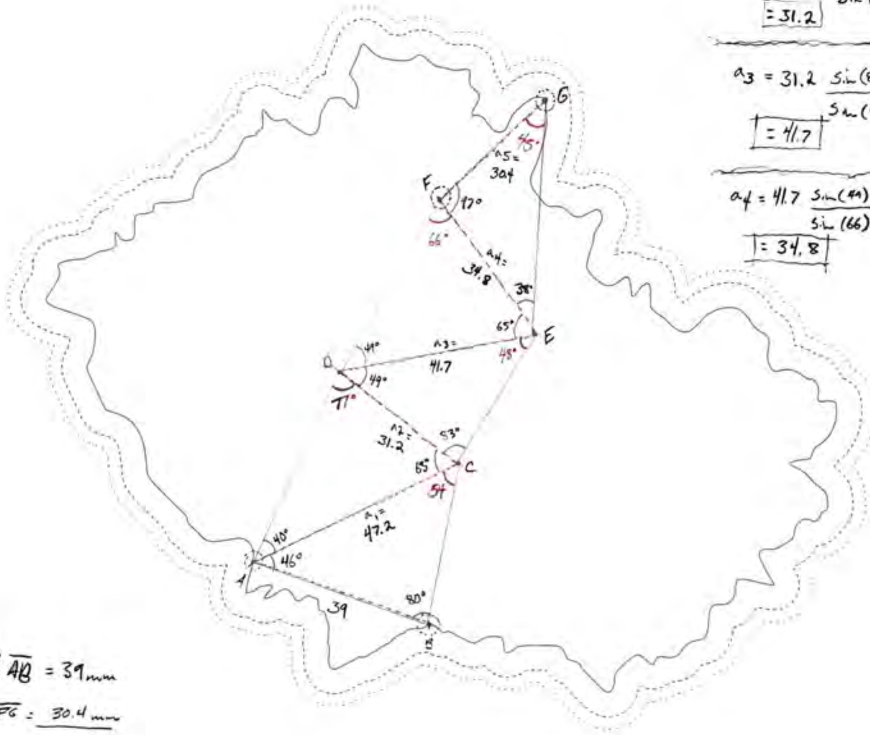
$= 31.2$

$a_3 = 31.2 \frac{\sin(83)}{\sin(48)}$

$= 41.7$

$a_4 = 41.7 \frac{\sin(49)}{\sin(66)}$

$= 34.8$

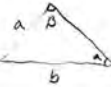


* start w/ $\overline{AB}$ = 39mm

End w/ $\overline{FG}$ = 30.4 mm

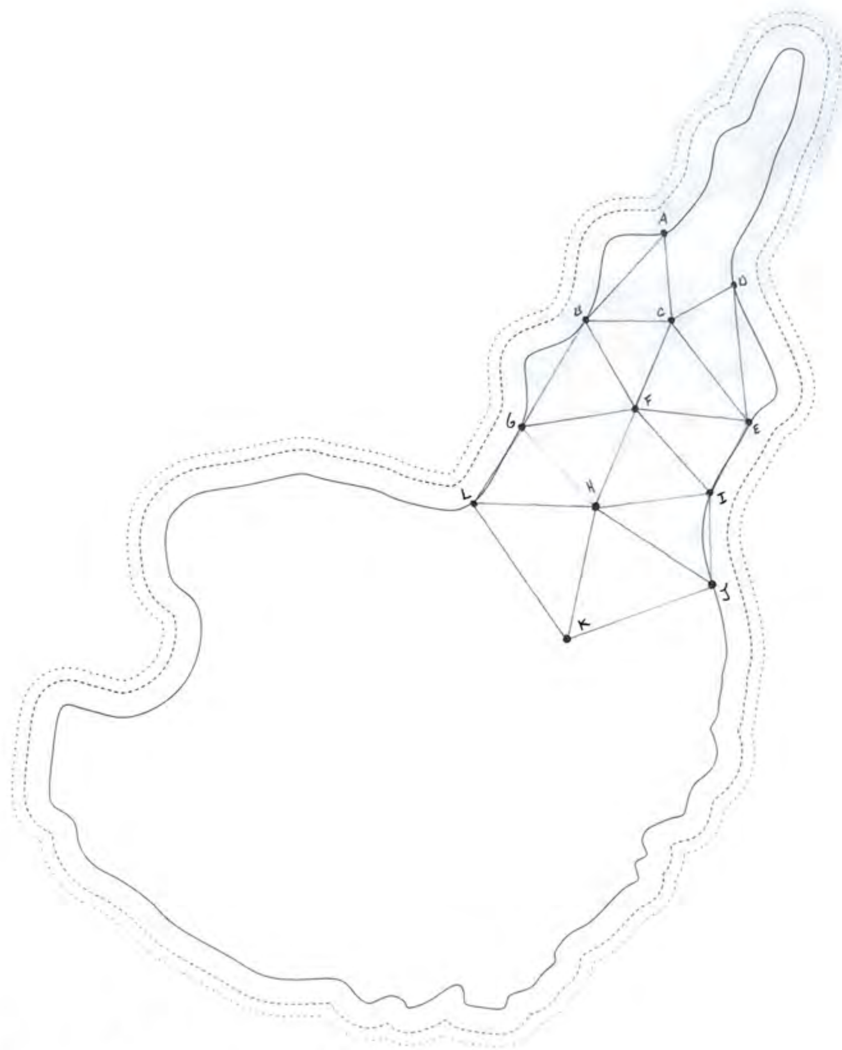
Single Chain of Triangles

Goal: to use a triangulation system. w/ Law of Sines $a = b \frac{\sin A}{\sin B}$

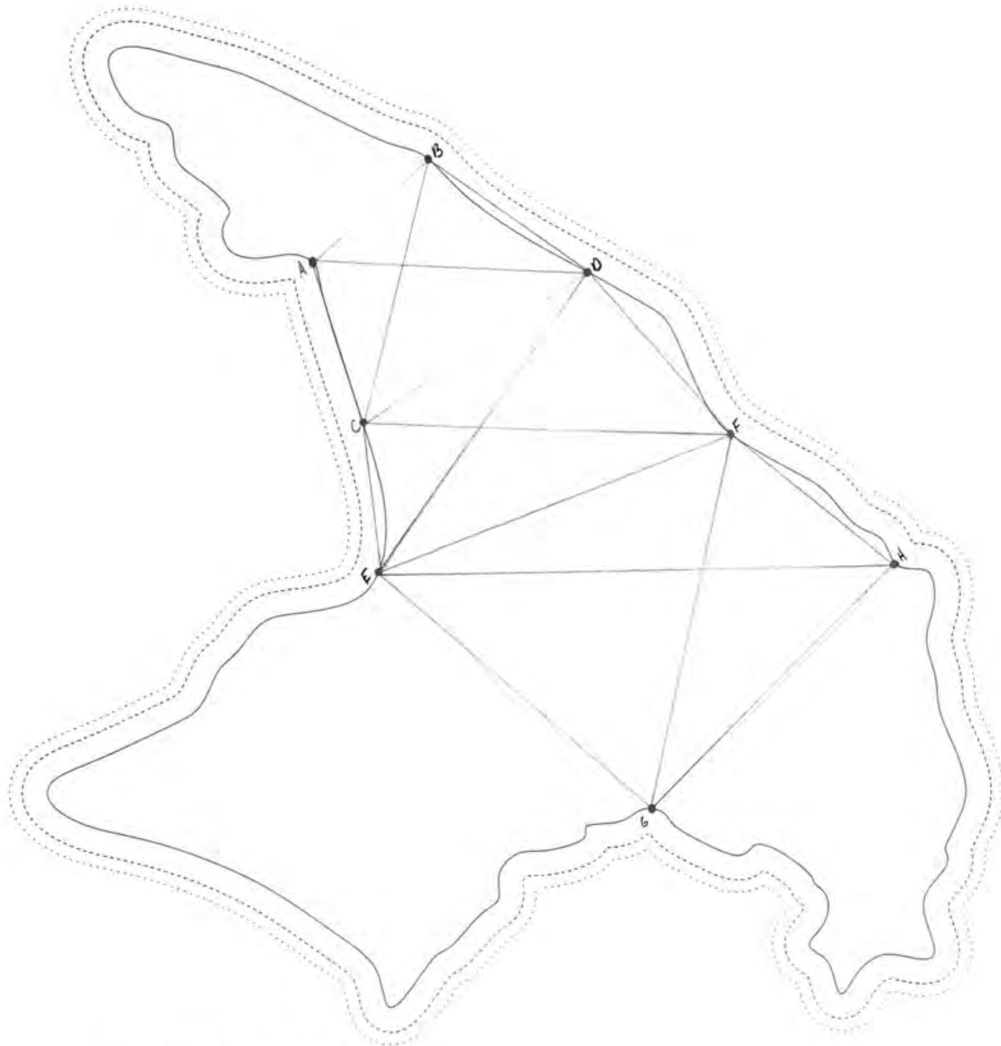


Said on overlapping triangles in which the [illegible] side is measured and the remaining sides are calculated from angles measured at the vertices of the triangles.

03

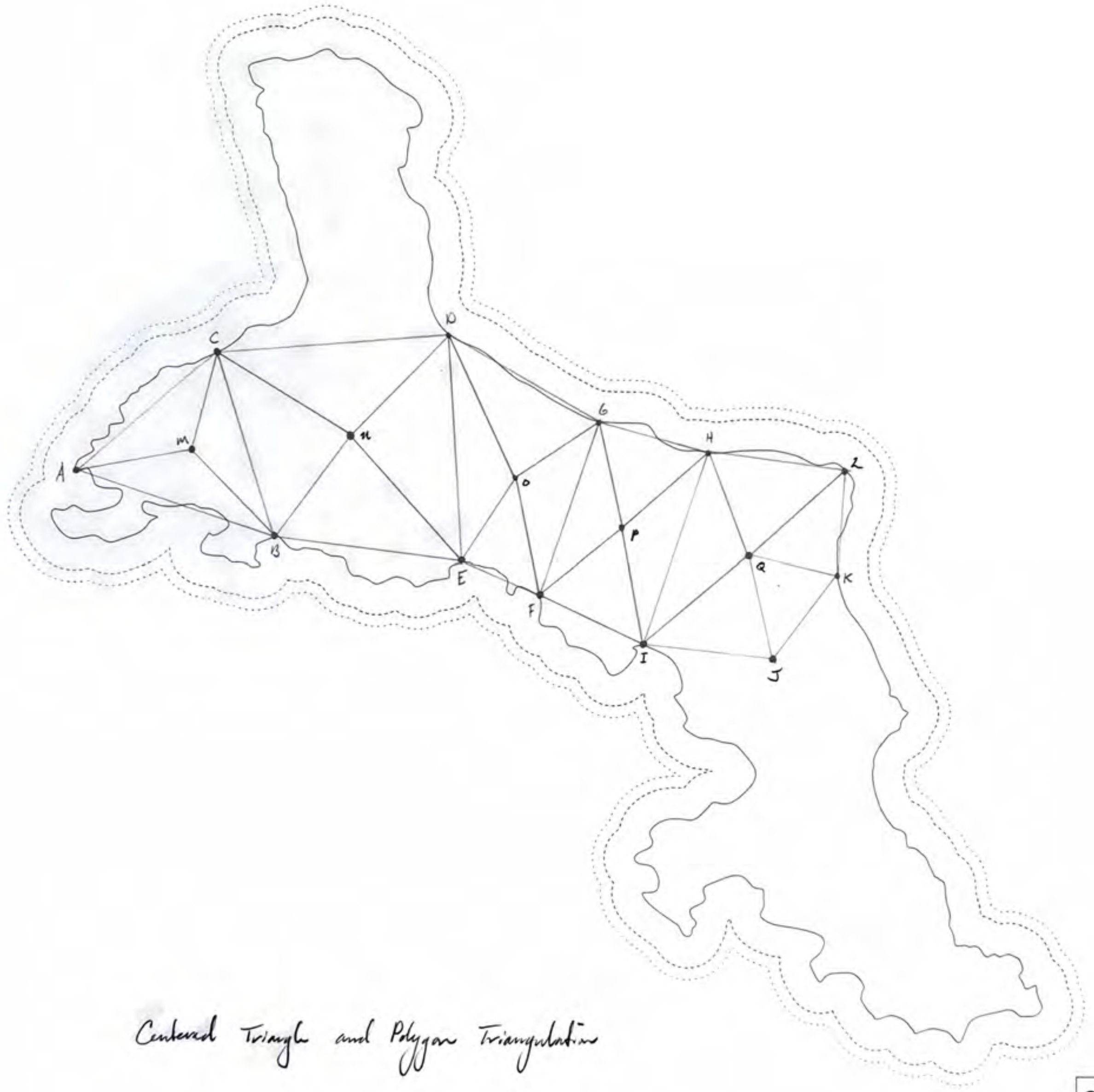


Goal: Measure using Double chain Triangulation



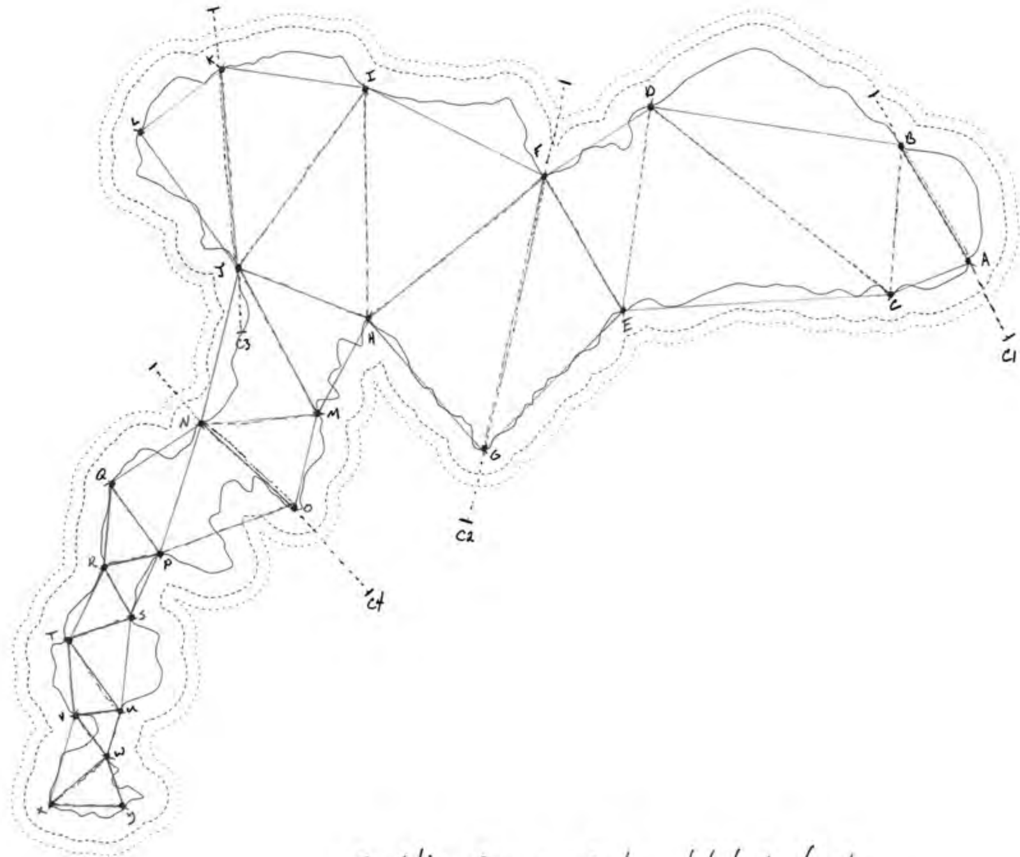
Braced Quadrilateral Triangulation

05



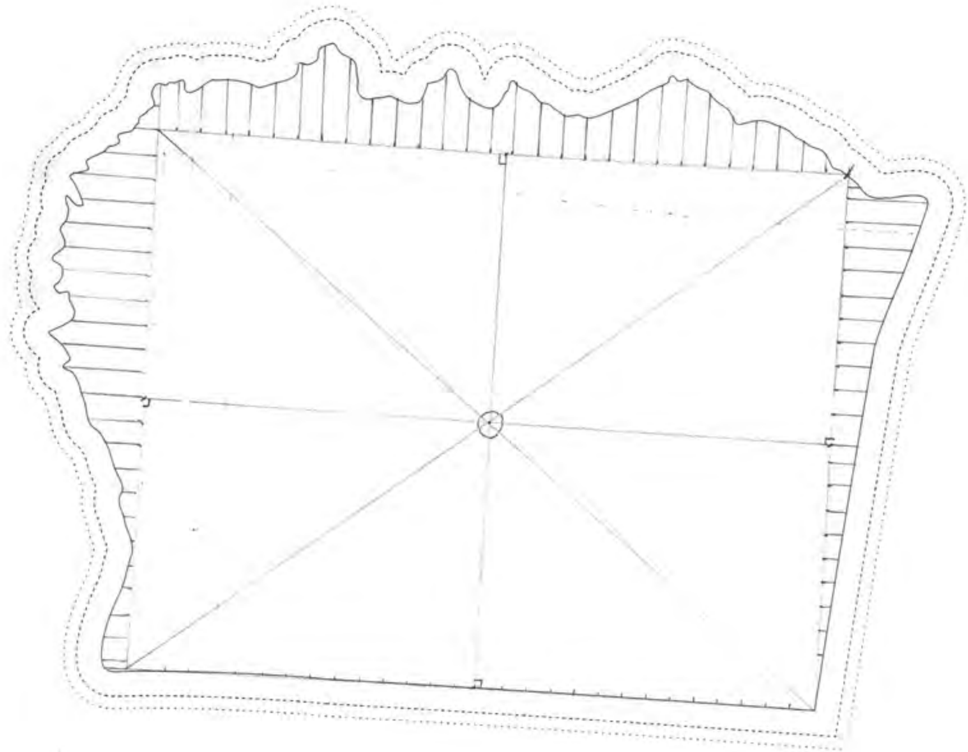
Centered Triangle and Polygon Triangulation

06



Triangulation as a means to understand Land w/
4 different chains

07

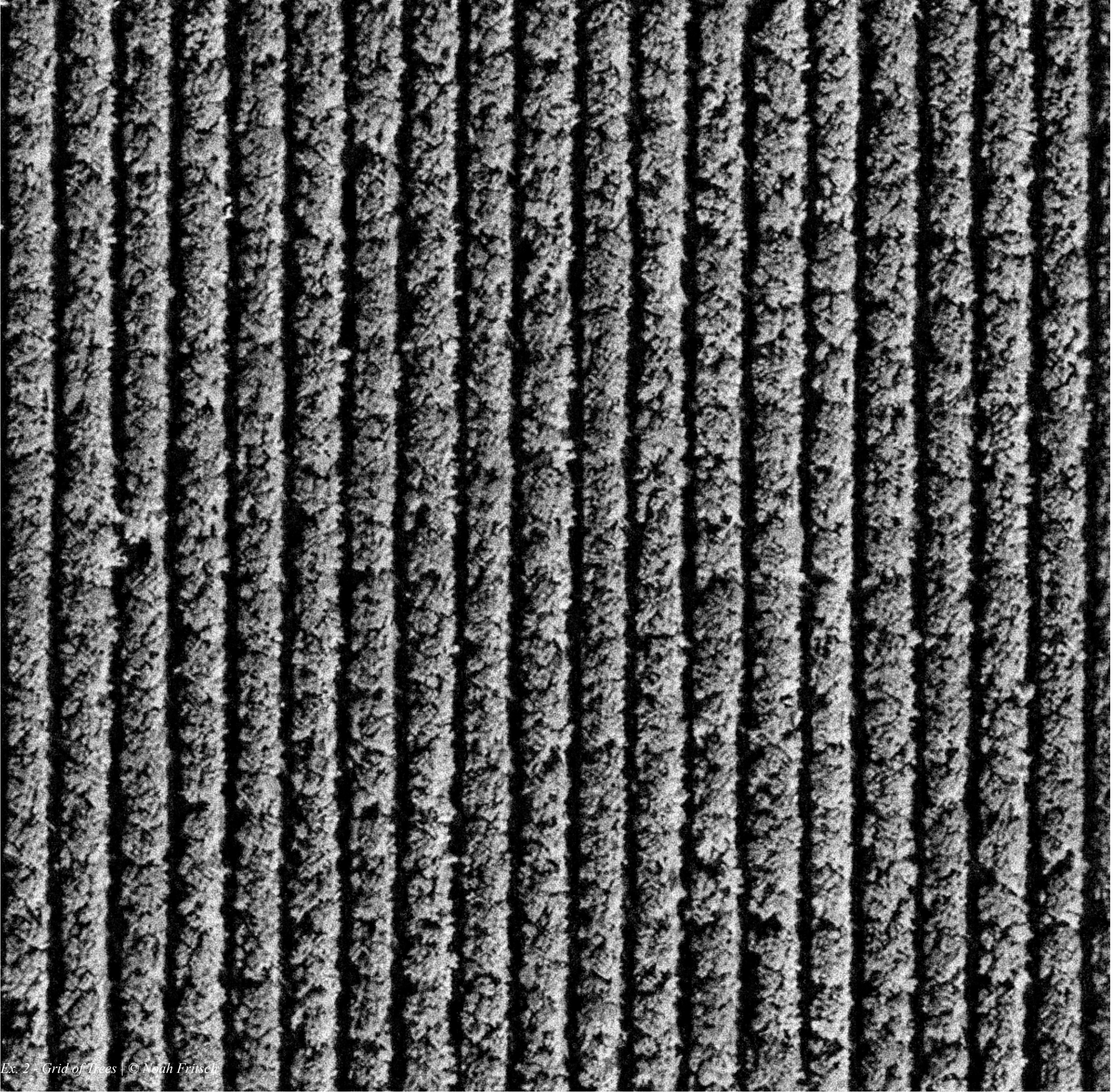


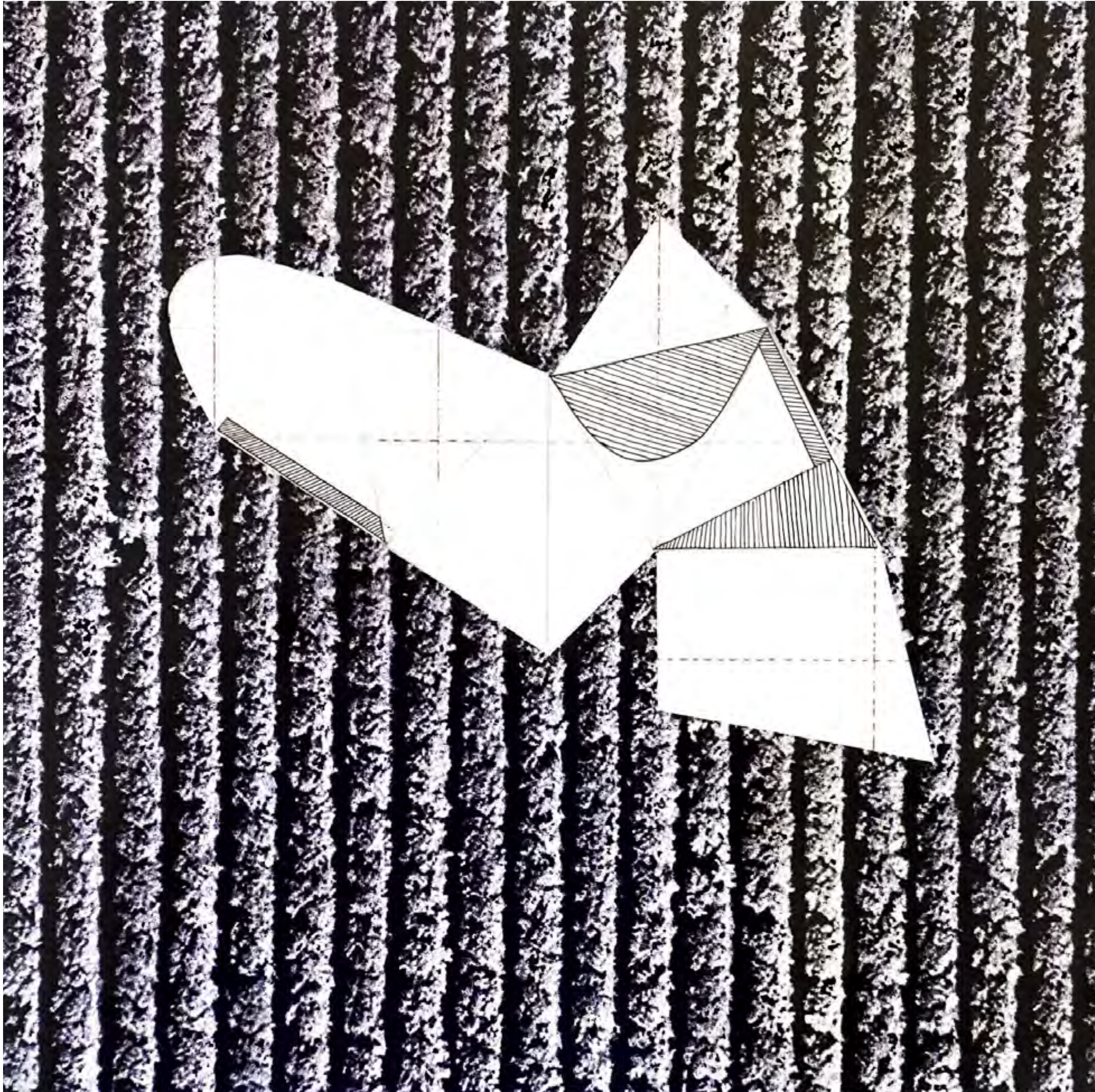
the Grid

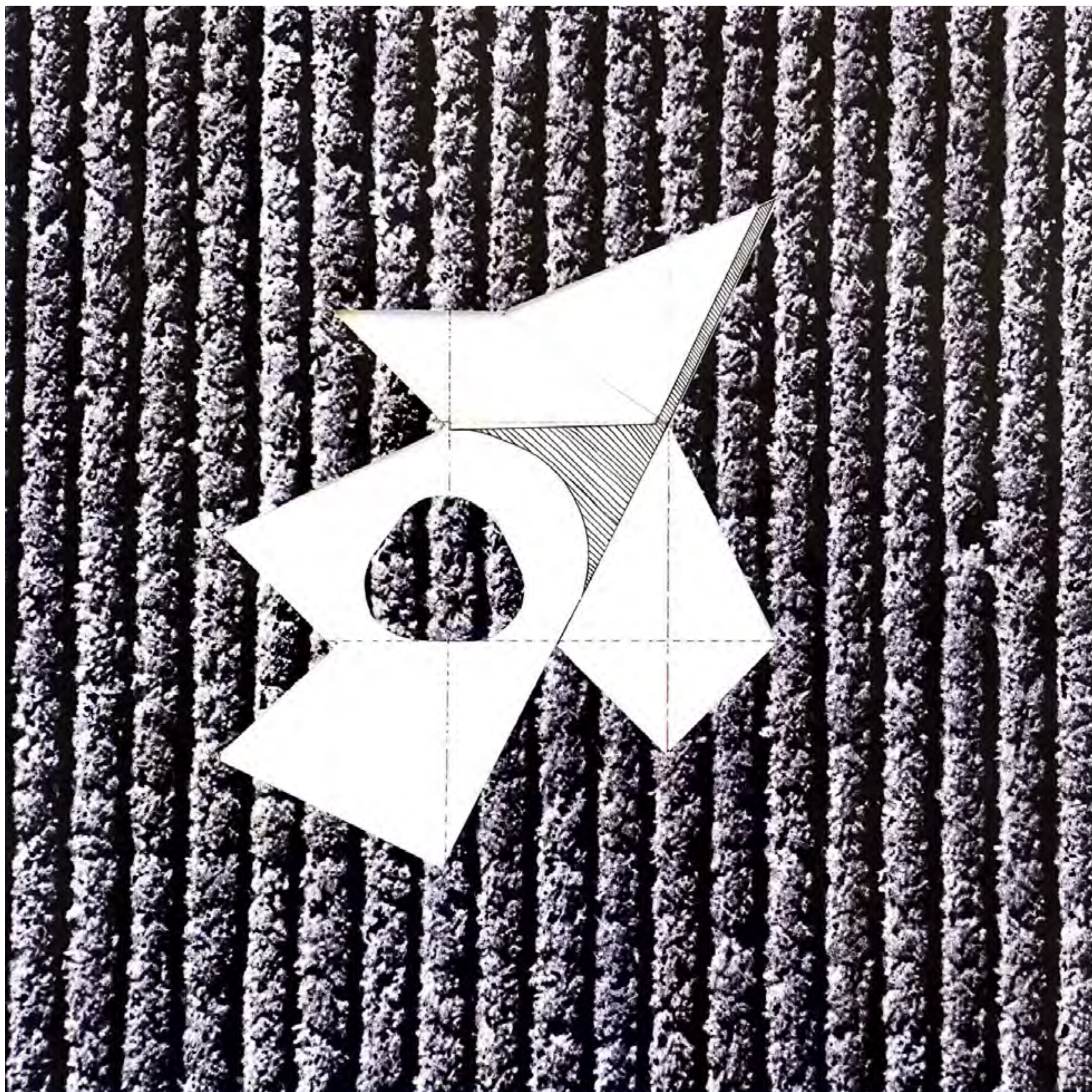
09

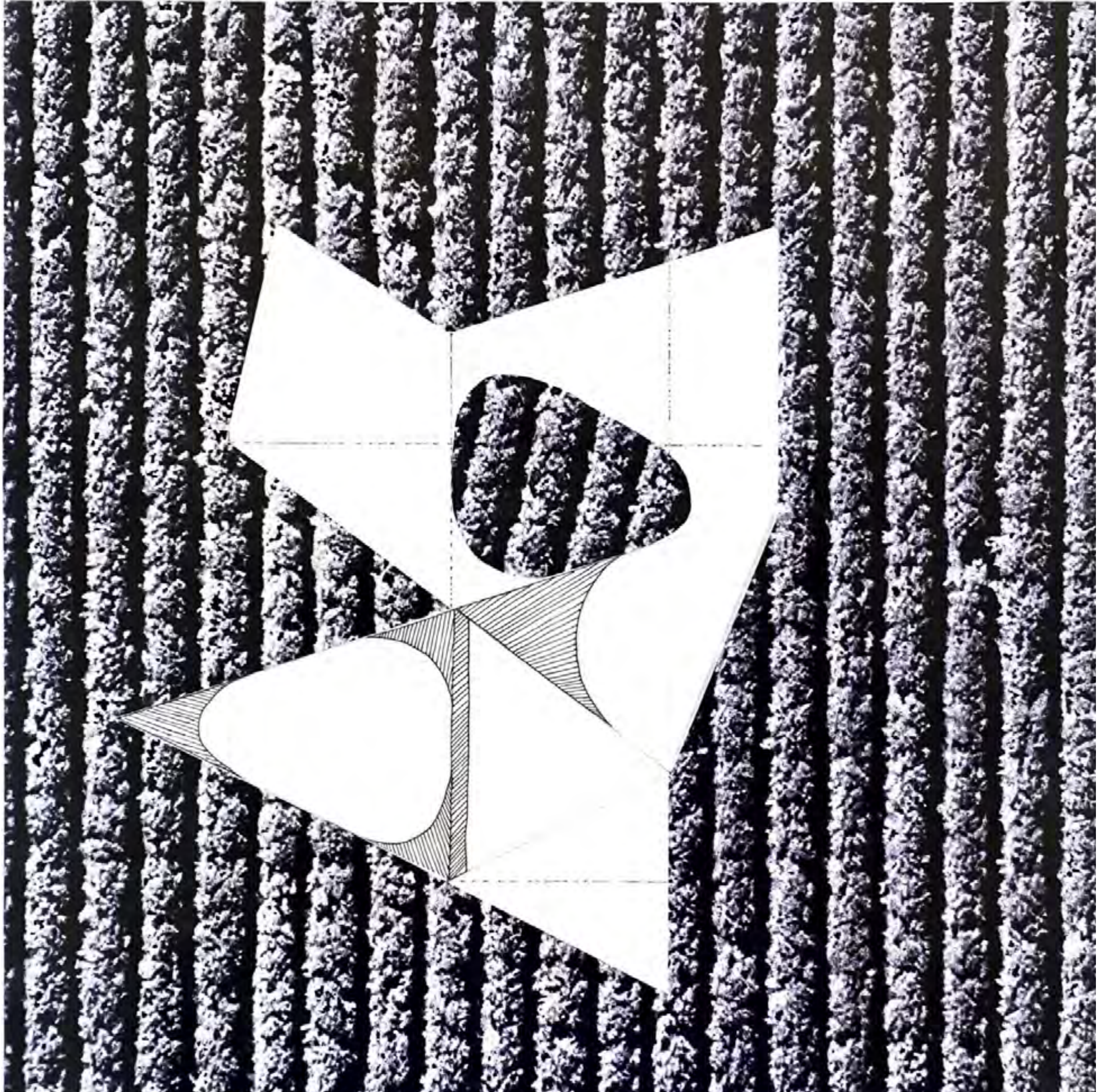
7 Ex. 2

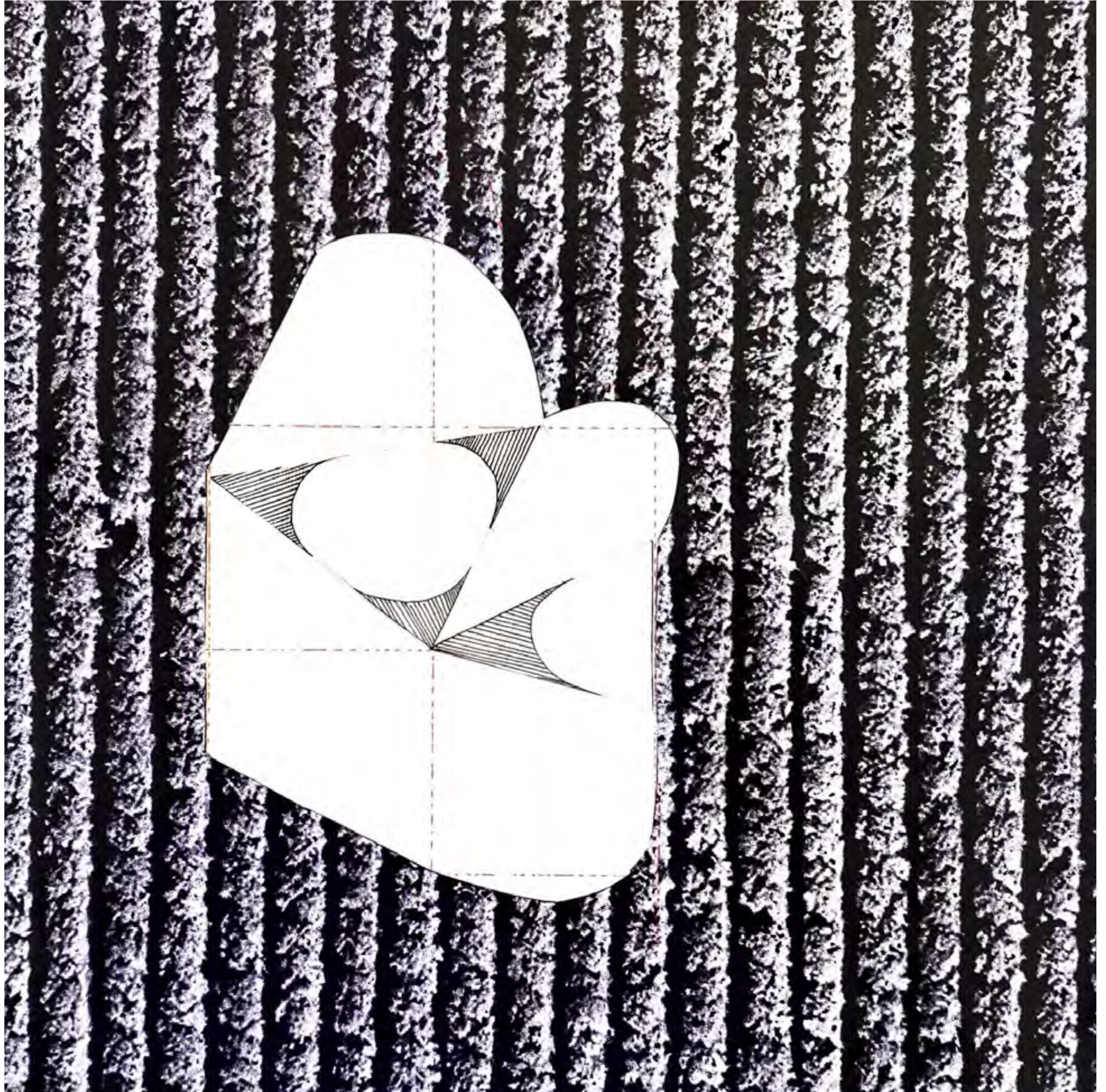
This second exercise deals with using triangulation as a means to un-measure the grid. By using a system of triangles superimposed on rows of trees, this compositional system acts as a guide to void and generate figures within the agricultural grid.


Ex. 2 - Grid of Trees | © Noah Fritsch



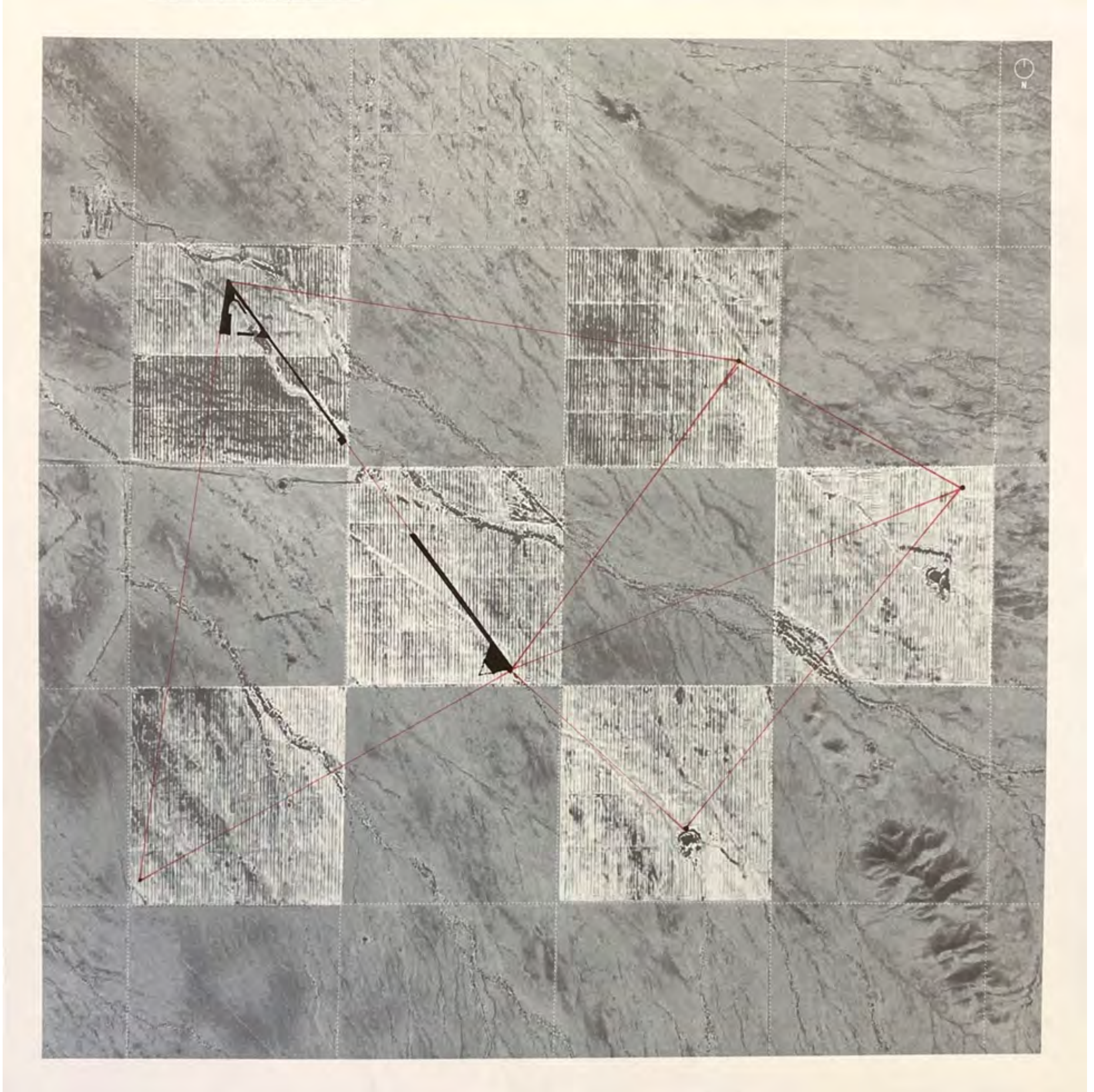


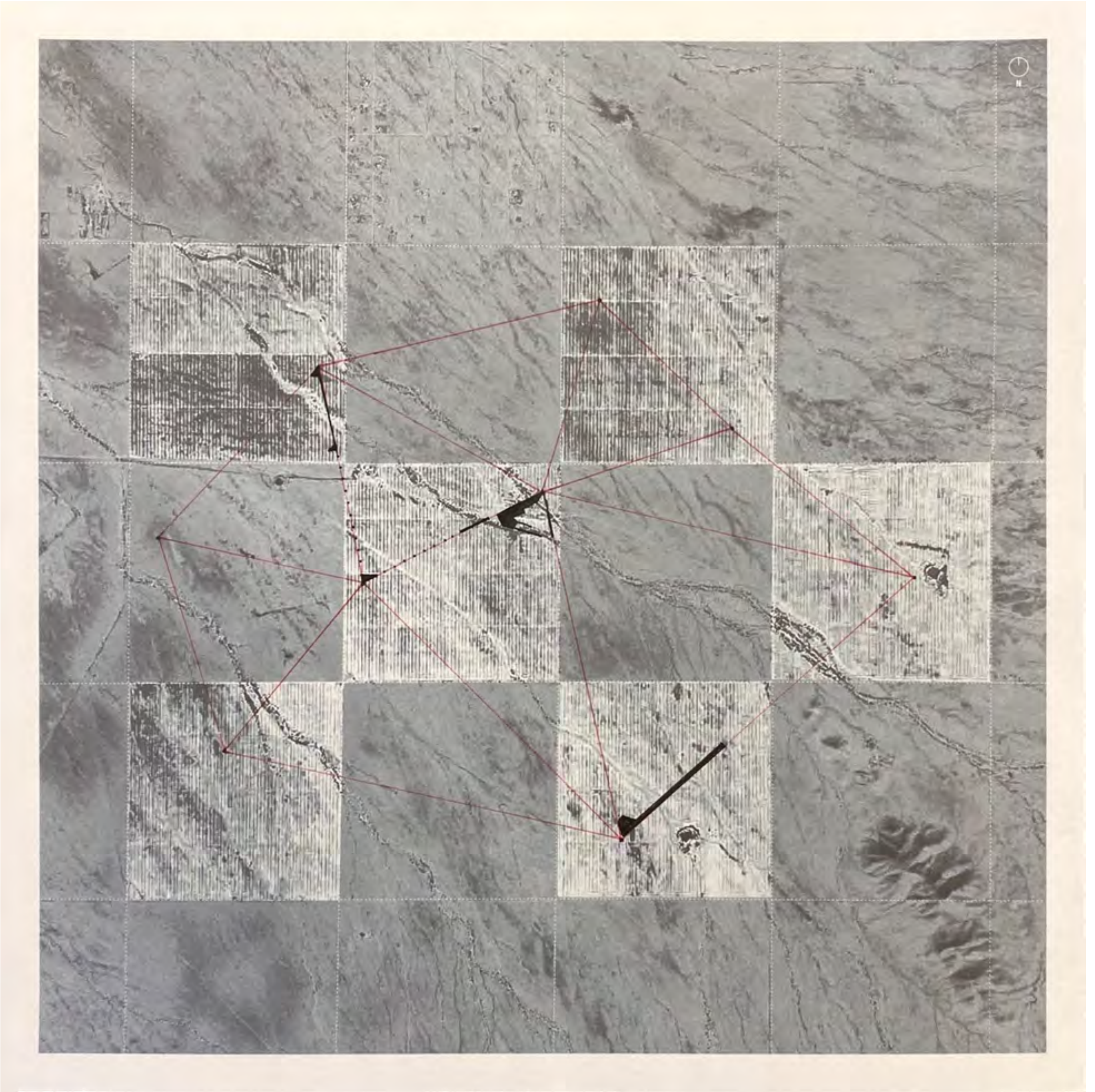


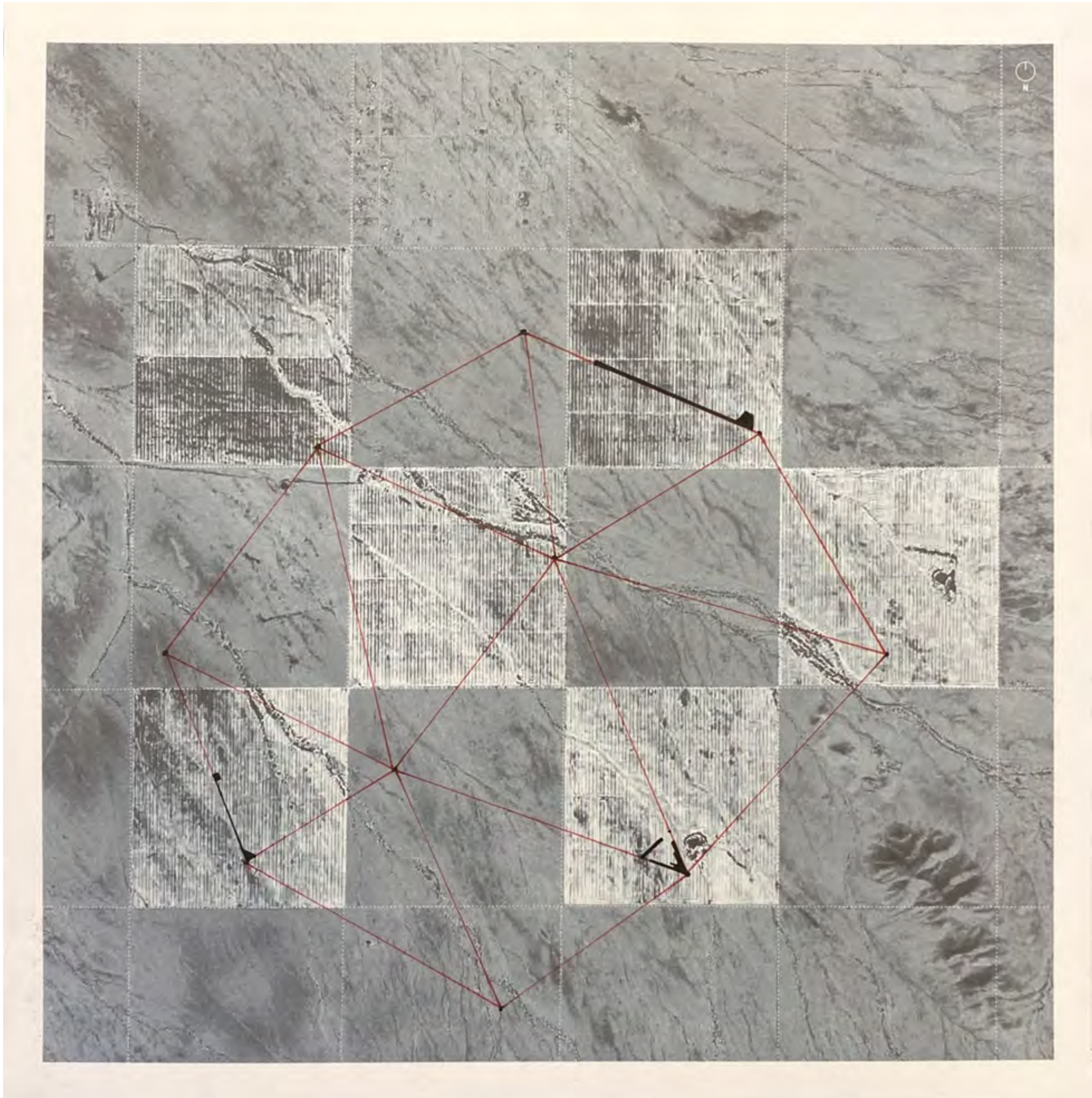


8 Ex. 3

The third exercise triangulates at the scale of the territory where each point is located within one parcel of the Public Land Survey System. These points are in service of a composition of triangles which break the overall grid. Each architectural figure is influenced by the datums of the triangulation.


N





9 Images

Each image is a foundational point in the imaginary of the project. They were treated as currents to move with or against.

Lucio Fontana - Concetto Spaziale (1959) | © Ben Brown Fine Arts

Leslie E. Bowman - Catherine Dreier and Marcel Duchamp (1936) | Photo © Yale University Art Gallery

Terrence Malick - Badlands (1973) | © Warner Bros.

Glenn Murcutt - Magney House (1982-84) | Photo © Anthony Browell

Anthony Ames - Garden Pavilion (1985) | © Stephen Brooke

•

Richard Long - A Line Made by Walking (1967) | © Tate Modern

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