

Measuring the *Endless House* An Explication of Frederick Kiesler's Utopian Tectonics



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The *Endless House* as Ambiguous Object

Ambiguity is the very substance of Frederick Kiesler's *Endless House*. The house spirals outward even as it folds in on itself, it floats on plinths while echoing the geological forms beneath it and exalts both structural innovation and primeval dwelling. Kiesler's proposition of spatial continuity (between floor, wall and ceiling, and between adjacent rooms) extends to broader ideological continuity between various forces of nature, science, society and art. The *Endless House* presents a vision not only of unbroken space but of integrated thought.

This use of multiplicity to resolve divergent ideologies is characteristic of late modernism. Canonical works such as Joyce's *Ulysses* or Duchamp's *The Bride Stripped Bare By Her Bachelors, Even* similarly combine mythic origins and contemporary customs, juxtapose multiple perspectives and explore the boundaries between different media. In fact, the transition from minimalism to reactionary heterogeneity is evident in the development of the *Endless House* itself. The 1950 model and drawings present a simple ovoid shape, while the 1959 version is a twisting collage of forms. The one presents endlessness as hermitic closure, the other as comprehensive inclusivity. That the various phases of this evolution all center on holistic living illustrates the adage that minimalism and maximalism are not opposites, but are two sides of the same coin.

As an art object, the house's status as an unbuilt architectural proposal necessarily frames any reading. For Joyce and Duchamp, self-reflexive play on artistic convention adds a layer of irony to their work. Any assertion of mythic origins or broader ideals reveals itself to be a fiction, underscoring the illusory nature of both nostalgia and of utopian visions. The *Endless House* is instead entirely genuine; here the irony arises from the project's failure to be built. It is a blueprint for a social cure—all that, clientless, siteless and impractical, can never be realized. Kiesler's stamp on the unresolved set of drawings is a symbol of stubborn determination. It is as if he were putting his architect's stamp on the very idea of utopia.

What follows is an explication of the house through text and image. This idea of a visual close-reading has spread in architectural criticism largely from the work of Colin Rowe (*The Mathematics of the Ideal Villa, Transparency: Literal and Phenomenal*), and of Peter Eisenman (*Ten Canonical Buildings: 1950-2000*). One notable distinction is that where their work tends towards consistency, this research employs heterogeneous methods of analysis and representation in order to illustrate various qualities of Kiesler's work.

The many ambiguous qualities of the *Endless House* can be broadly categorized. First, it is impossible to identify definite boundaries for the project. It is both a method of working, an attitude towards architectural inhabitation and a series of models, sketches and plans. Second, within this body of materials, and specifically within the first 1959 proposal for MOMA, the design is spatially indeterminate. Tectonic continuity, formal irregularity, changing light conditions and hierarchical systems all challenge traditional spatial boundaries. Third, even this single iteration contains evidence of growth and development. The project leaves itself open to manifest in new ways, and self-consciously participates in the broader evolution of architectural forms.

In the end, the *Endless House* remains potent as a set of propositional sketches, drawings and models, without any habitable realization. In this form, the project makes use of transparency, simultaneity, orthographic perspective, aerial views and scale shifts to exhibit endlessness with a purity and thoroughness that no occupant could ever see. Later drawings that make concessions to the complexities of structure and habitation only reveal dissonance between the project as an ideal and as a real proposal. Ironically, the *Endless House* is more properly read than inhabited. As such, it hovers somewhere between an art object and an architectural proposal, and we are left wondering whether it was never built or whether the project's unfinished form is simply its ultimate declaration of endlessness.

Noah Ives

Kiesler's Unfinished Project

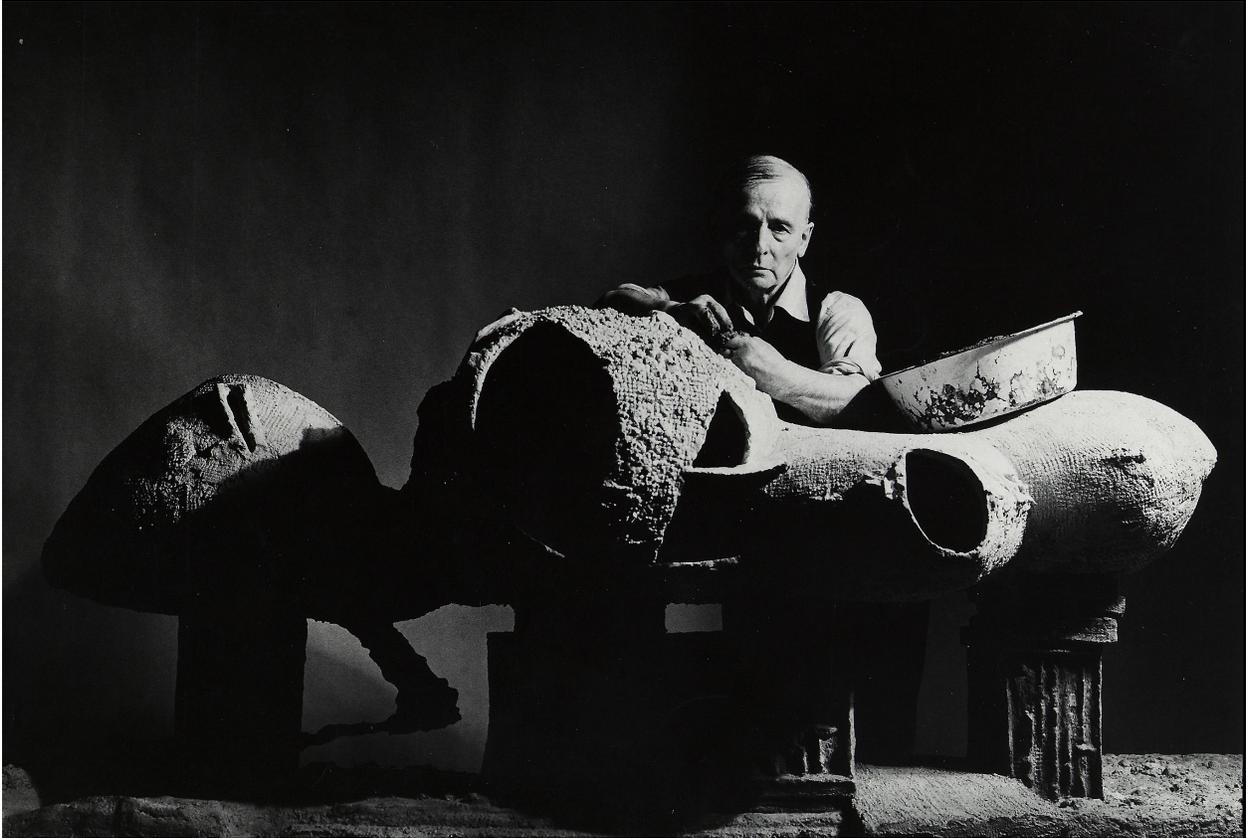


Endless House model, 1959

A Personal Utopia

“Primitive, prehistoric man drew no ground plans for his house...he built directly. He formed space directly into a house.”

The *Endless House* is as much a process as it is an architectural proposal; Kiesler’s ideals of holistic living are manifest not only in his designs but also in the methods through which he created them. Kiesler worked intuitively, using sub-conscious drawing techniques, large models and full scale artistic explorations. Whereas architectural representations are typically abstract instructions for building, Kiesler’s intensely tactile methods enabled him to more immediately experience spaces while designing them. If the house was meant to integrate disjointed aspects of contemporary life into a unified continuum, then the production accorded with the objectives of the final product. In this sense, Kiesler was living within the *Endless House* even as he created it.

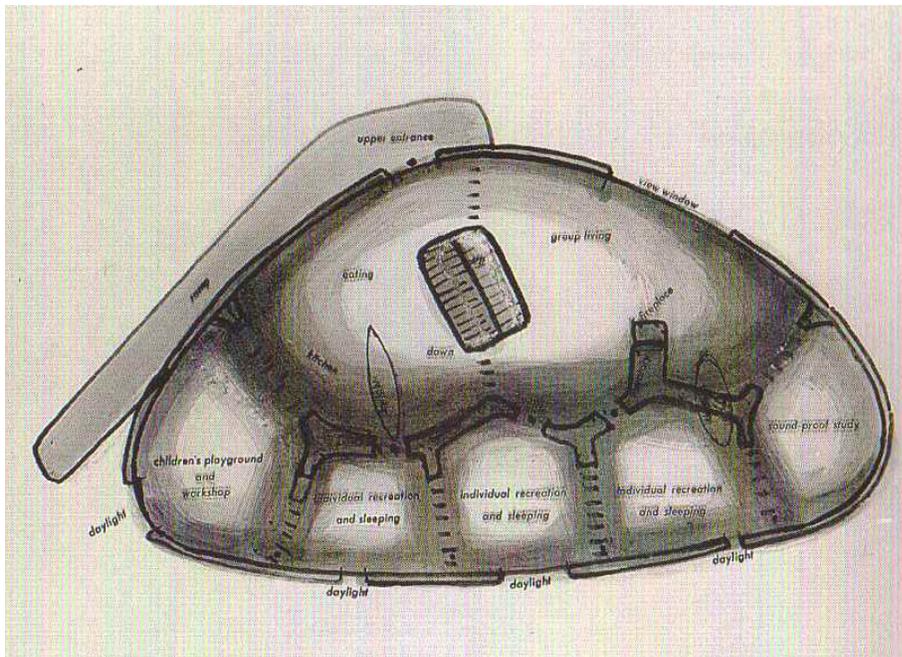


Kiesler with *Endless House* model, 1959

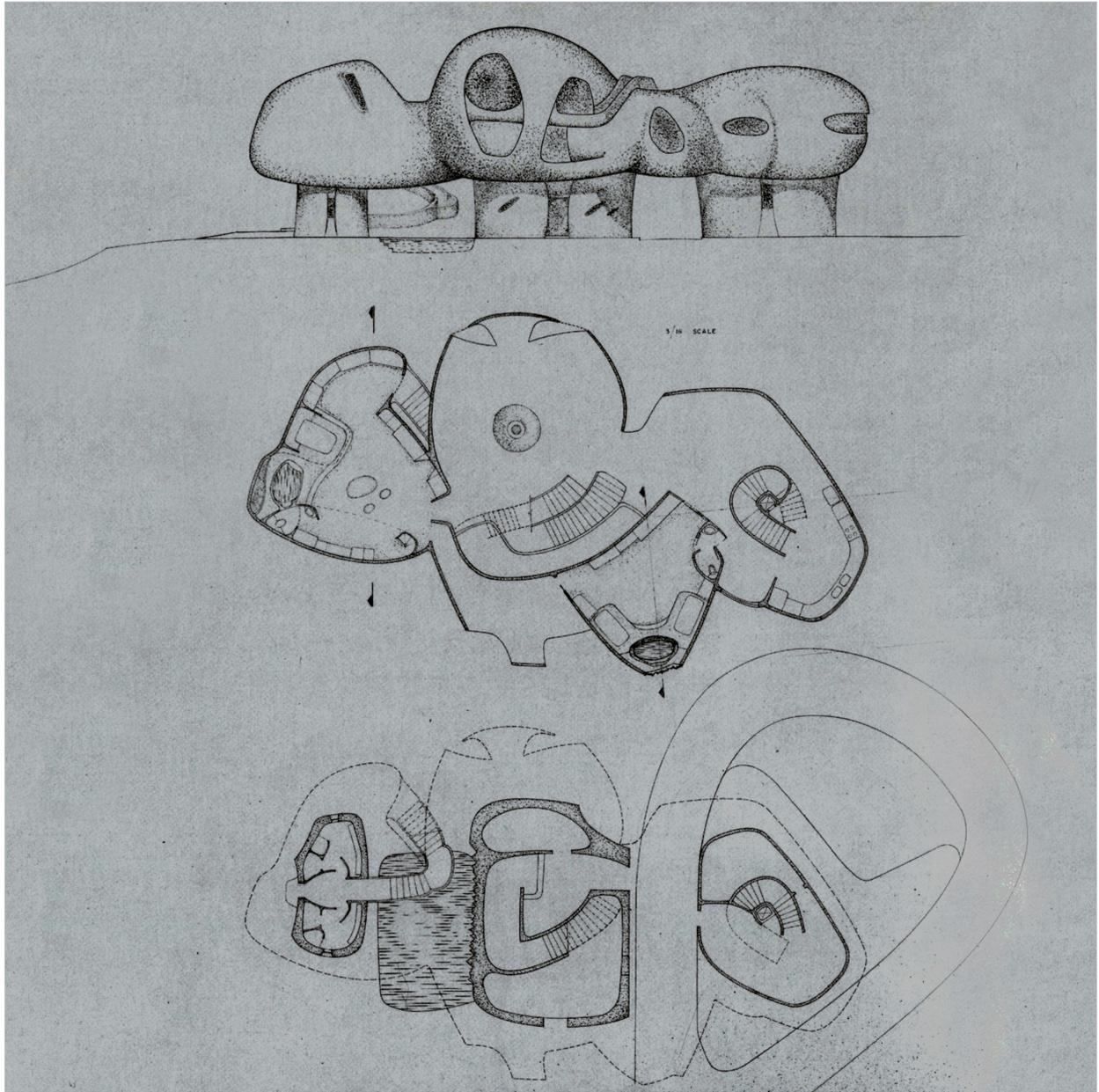
The Ontogeny of “Correalistic” Form

“These possibilities are of course already present in the germ cell of the initial draft.”

The *Endless House* is not a single proposal, but a collection of works offering flexible use through spatial continuity. It is an attempt to give architectural form to the idea of “correalism,” which Kiesler defines as “the dynamics of continual interaction between man and his natural and technological environments.” Earlier versions of the house achieve this unity by addressing only select, fundamental aspects of domestic life - shelter, daylight and privacy. Later manifestations, in contrast, integrate more specific parameters such as hygiene, circulation, structural principles, domestic program and even the automobile. As the house evolves it encompasses more and more of the elements of contemporary existence within its increasingly complex, yet spatially continuous form.



Endless House plan, 1951

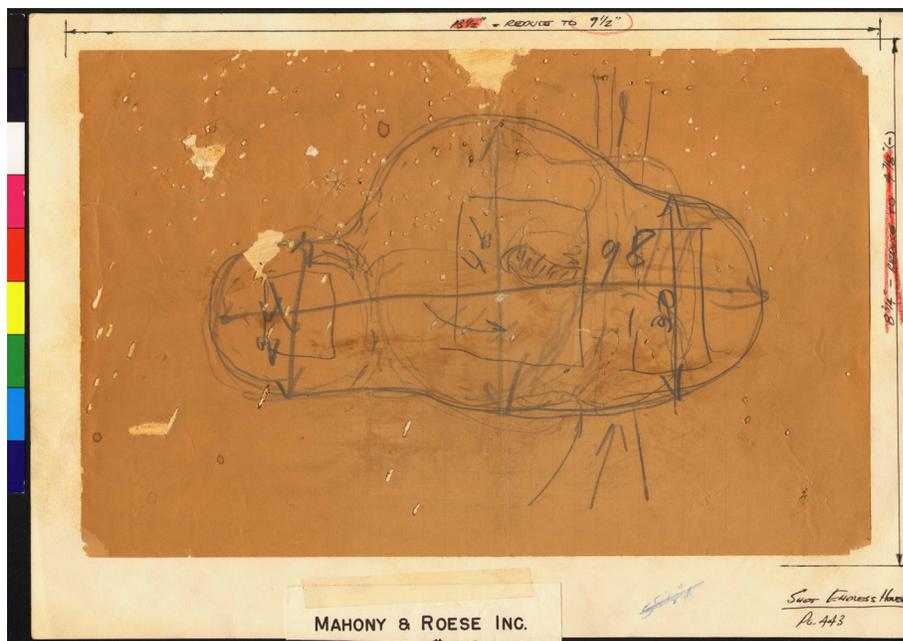


Sisler House plans, 1961

A Sacrificial Ending

“The house is not a machine for living. It is a living organism with a very sensitive nervous system.”

As a utopian vision, the ideal of the *Endless House* could never be realized, and Kiesler opted to leave the project unbuilt rather than to compromise on his work. In 1961 a potential client expressed interest in constructing the house and Kiesler developed the design with the aim of eventual construction on her Florida estate. Upon learning that the *Mary Sisler House* was not to be occupied, but to be built for boosting the estate’s property value, Kiesler turned one of the client’s shot guns on his own sketch and abandoned the enterprise. Converting the project into a financial tool would directly contradict its holistic aspirations. If the *Endless House* challenges the instrumentalization of human activity, then the project’s death only increases its potency.

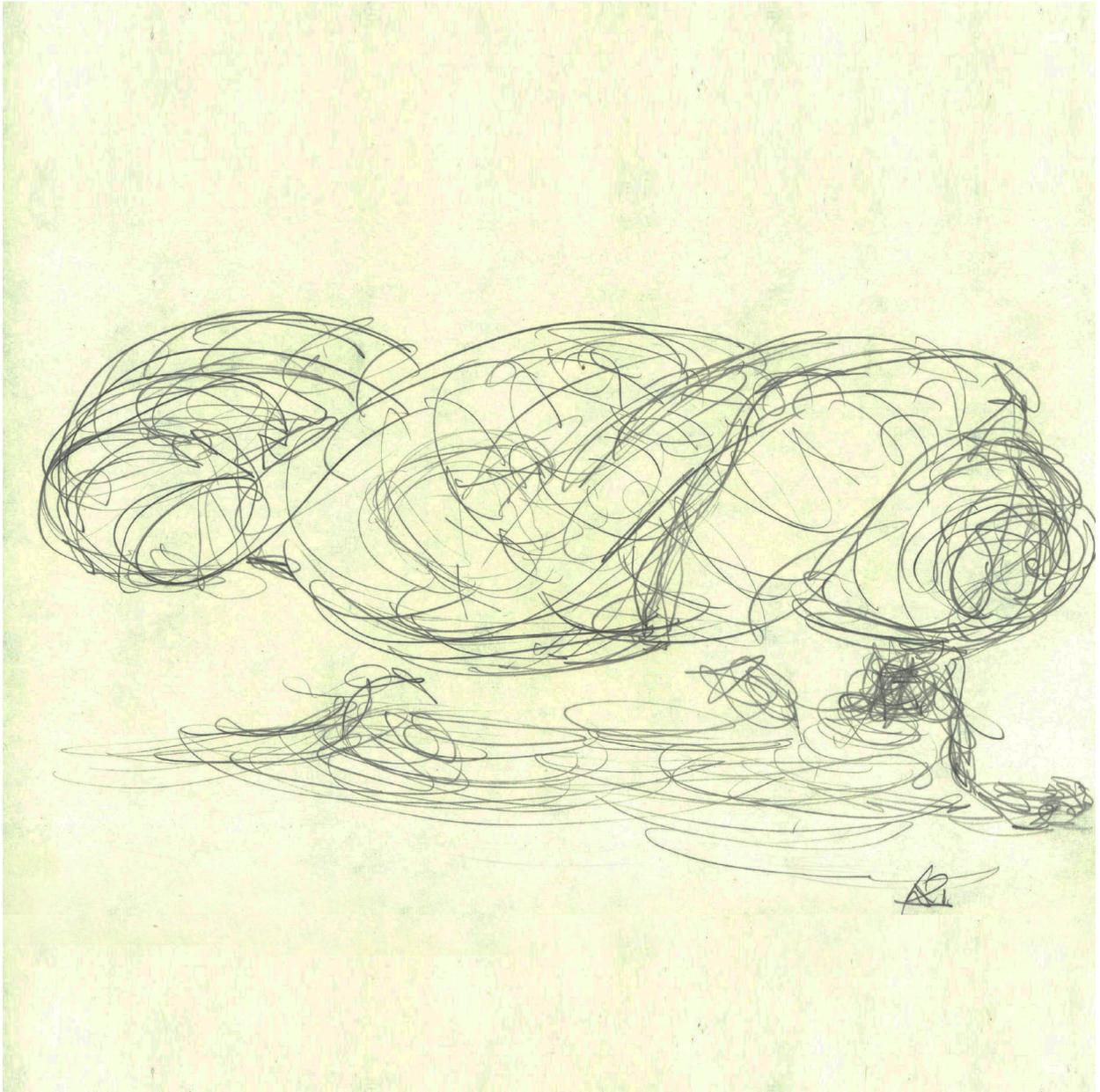


Sketch with shot holes, 1961



Kiesler at the Sisler estate, 1961

The Non-Tectonics of Continuous Space

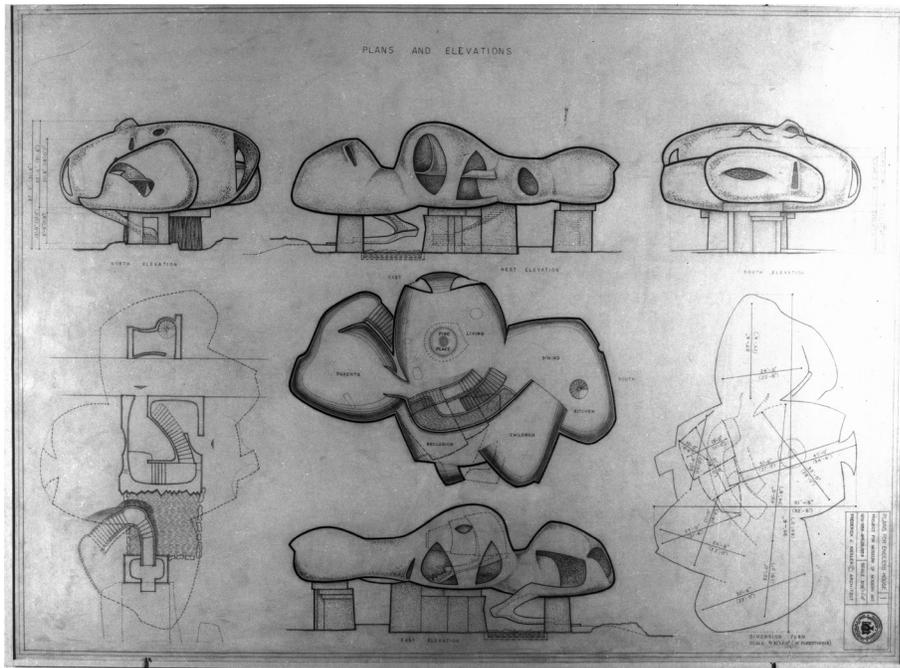


Endless House sketch, date unknown

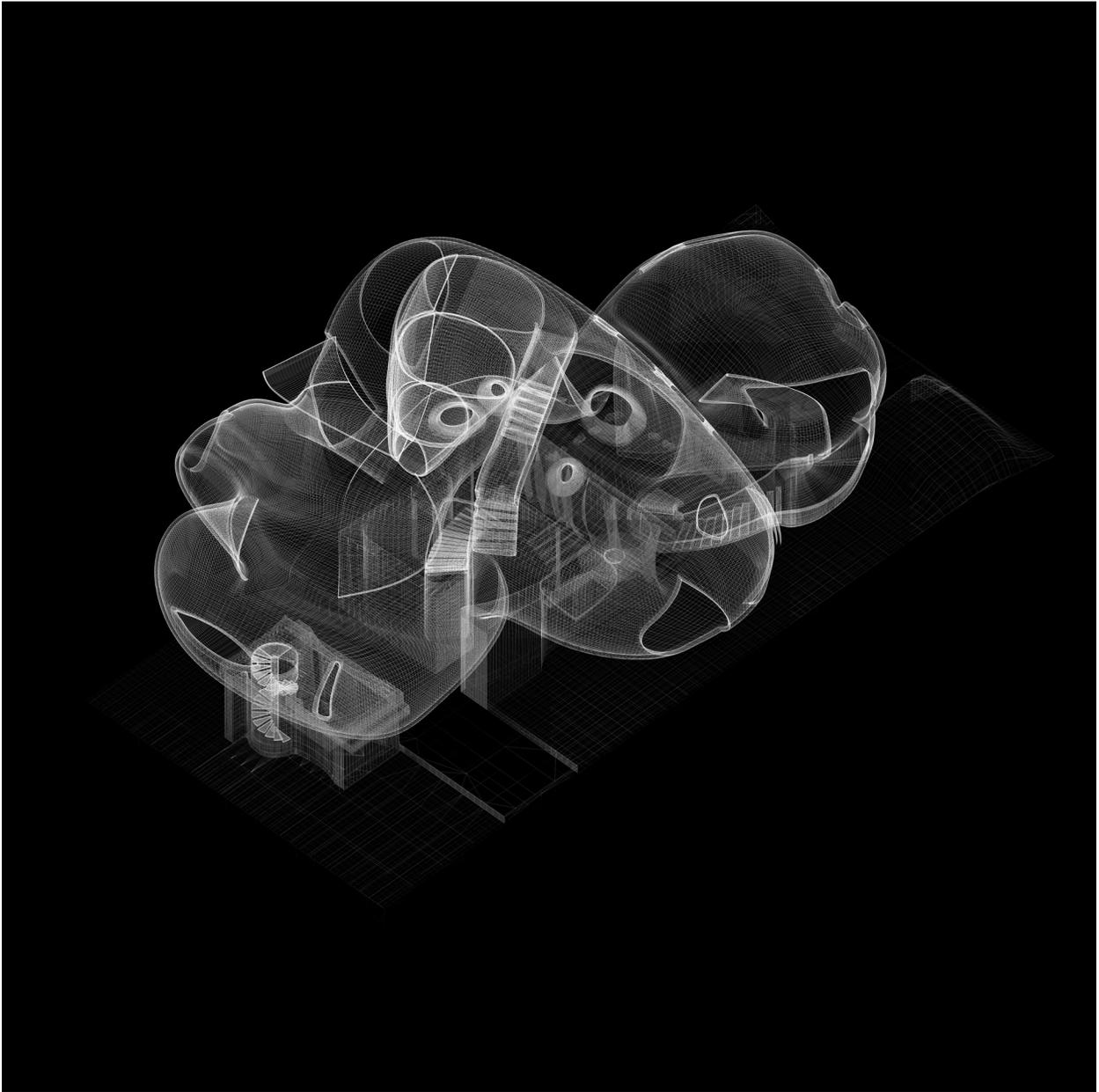
An Organic Dwelling

“The work of art must resume its generic function as an active, organic factor in human life.”

The house is a hierarchical layering of systems, both stacked vertically and nested within one another. Three plinths support the floating shell structure, and this is topped with crater-like openings that point skyward. A set of stairs is carved into each plinth, winding up from the ground into the house, at the heart of which sits a wrapped, cocoon-like structure. These separate systems, each with its own formal logic, are in turn organized into a cohesive whole. Kiesler’s study of “life processes and the needs they create” results in a dwelling that is itself organismal.



Endless House plans, 1959

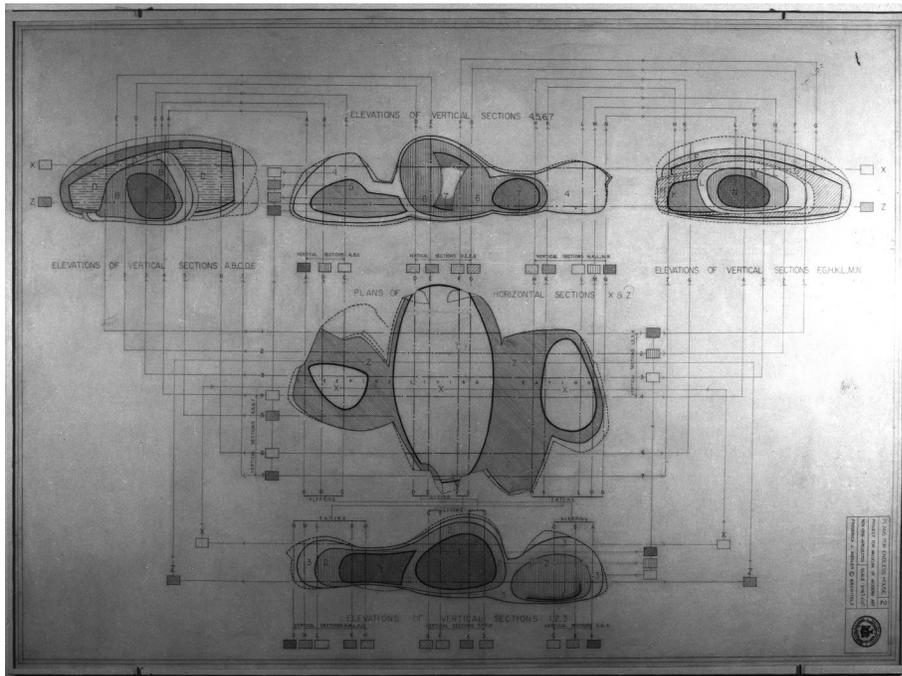


The several organ systems of the *Endless House*

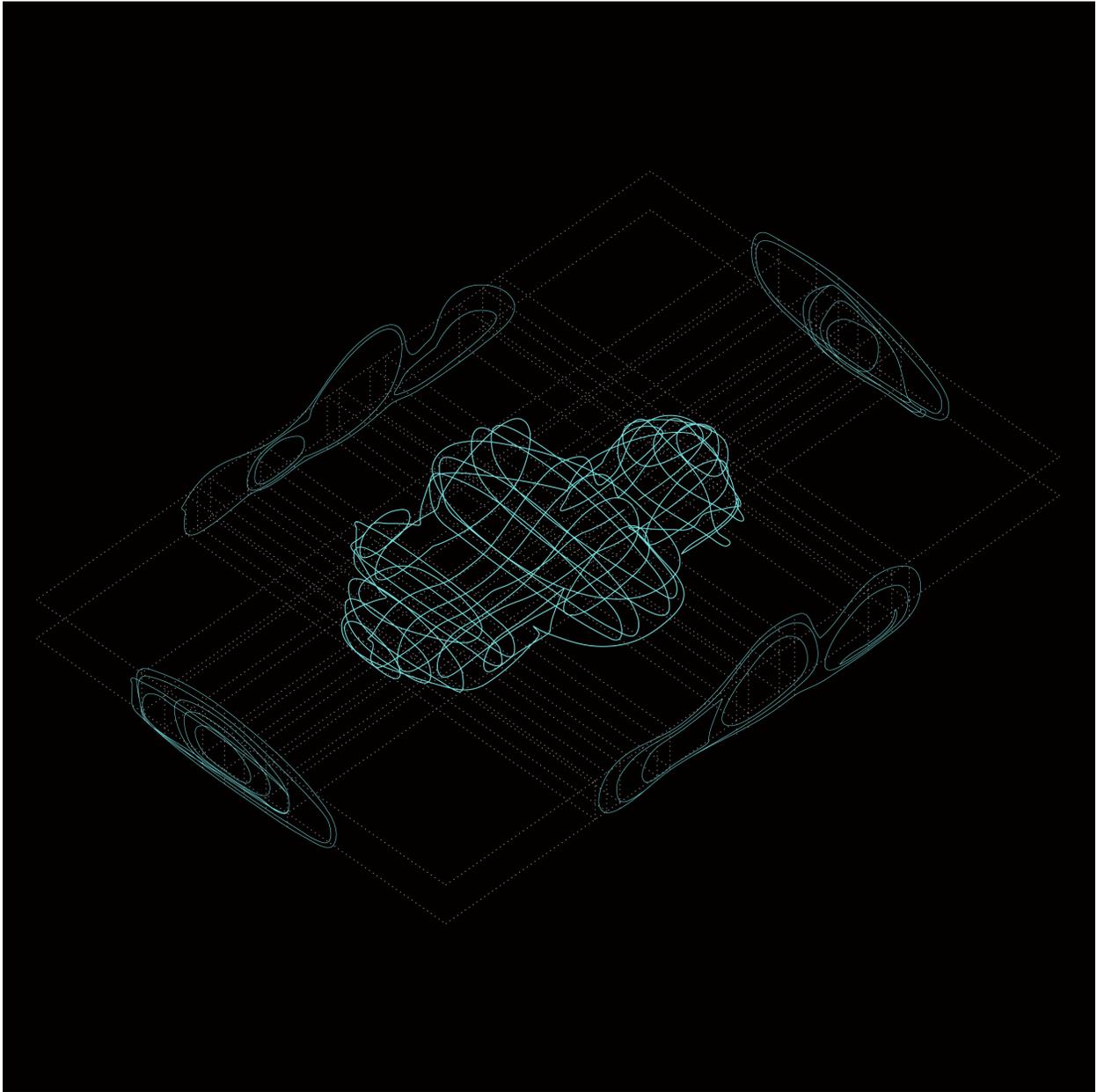
The House of Light and Motion

“A house is a volume in which people live polydimensionally. It is the sum of every possible movement its inhabitants can make within it.”

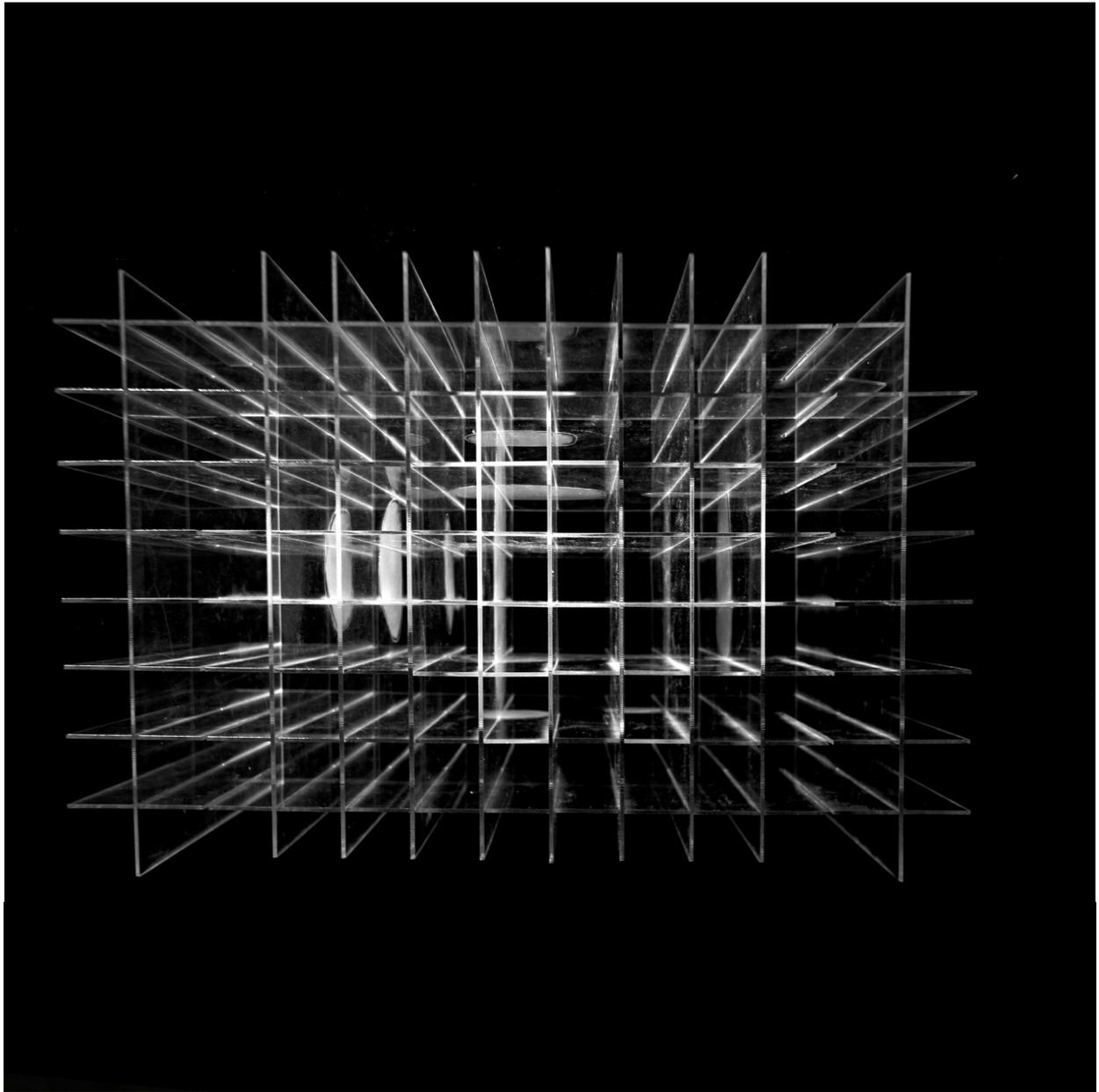
The *Endless House* is designed for change over time. Specifically, it is a vessel for the daily routines of its occupants and for the cyclic movement of light from the sky. No two sections are the same; passage through the concave shell of the house reveals them to be a gradually changing continuum. This also entails a unique sort of efficiency by providing a maximum of variety with a given amount of space and material. In Kiesler's view, this is simply the translation of a nuclear family's domestic patterns of motion into architectural form.



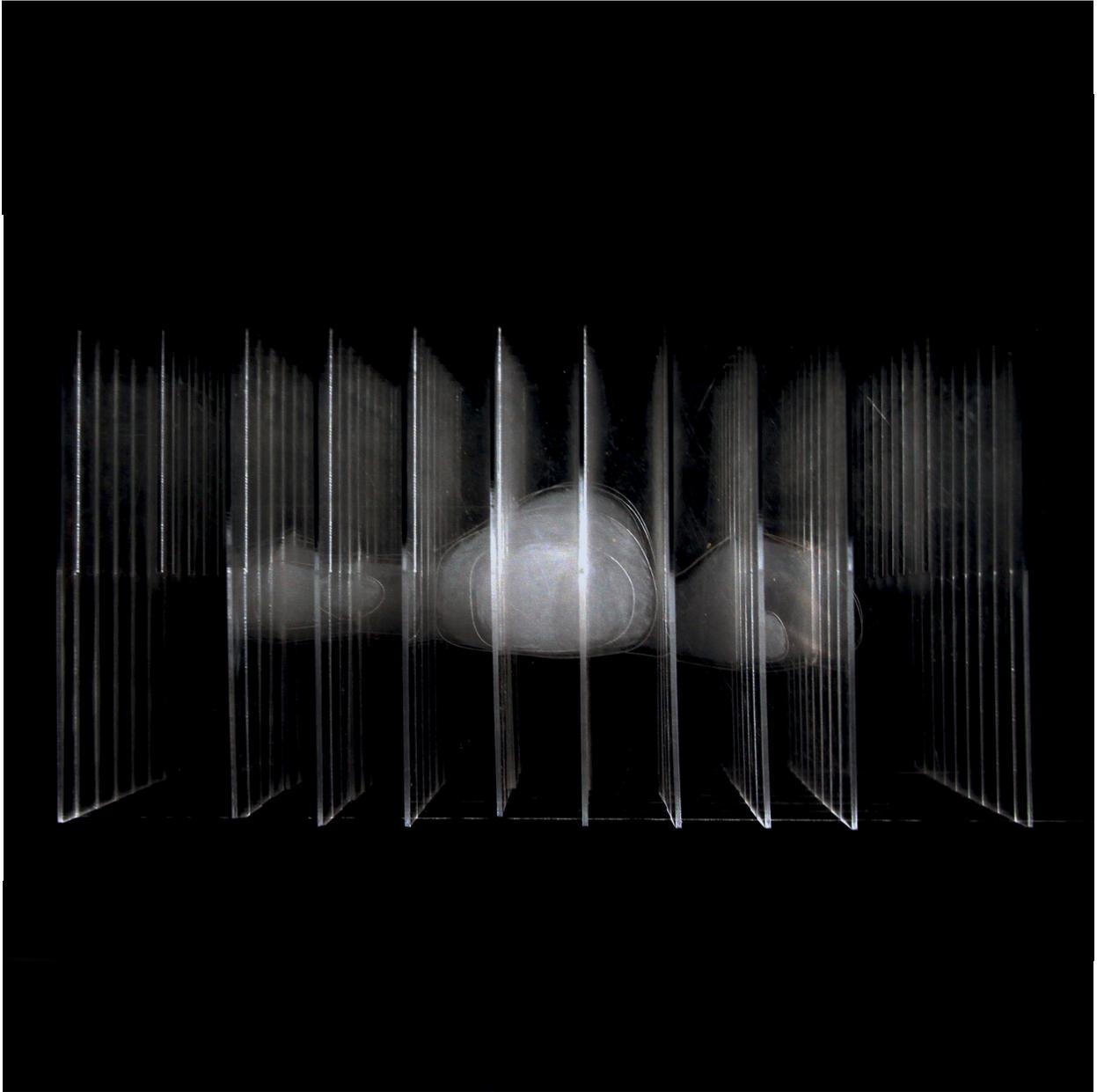
Endless House plans, 1959



Sectional re-construction from original plans



Sectional model, plan view

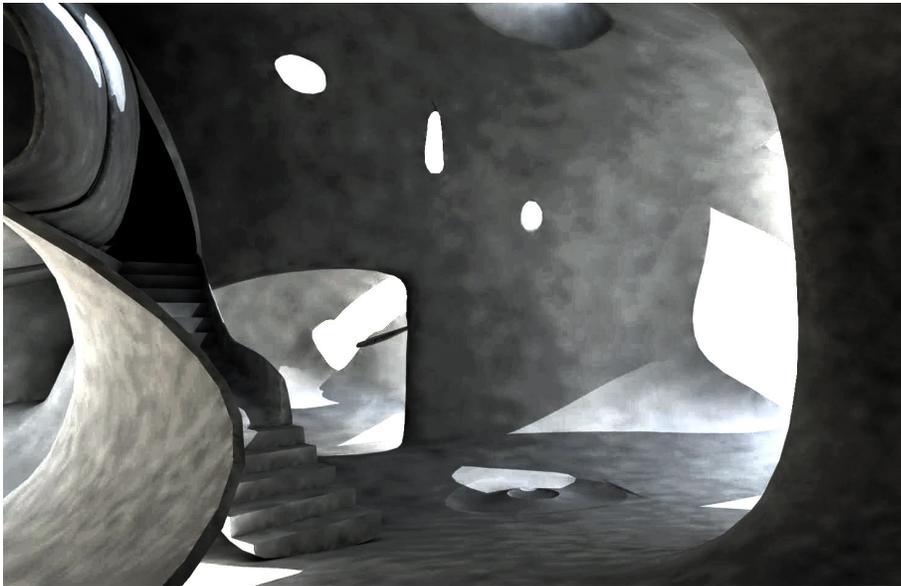


Sectional model, front view

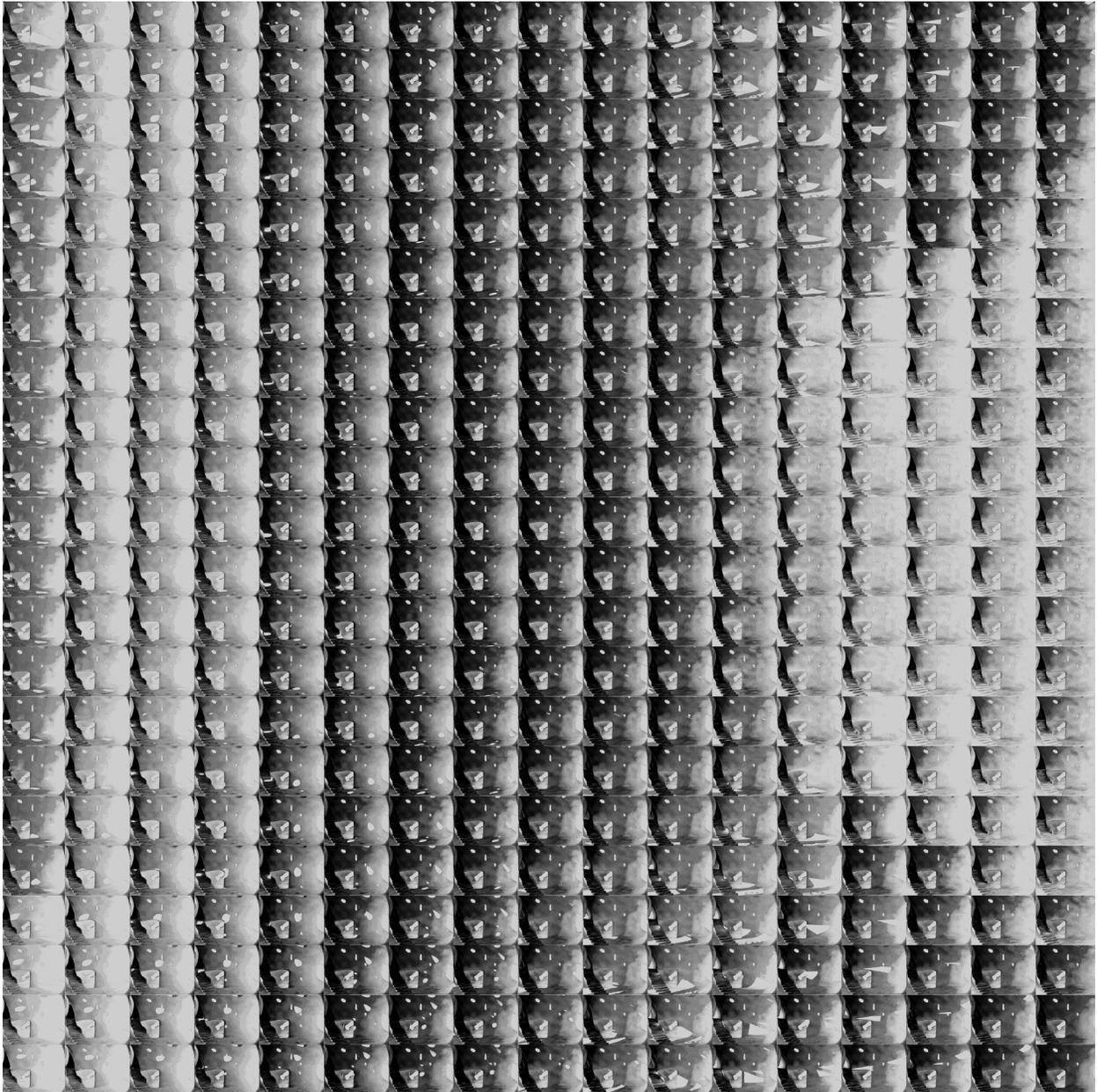
A Private Cosmos

“He becomes aware of the continuity of time and his own dynamic integration with natural forces.”

The house is not a hermetic object but a device for filtering external processes. During the day, changing light and shadow activates different spaces for use; during the night the passage of stars creates a revolving pattern overhead. In this way, the domestic routines of the occupants follow the movement of planetary bodies. Further, since the character of the spaces alters over days, seasons and years, not only is every point in the house unique, but any single point changes through time. The house strengthens occupants’ connection to the cycles of the natural world by creating a world within itself.



Interior rendering



Interior renderings of light conditions over the course of a year: horizontal axis illustrates hourly change over a single day, vertical axis illustrates seasonal changes for a time

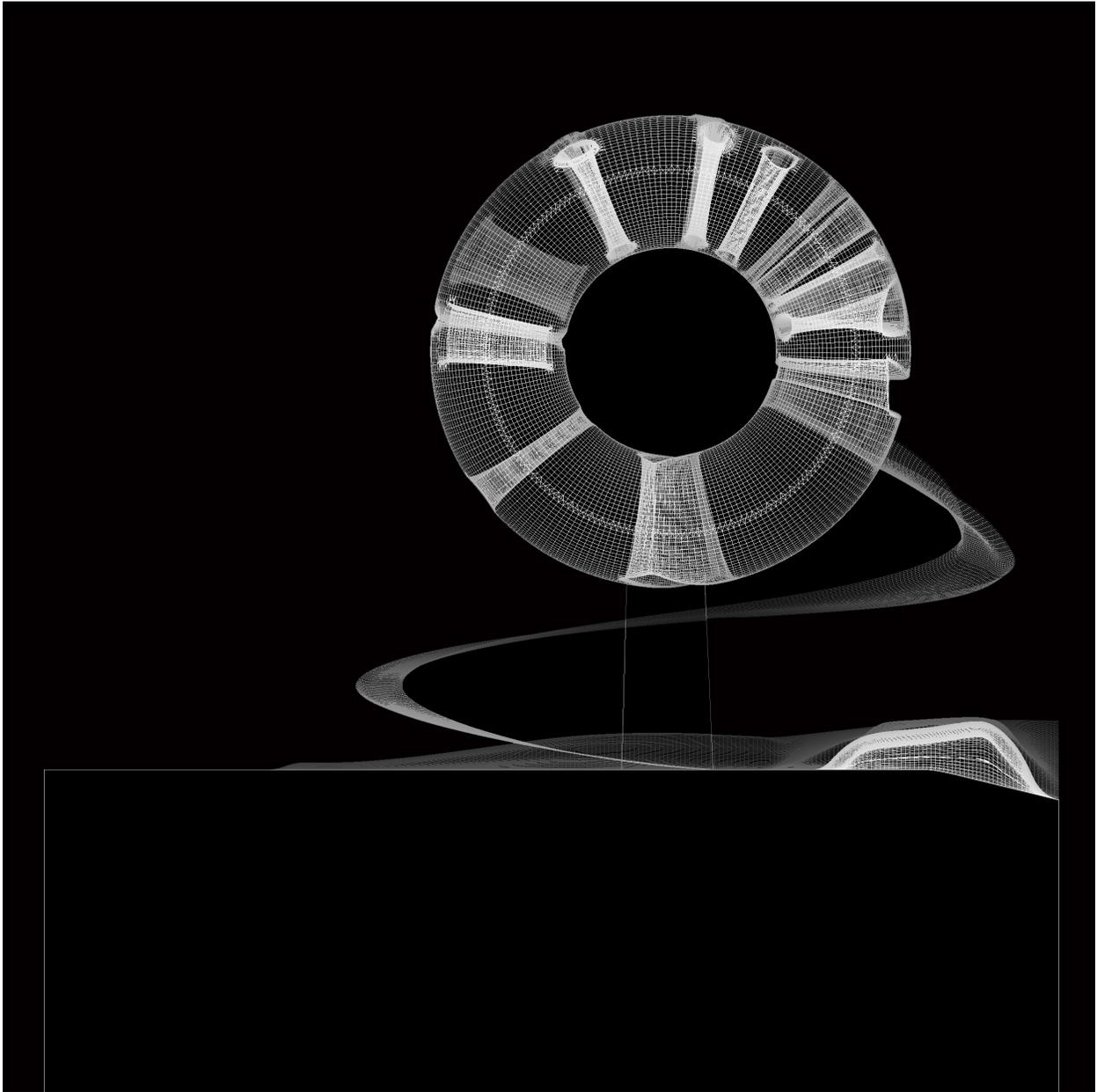
The Germ Cell of the *Endless House*

“We would first of all...project on paper the nucleus of the dwelling universe.”

There is a smooth transition from the interior to exterior surfaces, emphasized by the absence of a defined window pane. The observation that inside and outside comprise a continuous, two-sided surface has also been made about the human body. Indeed, Kiesler says, “The Endless House is called the ‘endless’ because all ends meet, and meet continuously. It is endless like the human body—there is no beginning and end to it.” Reduced to its most general elements, the first scheme for the MOMA is a taurus with 18 holes and a single umbilical staircase. This is its generic seed, an outgrowth of the earth whose form might adapt to the specificities of various locations and uses. Indeed, later versions of the project such as the *Sisler House* share many of these topological qualities. The slight differences suggest that the house has simply adjusted in response to a sort of re-planting.



Morphological series tracing the house to its geometric primitive

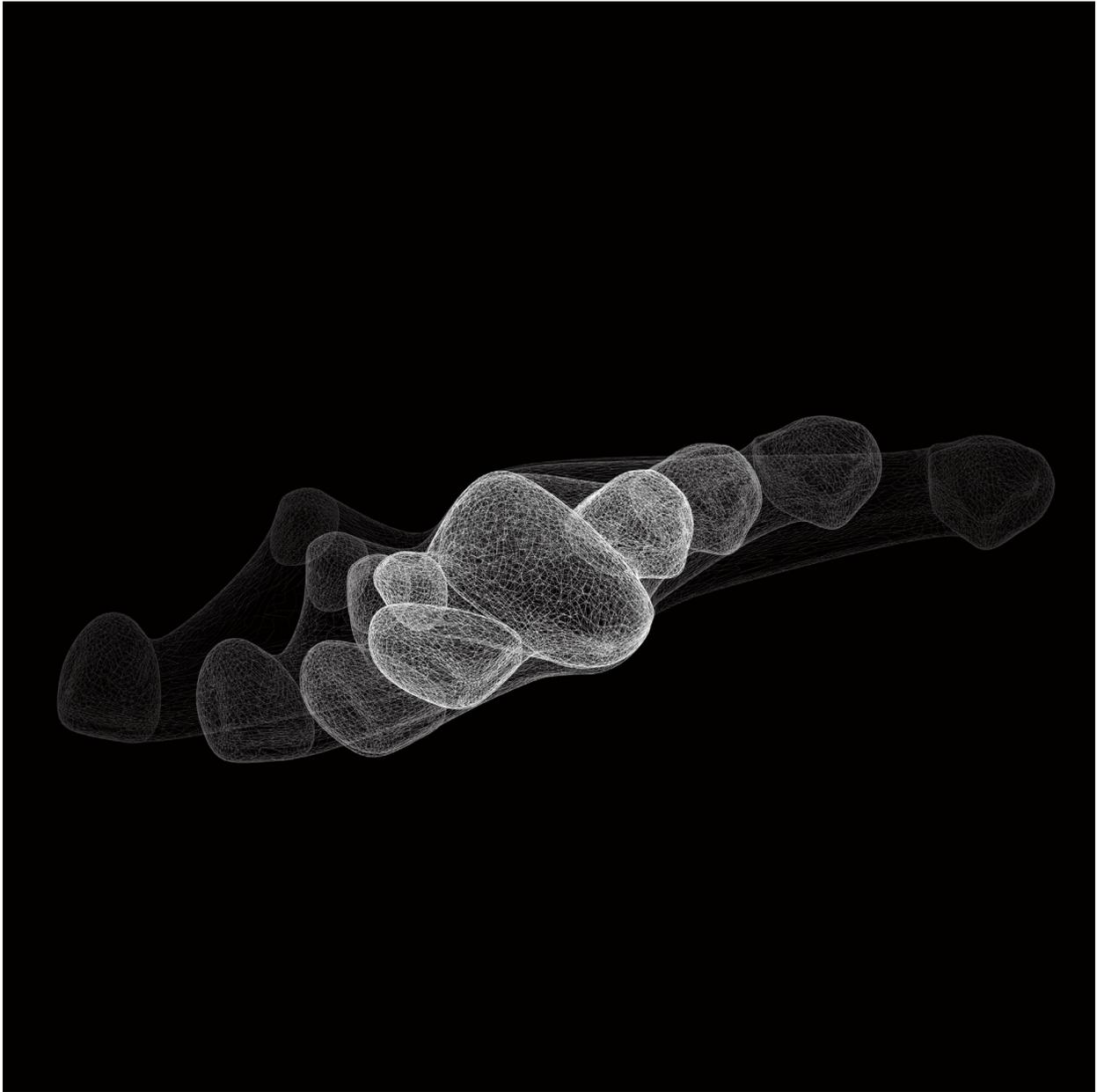


The house's germ cell: an 18-holed taurus connected to the earth through a single umbilical cord

Gravitational Centers

“Each and every one of the space-nuclei can be separated from the totality of the dwelling, can be secluded, and re-unified to meet various needs.”

The house is both a singular object and an amalgamation. Spaces flow into one another and form a cohesive whole. At the same time, it is clearly subdivided into distinct nodes, each with its own staircase. This allows flexibility in use: activities can flow freely through the entire space or can center on a defined area. Occupants, in turn, feel connected to one another or isolate themselves as needed. Social relationships and domestic routines call for both conditions. In this way, Kiesler translates the complex and often ambivalent relationships between family members into formal ambiguity between the house’s multiple centers.

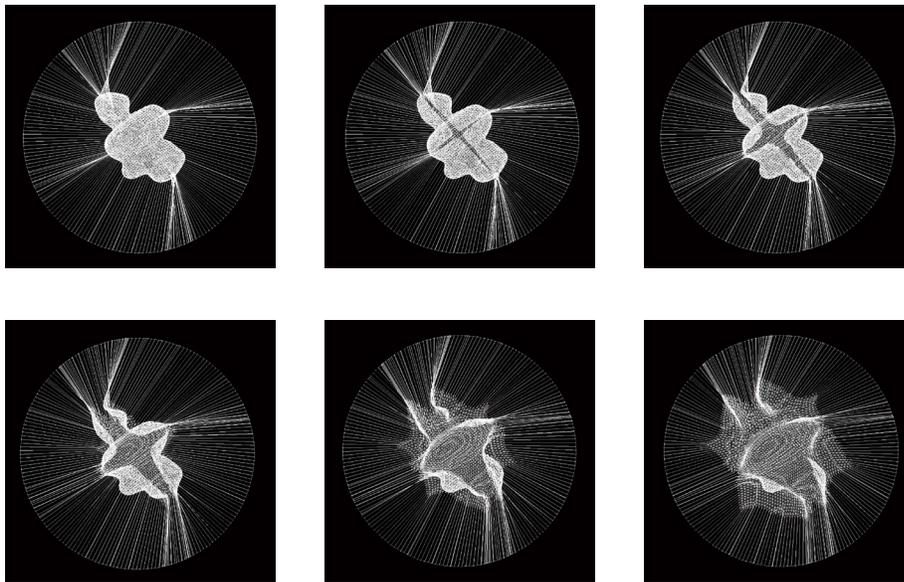


Conceptual illustration of re-configurable organization

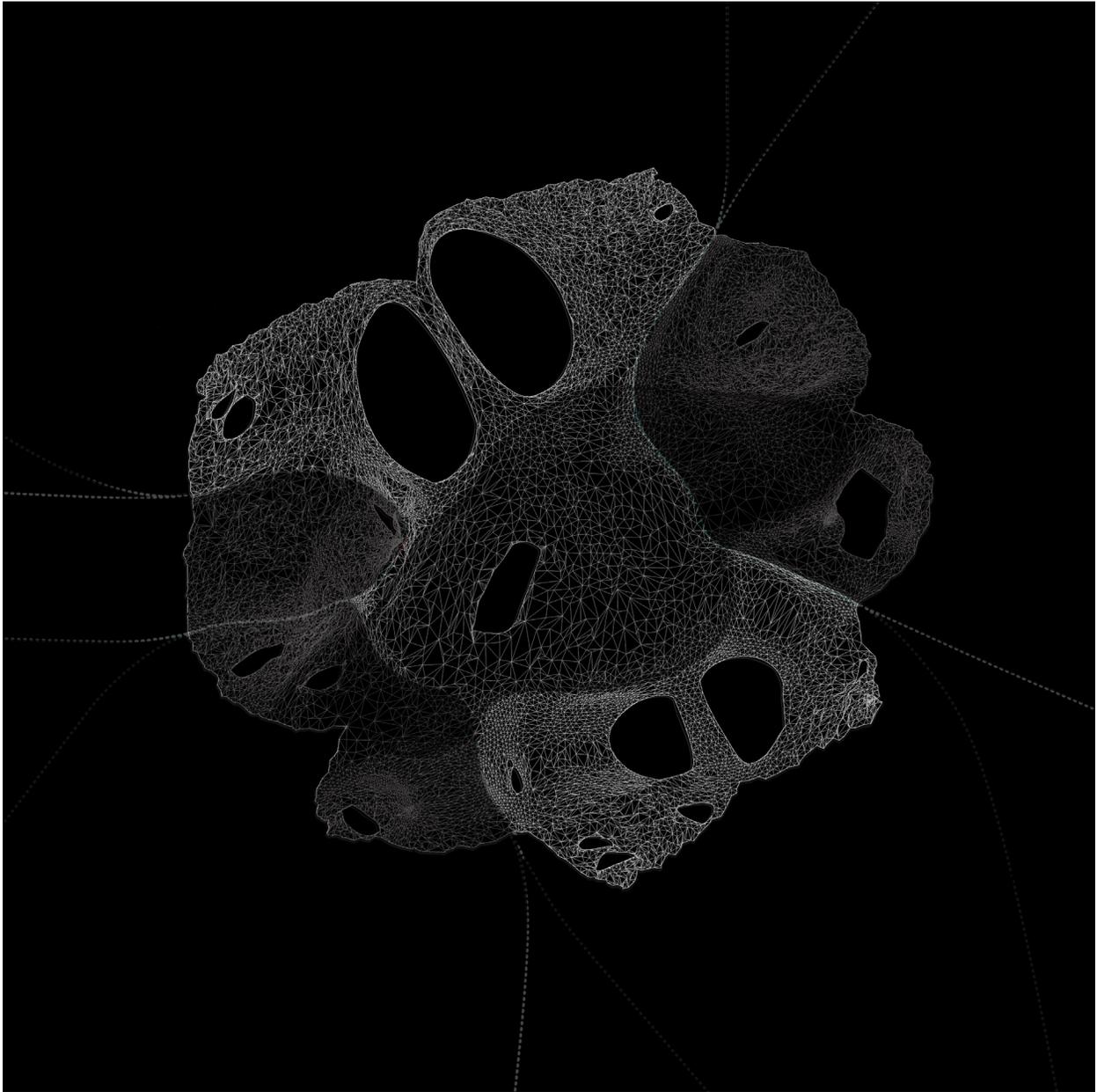
A Skin for Several Bodies

“To cut loose somewhere the elastic mesh and let it out...is to let the sea become a river of fountains.”

Peeling the house reveals it to be essentially a single surface. The continuity of the wrapper implies fluidity between the activities of the occupants. In this way, the *Endless House* is a shared skin for an entire family. This second skin mimics the membranes of living organisms. It establishes a permeable barrier to the outside and organizes internal processes into a properly functioning whole. Creases and high surface densities separate areas of different use, recording the functions within. Like the nuclear family, the house is an autonomous body, comprised of separate but interdependent units.



Peeling the house along an artificial seam

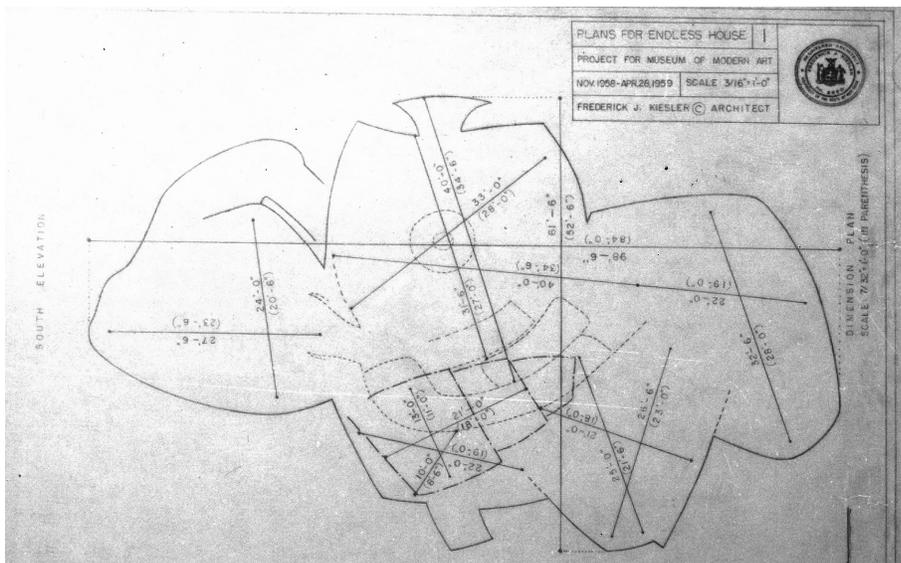


The pelt of the *Endless House*: darkened section represents occupiable floor space, seams demarcate the separate nodes of the house

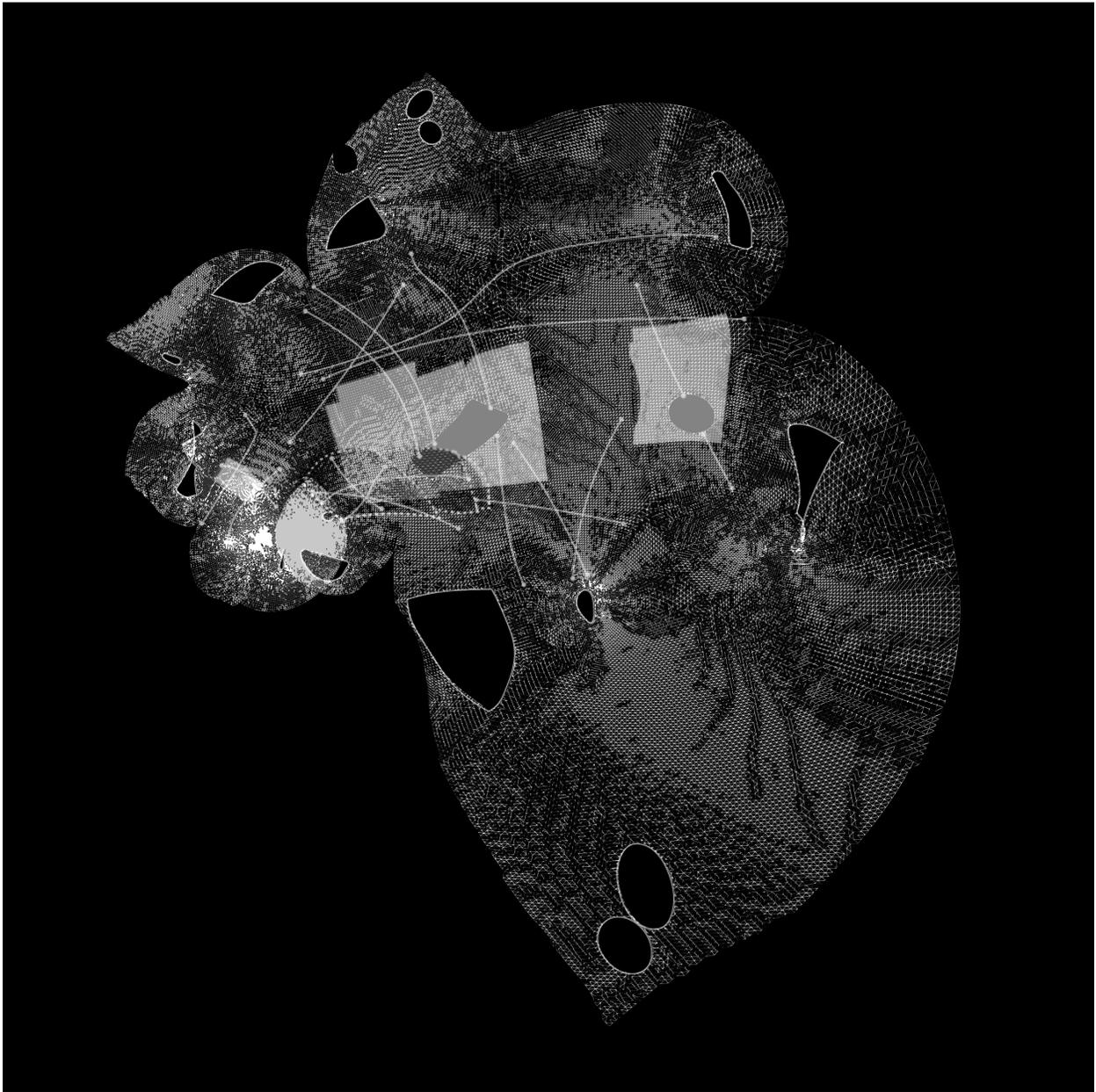
A Polydimensional Map

“Primitive man knew no separate worlds of vision and of fact. He knew one world in which both were continually present within in the pattern of every-day experience. And when he carved and painted the walls of his cave or the side of a cliff, no frames or borders cut off his works of art from space or life—the same life that flowed around his animals, his demons and himself.”

The *Endless House* bears the impression of various natural processes. Gravity dictates the downward compression of the shell, skylights open upward to the sun, windows look toward the immediate surroundings, and supporting plinths offer protective detachment from everything below. The house’s form is carefully calibrated to interior, as well as exterior, functions. As Kiesler says, “its construction has strict boundaries according to the scale of our living.” These boundaries, however, shun architectural standards. There is no explicit boundary between occupiable and unoccupiable surfaces, between different types of openings or even between outside and in. The house’s blueprint is not a construction document in any conventional sense, but a map of elemental patterns and relationships.



Endless House plans for MOMA, 1959



Flattened map of the house illustrating apertures, location of supporting plinths and orientation lines taken from Kiesler's original drawings

A House of Beginnings and Returns

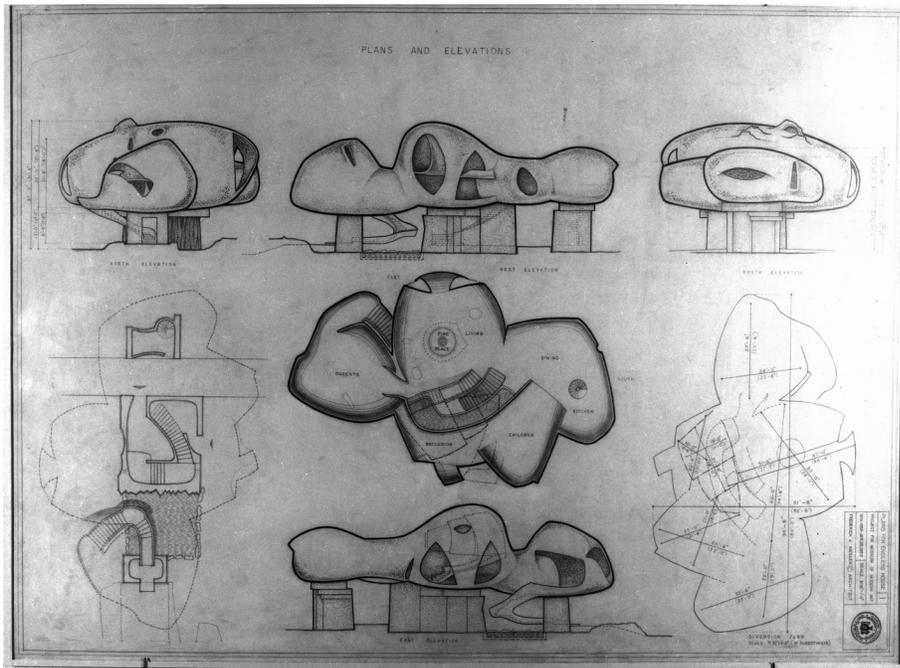


Endless House model, 1950-60

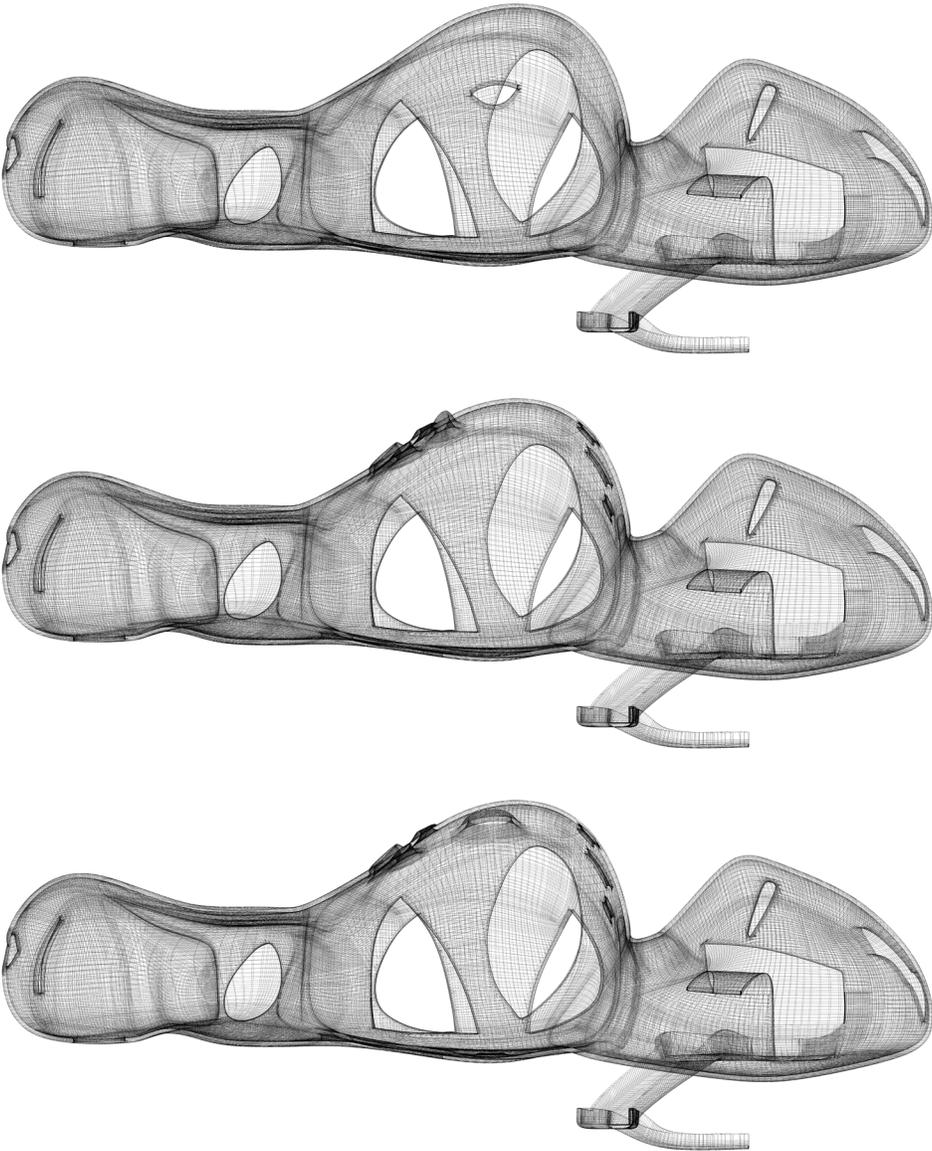
One Blueprint, Various Houses

"It is imprisoned on paper so to speak."

The project is full of implications for further development. Even the 1959 blueprint, one manifestation among many and the most complete single representation of the *Endless House*, depicts multiple versions. The North and South elevations show crater-like openings on the roof, while the East and West present a smooth surface with a single overhead window. This contradiction underscores the irony of Kiesler's architect stamp on a drawing set that lacks the detailing and resolution needed for construction. At the same time, it proposes an alternative model for what constitutes a finished architectural product. Instead of a single design, Kiesler has stamped an idea. The idea may resemble a crater-pocked shell, a creature with a third eye, or may take on new, unanticipated forms. It is imprisoned on paper, but this is also its means of liberation.



Endless House plans for MOMA, 1959

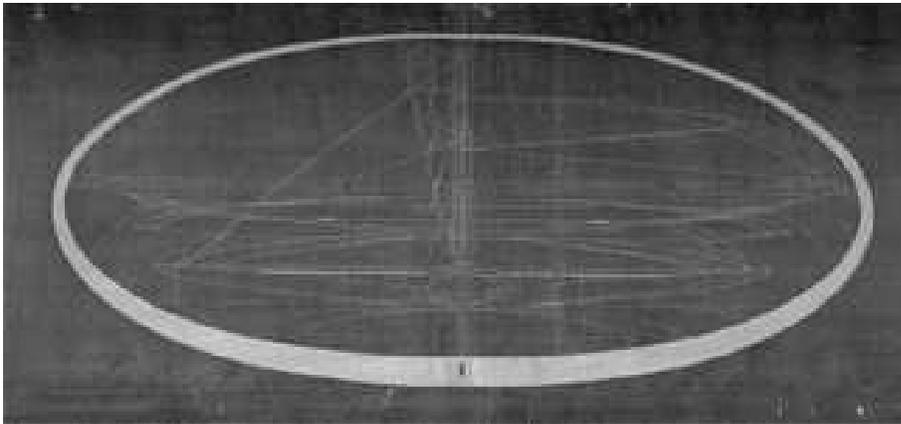


Variations illustrated by MOMA plans

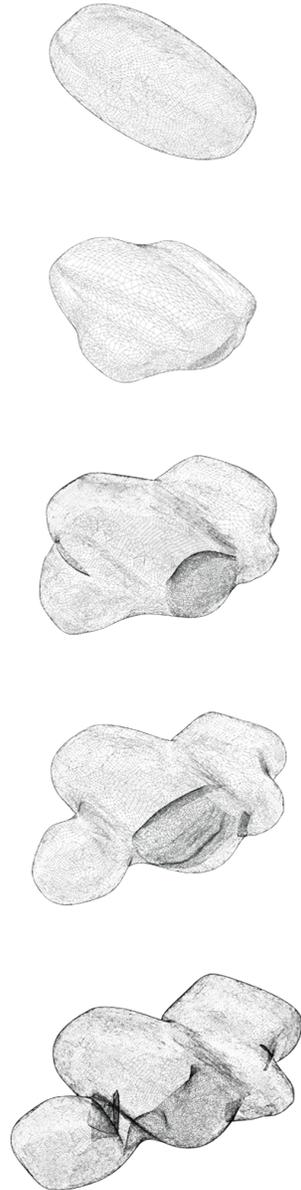
A Multi-Cellular System

“A single germ cell which contained the whole, and which slowly developed into the floors and rooms of man. This cell...is the nucleus of the human edifice.”

The involuted shell implies growth from a simple to a more complex form. The origin point for this growth can be considered the hearth, the interior cocoon, or the entire central bulb. Alternatively, it can be traced to earlier versions of the project such as the *Endless Theater*, a simple ovoid with little partitioning. This initial form represents the platonic ideal of continuous space. As the intricacies of daily life and familial social interactions enter the project, the form becomes more complex and specific. As Kiesler says, “the spheroid shape derives from the social dynamics of two or three generations living under one roof.” Even the most complete versions of the house are not final designs, so much as well-developed manifestations of a flexible spatial system.



Endless Theater drawing, 1924

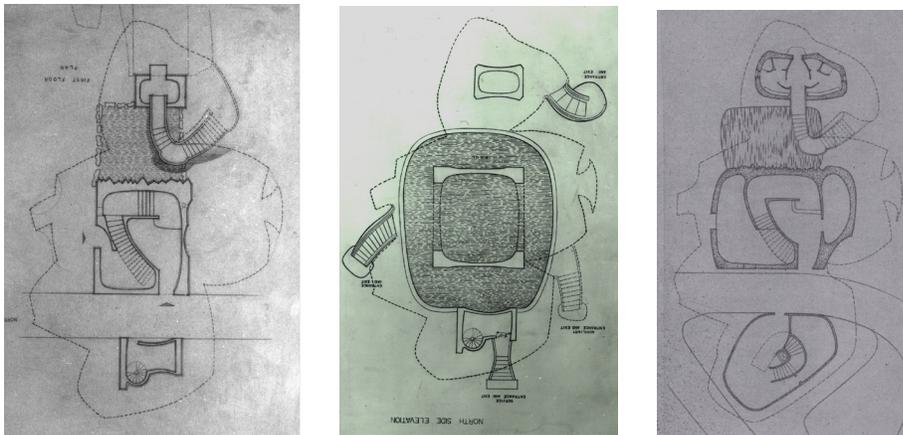


Evolution from generic to specific form

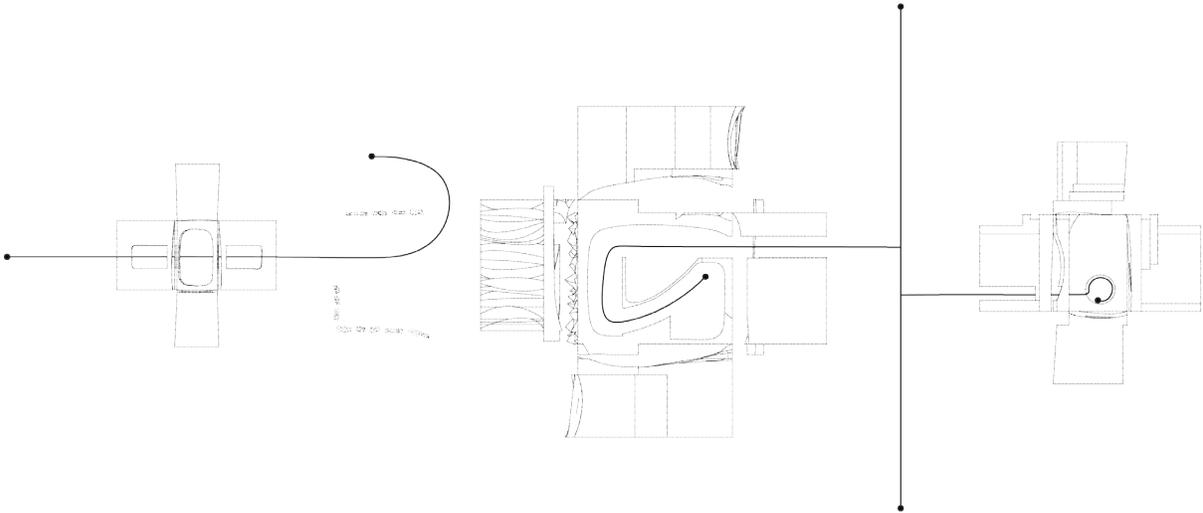
Habitable Sculpture

“Art stands forth as a vital link in the structure of a new myth.”

The detailing of the three plinths connects the project to the broader narrative of architectural history. One tapers upward, a second is textured like tree bark and the third is topped with classical ornamentation. This pairing specifically references the myth of architecture’s evolution from trees to post-and-lintel construction to the classical orders. Supported by this visual narrative, the shell positions itself as a new and possibly final phase of architectural development. It is not only a house but a self-reflexive object, displayed on plinths like a sculpture on its podium.



MOMA version 1, 1959; MOMA version 2, 1959; *Sisler House*, 1961

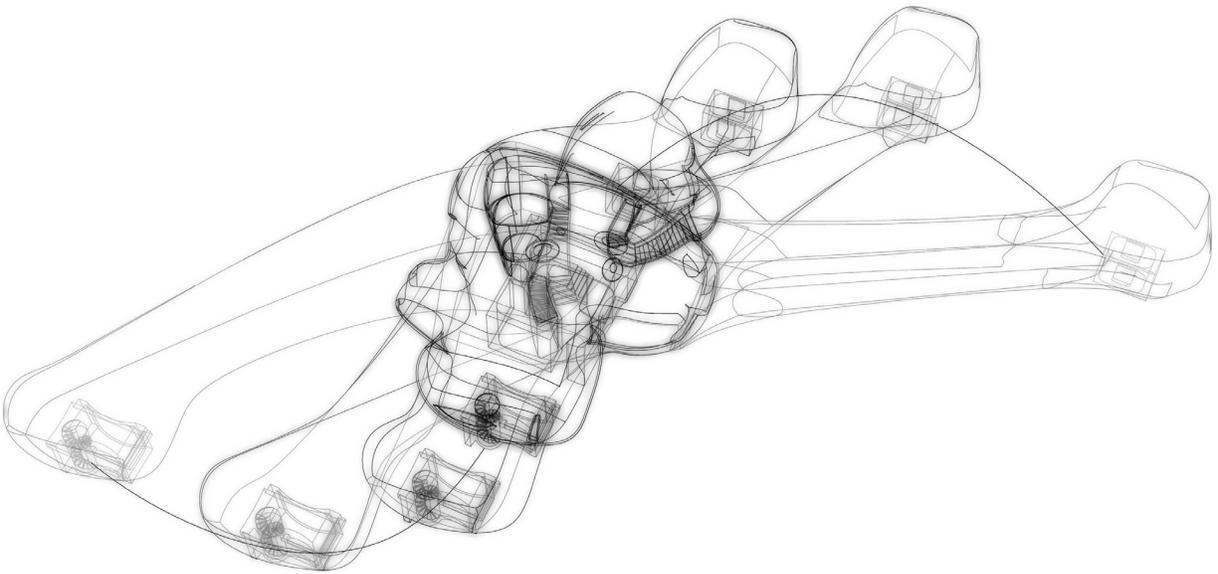


Unfolded map of the three plinths, illustrating varying facade treatment and circulation paths

Hard and Soft Tectonics

“Since...the measurements, weights and joints of the parts are derived from previous architectural projects (and not from a study of life processes and the needs they create), the resultant home is not an organic whole but a conglomerate.”

While the shell structure is extremely innovative, the plinths and stairs that support it follow more traditional formal logic. The relationship between these conventional and unconventional elements varies throughout the house: the spiral stair punches straight into the space above, the middle stair curves up to meet it, while the third is an outgrowth of the shell itself. The project thus transitions from highly distinct systems into an integrated continuum. If Kiesler's unique invention, the biomorphic shell, is notable for its internal ambiguities, it is only fitting that this also have an ambiguous relationship with standard architectural forms. Further, by linking these disjointed images of nature, technology and art, the *Endless House* subsumes the very attitudes it proposes to transcend. It offers both an exclusionary return to the naturalistic cycles of a more elemental existence, and an inclusive acknowledgement of society's endless complexities. This ambivalence fades in the second MOMA scheme and in the *Sisler House*, where the stairs and plinths take on a more fluid shape, but its traces remain as a reminder of the house's origins as a critique on excessive division and demarcation.



Various formal systems combine to form an “organic whole”

The *Endless House* Expanded

“It breathes a reality of her own, embodying greater virility than pseudo-realization via clients, contractor, building departments.”

The *Endless House* only gains potency from its failure to be built. Rather than taking a single form it encompasses many iterations, each of which integrates social, natural and technological processes. Kiesler refused to compromise this vision of “correalism” in exchange for seeing the project built. Instead, as the body of architectural work that references it grows, the *Endless House* spreads its influence through these surrogate projects. Further, images of Kiesler’s drawings and models continue to circulate, carrying his vision to a broad audience. In this way, the project functions without having ever been translated into built form. Hovering somewhere between an object of art and an architectural proposal, the *Endless House* may in fact be more complete for remaining open-ended.



Hans Hollein's *Rock Project*, 1960

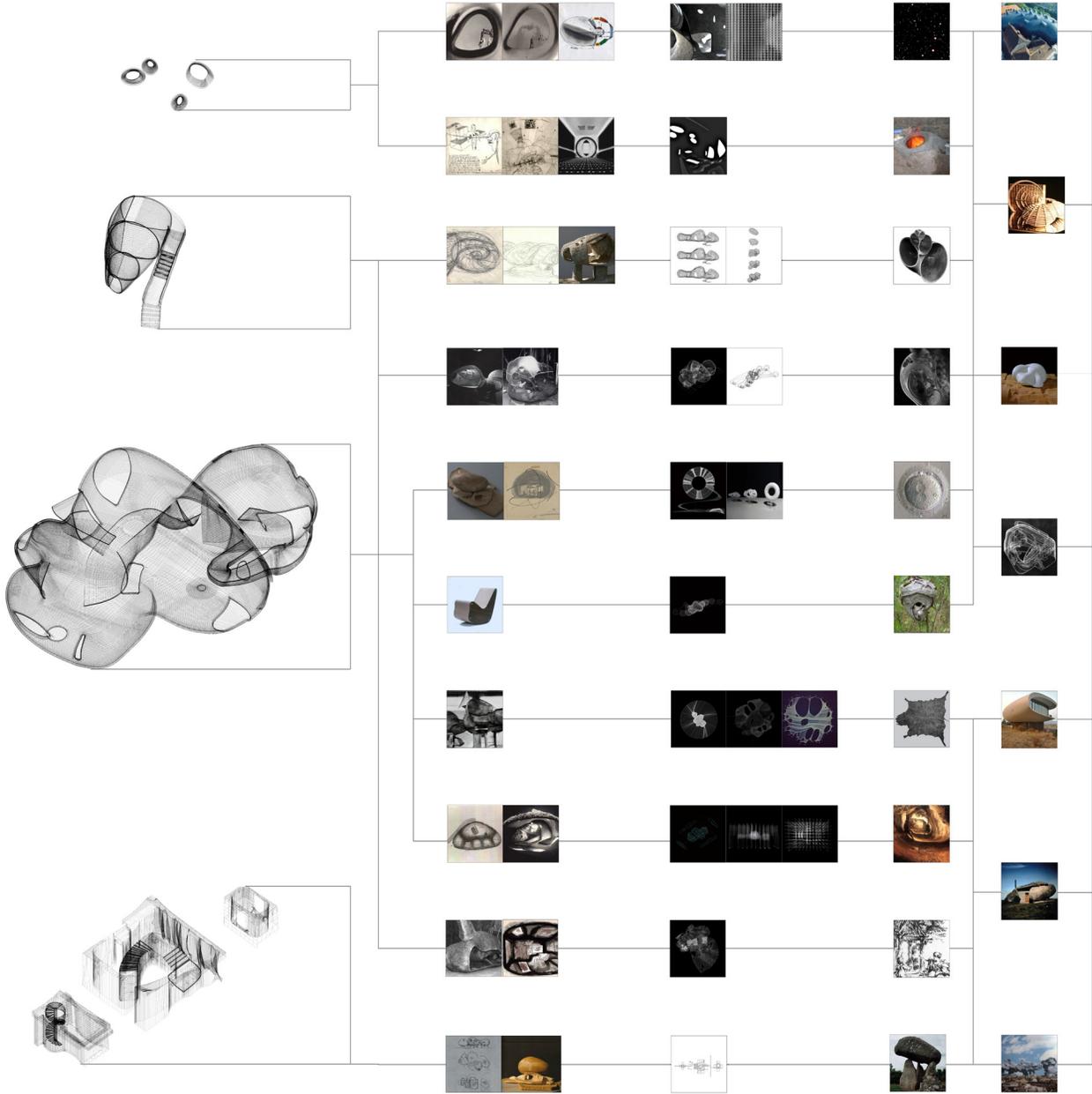


Diagram of the house's conceptual connections, from Kiesler's projects to natural phenomena and architectural works

Special thanks to Mark Morris for intriguing and often unexpected provocations and to Andrew Lucia for invaluable expertise and enthusiasm. Thanks also to Cornell University and to the Austrian Frederich and Lillian Kiesler Private Foundation for supporting this project.