EXPERIMENTS IN ARCHITECTURAL COMPOSITION

THE MUSEUM WILL BE A CONTEMPORARY EXTENSION OF THE PARC DE LA VILLETTE, THE GRID CONTINUING ACROSS PARIS TO LAND IN A NEW PARK, THE PERMUTATIONS OF THE CUBE INSTEAD TRADED FOR CONTEMPORARY PERMUTATION METHODS.

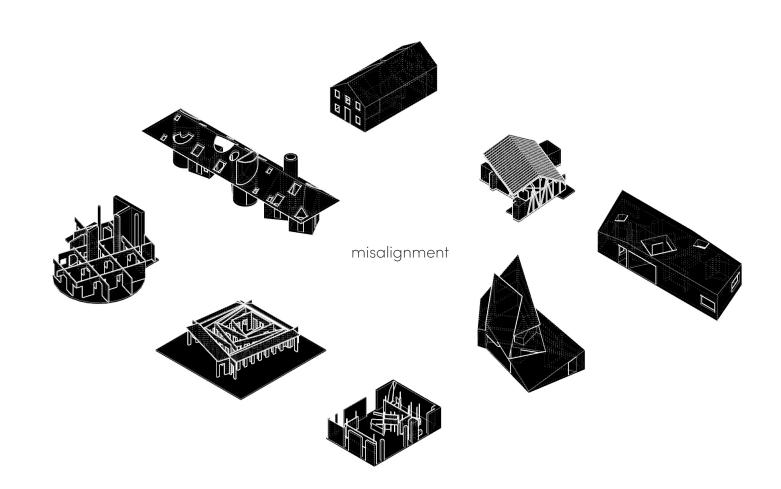
THE MUSEUM IS DEDICATED TO PHYSICALLY PLATFORMING AND CATEGORIZING THESE EXPERIMENTAL DESIGN APPROACHES IN ARCHITECTURE, ALLOWING THEM TO BE EXPERIENCED AND CRITICALLY ENGAGED WITH AS AESTHETIC OBJECTS.

THE CURRENT EXHIBIT FOCUSES ON THE COMPLEX COMPOSITIONAL TECHNIQUE OF MISALIGNMENT AND SUPERIMPOSITION.

THIS IS EXAMINED THROUGH THREE MODES OF MISALIGNED COMPOSITION IN THE DIAGRAMMATIC PHASE: TYPE, GEOMETRY, AND CONTEXT.

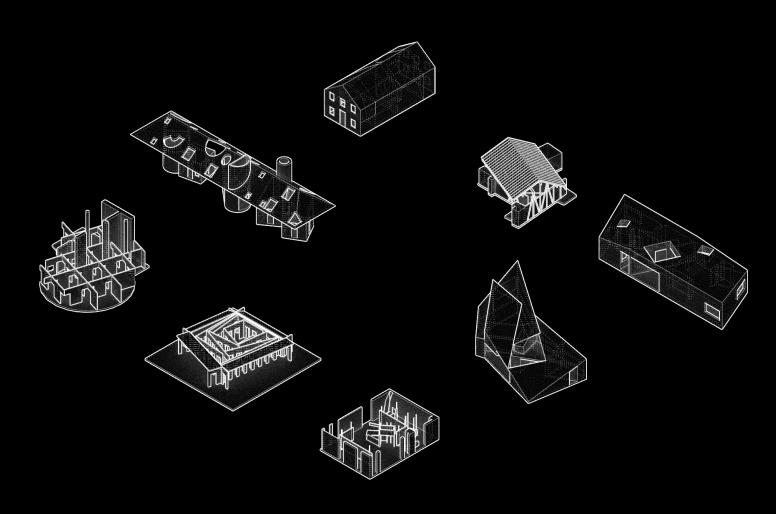
THE PROJECTS THEN EXPLORE THE CONSEQUENCES OF THEIR DIAGRAMS THROUGH THREE CATEGORIES OF SUPERIMPOSITION:
BOOLEAN, TECTONIC, AND PROJECTED.

THE CENTER OF THE EXHIBIT WILL BE CONSTRUCTED FROM THE ELEMENTS OF THE OTHER PROJECTS, ATTEMPTING TO SIMULTANEOUSLY DEMONSTRATE THE VARIOUS STRATEGIES IN ITS COMPOSITION AND ACTING AS AN INFORMATION HUB TO EXPLAIN THE PROCESSES OF THE OTHER WORKS.



© 2024 Matthew Murphy, Kansas State University

All rights reserved. No part of this document may be reproduced in any form without written permission of the copyright owner. This document was generated for educational purposes and not for profit. It is not for distribution outside of fulfilling the educational requirements of assigned coursework and the author's personal use. Every effort has been made to properly cite all source material.



CONTENTS

INDEX	04
WRITINGS	06
Expanded Field + Tectonics	
Design Intent	
TYPOLOGICAL MISALIGNMENTS	12
Form in Form	
House in L.A. 1	
Parallel House	
GEOMETRIC MISALIGNMENTS	26
Villa Shotgun	
House A,B	
CONTEXTUAL MISALIGNMENTS	36
MACBA Exhibition	
Scoring, Building	
6 Work Surfaces	
END NOTES	50

Projected Boolean Tectonic D Typological Form in Form House in LA1 Parallel House Geometric Shotgun House House a,b Contextual

Scoring, Building

6 Work Surfaces

MACDA Expo

INDEX

ROWS: MISALIGNMENTS

Typological Misalignment

The Decomposition of Vernacular Typologies

Form in Form LADG House Parallel House

Geometric Misalignment

The Decomposition of Primary Geometry

House, A,B Villa Shotgun

Contextual Misalignment

The Decomposition of an Existing Site

MAQBA Scoring, Building 6 Walls

COLUMNS: CONSEQUENCES

Boolean Consequence

The Boundary Intersection Results in the Final Form

Form in Form Villa Shotgun MAQBA

Tectonic Consequence

The Structural Intersection Results in the Final Form

LADG House Scoring, Building

Projected Consequence

Drawing Conventions Result in the Final Form

Parallel House House, A,B 6 Walls

EXPANDED FIELD

¹Tzortzi, Kali. Museum Space: Where Architecture Meets Museology. London: Routledge, 2015.

- ² Kantor, Sybil. Alfred H. Barr, Jr. and the Intellectual Origins of the Museum of Modern Art. Cambridge, Massachusetts: The MIT Press. 2003.
- ³ Krauss, Rosalind. Sculpture in the Expanded Field. October, Vol. 8 Spring, Cambridge, Massachusetts: The MIT Press. 1979, 30–44
- ⁴ Holder, Andrew, Hays, K. Michael. Inscriptions: Architecture Before Speech. Cambridge Massachusetts: Harvard University Press, 2021.
- ⁵ Allen, Stan. Pattern Recognition: Scanning Inscriptions Inscriptions: Architecture Before Speech. Cambridge, Massachusetts: Harvard University Press. 2021, 133–147
- ⁶ Courageous, Louis. Alexandre Lenoir: Sor Journal et le Musée des Monuments Français, Paris: BiblioBazaar, 2008

There exist a wide variety of approaches to the organization of an exhibit, each with their own curatorial mark. Tzorti's The Display as Presentation in Space examines this "mark" as a reflection of theoretical ideas and an expression of changes in the social context. The gallery is a spatial communication device, it encodes knowledge through a synthesis of works and is read according to a sequence. Since the Cabinet of Curiosities, art was organized as a meaningful text, representing and demonstrating the knowing of the world. However, the nature of this text was constantly iterated upon and challenged. Often, such linear arrangements came to reflect an ideological position regarding history as linear and progressive. Even more abstract exhibits such as Alfred H. Barr's conception of modern art at the MoMa as a sequence of movements developing out of one another suggests a continuous relationship and evolution toward something.²

Today in Architecture, such linear narratives are passé. Totalizing narratives are regarded with distrust, and the loss of these narratives has led to a feeling of scattered disorientation. Long held schools of architectural thought have lost their institutional capacity to arrange separate discourses. There is a blurriness at their fringes. Rosalind Krauss' 1979 Sculpture in the Expanded Field confronts a similar situation in the art world.³ The semiotic square, a logical system of relations, is used as a device to organize an unruly field, the merging of sculpture, landscape, architecture and land art. Instead of suggesting a linear direction of this investigation, Krauss presents a logical field of possibilities to better contextualize the artist's investigations into expression. This method of curation constructs knowledge cartographically, mapping knowledge relations and establishing the boundaries between forms of material culture. It focuses on differentiation, a coding of disorganization.

In architecture, a similar approach has recently developed in Andrew Holder and K. Michael Hay's Inscriptions: Architecture Before Speech.⁴ As Stan Allen's Pattern Recognition: Scanning Inscriptions explains, the emphasis is on fluid and open-ended referentiality.⁵ A similitude, teasing out patterns that are micro rather than macro. Subtle differences in architectural technique, read as technologies which are sampled and copied. For Stan Allen, there is no longer a possibility to "expand" the field, as this requires a limit to be transgressed, a center and a margin established by mainstream practice, the academy, or canonical disciplinary history. Today the center and margin have been dissolved, and design is being reconceived as an operation of selecting, sorting, and editing. There seems to be a preoccupation with reworking existing forms, of seeing patterns and creating patterns. It is important to note that this approach regards architectural knowledge as cumulative, not progressive. There is no agreed upon linear direction for architecture to evolve, rather a widening field of approaches which suggest new qualities that architecture may evoke.

The 1879 Musée des Monuments Français by Alexandre Lenoir, represents an epitome of the linearity a collection like Inscriptions is working against. The curation presents art from the medieval period to the 18th century in order to illustrate the development of French history from dark progressing into the light.⁶ Developing an exhibition around non-linear narrative begins to approximate the collections of classification in Vienna at the Belvedere Palace between 1776 and 1781. Organized by schools of thought as a library of expression. These schools exhibit different vectors of exploration across the field, contributing to the cumulative knowledge of technique in producing architectural form. This museum intends to present this vision of the field through exhibitions focused on a similitude of contemporary technique. Exhibits will explore common themes linking otherwise disparate architectural objects. In this exhibit, the focus is on the notion of misalignment, and in the spirit of Rosalind Krauss' use of the semiotic square, it is organized in its own logical square to better develop conversations between its idiosyncrasies. This museum will act as a spotlight, highlighting new techniques and celebrating the non-linear expansion of the architectural field.

TECTONICS

In Confronting the Machine: An Enquiry into the Subversive Drives of Computer-Generated Art Boris Magrini explores the history of the concept of "generative art". Quoting Matt Pearson "Generative art is the meeting place between [programming and art] it's the discipline of taking strict, cold, logical processes and subverting them into creating illogical, unpredictable, and expressive results."² Pearson later concedes that generative art could be produced with any kind of autonomous system, such as a mechanical one, a game of chance, a natural phenomenon, or even a subconscious human behavior. This conception of generative art associates the specific artistic qualities with the subversion of the mechanical and rational properties of the system used. It is here that architectural experimentation can be understood as generative. Architecture is an instruction based art, there exist strict and logical processes of construction, labor, material cost, and scheduling. In many ways it is akin to the conceptual art of Sol Lewitt.³ The final work is executed through a filter of abstractions, the architect does not construct the final object. Rather, it demands intermediary communication through drawing. For something to separate itself as architectural rather than abstract artistic speculation, it must appear to be in some way inhabitable or constructable, necessitating a different set of logics and in expectation of a more specific outcome.

Schwartz's Investigating the Tectonic emphasizes the chronological search for the underlying mechanics of architecture, revealing tectonics as a fundamental condition of architectural creation and treating construction as the ontological core of the built environment. Tectonics, rather than being a mere technical aspect of building, instead serves as a generative force, shaping the possibilities of form, material, and space. Kant may have relegated architecture to the lowest level of the fine arts due to its dependence on purpose and mechanical rules, but these very constraints become productive when understood through the lens of Generative Art, as proposed by Pearson. Tectonics, in this sense, does not limit creativity, it grounds it. It provides a framework through which architecture can be explored, pushing against and transcending its constraints. Investigations like Semper's Hut thus become pivotal, serving not merely as technical studies but as philosophical inquiries into the essence of architecture itself. By defining the essential nature of construction, tectonics sets the stage for its creative subversion, allowing architects to explore new possibilities within its foundational rules.

This subversion can be described as atectonic, or an architecture which purposefully exaggerates or distorts its tectonic expression. By distorting the structural or material logic that traditionally underpins tectonics, atectonics challenges our perception of architectural stability and coherence. As Mallgrave suggests, when a composition's balance is unsettled, it can trigger an intuitive physical response of unease, as it disrupts our natural sense of equilibrium. In doing so, atectonic subversion distances itself from the classical understanding of form and proportion, instead invoking an emotional and visceral reaction. This shift opens new possibilities for architecture to evoke unpredictable, even irrational, emotional states, pushing the boundaries of architectural feeling beyond the purely visual or formal. The tectonic and atectonic thus become disciplinary tools for architects to explore the limits of perception and sensation, bending logic and materiality toward the creation of expressive spaces.

The projects in this exhibit leverage misalignment and atectonic methods to subvert traditional architectural practices. Here, established rules are seen as generative constraints, reimagined and rearranged to create innovative works. The goal of this museum is to extend this exploration of disciplinary boundaries. By exploring the limits of what is considered structurally and aesthetically possible, these exhibits will reveal the landscapes of an everexpanding field of architecture, one that is no longer bound by traditional archetypes but instead invites continual experimentation and reinvention.

'Magrini, Boris.
Confronting the
Machine: An Enquiry
into the Subversive
drives of Computer
Generated Art.
Germany: De Gruyter,
2017

² Pearson, Matt. Generative Art: A Practical Guide Using Processing. Shelter Island, NY: Manning, 2011, XVIII

3 Gross, Beatrice. Sol LeWitt. jrp editions, 2012. 4 Schwartz, Chad. Introducing Architectural Tectonics: Exploring the Intersection of Design and Construction. Routledge, 2017.

⁵ Kant, Immanuel. Critique of Pure Reason. Trans. Marcus Weigelt, Penguin Classics, 2003.

6 Hermann, Wolfgang.
Gottfried Semper: In
Search of Architecture,
Cambridge,
Massachusetts: The
MIT Press, 1984,
Chapter 5, Semper's
Position on the
Primitive Hut.

Mallgrave, Harry Francis, Semper, Gottfried, Robinson, Michael, Style in the Technical and Tectonic Arts; or, Practical Aesthetics. Los Angeles: Getty Research Institute, 2004.

DESIGN

¹ Vittorio, Aureli. Architecture and Abstraction Cambridge, Massachusetts: The MIT Press, 2023

- ² Ibanez, Jose Juan Gonzales Jesus Emilio, Natufian Huts and Hamlets: Experimenting for a Sedentary Life Medio Eufrates Sirio 2014, 81
- ³ Wolfgang Braunfels, Monasteries of Western Europe: The Architecture of the Orders. London: Thames and Hudson, 1972 47-66.
- ⁴ Durand, Jean-Nicolas-Louis, Precis of the Lectures on Architecture, trans David Britt, Los Angeles: Getty Research, 2000 79-80
- ⁵ Elrich, Victor, Russian Formalism: History, Doctrine, New Haven: Yale University Press, 1981
- ⁶ Shatskikh, Aleksandra, Black Square: Malevich and the Origins of Suprematism, trans. Marian Schwartz, New Haven: Yale University Press, 2012, 1–33.
- ⁷Bokov, Anna, Avant-Garde as Method: Vkhutemas and the Pedagogy of Space, Zurich: Park Books, 2020, 76.

In Architecture and Abstraction, Pier Vittorio Aureli locates the beginning of architectural abstraction in the settlements of the Natufians, an Epipaleolithic culture which existed in the eastern Mediterranean area approximately 11,500 to 15,00 years ago. In Shelter 131/51 the carefully planned hemi-circle suggests the emergence of a nascent institutionalized communal authority. The presence of geometry implied the presence of order, standardization, and measurement. It suggests a preconceived plan. Thousands of years later, civilizations would continue this architectural project, as the complexity of the labor required to construct the wonders of the world grew, so to did the domain of the architect and the logic of architectural labor and construction. The standardized cell was developed in Medieval monasteries where efficiency and routinization were key. With the Renaissance, the notion of abstracting the world through plan, perspective, and axonometry was pushed to its modern condition. The abstracting force of numeric systems allowed for the mapping of space to rational perfection. This measurement led to an ability to quantify labor and material areas, and to organize construction around drawing documents. The architect became a writer of texts rather than a sculptor or a master builder. As demands for efficiency grew, the development of types through Durand's Précis marked a definitive moment in dictating the process for "correct" architecture. It was balanced, symmetrical, and prescriptive. These diagrams represent the fundamental condition of order in architecture, clear alignment.

As these diagrams began to produce the "generic" and the Second Industrial Revolution created an economy of scale and mass production, the nature of architecture tended toward the most efficient diagram possible: the factory. It was at this point that the greatest push back occurred. Driven on by this extinction of formalist expression, there was a great desire to invert the expectations, to insist on a radical architecture. The techniques of the early Russian avant-garde continue to influence experimental architecture today. An early manifestation of this radical resistance emerged in the form of literature with the OPOYAZ (Society for the Study of Poetic Language). Founded in 1916, this group aimed to advance the dimensions of literature by foregrounding the formal properties of poetic and literary language, focusing on the syntax and phonetics of the words themselves. This emphasis on technique and syntax is approximated by Kazimir Malevich's Cubo-futurist paintings, where random juxtapositions of figures, objects, words, and planes of color work to produce an emotional effect. It was an extreme abstraction of painting, an emphasis on the essential qualities of the medium, and a disciplinary fixation on pushing the boundaries of its rules.

The architectural manifestation of this was expressed through the VKhUTEMAS or the Higher Artistic and Technical Studios, a school founded in 1920 that hosted programs in architecture, painting, graphic and textile design, much like the Bauhaus in Weimar which was founded the year before. In this school, models of programless architectural compositions were developed, playing with the tectonic syntax of the architectural discipline. This type of radical composition would go on to influence later avant-garde movements as Russian formalism was rediscovered in the early 1960s, resonating with students seeking alternative ways to practice art and architecture. This effort to explore the possible boundaries of architecture was made explicit in Mark Wigley and Philip Johnson's 1988 presentation at the MoMa "Deconstructivist Architecture", a show that celebrated conflict.

For Wigley, deconstruction as a practice gains its force in challenging the values of harmony, unity, and stability, proposing a different view of structure. It was an architecture that was skewed, an architecture of tension rather than balance, of asymmetrical action. In this exhibition, this legacy of misalignment is continued and expanded upon. The projects selected revel in the atectonic in creating the discomfort or physical tension of a structure

INTENT

which is unbalanced or even in apparent motion. These projects find new ways of distorting architectural tradition and the dogmatic processes of the discipline. However, they do so in order to add to the corpus of architectural knowledge rather than to suggest a linear direction or deterministic model of what architecture should become.

The projects of this exhibit have been arranged in a logical square, and given a coordinate that suggests their dominant mode of expression. In order for an object to be "mis-aligned" it first presupposes an outside order, an "aligned" secondary object with which the first is in discord. These secondary "aligned" objects are described in the rows of the logical square in ascending degrees of abstract order. They are: **Contextual, Geometric, and Typological**. Contextual Misalignments relate to the initial conditions of the Natufians, a project that inscribes itself upon an Earth that is already ordered. They exist in contrast to this order, defined by its limits, set in tension against its characteristics. Geometric Misalignments incorporate platonic stereometric geometry as their starting point. The simple forms that Wigley describes: cubes, cylinders, pyramids, or rather, squares, circles, and triangles. These shapes are brought into disarray and their conflict results in the final form, nevertheless organized by their common primary language. Finally, Typological Misalignments take on the contemporary manifestations of Durand's Précis, domestic "types" which have become vernacular diagrams. This geometry, already distorted from the pure forms of squares and circles in architecture, is re-appropriated and re-contextualized to develop a novel form.

The consequences of this diagrammatic misalignment, whether contextual, geometric, or typological, can be made architectural in a number of ways. The columns of the squares describe the method of spatialization that these diagrams take. They are: Boolean, Tectonic, and Projected. A Boolean operation works in the logic of yes or no. Objects are either inside or outside of the defined parameter. The influx of computational design into the discipline has led to the possibility of experimenting with more and more complex boolean operations. A simple subtraction of a cube set inside of another cube can now expand to many complex shapes interacting across several axes of movement, perfectly calculated and held in stasis as a complex object. Boolean consequences are derived from the inbetween condition of two shapes, producing a third. Tectonic consequences celebrate the structural and constructed conditions of architectural expression. The tension created by gravity or the assemblage process results in the final form. Finally, Projected consequences rely on the discovery of Perspective and the accelerated growth of architecture as a drawing discipline following the writings of Alberti. Orthographic drawings such as axonometrics and elevations attempt to rationalize the architectural object into an index of measurements, precise and undistorted. However, we never experience space in a non-distorted fashion, the development of perspective as a rational tool for measurement revealed the precise character of this distortion, and has since allowed for the radical formation of distortion as an intentional design tool. By exploiting architectural drawing techniques, which inherently distort spatial experience in order to represent the building more intelligibly, these designs proceed alternatively, warping their projects and manifesting these false spatial perceptions into physical reality.

In organizing these radical architectural methods in this way, the exhibit hopes to inspire continued experimentation and investigation into their potential for expression. The museum itself will feature a field of experiments which surround and collapse upon the central pavilion. This installation will create a dialogue between the different consequences of the projects surrounding it, slowly merging them into an abstract pile of possibilities. Visitors are encouraged to explore and climb over the structure, noting the qualities of its spaces. Upon entering the structure they are given their own models in the workshop to creatively deconstruct and reassemble following the techniques of the architects on display and continuing to expand the field of possibilities in architectural expression.

⁸ Wigley, Mark, Johnson, Philip, Deconstructivist Architecture, New York, Museum of Modern Art, 1988, 8

⁹ Leon Battista Alberti, L'arte del costruire, trans. Valeria Giontella, Turin: Bollati Boringhieri, 2010.

PROGRAM

Total Gross Interior 11,000 – 12,500 sq fl

Total Interior 8,875 - 10,000 sa ft

Grossing Factor 125

Total Public 5,400 sq ft

Total Private 2,075 sa ft

Total Service 1,400 sq ft The central building will facilitate an understanding of the rest of the park. It will be composed of three core programmatic functions around which a public garden and a temporary structure which surrounds and covers the core. This structure will mimic and explore the tectonics of the projects of the current exhibit, acting as a camoflauge which shifts with each new exhibit.

Temporary Structure

The temporary structure will be built in the public garden surrounding the main structure. This structure will change depending on the event being put on. Part of the excitement of visiting the park will be seeing the transformation of the exterior "camouflage". This installation will act as a large playground which can be clambered over and rested on.

5,000 - 10,000 sq ft

Viewing Area

This area will act as a roof garden for hosting public events, outdoor models and sculpture, and providing a panoramic view over the park and the current exhibit.

Exterior Seating: 1,000 sq ft
Covered Exterior Bar: 450 sq ft
Storage: 150 sq ft
Elevator: 50 sq ft

1,500 - 2,000 sq ft

Workshop

The workshop will be the first things guests seeing upon entry. This space will function as a laboratory for experimenting with the design methods the exhibit is displaying, with art tools and modeling pieces to be played with. The space will host informal artist talks from participants of the exhibition to elaborate on their technique.

Creative Lab:	800 sq f
Lobby:	800 sq f
Help Desk:	450 sq f
Storage:	150 sq f
Elevator:	50 sq f

Gallery

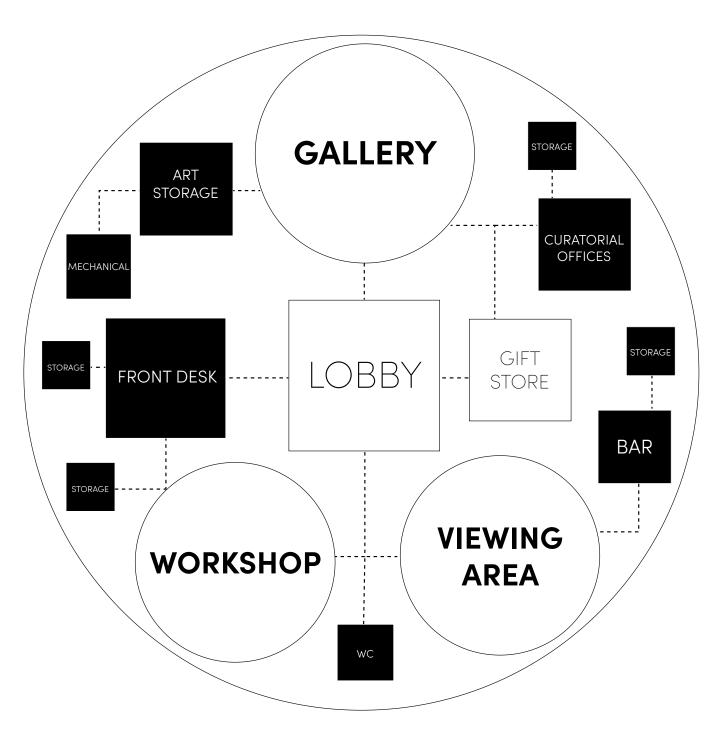
The gallery will act as a repository of process for designers participating in the exhibit. Models, drawings, writings, and inspiration will be displayed, showcasing their approach. Storage will function as an open library for guests to interact with monographs of previous exhibits, while a gift store will allow visitors to purchase copies to take home.

Open Plan Gallery:	2000 sq ft
Art Storage / Library:	875 sq ft
Gift Store:	800 sq ft
Curatorial Offices:	300 sq ft
Mechanical:	700 sq ft
Restrooms:	200 sq ft
Elevator:	100 sq ft

2,000 - 2,500 sq ft

4,000 - 5,000sq ft

ANALYSIS



PRIMARY

TEMPORARY STRUCTURE

PUBLIC PRIVATE

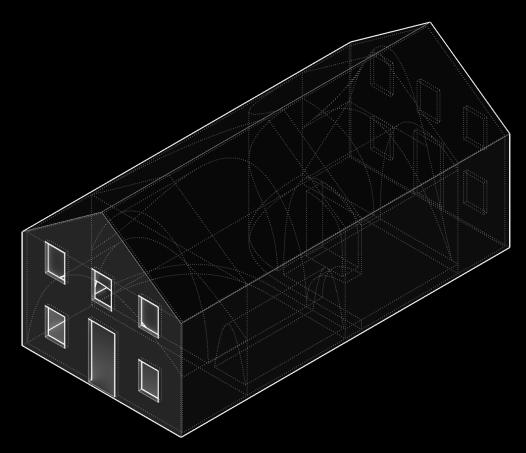
Typological

Misalignments

Boolean

FORM IN FORM

Unbuilt Jaffer Kolb 2014–2015



In Form in Form, Jaffer Kolb explores misalignment through the use of earth ramming techniques to introduce new architectural forms into abandoned structures.

The project explores the disciplinary tools of solids, poches and platonic geometries through this humble material. Successive layers of machine arm projection create complex shapes from a simple process.

While earth ramming is typically a "top-down" process, meaning compaction from above, by integrating a 7-axis robotic arm, the earth can be rammed in any direction. This experimental projection allows for complex geometries, breaking traditional alignments

and offering a fresh relationship between materials and spaces. The structure is in effect doubled, reinvigorated without being reproduced.

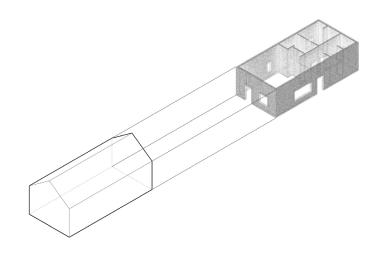
Form in Form is a "Typological Misalignment" in that it begins with an existing architectural precedent to then distort into a novel design, using the original as a datum with which to describe its misaligned geometry.

Form in Form is a "Boolean Consequence" in that the exterior shell of the structure acts as the limit of these extruded forms, defining their final form. The simple gable and the simple arch merge to create an exciting in between shape to structure the space.

Typological Misalignment

The Shotgun House typology presents itself as a simple and eidetic form to be operated upon.

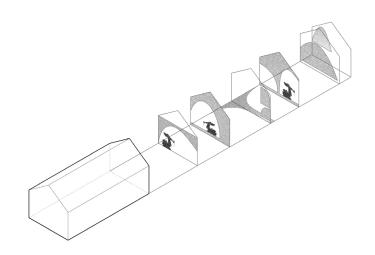
The walls are removed, leaving only the mental image of the exterior.



Filling the Home

This empty shell is then filled according to the radii of a machine arm.

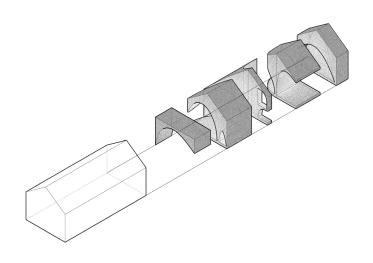
These sections carve up the space into its various zones, giving an order which is entirely different from the original.

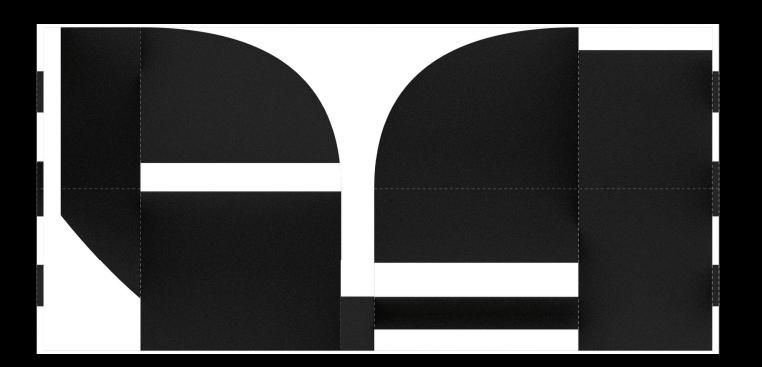


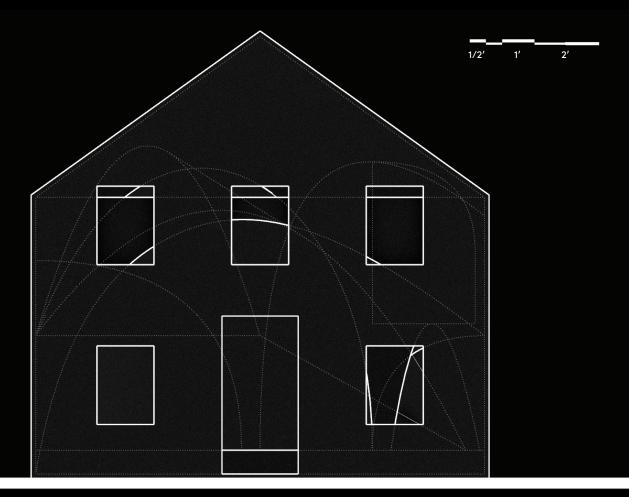
Boolean Consequence

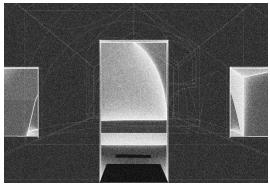
These projections are finally composed of compressed earth, forming homogeneous and dynamic solids.

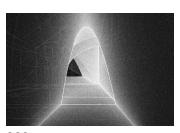
This exercise demonstrates new ways of constructing and experimenting with space.

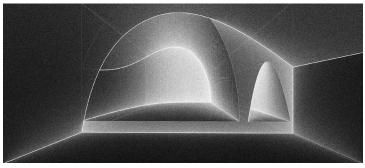


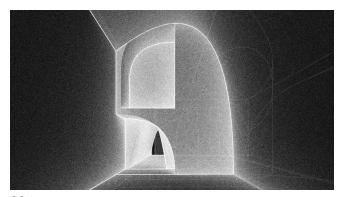


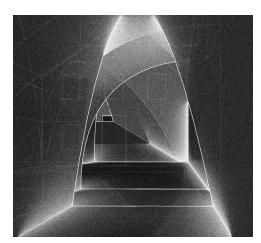












Tectonic

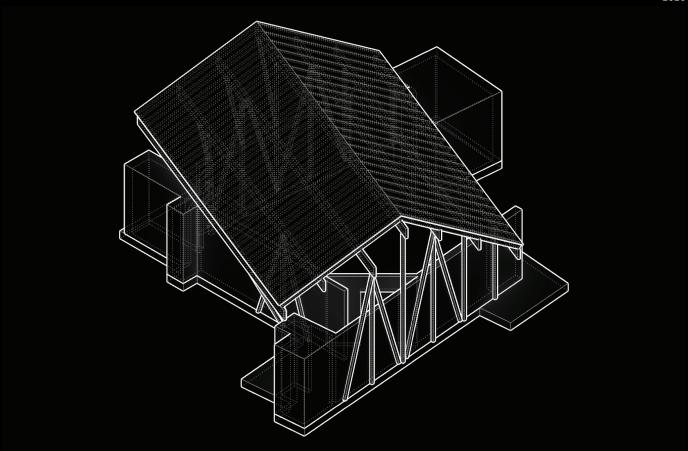
HOUSE IN

L.A. 1

Los Angeles, CA

The LADG

2020



In House in Los Angeles 1, the Los Angeles Design Group (LADG) experiments with tectonic misalignment by reconfiguring a typical post-war ranch home.

Rather than designing a new structure, freestanding walls derived from the original plans are scattered about and reorganized to loosely define the space with a roof hovering above. This design introduces an experimental domestic layering where interior and exterior boundaries blur, and rooms are suggested rather than fully enclosed.

This tectonic shift breaks from conventional alignment, creating a fluid spatial experience that challenges traditional residential typologies.

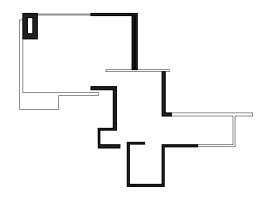
House in Los Angeles 1 is a "Typological Misalignment" in that it creates a dialogue with the original by collaging its architecture into the new. Both projects exist simultaneously in conversation with one another as identifiable corners and coves take on new purpose.

House in Los Angeles 1 is a "Tectonic Consequence" in that it revels in the structural complexity of these misalignments. Instead of the walls working to support the roof in alignment with it, their disagreement creates the final form. The structure appears to fall down from the roof, overlapping the walls, expressed in an almost temporary appearance as scaffolding. The result is a suggestion that the project is not yet complete, that it may continue to grow and evolve.

Typological Misalignment

The original home of the site is decomposed into a loose collection of walls.

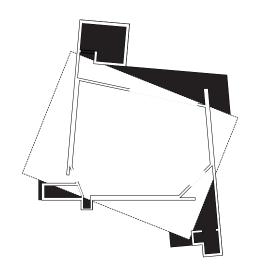
These walls twist and rotate to begin forming soft boundaries of non-orthogonal rooms.



A Loose Collection

For the atelier, a concrete pad is poured to lock the walls in place and define their final arrangement.

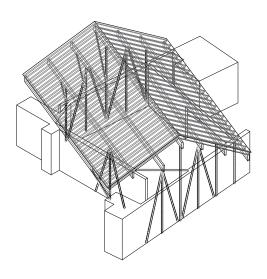
A roof is then placed loosely atop the arrangement, resulting in a complex interior and exterior composition.

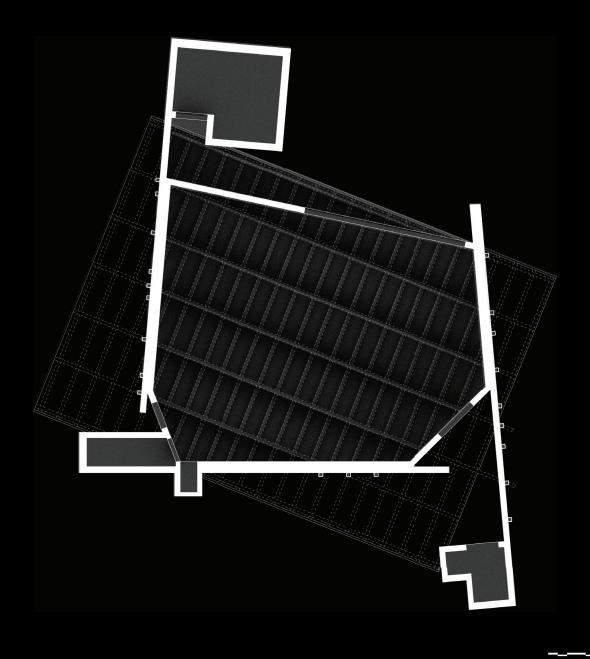


Tectonic Consequence

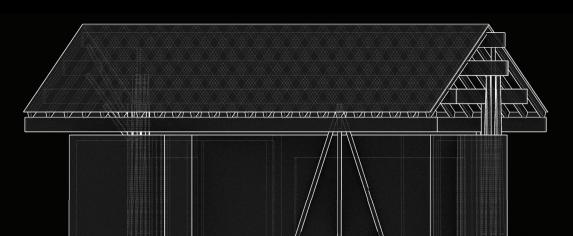
The structure of the roof then spills over the original walls in order to support its mass.

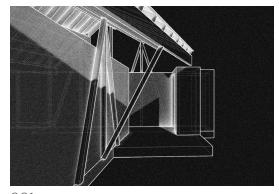
What is uncovered by the roof is given a flat concrete ceiling, and what is overlapped is left open to the rafters.

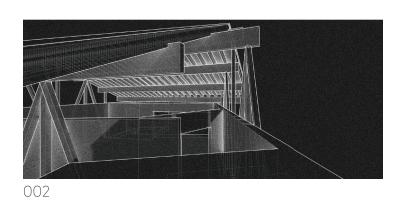


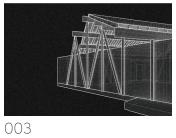


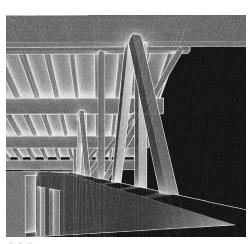


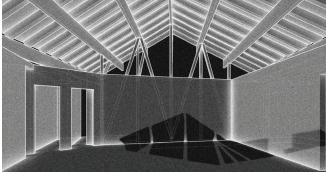










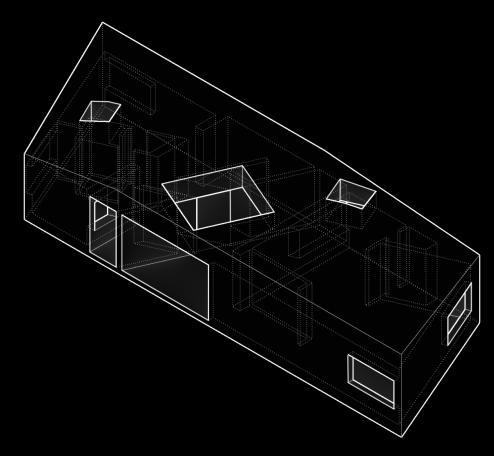


Projected

PARALLEL HOUSE

North Adams, MA Studio Sean Canty

2017



In Parallel House, Sean Canty reinterprets the Dogtrot typology with tectonic misalignment and forced perspective.

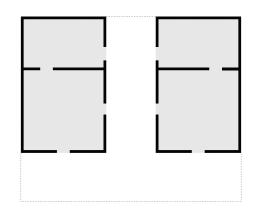
A diagonal wall bisects the structure, functioning as a seam that produces varying conditions throughout the interior and separating programmatic functions. The covered breezeway is split into two conical wedges by this diagonal, which generates a forced perspective along the short dimension of the house.

By playing with the viewer's perspective, the house shifts between appearing flat and highly dimensional, offering an innovative reinterpretation of a classic form through intentional spatial distortion. Parellel House is a "Typological Misalignment" in that it works from the simple vernacular form of the Dogtrot, using it is a programmatic diagram to be twisted and reshaped into a new form.

Parallel House is a "Projected Consequence" in that it fixates on the spatial reading of the final form. By using parallel walls instead of the orthogonal breezeway of the Dogtrot the experience of the space is richly altered. Perspectival projection is therefore used as a generative device, the building reads as an hyper-flat elevation with a collaged perspective inserted into the center.

Typological Misalignment

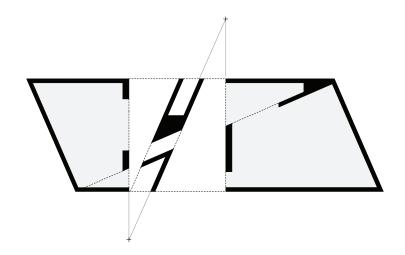
The American Dogtrot typology is composed of two volumes united by a roof and separated by a breezeway in the center.



Parallel Walls

The Dogtrot type is skewed into a parallelogram and the breezeway is cut diagonally by a staircase to the roof.

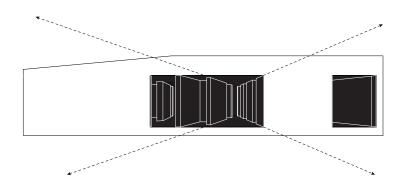
The resulting shape twists to separate program.

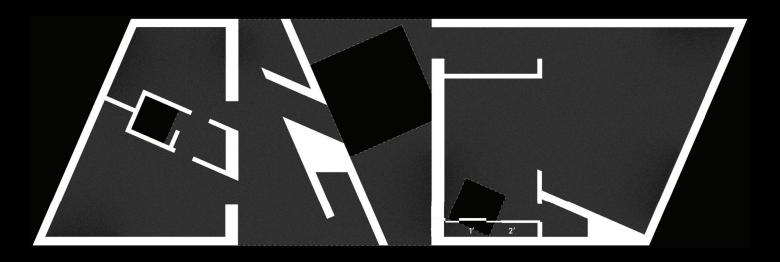


Projected Consequence

By augmenting the alignment of the walls, the project creates forced perspectives upon entry from either side.

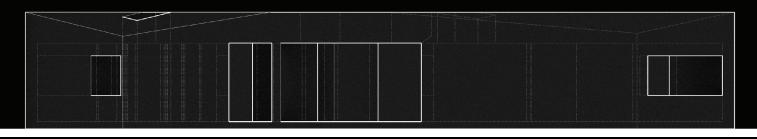
The space compresses and expands as the diagonals contort perspectives of the interior.

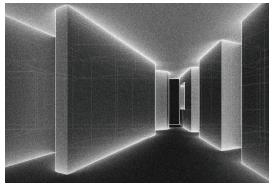


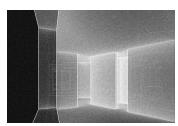


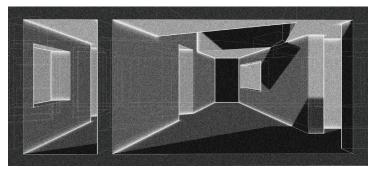


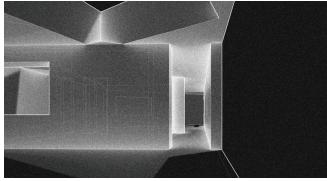


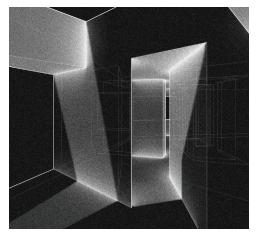












Geometric

Misalignments

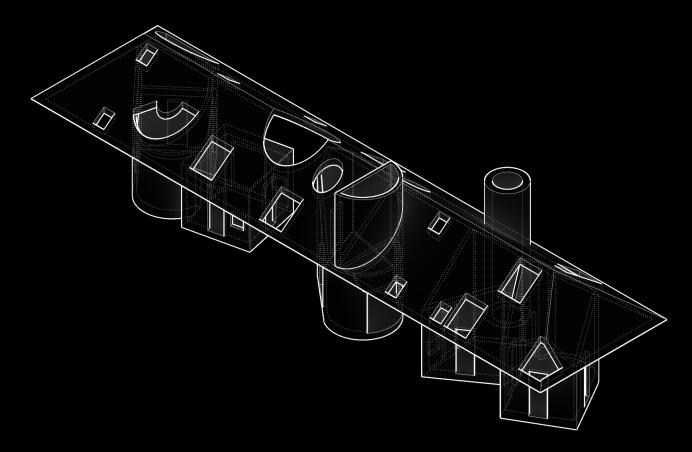
Boolean

VILLA SHOTGUN

Unbuilt

Outpost Office

2017



Outpost Office's Villa Shotgun is a playful exploration of misalignment and platonic geometry.

Starting with basic shapes like squares, triangles, and circles, the forms are arranged in a sequence that allows for accidental alignments.

These shapes are then extruded into a massive triangular gabled roof, which houses the geometry within its form. Skylights and voids puncture the roof, introducing light and space into the interior. By juxtaposing rigid geometric forms with irregular, accidental alignments, the project plays with the tension between order and misalignment, resulting in a form that challenges traditional composition.

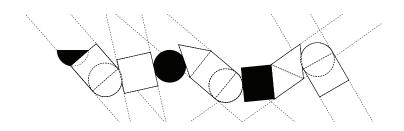
Shotgun House is a "Geometric Misalignment" in that it begins with esential platonic geometry as its original to be operated upon. This simple geometry establishes an order to the project through consistent language, while the misalignment and re-scaling of the shapes create disorder.

Shotgun House is a "Boolean Consequence" in that it is limited by the triangular volume of the roof. These simple shapes in their complex arrangement are organized underneath the roof as one homogeneous entity, and the geometry between both shapes is expressed as the resulting form.

Geometric Misalignment

The elemental shapes of the Circle, Square, and Triangle are selected for their connotations of play.

The shapes stamp and twist along leaning against their edges at various accidental angles.



Organizing Roof

A roof is formed above the shapes as a datum, superimposed to organize their disarray.

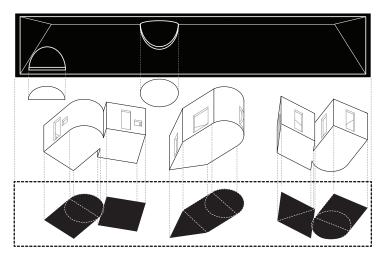
The shapes are then selectively combined and stitched together to form the spaces of the house.

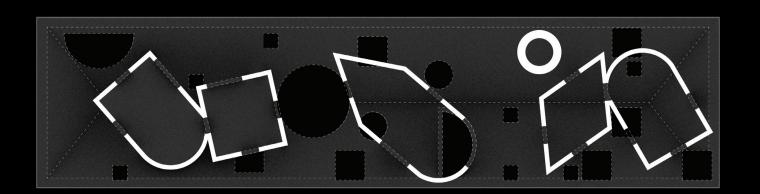


Boolean Consequence

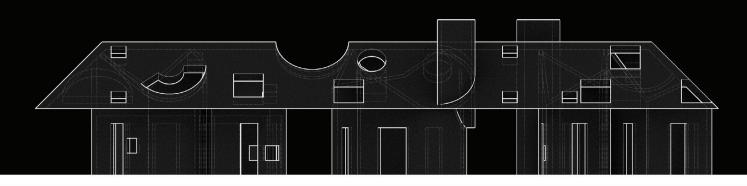
The combined shapes are extruded to meet the triangular volume of the roof.

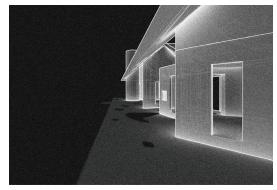
The shapes in between extend through the roof, cutting skylights to highlight the inner passages.

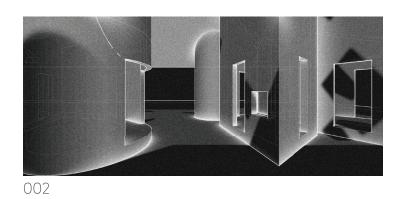




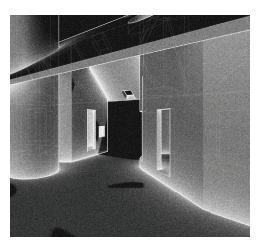


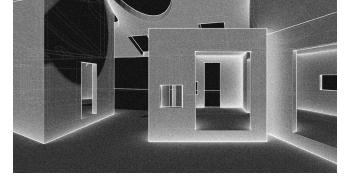








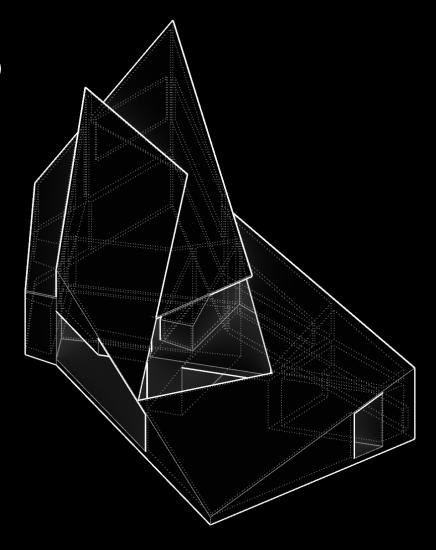




Projected

HOUSE

A,B



1:2 in Houston, TX

JaJa Co

2017

House A,B by Ja Ja Co explores misalignment through experimental architectural projection, using digital manipulation to transform a simple cube into a complex form.

By applying a hyper-distorted two-point projection, the cube's geometry skews into two interlocking shapes that extrude into one another.

The resulting structure is complex, creating dynamic spaces filled with distorted perspectives. This process highlights the tension between digital representation and physical manifestation, producing a form that challenges the viewer's perception and understanding of architectural space.

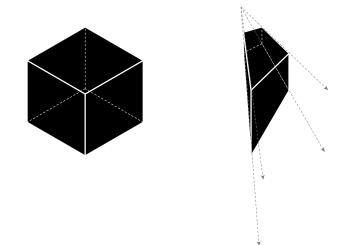
House a,b is a "Geometric Misalignment" in that it takes the simple cube as its starting point to be misaligned and generate the final geometry of the construct.

House a,b is a "Projected Consequence" in that it explores the oscillation between human and computer vision, creating dynamic, distorted perspectives within the house. It depends on the projection of two-point perspective as a disciplinary device to be pushed to its limits in order to create radical geometry.

Geometric Misalignment

The project decomposes the physical form of a cube into the digital environment.

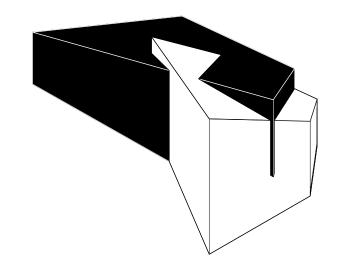
An extremely distorted two point perspective is taken from two angles to derive the contested geometry.



Projected Consequence

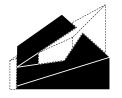
Two separate perspectives are traced and form tilted planes which are then made to intersect, delimiting the volume of the rooms.

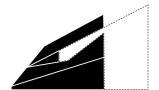
These planes are then extruded vertically along the Z axis to meet the ground plane.

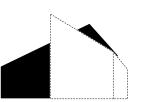


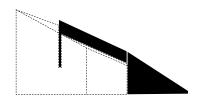
Elevational Composition

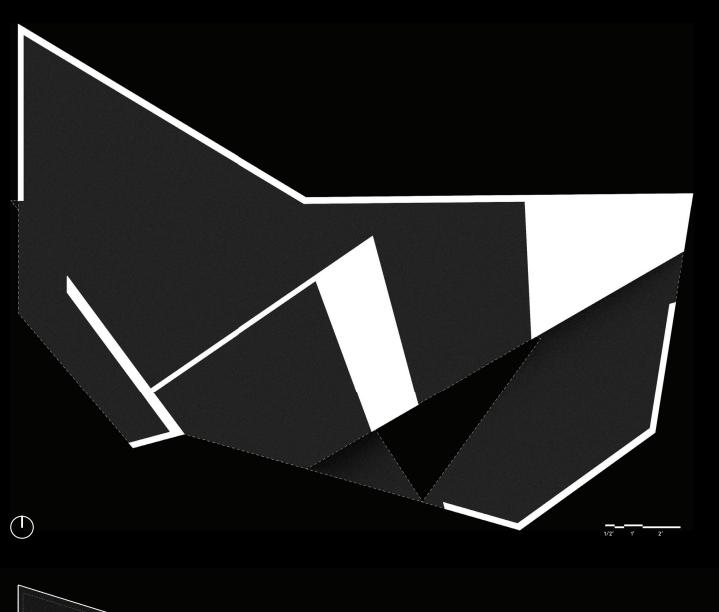
Finally, the resulting forms are manipulated in elevation, cutting a skylight and shifting to align and misalign at various angles of perspective as one moves around the exterior of the house.

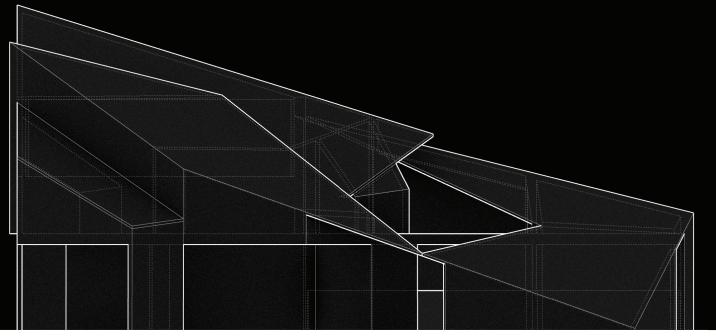


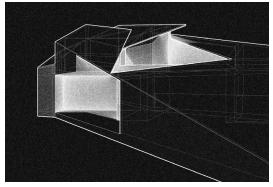


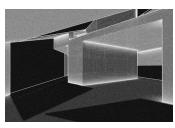


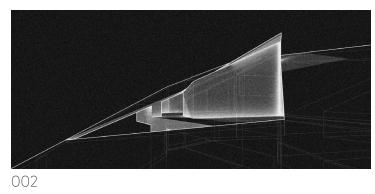


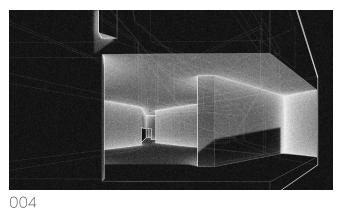


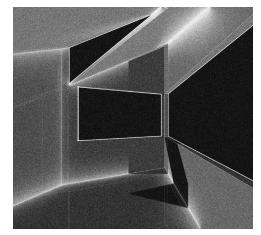












Contextual

Misalignments

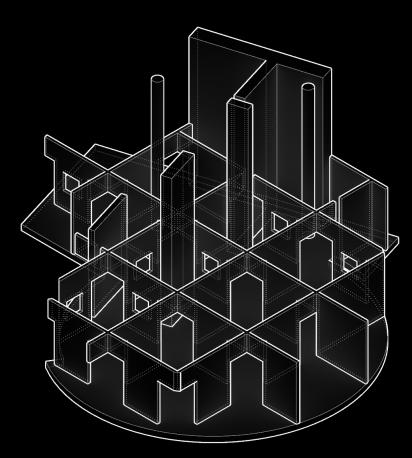
Boolean

MACBA EXHIBITION

Barcelona, Spain

MAIO

2014



MAIO's design for the MACBA Exhibition explores contextual misalignment through the creation of a strict grid of square rooms within the circular space of Richard Meier's building.

This juxtaposition between the rationality of the grid and the curvature of the existing architecture creates a subtle tension.

The repetitive, modular layout disrupts the fluidity of the existing architecture, creating a labyrinthine experience. Strategically placed windows offer glimpses into adjacent rooms. MAIO transforms the gallery space, making the visitor's experience one of disorientation and reorientation.

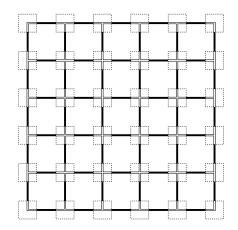
The MACBA Exhibition is a "Contextual Misalignment" in that it works in conversation with the original space as an installation. The disagreement between the two exposes the space inbetween their architectural approach.

The MACBA Exhibition is a "Boolean Consequence" in that it is limited by the boundaries of the existing building. The design is essentially a limitless filigree grid distrupted by the solid volumes of the room. The final form is therefore delimited by the conversation between these two geometries, resulting in a third.

Labyrinthine Grid

The Grid is selected as a rigorous and yet meaningless organizational system.

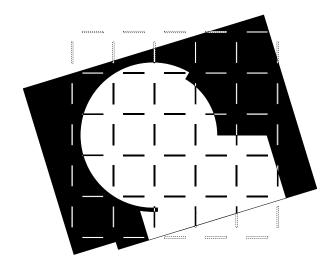
Through a removal of its corners, the walls form a Labyrinthine circulation, forcing visitors to wander.



Contextual Misalignment

This Labyrinth is then superimposed upon the irregular space of the exhibition room.

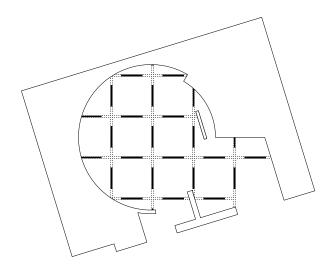
Instead of aligning itself with the dominant order of the building, the Grid of this exhibit acts as a datum with which the building itself is misaligned.

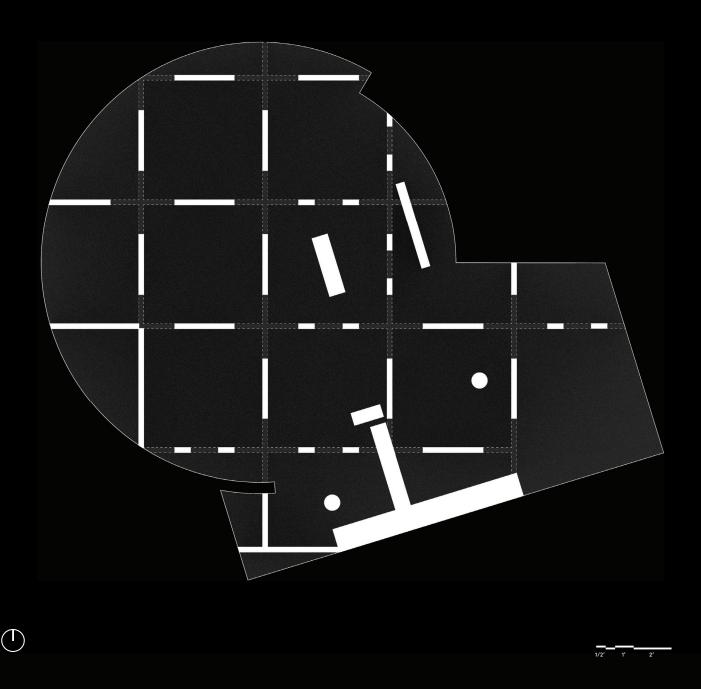


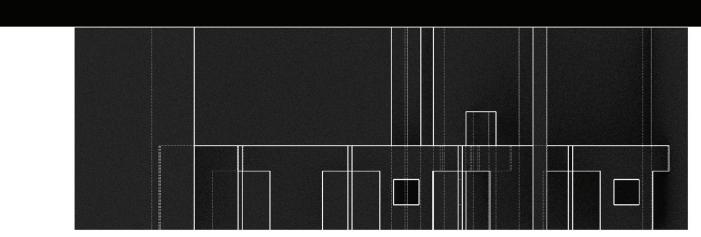
Boolean Consequence

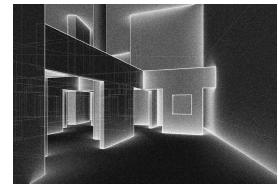
The Labyrinth marches until it meets a wall. The resulting interstitial spaces acts as areas of rest.

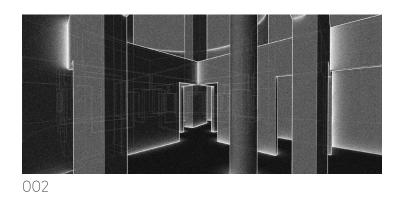
The squares formed by the grid become the walls of the exhibition, filled with posters and models.

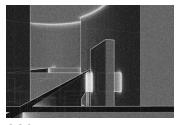


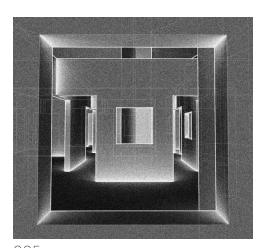












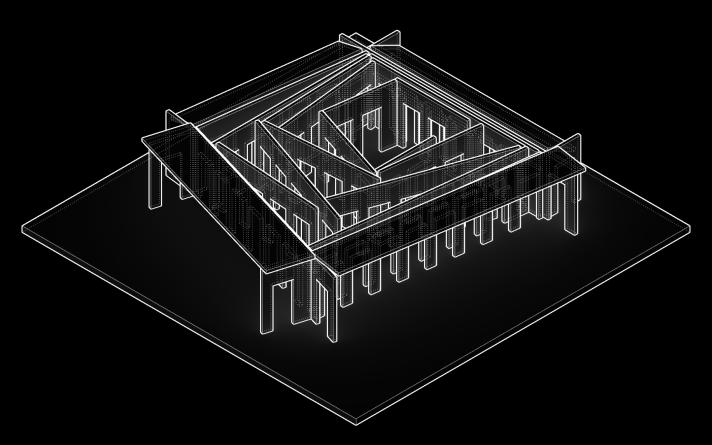
Tectonic

SCORING, BUILDING

Los Angeles, CA

JaJa Co

2020



Ja Ja Co's Scoring, Building explores both tectonic and contextual misalignment by treating architecture as an instructional art.

By giving extra time to basic building tasks, such as cutting and framing, the project pushed typical processes into new territories. Contextual misalignment emerged through location-based scheduling, which organized work spatially rather than by task, disrupting typical project management flows.

This approach created a rhythmic, time-driven construction process, revealing how construction documents and schedules can misalign with real world conditions when translated into physical form.

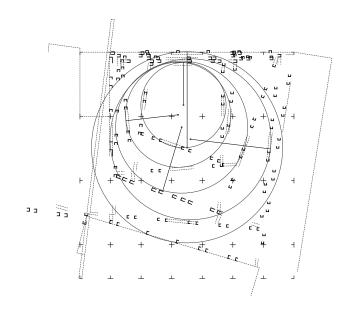
Scoring, Building is a "Contextual Misalignment" in that it focuses on location based scheduling to determine the final form. As a diagram it can be deployed accross many different site conditions, resulting in an entirely different form.

Scoring, Building is a "Tectonic Consequence" in that it derives its final form from the Type V construction techniques used in its construction. It obsesses over the detail of off-the-shelf material alignment, pushing these beyond their intended uses to create unexpected results.

A Musical Score

The site is visualized as a two dimensional plane for architectural notes to be arranged.

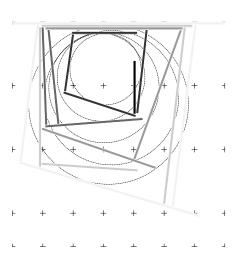
A balanced spatial melody is composed as instructions for where to start and end walls based on constructed circles with various prescribed centers.



Contextual Misalignment

These walls are then constructed in the sequence prescribed by the score.

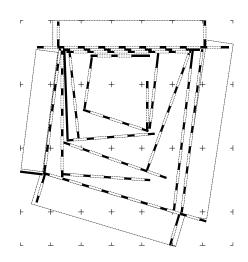
Each wall progressively skews as it reaches inward, resulting in a contorted shape

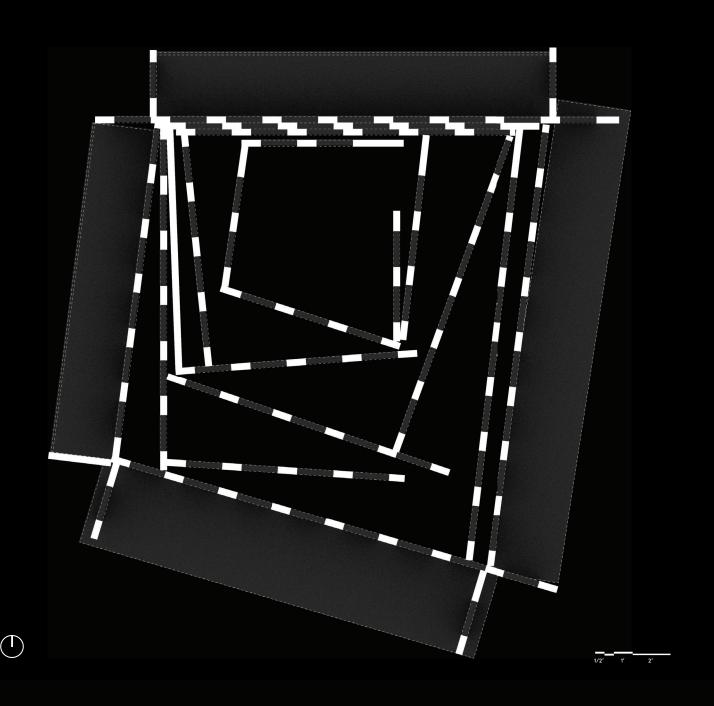


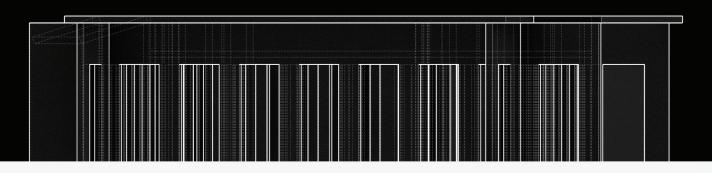
Tectonic Consequence

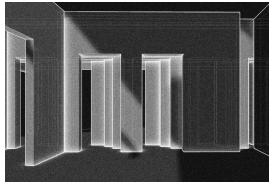
These walls are then extended, roofed, and punctuated by doors which form the staccato notes of the score in plan.

The overall piece is then played by those who enter its spiraling structure and study its walls and parallax.

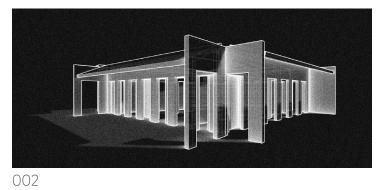


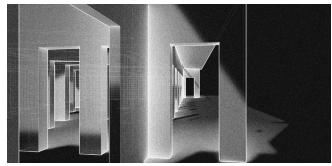












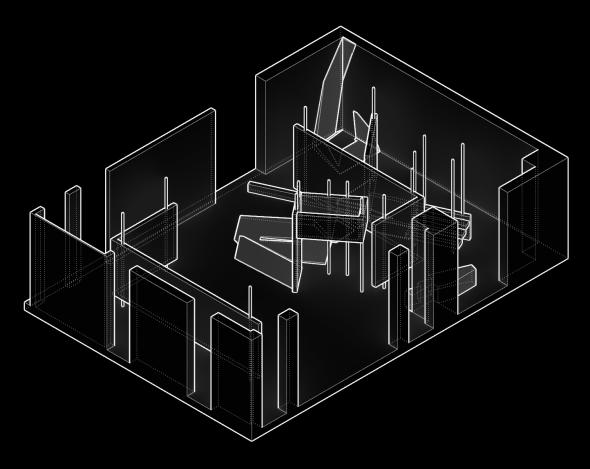


Projected

6 WORK SURFACES

Los Angeles, CA NOW HERE

2019



In 6 Work Surfaces, NOW HERE explores contextual misalignment and experimental architectural projection to subvert traditional display formats.

The installation disrupts traditional gallery hierarchies by layering projections that create multiple overlapping states. Architectural fragments suggestive of rooms and corridors cast red, carpeted "shadows" that misalign with their physical origins, generating a disjointed spatial experience.

Through this technique of superposition, the installation invites alternative readings of the gallery, blurring the boundaries between form, material, and representation.

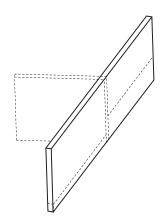
6 Work Surfaces is a "Contextual Misalignment" in that it takes the existing gallery space as its object to be deconstructed.

6 Work Surfaces is a "Projected Consequence" in that it uses projected shadows to disrupt the conventional hierarchy of space, inviting viewers to experience the gallery through overlapping, alternative states. The forms are derived from the basic geometry of the walls and then re-extruded and re-projected across the exhibit. The interaction of elements becomes an experimental investigation into how spatial sequences and categories are perceived.

Wall Deconstruction

The project begins with the basic walls of the gallery as an object to be manipulated and reproduced as the exhibit itself.

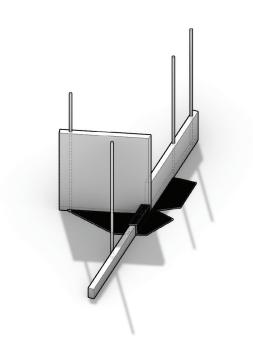
These walls are cut, lifted, twisted, and copied across the room.



Projected Consequence

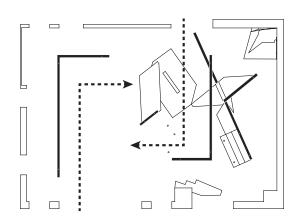
The walls are then pierced by pilotis which allow the shapes to be lifted, or operate as pins for rotation between different wall assemblages.

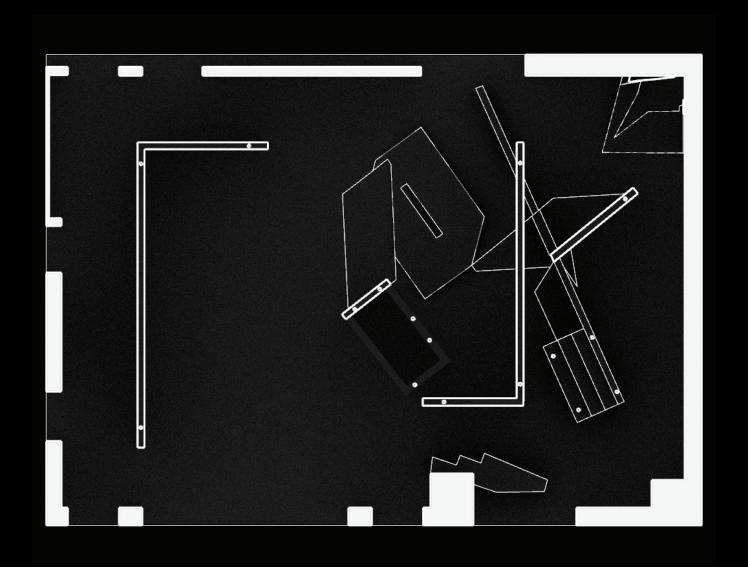
The shadows are then projected and represented through carpeted surfaces which blanket the final composition.

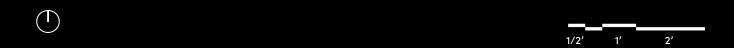


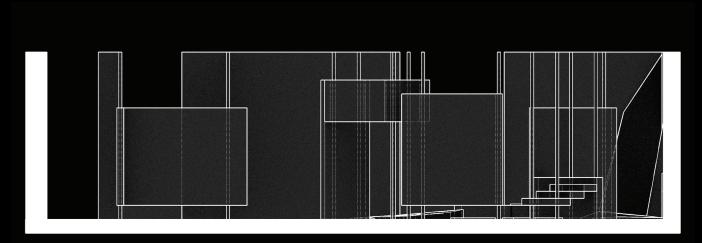
Contextual Misalignment

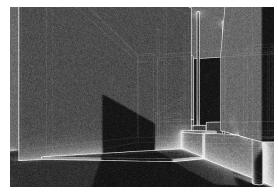
These distorted walls are then arranged in the gallery to disrupt circulation patterns, twisting visitors into the heart of the exhibit and encouraging an exploration of the distorted space.

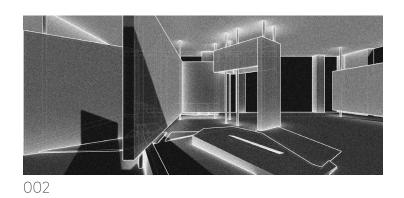


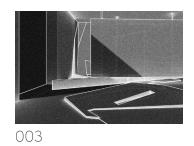


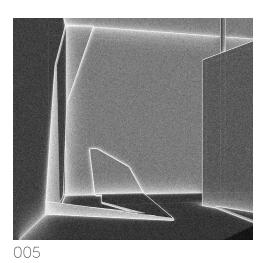


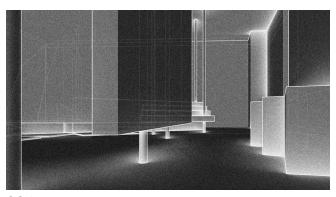












END NOTES

Expanded Field

Allen, Stan. Pattern Recognition: Scanning Inscriptions. Inscriptions: Architecture Before Speech. Cambridge, Massachusetts: Harvard University Press, 2021, 133-147.

Courageous, Louis. Alexandre Lenoir: Son Journal et le Musée des Monuments Francais, Paris: BiblioBazaar, 2008.

Holder, Andrew, Hays, K. Michael. Inscriptions: Architecture Before Speech. Cambridge, Massachusetts: Harvard University Press, 2021.

Kantor, Sybil. Alfred H. Barr, Jr. and the Intellectual Origins of the Museum of Modern Art. Cambridge, Massachusetts: The MIT Press, 2003.

Krauss, Rosalind. Sculpture in the Expanded Field. October, Vol. 8 Spring, Cambridge, Massachusetts: The MIT Press, 1979, 30-44.

Tzortzi, Kali. Museum Space: Where Architecture Meets Museology. London: Routledge, 2015.

Tectonics

Gross, Beatrice. Sol LeWitt. jrp editions, 2012.

Hermann, Wolfgang. Gottfried Semper: In Search of Architecture, Cambridge, Massachusetts: The MIT Press, 1984, Chapter 5, Semper's Position on the Primitive Hut.

Kant, Immanuel. Critique of Pure Reason. Trans. Marcus Weigelt, Penguin Classics, 2003.

Magrini, Boris. Confronting the Machine: An Enquiry into the Subversive drives of Computer Generated Art. Germany: De Gruyter, 2017.

Mallgrave, Harry Francis, Semper, Gottfried, Robinson, Michael, Style in the Technical and Tectonic Arts; or, Practical Aesthetics. Los Angeles: Getty Research Institute, 2004.

Pearson, Matt. Generative Art: A Practical Guide Using Processing. Shelter Island, NY: Manning, 2011, XVIII

Schwartz, Chad. Introducing Architectural Tectonics: Exploring the Intersection of Design and Construction. Routledge, 2017.

Design Intent

Bokov, Anna, Avant-Garde as Method: Vkhutemas and the Pedagogy of Space, Zurich: Park Books, 2020, 76.

Durand, Jean-Nicolas-Louis, Precis of the Lectures on Architecture, trans. David Britt, Los Angeles: Getty Research, 2000 79-80.

Elrich, Victor, Russian Formalism: History, Doctrine, New Haven: Yale University Press, 1981.

Ibanez, Jose Juan, Gonzales Jesus Emilio, Natufian Huts and Hamlets: Experimenting for a Sedentary Life Medio Eufrates Sirio, 2014, 81.

Leon Battista Alberti, L'arte del costruire, trans. Valeria Giontella, Turin: Bollati Boringhieri, 2010.

Shatskikh, Aleksandra, Black Square: Malevich and the Origins of Suprematism, trans. Marian Schwartz, New Haven: Yale University Press, 2012, 1-33.

Vittorio, Aureli. Architecture and Abstraction. Cambridge, Massachusetts: The MIT Press, 2023.

Wigley, Mark, Johnson, Philip, Deconstructivist Architecture, New York, Museum of Modern Art, 1988.

Presented Works

Archaic. "Macba Species of Spaces // Maio." archaic studio, October 3, 2016. https://www.archaic-studio.com/journal/macba-species-of-spaces-maio.

Barkan, Katy, Sana Jahani, Hortick, Hannah, Knudsen, Casey, Brown, Philip, and Miller, Nick. "6 Work Surfaces." Now Here, 2019. https://nownowherehere.com/6-Work-Surfaces.

Canty, Sean. "Parallel House." Studio Sean Canty, 2017. https://www.seancanty.net/projects/parallel-house.

JaJa Co, 2017. "House A,B" https://ja-ja.co/ambivalence. html

JaJa Co, 2019-2020. "Scoring, Building" https://ja-ja.co/scoring-building3.html

Kolb, Jaffer. "Form in Form." JK, 2015. https://www.jafferkolb.com/forminform.

Outpost Office. "Primitive Villa." https://www.outpost-office.com/work/primitive-villa.

Yau, Trenman. "House in Los Angeles 1." The LADG, 2020. https://theladg.com/House-in-Los-Angeles-1.