ARCHITECTURAL PROFANATIONS: FREDERICK KIESLER'S CORREALISM

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ABSTRACT

ARCHITECTURAL PROFANATIONS: FREDERICK KIESLER'S CORREALISM

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This thesis provides a historical and conceptual examination of Frederick Kiesler's Correalism. Coined by Kiesler himself, Correalism encapsulates his distinctive approach to architectural theory, merging aspects of what he describes as a science of life forces with biotechnique. Through an analysis of archival documents and contextualization within the broader theoretical and artistic movements of the twentieth century, this study interprets Correalism as a transformative adaptation of the constructivist project within the North American milieu as it positions Correalism as a pedagogical model that amplifies Kiesler's impact on architectural theory and serves as a tactical instrument for reshaping architectural thought and practice. This reinterpretation incorporates Giorgio Agamben's concept of profanation, offering a philosophical viewpoint on Kiesler's critique of architectural modernism and early twentieth-century architectural thought.

Keywords: Frederick Kiesler, Correalism, Biotechnique, Profanation, Vision Machine

ÖZ

MİMARİ DÜNYEVİLEŞTİRMELER: FREDERİCK KİESLER'İN KORREALİZMİ

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Bu tez, Frederick Kiesler'in Korrealizm olarak adlandırdığı mimari teoriye dair tarihsel ve kavramsal bir analiz sunmaktadır. Bu terim, Kiesler'e özgü bir mimari kuram yaklaşımını temsil eder ve yaşam güçlerinin bilimi olarak ifade ettiği araştırma ile biyotekniği harmanlar. Bu tez, arşiv belgelerini inceleyerek Kiesler'in çalışmalarını yirminci yüzyılın geniş teorik ve sanatsal hareketleri içinde, ve Korrealizm'i de hem Kuzey Amerika ortamında konstrüktivist projenin dönüştürücü bir uyarlaması, hem de Kiesler'in mimari teori üzerindeki etkisini artıran bir pedagojik model ve mimari düşünce ve uygulamalarını yeniden şekillendirmede taktiksel bir araç olarak konumlandırmaktadır. Bu yeniden yorumlama, Giorgio Agamben'in dünyevileştirme kavramının Kiesler'in mimari modernizm eleştirisine ve erken yirminci yüzyıl mimari düşüncesine felsefi bir bakış açısı sunmaktadır.

Anahtar Kelimeler: Frederick Kiesler, Korrealizm, Biyoteknik, Dünyevileştirme, Görüntü Makinesi

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This dissertation encapsulates an eight-year journey, a span that is less indicative of its developmental needs and more a reflection of the intricate academic landscape in Turkey. The research, an ongoing and evolving quest, stands far from a claim of definitive expertise. Its prolonged duration underscores the challenges faced within an academic realm often perceived as exclusive and unsupportive, particularly for those diverging from a cis-heteronormative norm. This journey would not have been feasible without the steadfast support of my *lubunya* chosen family, my friends, and my thesis committee. Their collective support and motivation were the beacons that guided me through the darkest periods. My supervisor Zeynep Mennan's unwavering encouragement and belief in my work were instrumental, especially during moments when discontinuing my research and academic pursuits appeared to be the only viable path.

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TABLE OF CONTENTS

ABSTRACT v

ÖZ vi

ACKNOWLEDGMENTS vii

TABLE OF CONTENTS viii

LIST OF FIGURES xii

LIST OF ABBREVIATIONS xvii

CHAPTERS

1 INTRODUCTION 1

1.1 Enter: Kiesler 4

1.2 A guiding outline 15

1.2.1 Chapter 2: Kinaesthetic Knowing and Vision Machine 16

1.2.2 Chapter 3: Correalism and Strategic Demarcation 17

1.2.3 Chapter 4: Profanations 18

2 KINAESTHETIC KNOWING AND VISION MACHINE 21

2.1 "Epistemological Currency of Experience" 23

2.1.1 Kinaesthetic knowing: A pedagogy 25

2.1.2 Mechanical objectivity: Morals 31

2.1.3 Camera: A device for inscribing experience 33

2.1.4 Commensurability: Quantifying experience 39
2.1.5 Subjectivity: Limit of experience 44
2.1.6 Towards Vision Machine 46
2.2 Vision Machine 49
2.2.1 Laboratory of Design Correlation and the Perennial Crisis in Architecture 49
2.2.2 Studying Vision at LDC 54
2.2.3 “Genesis of Design by Light” 57
2.2.4 Dream Images 64
2.2.5 Seeing as a creative process 72
2.2.6 Seeing as an experience 78
2.2.7 Vision Machine as a model of aesthetics 83
3 CORREALISM AND STRATEGIC DEMARCATION 93
3.1 *Raum* vs Space 95
3.1.1 *Raum* 99
3.1.1.1 R.U.R 100
3.1.1.2 Emperor Jones 101
3.1.1.3 International Exhibition of New Theatre Techniques . . 103
3.1.1.4 Leger und Trägersystem (L+T) 111
3.1.1.5 *Raumbühne* 114
3.1.1.6 City in Space taking over the *Exposition Internationals des Arts Decoratifs et Industriels Modernes* 119
3.1.2 Endless 126
3.1.2.1 The International Theater Exposition 128

3.1.2.2 Endless Theatre 130
3.1.2.3 Woodstock 131
3.1.2.4 Universal Theatre 133
3.1.2.5 Space House 140
3.1.2.6 Endless House 151
3.2 Writing Correalism 157
3.2.1 It all starts with Space 157
3.2.2 Book Manuscript 166
3.2.2.1 Technological Environment 174
3.2.2.2 Health 176
3.2.2.3 Tool 178
3.2.2.4 Heredity 184
3.3 Strategic Demarcation 187
4 PROFANATIONS 191
4.1 Constructivist Kiesler vs Surrealist Kiesler 191
4.2 Conscious choices 196
4.3 Americanisms 205
4.4 Foe of a Friend becomes a Friend: Mondrian 217
4.5 Shuffling the paradigm 227
4.6 Confrontations 239
4.7 Modernism is the age of ordinary 253
4.8 Becoming Felix the Cat and keep going 261
4.9 Tactical Shuffles 269

4.10 Profanations 273

4.11 Constructing diagrams 275

4.12 Re-Enter: Architectural Profanations 283

5 CONCLUSION 297

REFERENCES 301

CURRICULUM VITAE 317

LIST OF FIGURES

FIGURES

Figure 2.1 “The Gong” by Frederick Kiesler. Image taken at “Sound”, an exhibition at the Museum of Contemporary Crafts, New York City, October 25, 1969-January 4, 1970. 24

Figure 2.2 Etienne-Jules Marey, chronophotograph of fencer showing two positions of visibility, 1890 (Marey, Collége de France. In "Visualization and Visibility" in *Picturing Science*. Edited by Caroline A. Jones and Peter Galison. London, Routledge, 1998, 389.) 43

Figure 2.3 Catalog for "Conference on Coordination in Design" at University of Michigan in 1940. ÖFLKS, LD 3092/0. 51

Figure 2.4 Sketch of the model of Vision Machine by Frederick Kiesler. Pencil on paper. ÖFLKS: SFP858/0 58

Figure 2.5 Diagram of “Natural and artificial means of more and more permanent recording of images". (Illustration by Frederick Kiesler in *Architectural Record* 82, no.8., 90.) 60

Figure 2.6 Sketch of a person having dream images inside a structure that resembles a crystal ball by Frederick Kiesler. Pencil on paper. ÖFLKS, SFP871/0. 65

Figure 2.7 Sketch of a process which suggests using cathode-ray tubes to transmit dream images. Pen on paper. ÖFLKS, SFP875/0. 66

Figure 2.8 A sketch which Frederick Kiesler refers as a third order dream image where a bird stuns a little bird with a miniature-golf club. Illustration by Percy Glodthwait Stiles. From the 1927 book *Dreams*, published in *VVV* 1, no.6, 1942, 27. 67

Figure 2.9 Chart for Vision Machine by Frederick Kiesler with notes. Pencil on paper. 1938. ÖFLKS, SFP874/0-KE 4429. 71

Figure 2.10 Chart for Vision Machine by Frederick Kiesler. Pencil on paper. ÖFLKS, SFP873/0. 73

Figure 2.11 Chart for Vision Machine by Frederick Kiesler. Pencil on paper. Source:ÖFLKS, SFP862/0-KE 4428. 74

Figure 2.12 A list of different kinds of visions. Pencil on paper. ÖFLKS, TXT/6003/0. 76

Figure 2.13 A sketch for study of vision. ÖFLKS, SFP6122/0. 77

Figure 2.14 A diagram for study of vision. ÖFLKS, SFP870. 78

Figure 2.15 A graphical representation of visual (breathing) using a routine daily activity, reading a book, as the example. Pencil on paper. ÖFLKS, TXT6005/0. 81

Figure 2.16 A diagram for study of vision to explain how different modes form the correalist vision. ÖFLKS, SFP870. 82

Figure 2.17 Diagram for the looping flow of vision. Chart for Vision Machine by Frederick Kiesler. SFP848/0. 85

Figure 2.18 A drawing for the mechanism of the proposed model. Chart for Vision Machine by Frederick Kiesler. Colored pencil on paper. 1938. SFP907/0-KE 4452. 86

Figure 2.19 A sketch for the proposed model. Chart for Vision Machine by Frederick Kiesler. Ink on paper. 1938. Source SFP855/0-KE 2205. . . . 87

Figure 3.1 R.U.R. stage design. (In *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik*, 1924, 20.) 102

Figure 3.2 Kiesler's 1924 design for the *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik.* 105

Figure 3.3 6 snapshots from the set of "Emperor Jones" showing what Kiesler calls as the gameplay of a mechanical spatial scenery. (Diagram by Frederick Kiesler. In *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik*, 1924, 22.) 108

Figure 3.4 At Vienna International Music Festival Frederick Kiesler (seated) experiencing his L+T display system with audience members including Theo van Doesburg (standing above). ÖFLKS, PHO 235/1 . . 113

Figure 3.5 Kiesler's Space Stage, 1924, Vienna. ÖFLKS, PHO 334/0/LK2178 116

Figure 3.6 Cartoon ridiculing Kiesler's theater of "speed" with the caption saying "Or: There was no such rush". ÖFLKS, PHO 329/1. 117

Figure 3.7 Display system of tension for Austrian theater section at the Grand Palais in Paris, 1925. ÖFLKS, PHO 330/1. 121

Figure 3.8 Type set Metabolism Chart of the House with footnotes to it. ÖFLKS, Box Space House. 148

Figure 3.9 Hand drawn Metabolism Chart of the House. ÖFLKS, TXT 3582/0 N2 149

Figure 3.10 A draft of Morphology Chart of Architecture. ÖFLKS, Box Space House. Later published in *HoundHorn 2, 1934, 297.* 150

Figure 3.11 One of the multiple folding instances of the sketch for Space House. ÖFLKS, SFP 6668/3. 151

Figure 3.12 Streamlining process of the Space House. Diagram by the author. 152

Figure 3.13 Collage of the Endless House. (Illustration by Frederick Kiesler. In VVV 4, no.2., 1944, 60-61.) 153

Figure 3.14 Sketch of the chain of the coming age of design contunity. 155

Figure 3.15 Letter noticing Kiesler about the trade-mark registration for the word "Correalism". ÖFLKS. 158

Figure 3.16 A handwritten draft for the index for the manuscript "On Correalism and Biotechnique". (ÖFLKS, "On Correalism and Biotechnique/ Text and Research Material", BOX TXT 19, later published in *Architectural Record*, 86, no.3, 74-75.) 167

Figure 3.17 Proposal for cover design for the book *Correalism and Biotechnique* by Frederick Kiesler. (ÖFLKS.) 169

Figure 3.18 Morphology-chart showing three types of tools for the objective of cutting. (Diagram by Frederick Kiesler, *Architectural Record*, September 1939, 62.) 180

Figure 4.1 Official press photograph of Kiesler arriving in New York Harbor on January 27, 1926. (In *Galaxies* by Stephanie Buhmann, Berlin: The Green Box, 70.) 212

Figure 4.2 Panel 40 from the Atlas that was set up in Warburg's house in 1928. Image from The Warburg Institute, Bilderatlas Mnemosyne, accessed on February 19, 2024, https://warburg.sas.ac.uk/archive/bilderatlas-mnemosyne 234

Figure 4.3 A spread from Kiesler's *Contemporary Art Applied to the Store and Its Displays*, where his text is accompanied by clusters of art and architecture related images are brought together by Kiesler, akin to an atlas for guiding the store display designers (1930, London: Pitman&Sons, 110-111.) 238

Figure 4.4 One of Kiesler's shop window designs for Saks Fifth Avenue, 1928-29, New York. ÖFLKS, PHO 419/0. 240

Figure 4.5 A drawing, accompanying Kiesler's story "Michalengelo 1929" in *Contemporary Art* with the caption "Design by ELISE". 1930, 75. . . 287

Figure 4.6 A hand-written note by Kiesler, found in the research material on Space House. ÖFLKS, Box Space House. 288

Figure 4.7 Base for a diagram of the shared fields of modernity and kinaesthetic knowing. 289

Figure 4.8 Base for a diagram for a possible profanation in architecture. . . 289

Figure 4.9 Base for Diken's "Spinozist Diagram". 290

Figure 4.10 Two fields of religion in Spinoza. 290

Figure 4.11 Shift to a new domain of knowledge in Spinoza. 291

Figure 4.12 A complete Spinozist diagram of profanations with instrumental reason representing capitalism 291

Figure 4.13 Trajectories identified in the Spinozist diagram of profanations. . 292

Figure 4.14 A re-production of what Diken presents in his diagram as "Four religions in Spinoza". 292

Figure 4.15 Reworking the Spinozist diagram into a kinaesthetic diagram. . . 293

Figure 4.16 Reworking the Spinozist diagram into a kinaesthetic diagram. . . 293

Figure 4.17 Reworking the Spinozist diagram into a kinaesthetic diagram. . . 294

Figure 4.18 Reworking the Spinozist diagram into a kinaesthetic diagram. . . 294

Figure 4.19 Re-entry into four religions of Spinoza with Badiou's truth procedures. 295

Figure 4.20 A draft of Kiesler's "Morphology Chart of Architecture". Source: ÖLFKS TXT/3587/0 295

Figure 4.21 Re-entry of "architecture" into the kinaesthetic-epistemological chart. 296

LIST OF ABBREVIATIONS

GFMK	Society for the Promotion of Modern Art in Vienna
L+T	Leger und Trägersystem
LDC	Laboratory for Design Correlation
ÖFLKS	Austrian Frederick and Lillian Kiesler Private Foundation
VKhUTEMAS	Higher Art and Technical Studios
WPA	Works Progress Administration

CHAPTER 1

INTRODUCTION

Jonathan Crary refers to the early nineteenth century as a moment in history when the classical regime of visuality shifted to an understanding of vision grounded in the density and materialism of the body.[1] The inability of science and philosophy to claim objectivity or certainty with the help of the senses led to a definition of vision that depended on "the complex and contingent physiological makeup of the observer".[2] Crary identifies this as an epochal break with classical epistemology and a widespread crisis in perception in the early 1800s, visible through capitalist modernity's constant remaking of the conditions of sensory experience.[3] Invoking the idea that changing modes of production and consumption in the nineteenth century demanded attention to shift, Crary argues: "Capital, as accelerated exchange and circulation, necessarily produces this kind of human perceptual adaptability and becomes a regime of reciprocal attentiveness and distraction".[4] Crary's emphasis on the consensus regarding subjective vision from the eighteenth century onward underscores a concept of attentiveness—a problem elaborated within this emergent economic system. This acknowledgment required a reworking not only of sciences and metaphysics but also of the education system and pedagogy. At this juncture, Zeynep Çelik Alexander introduces her study of "kinaesthetic knowing".[5] Through her work, we find finer articulations of these problems that also influenced the "architecture of the long 1920s," as James Graham suggests.[6]

1. Jonathan Crary, "Attention and Modernity in the Nineteenth Century," in *Picturing Science, Producing Art*, ed. Caroline A. Jones and Peter Galison (New York: Routledge, 1998), 475.
2. Crary, 475.
3. Crary, 476.
4. Crary, 479–480.
5. Zeynep Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design* (Chicago: University of Chicago Press, 2017), 8.
6. James Graham, "The Psychotechnical Architect: Perception, Vocation and the Laboratory Cultures of Modernism, 1914-1945" (PhD diss., Columbia Universtiy, 2019), 4.

This shift in emphasis, attributing the source of knowledge to the bodies as they experience the world, is what Çelik Alexander refers to as "kinaesthetic knowing".[7] She posits that this alternative epistemological project served as a solution to the perplexing conundrum that Immanuel Kant recognized: the "traps for the mind and [reason] leading itself astray".[8] The efforts to democratize the educational system, exemplified by a German school teacher Robert Schulze in 1905 with the subsequent developments in German educational system at the turn of the twentieth century, not only aimed at making education more accessible but also asserted the body as a credible source of knowledge. This raised a critical question: To what extent does knowledge rely on concepts, language, and representations?

As a student of *Oberrealschulen*, schools intended for those destined for more practical professions in Imperial Germany,[9] I argue in this thesis that Frederick Kiesler's response to these questions is symbolically reflected in his poem below:

Linking
linking
linking
virgin emptiness
to emptiness impregnated
with
seeds of creations
in an ever expanding universe of architecture
luminated
shadowed
transfixing densities
diffusing equations
breathing forth, forth
those guided missiles of architecture
ever-ready to hit
and awaken you
to peace[10]

7. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 20.
8. Çelik Alexander, 8.
9. Çelik Alexander, 219n40.
10. The text cited is by Frederick Kiesler, pertaining to his narration of the design for the World House Galleries in New York, 1957. The typographical layout of this narration was most likely designed by Katsuhiro Yamaguchi. This reproduction is based on the format in which Yamaguchi published it in 1978. Frederick Kiesler, "Narration for World House Film, 1957," in *Frederick Kiesler, environmental artist*, by Katsuhiro Yamaguchi (Tokyo: Bijutsu Shuppan-sha Tokyo, 1978)

In 1977, Lillian Kiesler, Kiesler's second partner, quoted her late husband, Frederick Kiesler (1890-1965): "We live a life of links, a life of infinite links. All and everything bound together. There is no escape from this prison of cosmic love. Links, links, links held together by magnetic links".[11] This quote was included in her introduction to the 1978 book *Environmental Artist: Frederick Kiesler*, which was Kiesler's first biography, published in Japan thirteen years after his death in New York. It is significant that the author, Katsuhiro Yamaguchi, an artist and a "poet and visionary himself" as described by Lillian Kiesler,[12] began his biographical work on Kiesler with the above poetic nod to Kiesler's fascination with "linking". With these poetic words, which seemingly extracted from Kiesler's narration of his design for the World House Galleries in New York that was commissioned by art dealer Herbert Mayer in 1957, it can be argued that Yamaguchi's captures the essence of Kiesler's philosophy.

Writing in the aftermath of the 1956 Hungarian Revolution, in a world still reeling from the Second World War and overshadowed by the threat of atomic bombs, New York-based, Austrian-emigrant architect Frederick Kiesler's emphasis on "linking" assumes poignant historical significance. Kiesler described the era as "a cold world, sometimes to the freezing point, in spite of the hissing of atom bomb explosions", a sentiment he expressed in a letter to Hans Arp, a year before he was commissioned to design the World House Galleries.[13]

In this historical context, his poetic focus on "linking" emerges as a form of critical architectural commentary. Kiesler's metaphor of "missiles of architecture" as instruments for awakening to "peace" rather than falling to pieces reflects his profound critique of the architectural practices of his time. This thesis argues that Kiesler's "missile of architecture" should be viewed as an instrument for "architectural profanation".

Yamaguchi was most likely captivated by this aspect of Kiesler's work, recognizing its relevance in understanding Kiesler's approach to architecture. Kiesler's designs

11. Lillian Kiesler, "Dedication," in *Frederick Kiesler, environmental artist*, by Katsuhiro Yamaguchi (Tokyo: Bijutsu Shuppan-sha Tokyo, 1978).
12. L. Kiesler.
13. Kiesler quoted in Stephanie Buhmann, ""My Ears Are Filled with Memories"," in *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, ed. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation (Basel: Birkhäuser, 2019), 230

were deeply rooted in "links" or relationships, which he described in 1939 through "forces" which he also referred as "energies" between "interrelation of organic and inorganic matter".[14] His perspective on how these forces shape "living" emphasized a state of continuous movement and flux, was defined by his "Correalist" approach to life as Kiesler postulates human as a "nucleus of forces".[15] In Kiesler's view, architecture was not inherently a peaceful endeavor but quite the opposite. Its relentless drive to build and fix aspects of time, history, and structure was seen as something to be overcome, rather than accommodated.

Yamaguchi aligns this with Kiesler's theoretical pursuit of "Correalism", which I argue is central to Kiesler's design theory. Writing in the late 1970s, Yamaguchi observed that "today it is not difficult to criticize the functionalism of modern architecture,"[16] echoing Kiesler's early critique of functionalism dating back to the 1920s. Yamaguchi highlights Kiesler's "new approach to design", referring to it as "biotechnique" and connecting it to Kiesler's broader understanding of life, encapsulated in his trademarked concept of "Correalism".

1.1 Enter: Kiesler

Kiesler was known for his work spanning multiple mediums and disciplines, making it difficult to categorize during his era.[17] Only as the twentieth century approached its close, Kiesler's seminal influence became apparent, especially among "paper architects" who shared his fascination with automatism, the human body, and advancements in machine technology.[18] Kiesler's "alternative practice" has been suggested as a model for subsequent architects, as Stephen Phillips notes in the long list that was included in the obituary of Lillian Kiesler in 2001 which was written by art critic Herbert Muschamp. This list, cited by Phillips, included architects such as Diller and Scofidio, Raymund Abraham, Greg Lynn, Wolf Prix, Eric Owen Moss, Tod Williams, Billie Tsien, Steven Holl, Frank Gehry, Phillippe Starck, Lebbeus

14. Frederick Kiesler, "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," *Architectural Record* 86, no. 3 (September 1939): 60.
15. Frederick Kiesler, 60.
16. Katsuhiro Yamaguchi, *Environmental Artist: Frederick Kiesler* (Tokyo: Bijutsu Shuppan-sha, 1978), 161.
17. Stephen John Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, Book, Whole (Cambridge: The MIT Press, 2017), 14, https://go.exlibris.link/gcWVNHjW.
18. Phillips, 19.

Woods, and Tom Mayne, showcasing Kiesler's enduring impact on the field.[19]

Frederick Kiesler's this enduring significance in twenty-first-century architecture stems from his interdisciplinary approach, which Stephen Phillips describes as a "complex and synthetic design practice that radically transformed disciplinary boundaries between art, architecture, theatre, philosophy, and science".[20] And Peter Bogner highlights Kiesler's role as a "network player", pivotal in transferring ideas between the European avant-garde and the New World.[21]

It is safe to reiterate that Kiesler stood out for his willingness to use "alternative means and methods to advance architectural ideas outside accepted traditions".[22] His career began in Europe as a stage designer, exhibition coordinator, and theatre architect in the 1920s, expanding into advertising display, furniture, and exhibition design upon his arrival in New York in 1926. While many of Kiesler's architectural designs remained unrealized due to various challenges, his collaboration on the Shrine of the Book in Jerusalem in 1965 with Armand Batros stands as a testament to his architectural vision. In 1965, Frederick Kiesler made a notable contribution to *Architectural Forum*, as it served as a final retrospective examination of his philosophical and architectural endeavors, coinciding with the completion of the *Shrine of the Books*, known as the sanctuary for the Dead Sea Scrolls.

Reflecting on his two significant projects, The City in Space (1925) from his early career and the Universal Theater (1961) designed for the Ford Foundation, Kiesler emphasizes the principle of Correalism, a concept that informed all of his works. In his reflection on his body of work, Frederick Kiesler discusses the "Correalist designer", emphasizing the imperative understanding of "life forces" essential for architects or designers before conceptualizing any structure meant for human inhabitation.[23] Notably, Kiesler's distinct approach to creating universes of varying scales highlights the importance of comprehending these fundamental forces.

The establishment of the Austrian Frederick and Lillian Kiesler Private Foundation

19. Phillips, 16.
20. Phillips, 2.
21. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation, eds., *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact* (Basel: Birkhäuser, 2019), 9.
22. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 2.
23. Frederick Kiesler, "Kiesler by Kiesler," *Architectural Forum* 123, no. 2 (September 1965): 64.

(ÖFLKS) in Vienna in 1999 marked a significant turning point in the study of Kiesler's contributions to modern architecture, design research, and the techno-scientific realm. Preceding the Foundation's establishment, studies, exhibitions, and dissertations on Kiesler often targeted audiences unfamiliar with his work. However, since the Foundation's inauguration, its archive in Vienna has become a vital resource, supporting contemporary research and documentation of Kiesler's extensive oeuvre and the networks he was part of and facilitated.

The Foundation has played a crucial role in highlighting the novelty, originality, and historical context of Kiesler's work. As the archival materials become increasingly accessible, new research clusters in art and design have begun to (re)engage with Kiesler's work in diverse ways. This growing accessibility aligns with Jacques Derrida's concept of the "hypomnematic" — a "mnemotechnical supplement or representative, auxiliary or memorandum".[24]

This concept is pertinent for historiographical studies of Kiesler, especially in understanding how he documented, saved, and transferred his work and ideas to successors, both legal and artistic. In the 1920s, after being influenced by De Stijl and interacting with magazines of groups such as the Dadaists, Constructivists, and Futurists, writing became a key medium for Frederick Kiesler to express his ideas. Throughout the materials available in the archives at ÖFLKS, as well as published materials outside the archive, Kiesler consistently reminds readers of the origins of his ideas. He points out where to look closely to fully grasp his critique of architecture and his contributions to the field. While Kiesler's references in his writings are not always precise and identical, it is important to recognize that he is the originator of the ideas that capture the reader's interest. His writings serve as "hypomnematic" aids, guiding us to a deeper understanding of both Kiesler and his body of work.

Similarly, any scholarly study on Kiesler reflects this characteristic and situates him within the context of architectural research. With thid thesis, alongside his "hypomnematic" aids, his emphasis on the concept of "missiles of architecture" is introduced as a crucial element of his legacy, though it was overshadowed over time.

24. Jacques Derrida, *Archive Fever: A Freudian Impression*, Religion and Postmodernism (Chicago: University of Chicago Press, 2017), 11.

This thesis strives to highlight and preserve the significance of Kiesler's contributions as a missile of architecture as it aims to identify Kiesler's Correalism as a tactical response to architectural modernity, ultimately crafting a comprehensive architectural theory.

In this context, I argue that emphasizing the concept of "correlation", alongside Kiesler's themes of "continuity", "elasticity", and "endlessness", is crucial. This focus sheds light on an essential aspect of Kiesler's architectural and artistic terminology, thereby enriching our comprehension of his interdisciplinary impact by introducing Giorgio Agamben's *Profanations* and Kiesler's architectural practice and thinking in terms of "architectural profanations". This approach still acknowledges the "hypomnematic" nature of the archival materials that historicize his work and it is through this lens that Kiesler's contributions can be read, to reveal the intricate layers of meaning and context inherent in his unique architectural philosophy. As a result, this thesis presents an exploration of architectural profanations and Kiesler's innovative approach to architecture and art, as well as his practice, for a re-reading of modern architecture.

Since the publication of Yamaguchi's biography of Frederick Kiesler, which has seen limited circulation in the English-speaking architectural community, there has been a growing interest in Kiesler's work, particularly post-1970s. This resurgence has been marked by exhibitions, lectures, and publications.[25] Among these, the most significant ones with a focus on his innovative stage designs and his impact on theater and performance art in the 1920s are highlighted especially in the work of Barbara Lesák and additionally, the architectural yet enigmatic aspects of Kiesler's oeuvre have garnered attention in both Cynthia Goodman and Dieter Bogner's studies.[26]

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25. See Frederick Kiesler, Galerie nächst St Stephan, and Austria) Galerie im Taxispalais (Innsbruck, *Frederick Kiesler : Architekt, Maler, Bildhauer, Schriftsteller, Bühnenbildner, Designer*, Exhibition catalog (Innsbruck, Wien: Allerheiligen Presse ; Galerie Nächst St. Stephan Innsbruck, Wien, 1975); Frederick Kiesler, Cynthia Goodman, and André Emmerich Gallery, *Frederick Kiesler (1890-1965) : Visionary Architecture, Drawings and Models, Galaxies and Paintings, Sculpture, December 9-January 3, 1979*, Exhibition catalog (New York: André Emmerich Gallery New York, 1978); Werner Michael, *Frederick Kiesler: Skulpturen Und Zeichnungen*, Exhibition catalog (Koln: Michael Werner, 1988); Frederick Kiesler et al., *Frederick Kiesler*, Exhibition catalog (New York, New York: Whitney Museum of American Art ; W.W. Norton New York, New York, 1989); Yehuda Safran, ed., *Frederick Kiesler: 1890-1965* (London: Architectural Association, 1989); Hans Nevidal, ed., *The Book of the Shrine*, Exhibition catalog (Vienna: Minimal, 1992); Centre Georges Pompidou, ed., *Frederick Kiesler: Artiste - Architecte*, Exhibition catalog (Paris: Centre Georges Pompidou, 1996)

26. See Cynthia Goodman, "Frederick Kiesler: Designs for Peggy Guggenheim's Art of This Century Gallery," *Arts* 51, no. 11 (June 1977): 90; Cynthia Goodman, "The Current of Contemporary History: Fredercik Kiesler's

From 2000s onward, a new generation of architectural historians and theorists has built upon the foundations laid mostly by Bogner, Lesák and Goodman, working to make Kiesler's contributions more accessible to a twenty-first-century audience. Notable scholars in this regard include Stephen Phillips, Laura McGuire, Gerd Zillner, James Graham, Spyros Papapetros, Elena Shapiram, and Suzanne Strum. Kiesler's roles as an instructor and research director at prestigious institutions, along with his extensive production of drawings, models, and writings, mark him as a generous source for investigating early 20th-century art, architecture, and design correlations between Europe and the USA. This European *émigré*'s legacy offers a rich perspective on the era's artistic and architectural discourse.[27]

Endless Research," *Arts* 54, no. 1 (September 1979): 118–123; Dieter Bogner, "Wien 1920-1930: Es War Als Würde Utopia Realität Werden," in *Alte Und Moderne Kunst*, ed. Österreichisches Museum für Angewandte Kunst (Innsbruck: AKM, 1983), 124–137; Barbara Lesák, "Alles Dreht Sich, Alles Bewegt Sich ... Die Dynamischen Bühnenprojekte von Friedrich Kiesler," *Daidalos* 14 (December 14, 1984): 76–84; Barbara Lesák and Dieter Bogner, "Die Internationale Ausstellung Neuer Theatertechnik (1924)," in *Traum Und Wirklichkeit Wien 1870-1930*, Exhibition catalog, vol. 14 (Vienna: Museen der Stadt Wien, 1985), 664–671; Dieter Bogner, *Frederick Kiesler : Bildhauer, Maler, Bühnenbildner, Architekt (1890-1965)* (Köln: Löcker, 1988); Michael, *Frederick Kiesler: Skulpturen Und Zeichnungen*; Dieter Bogner, "Architecture as Biotechnique: Fredercih Kiesler Und Das Space House von 1933," in *Visionäre & Vertiebene: Österreichische Spuren in Der Modernen Amerikanischen Architektur*, ed. Matthias Boeckl (Berlin: Ernst & Sohn, 1995), 139–154; Dieter Bogner, "Friedrich Kieslers Manifeste Du Corréalisme," *Daidalos* 69/70 (December-January 1998-1999): 142–151; Dieter Bogner, "Frederick Kiesler et La Vision Machine," in *Vision Machine*, Exhibition catalog, ed. Musée de Beaux-Arts de Nantes (Paris: Somogy éditions d'art, 2000), 136–145

27. See Gerd Zillner, "Biographical Miscellanea and Nodes in the Network," in *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, ed. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation (Basel: Birkhäuser, 2019), 15–62; Gerd Zillner, "Frederick Kiesler's Endless House: An Attempt to Retrace an Endless Story," in *Endless Kiesler*, ed. Klaus Bollinger, Florian Medicus, and the Austrian Fredeerick and Lillian Kiesler Private Foundation (Basel: Birkhäuser, August 28, 2015), 98–168; Gerd Zillner, "Frederick Kiesler's Raumbühne as a Model and an Exhibition Piece: "Serpentine Trains of Thought"," in *Vienna 1924: Hotspot of the Avant-garde*, ed. Peter Bogner (Vienna: Friedrich Kiesler Stiftung, 2018), 44–57; James D. Graham, "An Audience of the Scientific Age: "Rossum's Universal Robots" and the Production of an Economic Conscience," *Grey Room*, no. 50 (2013): 112–142; "Magic Architecture: Caves, Animals, and Tools in the Atomic Era," in *Friedrich Kiesler Lebenswelten: Architektur - Kunst - Design = Life Visions ; Architecture, Art, Design*, in collab. with Spyros Papapetros (Basel: Birkhäuser, 2016), 59–69; "Magic Architecture: Caves, Animals, and Tools in the Atomic Era"; Suzanne Strum, *The Ideal of Total Environmental Control: Knud Lönberg-Holm, Buckminster Fuller, and the SSA* (New York: Routledge, 2017); Alison Clarke and Elana Shapira, *Émigré Cultures in Design and Architecture* (London: Bloomsbury Academic, 2017); Buhmann, ""My Ears Are Filled with Memories"" and especially a very in depth historigraphical study of the period this thesis also focusses on can be found in Laura McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea" (PhD diss., University of Texas, 2014) Throughout his career, Frederick Kiesler was often recognized as an artist-architect, a testament to his early training in painting at the Academy of Fine Arts from 1910 to 1913. His deviation from conventional architectural practice, often noted by his contemporaries in the field and critics, led to a unique professional trajectory. While Kiesler's architectural explorations dominated scholarly interest in the late 20th century, there has been a resurgence of interest in his artistic works, particularly his *Portrait Galaxies* and sculptures. Stephanie Buhmmann's 2022 publication, *Frederick Kiesler: Galaxies*, is a noteworthy contribution to the field, offering one of the most recent, intriguing, and comprehensive explorations of Kiesler's artistic work *Portrait Galaxies*. This book significantly enriches our understanding of Kiesler's diverse body of work.Stephanie Buhmann, *Frederick Kiesler: Galaxies* (Berlin: The Green Box, 2022) Adding to the anticipation in the scholarly community, Kiesler's previously unpublished book manuscript from the 1940s, titled *Magic Architecture*, is scheduled for publication in 2024. This forthcoming work, with Spyros Papapetros and Gerd Zillner serving as editors, *Frederick Kiesler, Magic Architecutre: The Story of Human Housing* promises to offer further insights into Kiesler's another interesting idea on magic and architecture.

As mentioned above, the establishment of ÖFLKS marks a crucial milestone in studying Frederick Kiesler, given its meticulously organized and accessible archives. These archives offer an almost complete insight into Kiesler's thinking through a vast collection of his memories, letters, manuscripts, notes, doodles, sketches, drawings, paintings, as well as photos, newspaper clippings, invoices, and personal diaries. The Vienna foundation consolidates most of this material, complementing archival resources held at The Estate of Frederick Kiesler in New York, and the Archives of American Art at the Smithsonian Institute in Washington, D.C.

The valuable accessibility of the archives at ÖFLKS can be attributed significantly to Kiesler's partners, Stefi Kiesler and Lillian Kiesler. During my research, I had the privilege of visiting this foundation, where discussions with researchers, including a conversation with Jill MeiSSner, shed light on Stefi Kiesler's crucial role in Frederick Kiesler's work. Stefi Kiesler, Frederick Kiesler's partner until her death in 1963, was particularly influential following the couple's relocation to New York in 1926. She was involved in transcribing and contributing to Kiesler's architectural writings and theories, and her diaries and calendars from this period offer rich insights into the early twentieth-century art and design scenes, encompassing avant-garde, De Stijl, and Constructivism movements.

It is important to note that the ÖFLKS archives mainly feature Kiesler's work after 1926. Gerd Zillner, the director of ÖFLKS, mentioned the couple's inability to retrieve their remaining belongings from Vienna following their move to New York, which explains the lesser representation of Kiesler's earlier works in the archives. The extensive availability of materials from the post-1926 period was made possible through Frederick Kiesler's second partner, Lillian Kiesler's tireless efforts in preserving, organizing, and making Kiesler's legacy accessible from the time of his death in 1965 until her passing in 2001. The dedication of both Stefi and Lillian Kiesler has been pivotal to the surge in scholarship on Kiesler, mirroring the growing interest in his work in the twenty-first century. This expansion of scholarship has been greatly facilitated by the foundation in Vienna, cementing Kiesler's lasting impact and relevance in the field.

My interest with Frederick Kiesler's work began with an exploration of design

epistemology and its intersection with laboratory sciences. This interest was piqued by the exhibition *Lab Cult: An unorthodox history of interchanges between science and architecture*, curated by Evangelos Kotsioris at the Canadian Centre for Architecture in Montreal, which ran from March 23 to September 2, 2018. A key moment for me was encountering the material made available through the streaming of a conversation between Bechara Helal and Enrique Ramirez during this exhibition. It was here Helal Bechara's reference to Kiesler's Laboratory of Design Correlation which initiated my research on this early example of design laboratories[28]

As I delved deeper into Kiesler's work, especially through the insights provided by Lesák and McGuire, I became intrigued by his pre-America years and his role in transforming the avant-garde and constructivist agenda in Europe. Particularly compelling was the evolution of his work into a design research-oriented laboratory at Columbia University in the 1930s. This shift from innovative stage design to design research, incorporating methods from laboratory sciences, captured my attention. I became keen to understand the potential connections between these seemingly disparate stages of Kiesler's career.

Frederick Kiesler's foray into design research within an academic setting began with his official appointment at the School of Architecture at Columbia University. Prior to this, Kiesler had been engaged in teaching theater production and stage design at the Juilliard School of Music and Columbia University since 1930. When Leopold Arnaud, the dean of Columbia University's School of Architecture, invited Kiesler to lead a studio, Kiesler would establish the Laboratory for Design Correlation in 1937. This laboratory, operational each semester until 1941, represented one of the earliest instances where design research was integral to architectural pedagogy.

Laboratories that embraced psychotechnics, with its occupational focus, were deeply influenced by "empathy theory, Gestalt psychology, and conceptualizations of space-time".[29] This approach was integral to a pedagogical shift where the human being was understood analogously to a machine. Such laboratories were not only

28. Bechara Helal, "Les Laboratoires de l'architecture: Enquête Épistémologique Sur Un Paradigme Historique" (PhD diss., Université de Montréal, 2016).

29. J. Graham, "The Psychotechnical Architect: Perception, Vocation and the Laboratory Cultures of Modernism, 1914-1945," 4.

experimental spaces but also arenas for exploring how time, labor, and perception could be synergistically coordinated within the modern environment. This conceptual framework, as Graham notes, was crucial in addressing the complexities of human-machine interactions and the evolving dynamics of the modern industrial landscape.[30]

At LDC, Kiesler pioneered a novel approach to architectural education. He developed hands-on experiments addressing design challenges, particularly focusing on enhancing "the ease and fluidity of human interactions within their evolving technical surroundings".[31] This hands-on, experimental approach was groundbreaking at the time, positioning Kiesler at the forefront of integrating design research with practical architectural education. Between 1935-1937, the Federal Art Project, under the auspices of the Works Progress Administration, sponsored the establishment of a school known as the Design Laboratory.[32] As Clark notes, this institution was heralded as "the first in the United States to offer comprehensive education in modernist design" and focused on the "coordination in the study of esthetics, industrial products, machine fabrication, and merchandising," enrolling 220 students.[33] However, after losing its funding, the school was reorganized as the independent Laboratory School of Industrial Design in 1938 and ultimately disbanded in 1940.[34] The possibility of Frederick Kiesler's affiliation with this school, as suggested by Strum, presents an intriguing connection to his broader influence in design education. Under the supervision of Frances Pollak, the school primarily focused on industrial design, yet its curriculum, influenced by architects like Frank Lloyd Wright, László Moholy-Nagy, and Le Corbusier, mirrored the progressive social theory, pedagogy, and design of the era.[35] This interdisciplinary approach, encouraging students "to transcend staid boundaries between disciplines, and to integrate multiple design skills",[36] parallels other paradigm shifts in design education following World War I, as seen in VKhUTEMAS in the USSR, the

30. J. Graham, 5.
31. Bogner, Zillner, and Frederick Kiesler Foundation, *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, 4.
32. Strum, *The Ideal of Total Environmental Control*, 143–144.
33. Shannan Clark, "When Modernism Was Still Radical: The Design Laboratory and the Cultural Politics of Depression-Era America," *American Studies* 50, nos. 3/4 (Fall/Winter 2009): 35.
34. Clark, 36.
35. Clark, 40.
36. Clark, 41.

Bauhaus in Dessau, and the School of Design in Chicago (1937-1946). The Design Laboratory by WPA may thus represent an earlier phase in this transformative period in design education pedagogy, potentially intersecting with Kiesler's own progressive ideas.

In his initial report to Dean Leopold Arnaud, following the first semester of LDC at Columbia University, Frederick Kiesler expressed dissatisfaction with certain existing approaches to design research. He specifically critiqued examples that dealt with the problem of coordination — as Graham characterizes, the interplay between time, labor, and perception. Kiesler's displeasure stemmed from how these elements were being addressed within the broader context of design research. His report highlights his unique perspective on integrating these crucial aspects of design, distinguishing his approach from the conventional methodologies prevalent at the time:

> It is known that one of the most disturbing factors in design-education is a desire for quick adaptation of new formulas. A typical example of that is the overnight establishment of an imitation Bauhaus in Chicago end other imitation Bauhauses throughout the country (Black Mountain College, Institute of Technology in Pasadena, etc.).[37]

Kiesler expressed a specific caution in his approach to publicizing the work conducted in LDC. He advised against becoming overwhelmed by the allure of immediate publicity. Instead, Kiesler suggested adopting a more measured approach, emphasizing the need for discretion and deliberation before making the laboratory's research public. His stance was to wait for a form of advertising that differed from the conventional, possibly aiming for a more thoughtful and impactful dissemination of the laboratory's findings and innovations.

Echoing this concern of his, in 1947, Kiesler's emphasis on "the interaction between things and people", explored under the trademark he coined in 1939 as "correalism", was cited as one of the reasons for the fluctuating reception of his ideas.[38] In the article titled "Design's Bad Boy" in *Architectural Forum*, Kiesler's approach to design pedagogy was criticized, with an anecdote referring to his time at Columbia University between 1937 and 1941 when he directed LDC. Highlighting the lack of

37. Frederick Kiesler, "First Report on Laboratory for Design Correlation" (nd.), ÖFLKS, TXT206/0/N2.
38. "Design's Bad Boy," *Architectural Forum* 86, no. 2 (February 1947): 99–91, 138, 140.

institutional support for his investigations, Kiesler's 1941 correspondence with Gano Dunn encapsulated his frustration, expressing that the tradition of the School of Architecture at Columbia University prioritized 'carrying on the teaching of Architecture with a capital A,' despite ongoing societal, economic, and industrial transformations.[39]

The epistemological confusion generated by Frederick Kiesler in America is most evident in his prominent status within the architectural community. This is exemplified by Phillip Johnson's characterization of Kiesler as one of the 'three under-recognized artists' in *Art in America*, alongside Paul Rudolph and Louis Kahn.[40] Johnson's description of Kiesler as "the greatest non-building architect of our time," a title that persisted even after his passing in 1966, continues to reverberate in contemporary assessments of Kiesler's legacy.[41] This enduring narrative surrounding Kiesler's persona prompts intriguing questions about his aspirations to realize his architectural visions. The question of whether Kiesler ever desired to see his designs come to fruition serves as a provocative inquiry into his conception of architecture. Johnson, for instance, suggested that Kiesler's reluctance to "bear endings" may have contributed to the non-completion of his projects.[42] Kiesler's renown stemmed from his Endless House, which persisted as an "unbuilt house in existence" for many years, with figures such as Gropius advocating for the realization of this project.[43] Representing a "dream and poetic myth," Kiesler's Endless House became part of the "radical but unbuilt visions of the 20th century".[44] Colomina even speculates whether Kiesler himself resisted "the realization of his own projects," citing Helen Borsik's review of *Inside the Endless House*, the final publication Kiesler worked on before his death in 1965, published posthumously in 1966.[45] Borsik suggests that Kiesler "could not bear endings," as Colomina quotes.[46]

39. Frederick Kiesler, "Letter Addressing Gano Sillick Dunn" (1941), ÖFLKS, TXT ??, ??.
40. Phillip Johnson, "Three Architects," *Art in America* 48, no. 1 (1960): 70.
41. Laura McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," *Studies in the Decorative Arts* 14, no. 2 (2007): 62.
42. McGuire, 62n3.
43. Florian Medicus, "Spheres and Shells. The Construction of the Endless House," in *Endless Kiesler*, ed. Klaus Bollinger, Florian Medicus, and the Austrian Fredeerick and Lillian Kiesler Private Foundation (Basel: Birkhäuser, 2015), 191.
44. Medicus, 191.
45. Frederick Kiesler, *Inside the Endless House* (New York: Simon and Schister, 1966), 191.
46. Beatriz Colomina, "Endless Interior: Kiesler's Architecture as Psychoanalysis," in *Private Utopia: Cultural Setting of the Interior in the 19th and 20th Century*, ed. August Sarnitz and Inge Scholz-Strasser (Berlin: De Gruyter, 2015), 144n42.

Kiesler's own words on postponement contribute to this notion as he states: "...I shun an ultimate solution as a cat postpones killing of a mouse. There is lust in postponement".[47] In 1961, when asked about the genesis of the Endless House, Kiesler refers to the years 1922-1924 as his most fruitful period and alludes to his design of an Endless Theater for a ten-thousand-person capacity showcased at the Theater and Musical Festival of the City of Vienna in 1924. He indicates that his work in 1961 on the Universal Theater was a continuation of these early 1920s ideas, and he still sought an opportunity to realize them.[48]

Contrary to the notion that Kiesler was an architect who never saw his designs come to life, his relocation to New York in 1926 presented an opportunity to fulfill his architectural ambitions. Following his move, Kiesler forged an association with Harvey Wiley Corbett, initially stimulated by his 1926 exhibition Theatre in New York.[49] While this collaboration did not lead to a tangible design and construction project, Kiesler received a commission to design and materialize the Film Guild Cinema building in New York in 1928. His earlier set designs before his relocation to the United States, coupled with his role as the stage designer at the Julliard School of Music from 1933 to 1957, where he crafted over 75 sets, demonstrated his proficiency and design prowess in swiftly and economically addressing various design challenges.[50] Additionally, his extensive portfolio included numerous window shop designs and exhibition designs throughout his career.[51] Despite this notable body of work, Johnson's humorously toned pedestal, referencing Kiesler as one of the "five architects in America who are interested in architecture and not in money", represents a pivotal moment marking the recognition Kiesler had long awaited.[52] In an earlier article on Kiesler, Johnson, in positing Kiesler as a non-building architect, highlights the possibility of realizing what Kiesler had envisioned since the early 1920s: a grant dedicated to Kiesler for researching the application of his Endless House design.[53]

47. Colomina, "Endless Interior: Kiesler's Architecture as Psychoanalysis," 146.
48. Thomas Creighton and Frederick Kiesler, "Kiesler's Pursuit of an Idea," *Progressive Architecture* 42, no. 7 (1961): 110.
49. Creighton and Kiesler, 113.
50. Siegfried Gohr and Gunda Luyken, eds., *Frederick J. Kiesler: Selected Writings* (Stuttgart: Verlag Gerd Hatje, 1996), 149.
51. "Design's Bad Boy," 140.
52. "Design's Bad Boy," 140.
53. Johnson, "Three Architects," 75.

The same year, in 1960, the architecture critic at *The New York Times*, Ada Louise Huxtable, quoted Johnson to introduce Kiesler to her column's readers as the "greatest non-building architect of our times" since Kiesler appeared on one of the two television shows that were broadcast nationally in the United States in the summer of 1960. Highlighting Kiesler's architectural theory as 'unorthodox,' Huxtable informed her audience that "[Kiesler's theory] has become an almost legendary canon of progressive thought among professionals but is still largely unknown to the public".[54] She continued by stating, "Hearing him speak of his 'endless house' — a free-form space enclosure of reinforced concrete, described as having an endless continuity of space and endless possibilities of shape — one is temporarily convinced that all houses as we know them today are old-hat".[55] Huxtable's depiction of Kiesler's television appearance suggested her satisfaction, attributing to Kiesler a charm and intellectual persuasion akin to that of an "esthetic salesman" promoting a "fascinating but dubious article". In this context, the "dubious article" referred to Kiesler's Endless House, a fundamental element in his architectural theory, which was showcased on *CBS* on March 20, 1960.[56]

1.2 A guiding outline

This is a thesis that recognizes Frederick Kiesler's concept of Correalism as a profound response to what he termed the "perennial crisis" in architecture that was most visible in the epistemological confusion he stirred. This response is deeply rooted in Constructivist thought, a movement that significantly influenced Kiesler during his European years and, in turn, shaped the thinking behind the group De Stijl. The subsequent translation of Kiesler's ideas into the North American context, filtered through the lens of American culture, provided fertile ground for these concepts to evolve and flourish. With this thesis, I argue that it is in this transatlantic intellectual journey that Kiesler's Correalism finds its unique position, bridging European Constructivism with the nuances of American social and economical

54. Ada Louise Huxtable, "Architecture on TV: 'Greatest Non-Building Architect of Our Time' Expounds His Ideas," *New York Times*, March 27, 1960.
55. Huxtable.
56. "Frederick Kiesler Explains His Architecture," *Camera Three*, in collab. with Frederick Kiesler and James MacAndrew (CBS, March 20, 1960).

discourse, thereby offering a distinct perspective in addressing architectural challenges that exemplify what I refer as "architectural profanations".

In reaching this conclusion, this thesis weaves together three key threads. Firstly, it posits that Frederick Kiesler's focus on relations as the core of both design knowledge and knowledge in general represents an extension or evolution of the concept of kinaesthetic knowing.

1.2.1 Chapter 2: Kinaesthetic Knowing and Vision Machine

Kinaesthetic knowing highlighted the importance of bodily experience and movement within a space, emphasizing how physical interaction with the environment aids in comprehension and learning. Kiesler expanded upon this idea, proposing that it is not merely the physical interactions or movements that are critical, but rather the intricate web of relationships formed by these interactions.

This following chapter foregrounds Çelik Alexander's concept of experience evolving into an "epistemological currency" in the nineteenth century, shaping design research within the milieu of technological and scientific advancements of the early twentieth century. This era witnessed a radical shift in understanding reality, propelled by scientific materiality achieved through the documentation and reproduction of human vision and diversified forms of seeing enabled by image recording devices.

This paradigm shift in science and artistic production provides the foundation for Kiesler's Correalist vision, predominantly exemplified in his Vision Machine studies. The chapter focuses on the Vision Machine and the resultant research materials to illustrate the practical application of Kiesler's Correalist approach in design. It delves into how Kiesler expanded these ideas through his commitment to understanding human perception within the framework of Correalism. By presenting the Vision Machine as a case study, this chapter seeks to provide an experimental understanding of Correalism, showcasing both the breadth and limits of Kiesler's theoretical and practical approaches.

In this chapter, I delve into Frederick Kiesler's experimental work at the Laboratory

for Design Correlation, examining his research methods within the context of Çelik Alexander's exploration of "kinaesthetic knowing". This includes a particular focus on the Prussian education system of the late eighteenth century. This chapter emphasizes Çelik Alexander's notion of experience evolving into an "epistemological currency" during the nineteenth century, a development that significantly influenced design research amid the technological and scientific advancements of the early twentieth century. This period marked a profound shift in our understanding of reality, driven by the scientific materiality that emerged from the documentation and reproduction of human vision, as well as the diverse forms of perception enabled by image recording technologies.

1.2.2 Chapter 3: Correalism and Strategic Demarcation

In Chapter 3, I introduce the second pivotal theme of my thesis. This theme unfolds as an acknowledgment of Frederick Kiesler's concept of Correalism, which I perceive as a profound response to what he identified as the "perennial crisis" in architecture fails to respond to the needs of modernity. Kiesler's engagement with Constructivist thought during his time in Europe, which profoundly influenced his later work with De Stijl, forms the foundation of this response. While a detailed analysis of the perennial crisis, in relation to the cleavage created by modernity and the infiltration of epistemological models into architectural thinking and design pedagogy, is reserved for Chapter 4, Chapter 3 first revisits Kiesler's earlier work. These early projects are examined for their initiation of the Constructivist agenda, emphasizing a unification of art and life and exploring holistic experiences through art. Kiesler often regarded these years as his most productive, citing them as foundational for the concepts he later developed in his "Correalist Manifesto" of 1949, which was preliminarily articulated in his 1939 article "On Correalism and Biotechnique".[57] Though he did n0t use the term Correalism at the time, his 1925 manifesto on tensionism introduced the notion of *Vitalbau* ("organic building"), a concept that evolved into "Biotechnique" following his Space House design in 1933 in New York.[58]

57. Frederick Kiesler, "Manifeste Du Corréalisme," *L'Architecture d'Aujourd'hui* 2 (June 1949): 79–105.
58. Frederick Kiesler, "Manifesto of Tensionism: "Organic Building—The City in Space—Functional Architecture" (1925), ÖFLKS, TXT 6181/0.

This chapter delves into the period between 1922 and 1933, placing a spotlight on the evolution and impact of Frederick Kiesler's concepts within two distinct environments: Europe in the 1920s and North America during the Depression era. It examines the significant shift in Kiesler's thoughts and writings, paralleling his move from Europe to North America. A particular focus is given to how his translation of terms and ideas from German to English, upon relocating to New York, influenced the conceptual progression of his work. The chapter argues that Correalism, especially in the North American setting, functioned as a vital conceptual instrument for Kiesler. It enabled him to adapt and reinterpret the theoretical and practical aspects of his European experiences into a new, equally impactful context in New York. The Space House project in 1933 and Kiesler's ensuing Correalism studies, with an emphasis on housing, are underscored as key elements in understanding the initial phase of his Correalist endeavor in the Americas. This phase culminated in the manuscript for his book on Correalism, marking a significant milestone in his professional trajectory in the year 1939. Through archival research, this chapter presents the progression of Kiesler's Correalism throughout his career.

This chapter concludes by De Certeau's concept of the strategic demarcation of modernity. This framework is pivotal in understanding the cleavage, or divide, that characterizes modernism. De Certeau's perspective allows for a critical examination of the boundaries and intersections between different domains within modernity—be it cultural, scientific, or philosophical and in return allows for a depiction of architectural profanations. This critical lens is particularly useful in exploring Correalism, as it reveals the ways in which this movement interacts with and potentially subverts established norms and practices of modern architecture and design. By employing this approach, I discuss the operational dynamics of Correalism and how it interacts with, challenges, and potentially reshapes these divides.

1.2.3 Chapter 4: Profanations

Chapter Four acts as a conclusion where I explore the dichotomy between Europe, where Kiesler's thinking originally takes root, and North America, where his ideas

undergo a transformative translation, adapting to the American cultural milieu. This chapter argues that Kiesler's intellectual journey across the Atlantic allowed his concept of Correalism to evolve uniquely, bridging European Constructivism with the distinct social and economic discourses of America. This transatlantic evolution of his ideas provided a fertile ground for them to not only adapt but also flourish, offering a distinctive approach to addressing architectural challenges in the form of architectural profanations. This thesis posits that it is within this cross-continental intellectual voyage that Kiesler's Correalism finds its most potent expression, synthesizing European artistic movements with American perspectives to confront and reimagine architectural norms, profaning modern architecture in the early twentieth century.

In the fourth chapter, I delve into the initial confusion and skepticism that surrounded Kiesler, perceived as yet another *émigré*, and his contributions to the North American art and architecture scene. Through an in-depth examination of Kiesler's personal struggles, I argue that his survival tactics were not only instrumental in his adaptation to the new cultural landscape but also fundamentally transformative to the concept of *arkhé* in architecture. This chapter exposes Kiesler as an "ordinary" modern subject, sharing common tactics and tools with his contemporaries with reference to Michel de Certeau's *The Practice of Everyday Life*.[59] This perspective allows for a deeper understanding of how his experiences and strategies mirrored those of the broader modern society, and in turn, how they influenced and altered the foundational principles of architecture in North America.

Agamben highlights the contrast between the fluid boundaries of the sacred and profane in Roman culture and the more distinct separations sought in Christian theology, as he discusses in 'Profanations'.[60] Christianity's development, influenced by these Roman notions, formulated doctrines to clearly demarcate the divine from the human, a response to the blurring of these spheres in pagan traditions where the sacred often intermingled with the mundane. In this conclusive fourth chapter, I examine Kiesler's tactical maneuvers in adapting to his new environment in the United States. I argue that Kiesler effectively transforms every relational aspect he

59. Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California, 1988).

60. Giorgio Agamben, *Profanations*, trans. Jeff Fort (New York: Zone Books, 2015), 79.

encounters into elements of his biotechniques, subsequently articulating them within his architectural dogma of Correalism. By redefining the arkhe of architecture to align with the capitalist vision of the United States, Kiesler appropriates all relationships into a dynamic accumulation of forces that underpin his Correalist project. This approach not only shifts the focus of architectural discourse but also integrates it seamlessly into the consumerist fabric of American society.

My analysis presents Kiesler not just as a significant figure in modern architecture, but as an ordinary modern individual deeply engaged with different epistemological currencies. This perspective is crucial for understanding the rationale behind twentieth-century modern architecture and tactical merits inherent in it to challenge the "perennial crisis" architecture is depicted in by Kiesler. In this context, Kiesler's journey from the realm of immediate subjective experience, through the exploration of the unseen and the non-sensory, culminates in a profound field of understanding through his conceptualization of Correalism.

This chapter concludes with utilizing Bulent Diken's interpretation of profanation to further elucidate the framework of my discussion. This part of the thesis employs the concept of the diagram as a crucial conceptual tool and problem solver.

CHAPTER 2

KINAESTHETIC KNOWING AND VISION MACHINE

"The Sound" show took place at the Museum of Contemporary Crafts in New York from October 25, 1969, to January 4, 1970, marking an early interest of art institutions in exhibiting sound-related artworks.

In the tape catalog accompanying the exhibition, Ann McMillan, the show's consultant, highlighted a scientific discovery of the 1970s: an understanding that we inhabit a vibrating planet within a vibrating universe. Quoting Hans Jenny, she claimed widespread evidence of periodic systems in every scale.[1] Modern technology extended human ears' capacity to perceive a broader range of sounds, leading to both audio fatigue due to noise pollution and the potential for a new music of these soundscapes.

Artists, including sculptors, filmmakers, and acoustical engineers, responded by creating sound experiences in the exhibition space, breaking down traditional barriers between different artistic fields. This interdisciplinary approach incorporated responsiveness to the outside world, utilizing mixed media and available technology.[2] The focus on sound demanded a shift in the appropriation of technological tools by artists to create a new media for museums and cultural platforms. According to Ann McMillan, this introduced a "new animal" at the center: the artist-engineer.[3]

The artist-engineer dichotomy serves as a significant demarcation that this thesis will

1. *Sound*, in collab. with Ann McMillan (Museum of Contemporary Crafts: American Craftsmen's Council, 1970), [catalog & sound recording].
2. Museum of contemporary crafts, *Sound, Press Release*, American Craftsmen's Council, 1969, https://digital.craftcouncil.org/digital/collection/p15785coll6/id/6527/rec/2..
3. Ann McMillan, "The Listening Eye," *craft horizons* 30, no. 1 (1970): 16.

scrutinize through the lens of Frederick Kiesler. In particular, in the following chapters this thesis will delve into understanding Kiesler's transition and adaptation of his ideas from the European context to the North American context. Within this context, the artist-engineer dichotomy becomes a useful framework for unraveling Kiesler's strategic shifts in language, tone, and emphasis as he sought to find his place within both architectural and art circles.

However, the central focus of this chapter extends beyond the artist-engineer divide; it delves into the distinction between the external world and what Kiesler referred to as the "psyche" or inner world. This exploration revolves around Kiesler's visionary machine, situated at the nexus between these external and internal realms. The chapter initiates with an examination of devices that have historically translated "visions" into scientific knowledge, establishing their own languages along the way. This process positions Kiesler's visionary machine as a clear manifestation of his architectural thinking, an expansion, and evolution of what Çelik Alexander termed "kinaesthetic knowing." This argument unfolds within the backdrop of Alexander's concept of experience becoming an "epistemological currency."[4] It further evolves through a critical examination of the historical development of objectivity in the realm of science, with a particular emphasis on the role played by photography and other visual technologies. This narrative sets the stage for an in-depth discussion of Frederick Kiesler's Vision Machine and its significance within this broader context, akin to how Kiesler's visionary machine sets the stage for an exploration of his correalist project within the architectural paradigms of the twentieth century. In summary, this chapter comprises two distinct.

First section introduces the concept of experience as an epistemological currency to enhance our understanding of kinaesthetic knowing. It navigates through the intricate interplay of knowledge, perception, and experience, tracing the evolution of epistemological paradigms from the 19th century to the present day. The emergence of psychophysics in the 19th century revolutionized the study of perception and sensation, and this section explores how it quantified the relationship between external stimuli and subjective experiences, drawing insights from Çelik Alexander's research on pioneers such as Wilhelm Wundt and Rudolf Schulze. In this part,

4. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 64.

devices that have either emerged as byproducts of this new epistemological currency or contributed to its value become the focus. This discussion allows us to explore the evolution of scientific objectivity during the 19th century. I examine how the introduction of photography and other mechanical methods aimed to eliminate human subjectivity and biases in scientific observations and representations, thus shifting the burden of interpretation from scientists to the audience.

The second section introduces Kiesler's visionary machine as a significant addition to this array of devices. However, it stands out due to its ambitious attempt to embody vision holistically. Unlike mere visual perception and sensations, Kiesler's vision machine encompasses psychological procedures, emphasizing the interplay between the subject and its environment. Despite remaining a proposal, Kiesler's vision machine is explored as a model for teaching the science of vision and correalism. It recognizes the diversity of individual experiences and the subjective nature of perception, offering a comprehensive perspective on the aesthetic evaluation of vision and the images produced through this intricate process.

While Kiesler's Vision Machine aimed to materialize complex visual experiences, it eventually evolved into an educational tool for teaching aesthetics and design principles. This evolution underscores the enduring relevance of understanding the mechanisms of vision and perception in architectural design education.

The chapter concludes by presenting Frederick Kiesler's work on the Vision Machine as an extension of the kinaesthetic knowing tradition, acknowledging the nature of perception, the interplay between different sensory experiences and mediums, and the potential for technology to bridge the gap between subjective experience and objective representation. Despite Kiesler's project's limitations in fully capturing the complexity of human vision, it represents a valiant effort that stood against the odds of modern architecture.

2.1 "Epistemological Currency of Experience"

The mentioned Museum of Contemporary Crafts exhibition featured a notable contribution from architect-artist Frederick Kiesler, who had passed away in 1965,



Figure 2.1: “The Gong” by Frederick Kiesler. Image taken at “Sound”, an exhibition at the Museum of Contemporary Crafts, New York City, October 25, 1969-January 4, 1970.

four years before the show. His work, titled "The Gong," was part of Kiesler’s unfinished thirty-seven sculptures named “Us, You, Me,” which he was working on before his death.[5] **[Figure 2.1]** This bronze cast sculpture was accompanied by a song called “The Gong Song,” constructed from the "sound produced only by the recorded performance of ‘The Gong’ sculpture”.[6] The song was crafted by manipulating sound on magnetic tape, a technology accessible to artists only after World War II.[7] In a period when vibrations through electronics in science and arts raised awareness of previously unnoticed sounds, and with figures like John Cage reintroducing silence to music, the world’s vibrations garnered attention. While the reconstitution of the world through the understanding of the audio-oriented environment is not my concern here, it serves as an example of how Kiesler and other twentieth-century figures embraced advancing technologies, challenging and altering the world and allowing space for reinterpretation. In the nineteenth century,

5. McMillan, “The Listening Eye,” 18.
6. McMillan, 18.
7. McMillan, 18.

it was the eye, not the ear, that excited scientists, artists, and philosophers preoccupied with a changing notion of being connected with the world: vision. Newly introduced devices due to technological advancements were crucial in redefining what vision meant. Never-ending questions regarding the rationality and reason attributed to humans shaped a new metaphysical trend, forcing scientists, artists, philosophers, and others to question traditional epistemological regimes and revisit their relationship with the outside world. This questioning arises from the curious case of sensations, assumed to be the source of experience, a notion that became a valuable epistemological currency in the Western-oriented world from the eighteenth century onwards.

2.1.1 Kinaesthetic knowing: A pedagogy

Çelik Alexander initiates her exploration of what she terms "kinaesthetic knowing" by delving into the work of Rudolf Schulze, a German schoolteacher in Leipzig, and an experimental study he conducted at the turn of the twentieth century. Schulze selected students aged eleven to twelve, who, according to the strict German educational hierarchy, were considered at the culmination of their education. These students comprised Schulze's experimental group. The experiment involved presenting them with images and meticulously documenting their non-verbal responses. Schulze, seeking to advocate for educational reform, utilized photography to measure the muscular movements in the students' faces and bodies. Drawing from methods in experimental psychology, he analyzed their expressions. Schulze's conclusion was intriguing: the emotional expressions of these students correlated with those of his control group, which consisted of four educated adults describing the same set of images. This led Schulze to argue for a reevaluation of the education system, considering this experiment as evidence of an "unconventional kind of intelligence" among the students.[8]

Schulze's conclusions from the experiment pointed to a need for challenging the existing education system to accommodate this newly demonstrated form of intelligence. Çelik Alexander contextualizes Schulze's experiment as an

8. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 37.

embodiment of what Gustav Theodor Fechner termed "aesthetics from below" in the 1870s: *Aesthetik von Unten*.[9] As the founder of psychophysics, Fechner aimed to develop a scientific method, outlined in *Elemente der Psychophysik* (*Elements of Psychophysics*, 1860), capable of testing the smallest stimuli eliciting responses from human subjects.[10] The research program outlined by Fechner in the *Elements* revolved around establishing a lawful relationship between sensory stimuli and human response, constituting what he referred to as psychophysics. Nineteen years after the German publication of the *Elements*, Wilhelm Wundt initiated another research program at Leipzig University. Drawing upon the work of Fechner, Wundt played a pivotal role in institutionalizing experimental psychology through the establishment of a formal laboratory.[11]

The methods and tools developed in this laboratory facilitated Schulze and numerous other researchers in demonstrating the immediacy between physical stimuli and the psychological sensations experienced by subjects. Psychophysics played a crucial role in opening up the field of perceptual research, enabling the quantification of the connections between external stimuli and subjective experiences.[12] Schulze's experiment incorporated methods from psychophysics, deviating from abstract concepts such as reason, the sublime, and beauty. Instead, it embraced impressions, sensations, and what can be described as the fundamental "building blocks" of lived experiences.[13] This experiential knowledge blurred the boundaries between reason and the external world for a perceptive body. The etymological connection between the word "experience" and "experiment" reflected the emergence of an alternative epistemological principle during a historical period when the assumed immediacy of experience began to be viewed as analogous to reason.[14]

The politically charged atmosphere at the turn of the nineteenth century, both before and after the 1848 revolutions across the European continent, aligns with a shift

9. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 37.
10. Thomas D. Albright, Sergei Gephstein, and Eduardo Macagno, "Visual Neuroscience for Architecture: Seeking a New Evidence-Based Approach to Design," *Architectural Design* 90, no. 6 (2020): 114, https://doi.org/10.1002/ad.2639..
11. David K. Robinson, "Gustav Fechner: 150 Years of Elemente der Psychophysik," *History of Psychology* 13, no. 4 (2010): 409–410.
12. J. Graham, "The Psychotechnical Architect: Perception, Vocation and the Laboratory Cultures of Modernism, 1914-1945," 3.
13. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 17.
14. Çelik Alexander, 8.

from adhering to an idealized or improved nature dictated by a transcendental Genius.[15] During this period, natural philosophers were supplanted by scientists who adopted a stance of "letting nature speak for itself".[16] This transition reflects a broader transformation in the philosophical and scientific approaches to understanding and interacting with the natural world. In the late nineteenth century, a comparable crisis emerged among a peculiar group: atlas makers. The pressing question of "which objects should be presented as the standard phenomena of the discipline, and from which viewpoint?" induced anxiety and denial, given the implications of subjectivity that these questions carried. This crisis reflected a growing awareness of the challenges associated with establishing objective standards and viewpoints within the field of atlas-making during this period. This group is of importance since the atlas served as an early endeavor in which nature was attempted to be made safe for science. The goal was to replace raw experience — the accidental, contingent experience of specific individual objects — with digested experience. This reflects an intention to systematize and standardize the representation of natural phenomena, allowing for a more controlled and manageable approach in scientific exploration.[17] Atlas makers, therefore, in the nineteenth century had the objective of providing "working objects to the sciences of the eye."[18] Their purpose was to habituate the eye to acquire an expert's perspective by presenting certain kinds of objects as "exemplary".[19] This approach aimed to train the eye of the scientist and establish a standard for observation within the field.

In other words, in the nineteenth century, the dedication of atlas makers to the concept of "truth to nature" faced a shift.[20] This ideal became challenging to achieve or maintain within this era's scientific context. Instead, in the nineteenth century, atlas makers embraced the concept of mechanical objectivity, as described by Daston and Galison. Their focus shifted to instructing the scientist's eye with a form of knowledge that was independent of concepts, language, or representations, marking a significant theme in the work of atlas makers during this period. Among the early

15. Peter Gallison, "Judgement against Objectivity," in *Picturing Science Producing Art*, ed. Caroline A. Jones and Peter Galison (London: Routledge, 1998), 328.
16. Gallison, 328.
17. Lorraine Daston and Peter Gallison, "The Image of Objectivity," *Representations* 40 (Autumn 1992): 83–84.
18. Daston and Gallison, 85.
19. Daston and Gallison, 85.
20. Daston and Gallison, 86.

atlas makers was Goethe, often regarded as a "comprehensive genius" and an embodiment of the German ideal of culture.[21] Goethe viewed nature as a work of art that was complete in itself, leaving no room for intuitions to access it.[22] However, because what he referred to as an archetype (*Typus*), a "general picture containing the forms of all animals as potential," was rarely embodied in a single being, the observer was supposed to intuit these meta-qualities that define the *Typus*.[23] Goethe's atlases in the eighteenth century, therefore, focused on archetypes in a context where "the observer never sees the pure phenomenon" but a distilled "definition that would allow standardizing the phenomena".[24]

Goethe's attempt to recognize forms in the "formless heap of phenomena and to induce types from them" was considered his ingenuity, according to Hermann von Helmholtz.[25] For Helmholtz, Goethe was successful in portraying, comparing, or classifying phenomena. However, when it came to analysis and explaining causes, Goethe fell short in Helmholtz's view.[26] This perspective on Goethe's work, particularly his "blatantly wrong" scientific studies in color and light in his 1810 treatise *Zur Farbenlehre* (*Theory of Color*), is how Helmholtz coped with it, according to Çelik Alexander.[27] During a period when the German Historical School advocated for the separation of the natural sciences from the human sciences, Helmholtz introduced two kinds of knowing: *Wissen* and *Kennen*. He proposed an alternative to the logical induction of sciences, known as the aesthetic induction.

This intervention by Helmholtz represented a response to the need for a different mode of Western rationality that could navigate the complex relationship between experience and experiment. The aesthetic induction, introduced by Helmholtz, provided a new perspective that allowed for a nuanced understanding of the knowledge derived from sensory experience. This shift was particularly relevant in a time when the sciences were grappling with challenges arising from changes in modes of production and consumption, demanding a reevaluation of the relationship between the sciences and the human experience.

21. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 43.
22. Çelik Alexander, 27.
23. Daston and Gallison, "The Image of Objectivity," 87.
24. Daston and Gallison, 87–88.
25. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 27.
26. Çelik Alexander, 28.
27. Çelik Alexander, 28.

Helmholtz's concept of aesthetic induction departed from the conventional expectation of establishing universal laws, a characteristic associated with logical induction. Rather than being confined to the realms of concepts, language, propositions, or representations, aesthetic induction aimed to be grasped as a form of knowledge that could effectively "guide correctly the fingers of a violinist, the voice of an opera singer, or the hand of an artist".[28]

This perspective underscored Helmholtz's recognition of knowledge as a practical tool with applications in specific artistic and creative domains. According to Çelik Alexander, Hermann von Helmholtz introduced the concepts of *Wissen* and *Kennen* during a period when the social utility of knowledge was a subject of inquiry and debate. The emphasis on guiding tangible, sensory expressions, such as music or visual art, distinguished aesthetic induction from more abstract and universally applicable modes of reasoning. In this way, Helmholtz sought to bridge the gap between theoretical understanding and practical skill, acknowledging the diverse ways in which knowledge could be applied in different contexts.

The notion of aesthetic induction reflected a broader shift in thinking about knowledge during the nineteenth century. It responded to the evolving debates on education, subjectivity, and the relationship between scientific principles and experiential understanding. Helmholtz's introduction of this concept marked a significant milestone in redefining the role and nature of knowledge, particularly in fields where the immediate, hands-on application of skills and talents held paramount importance.

The question of how ideal subjects should be trained was a subject of wide-ranging debate during this period. The deliberation centered on whether a formal education, highlighting subjects such as Latin, Greek, and mathematics, where the laws governing those fields could provide a universal method, was preferable. Alternatively, there was consideration of whether disciplines reliant on empirical content should be integrated into the curriculum. This discourse reflected the broader discussions on restructuring knowledge and access to it, with implications for the social utility and purpose of education in shaping individuals as ideal

28. Çelik Alexander, 32.

subjects. This period aligns with the emergence of epistemology in reaction to the metaphysical aspects of German Idealism. Epistemology, functioning as an organizational tool, served to conceptualize knowledge precisely when empirical sciences were pioneering the segmentation of disciplines. The evolving inquiry into the restructuring of knowledge and its accessibility, as proposed by Çelik Alexander, hinged on a novel theological perspective. This perspective involved grasping a *telos* that was not transcendent but immanent in phenomena, marking a departure from traditional transcendental notions and introducing a more intrinsic understanding of purpose within observable phenomena.[29] Introducing a Kantian twist to the *Wissen* and *Kennen* pair allowed for a shift in the transcendental signified. No longer was it occupied by entities such as God, nature, or vital force; instead, "experience" took center stage. *Kennen*, in this context, operated directly with the immediate and tangible experiences, emphasizing the significance of firsthand encounters and perceptions as a key element in understanding and acquiring knowledge.[30] The appropriation of kinaesthetic knowing within the social domain during the nineteenth century took the form of a pedagogical project, contributing significantly to disciplines such as art, art history, and architecture. This epistemological tool played a crucial role in cultivating subjects that aligned with the demands of modernity, fostering an aesthetic understanding that transcended traditional boundaries and contributed to the evolving landscape of knowledge in various fields.[31]

Kinaesthetic knowing, as Çelik Alexander demonstrates, serving as a comprehensive term encompassing ideas ranging from Leibniz's "unconscious appetitions" to Wilhelm Dilthey's "silent thinking," emerged as a potential bridge to address the gap created since Kant's first critique.[32] In the midst of heated debates on teleology and mechanism in the nineteenth century, the theorization of experiential knowledge became imperative. The introduction of aesthetic induction marked a milestone in this process, offering a unique avenue for understanding knowledge beyond traditional frameworks.

29. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 39.
30. Çelik Alexander, 43.
31. Çelik Alexander, 11.
32. Çelik Alexander, 21.

However, this innovative approach posed challenges related to the subjectivity of the observer. The authority granted to the observer to intuit through *Kennen* required a delicate balance with the logical induction of the sciences for it to be considered a valid form of knowledge in the complex landscape of the nineteenth century. This tension between intuitive and logical elements reflected the ongoing evolution of epistemological paradigms during this period.

2.1.2 Mechanical objectivity: Morals

Çelik Alexander's narrative on the ascent of kinaesthetic knowing and its integration into diverse facets of society —ranging from theology and science to pedagogy— unveils a tale of how the crisis in Western reasoning, triggered by Kant, was effectively managed. Drawing parallels with the dual domains of *Wissen* and *Kennen*, this narrative gains resonance through the methodologies cultivated within the domain of physiology. These methodologies facilitated the momentary quantification of even elusive experiences during the nineteenth century.

This is a moment that compliments the belief that graphical expressions could supplant all other forms of representing phenomena gained prominence among physiologists of the time. This conceptual shift enabled the assumption that even experiences considered elusive or challenging to capture could be subjected to quantification. The methodologies derived from physiology played a pivotal role in achieving this temporary triumph.

This is the insight provided by Daston and Galison which emphasizes a pivotal shift in scientific methodology during the nineteenth century —a shift driven by the imperative to eliminate the human factor between the act of representation and the essence of nature. This transformation is intricately linked to the broader endeavor to mitigate biases and all-too-human inferences that might taint scientific observations. Scientists, in response to this imperative, increasingly relied on mechanically produced representations, exemplified by devices like polygraphs and the burgeoning technology of photography, to meticulously document the intricacies of the natural world. According to Daston and Galison, this concerted effort to incorporate mechanically produced representations into scientific practice

constitutes an integral aspect of what they term the "moralization of objectivity" in the nineteenth century.[33] This implies that the pursuit of objectivity transcended mere methodological considerations; it acquired a moral dimension. The moralization of objectivity suggests a commitment to a higher ethical standard in scientific inquiry —one that aspires to purify the observational process from subjective biases and human interpretive nuances.

The authors highlight a crucial point: "noninterventionist" or "mechanical" objectivity, while significant, does not fully encompass the entire concept of objectivity.[34] Instead, it serves as just one component within a more comprehensive framework of objectivity. They describe objectivity as a crucial element that serves to prevent interference from subjectivity. This characterization implies a relationship between objectivity and subjectivity akin to the way "wax is related to a seal".[35] With this analogy, the protection of the integrity of scientific observations or findings is prone from subjective biases or influences. Objectivity becomes a safeguard to preserve the reliability of scientific knowledge, as it is sealed off from the subjective influence. Mechanical objectivity, as a concept, is aimed to eliminate the mediating influence of the observer in scientific observations. This was pursued through various strategies, including the elimination of certain phenomena, sense organs, or theoretical hypotheses that were deemed to introduce distortions to the observed phenomena.

The pursuit of mechanical objectivity demanded a high degree of diligence and commitment from the observer. It required meticulous care, unwavering attention, precision, and patience, as the underlying principle was that "phenomena never sleep, and neither should the observer".[36] The rigorous demands of achieving mechanical objectivity, characterized by utmost care, attention, precision, and patience, were often described as requiring a "heroic self-discipline".[37] This level of discipline was likened to the self-discipline associated with saints, suggesting an elevated and virtuous commitment to the scientific endeavor.

33. Daston and Gallison, “The Image of Objectivity,” 81.
34. Daston and Gallison, 82.
35. Daston and Gallison, 81; Laura Burd Schiavo, “From Phantom Image to Perfect Vision: Physiological Optics, Commercial Photography, and the Popularization of the Stereoscope,” in *New Media: 1740-1915*, ed. Lisa Gitelman and Geoffrey B. Pingree (Massachusets: The MIT Press, 2004), 81
36. Daston and Gallison, “The Image of Objectivity,” 83.
37. Daston and Gallison, 83.

The development of objective sciences in the nineteenth century is closely linked to the concept of vision. As Galloway observes in her examination of the uncomputable, the abstraction of vision has been a recurring theme in Western metaphysics. This theme extends from Plato's *Timaeus* through the works of Kepler and Descartes, to the advancements in the science of optics made by other modern scholars.[38]

Galloway remarks that revisiting the nineteenth century and its ideas on photography and the camera to explain contemporary media can often be clichéd. However, in order to contextualize Frederick Kiesler's experiments and his theoretical engagement with Correalism, I contend that revisiting these historical elements is crucial. Furthermore, Daston and Galison argue that the machines and methods developed around the concept of vision laid the groundwork for the emergence of mechanical objectivity in the scientific arena. Yet again, this foundation, reliant on the total elimination of subjectivity, proved unfeasible for psychophysics. This field, focusing on the science of experience, depends on systematically directing attention to phenomena and observing the responses of subjects experiencing the given stimuli. And in fact, it is indeed this conundrum resulted in the limitation of kinaesthetic knowing to the realm of aesthetics, preventing its extension beyond this domain. Nonetheless, this narrative should not be viewed as a tale of failure, from my perspective, but rather as an exploration of the fertile intellectual terrain that enabled the study of Kiesler's dual interests in psychology and machinery.

2.1.3 Camera: A device for inscribing experience

In his 1994 book *Vision Machine*, Paul Virilio begins with a dialogue between Paul Gsell and Auguste Rodin, where Rodin inquires about Gsell's opinions on instantaneous photographs of men in motion, to which Gsell responds by noting their lack of apparent motion.[39] Rodin concurs with Gsell's observation and contrasts these photographs with his sculptures. He remarks that the models in the photographs resemble individuals "suddenly struck with paralysis", as "every part of their body is reproduced at exactly the same twentieth or fortieth of a second",

38. Alexander R. Galloway, *Uncomputable: Play and Politics in the Long Digital Age* (London: Verso Books, 2021), 55.
39. Paul Virilio, *The Vision Machine*, trans. Julie Rose (Bloomington: Indiana University Press, 1994), 1.

devoid of the "gradual unfolding of a gesture" that art typically conveys.[40] Gsell then questions whether art distorts reality, but Rodin disagrees. He argues that it is the photograph that is untruthful, while art reveals the truth. Rodin explains that in reality, time does not stand still, and if the artist succeeds in creating the impression of a gesture unfolding over several seconds, their work is decidedly less conventional than the scientific image where time is abruptly frozen.[41]

Virilio's presentation of Rodin's critique of photography aligns with Heinrich Wölfflin's themes in his series of essays "Wie man Skulpturen Aufnehmen Soll" ("How One Should Photograph Sculpture"), with the first part dating back to 1896 and the final part published in 1915.[42] Wölfflin's distrust of photographers stemmed from his conviction that photography was culpable for "aggravating the savageness of modern vision".[43]

Wölfflin was not alone in his distrust of photographers, or even of photography itself as a mode of representation. Çelik Alexander documents the skepticism towards photographic reproduction expressed by a number of nineteenth-century academics. She cites another art historian, Konrad Lange, who identified the issue as the mechanical objectivity claimed by the photographic lens. This approach, capable of capturing images "indiscriminately and dispassionately", meant that everything was recorded alike, without discerning between what was important or trivial, effective or ineffective.[44]

However, this indiscriminate recording was precisely what early advocates of photography claimed as the camera's advantage over the human eye. As Virilio quotes from Germain Bapst: "...[T]he implacable fidelity of the instrument, distanced from the subjective and distorting action of the artist's hand", allowed it to capture and reveal movement with a precision and a richness of detail that elude the natural eye.[45]

Similarly, Nicéphore Nièpce, who pioneered this technology, described his initial

40. Virilio, *The Vision Machine*, 1.
41. Virilio, 2.
42. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 69.
43. Çelik Alexander, 70.
44. Çelik Alexander, 70.
45. Virilio, *The Vision Machine*, 12.

successful recording as a process of composing and decomposing, wherein light chemically interacts with bodies.[46] What began as a thirty-minute exposure for Nièpce in 1829, reduced to just twenty seconds by 1860, resulted in what was deemed "irrefutable proof of the existence of an objective world".[47] This development nearly realized Descartes' aspirations, akin to the era of Galileo to Newton, where a world was envisioned "in which everything could be described, illustrated, or reproduced by experiments and concrete examples".[48] By the 1900s, for these thinkers, photography had emerged as a potent ideological force, symbolizing neutral and exquisite truth.

In their investigation of the mechanical dimension in the evolution of objectivity during the nineteenth century, both in scientific and philosophical contexts, Daston and Galison cite Poe: "...[I]f we examine a work of ordinary art, by means of a powerful microscope, all traces of resemblance to nature will disappear – but the closest scrutiny of the photographic drawing discloses only a more absolute truth, more perfect identity of aspect with the thing represented".[49] As though joining the discussion between Rodin and Gsell, Poe essentially comments that although a photograph may not inherently resemble its subject more than a handmade depiction does, we tend to place greater trust in the camera than in our own eyes, which observe both representations. According to Daston and Galison, this indicates that photography didn't conclude the debate on objectivity; rather, it became a significant participant in that ongoing discussion.[50]

Daston and Galison examine Goethe's creation of an atlas that relied on the concept of an archetype, the *typus*, which paved the way for the emergence of mechanical objectivity in the nineteenth century. This concept of the *typus* faced resistance long before the invention of photography. However, it was during the nineteenth century that Daston and Galison observed a significant shift in scientific and atlas approaches. In this period, these atlases were redesigned with the specific purpose of training the observational skills of scientists.

46. Virilio, 19.
47. Virilio, 21.
48. Virilio, 21–22.
49. Daston and Gallison, "The Image of Objectivity," 111.
50. Daston and Gallison, 112.

While photography initially played a role in developing precise and clear methods for guiding artists, it did not immediately supplant artists in scientific atlases due to the prohibitive cost and impracticality of using actual photographs. Furthermore, the ongoing ontological debates concerning the *typus* and the Ideal remained unresolved. Photographic representation, as well as X-rays, lithographs, photoengravings, and camera obscura drawings, were still not entirely successful in eliminating the influence of human subjectivity in the connection between the object and its representation.

Regardless as photography initially served as a tool for scientists to oversee artists, the concept of mechanical objectivity gained prominence, particularly during the X-ray debate, establishing itself as "the ideal of scientific representation".[51] Photography, after all, did not invent mechanical objectivity in science. Mechanical objectivity was more about avoiding any chance of subjectivity even in the price of accuracy which appropriated different ways for the scientists to incorporate photography into this quest.

The cardinal Victorian virtue of self-discipline and self-control became the primary essence of mechanical objectivity, imparting to it a high moral tone.[52] A pure image representing the world as it is was never truly attainable through the camera, but it did fulfill the scientists' craving for an image devoid of the creative and intuitive constraints that characterized scientific representations of phenomena before the advent of photography. With the growing influence of this moral tone, the scientific image took center stage, and the photograph became the emblem representing all aspects of "noninterventionist objectivity".[53]

And even though there could have been more precise and accurate representations of the phenomena in question, particularly in terms of verisimilitude, considering the technical challenges of photographic production in the nineteenth century, the core of mechanical objectivity, provided by photography, lay in the elimination of human agency and intervention. This mechanical objectivism also carried an ascetic overtone: "The heroes of science" are those capable of a more elevated viewpoint.[54]

51. Daston and Gallison, "The Image of Objectivity," 99.
52. Daston and Gallison, 119.
53. Daston and Gallison, 120.
54. Daston and Gallison, 121.

At the heart of this objectivity, it was morality, rather than the subject matter photography depicted, that seemed to insulate science from the moral. It simultaneously laid claim to moral dignity of the highest order, creating a paradox born from an *ethos* of restraint.[55] In this context, photography held the promise of eliminating the "meddling, weary observer" just as it promised to eliminate the artist. After all, the machine was devoid of theory and lacked judgment, making it incapable of intervening in the production of representation. What was previously unattainable as a method, due to the intervention of subjectivity by individuals practicing within the realm of scientific activity, became possible with this new mindset, thanks to the introduction of devices that were believed to record what was previously only accessible through subjective reflection: the immediate experience of vision. In the photographic version, a contract between perception and the objects of perception resembled a cone splayed outward from an origin point where something significant was positioned —the subject, eye, lens, etc. As it extended into the world, its objects were situated in close proximity to the origin, unaffected by any intervention from a subject.[56]

As the camera became more accessible and practical for use, scientific authors began to view this technology as a means of mechanical registration that offered precision, eliminating the creative influence of the artist and enabling them to impose their own systems of thought, aesthetic norms, and hypotheses, effectively controlling the artists.[57] Figures like Sabotta used amputated bodies to create collages and employed photography to establish the foundation for controlling the mechanics of reproducing drawings. Scientists could now exert control over how artists depicted the ideal *typus*, enforcing stricter oversight due to the foundational support offered by photographic representation. The aesthetic and formal limitations were already established and maintained by photography, allowing scientists to impose their preferences on the artists with whom they continued to collaborate in the creation of scientific representations. However, this marked a new era in the longstanding desire of scientists to assume an authoritative role in representing the typus, albeit with the newer mandate to step aside and refrain from intervening in the creation of

55. Daston and Gallison, 122.
56. Galloway, *Uncomputable: Play and Politics in the Long Digital Age*.
57. Daston and Gallison, “The Image of Objectivity,” 103.

machine-generated images .[58]

Typus represented an ideal that could not be directly found in nature as it existed but had to be accessed through the creativity of artists or scientists. However, with the introduction of photography in the representation of ontological categories, classifications, or cases using scientific images, the discourse on typus shifted from being an inaccessible concept awaiting discovery by a genius to being provided through the phenomena itself. Contemplation of phenomena through representations produced by impartial and objective devices became the source of this possibility for scientists and atlas makers in the nineteenth century. Finally, with the introduction of X-rays in the early nineteenth century, a new visual reality emerged, and drawings by artists were no longer seen as a competitive form.[59] Technologies that employed X-rays and photography made the once invisible visible, albeit with the need for careful processing and study by scientists.

Rudolf Grashey's position as the author of *Typische Röntgenbilder von normalen Menschen* (Typical X-rays from Normal People) (1905-1939) offered a unique perspective on the existing discourse surrounding objectivity and scientific representation.[60] Grashey and his contemporaries assumed that it would be impossible to contain all variants in a single image. Instead, images would establish a scale of normality that could be used for comparison with others. What the deployment of X-rays made visible did not require perfect images but rather a series of pictures that accurately depicted the appearance of the objects under study. As Daston and Galison points out, this shifted the burden from the image to the audience. It was now the reader's responsibility to possess the "seeing eye" that could decipher what fell within the domains of, for example, normal and abnormal by examining a multitude of images that faithfully represented the actual appearance of objects.[61] The phenomena were now comprehensible to anyone interested in them, rather than being the exclusive domain of atlas makers, individual artists, or scientists. The concept of the "seeing eye" involved the recognition of patterns and the ability to distill the pathological from the normal.[62] As the interpretation of

58. Daston and Gallison, "The Image of Objectivity," 102–103.
59. Daston and Gallison, 106.
60. Daston and Gallison, 106.
61. Daston and Gallison, 109.
62. Daston and Gallison, 109.

photographs, images, and X-rays required a skill to be acquired, amidst the "infinite complexity of variation" and the commitment to representing individuals, atlas makers yielded to another form of subjectivity. This time, it was the audiences of scientific images, rather than the scientists or atlas makers, who played a role in producing the image.[63]

This transition from the scientist to the audience bears a resemblance to the limitations of the nineteenth-century epistemological quest to transcend the subjective, as they sought to make experience a valuable currency. What Helmholtz attempted to reconcile with *Wissen* and *Kennen* in order to grasp phenomena and their immediate experiences encountered a similar paradox: the dependence on another form of subjectivity while striving to escape from it. This inherent contradiction, exemplified by the endeavors of psychophysics, becomes the fertile ground upon which the realms of art and aesthetics navigate their paths within the epistemological frameworks of the twenty-first century.

I am particularly interested in discussing Kiesler's Vision Machine in light of this context. This experimental study of a machine, with an agenda to explore the nature of vision through Kiesler's correalist perspective, casts a new perspective on Kiesler's role as an architect-artist in the North American context of the twentieth century. Kiesler's biotechnical research during his short-lived Laboratory for Design Correlation and the insights offered by Vision Machine in this context are aspects I would like to further explore.

Before delving into Kiesler's Vision Machine as a case study, I would like to devote more attention to other vision devices, as they laid the foundations for the incorporation of vision into the epistemology of the sciences.

2.1.4 Commensurability: Quantifying experience

Mechanical devices, functioning as detectors, such as cameras, were also attributed with the capability to record the data they captured, akin to the human senses. For instance, the physiologist E.J. Marey envisioned his instruments as not only

63. Daston and Gallison, 109.

performing scientific work but also as creating a visual language for science in 1878.[64] He believed that this language could have universal applicability through the use of densely symbolic representations of functions and graphs.[65] Marey's instruments expanded the domains of objectivity, free from any reliance on subjectivity.

Marey is famous for his contributions to the advancement of technology, including the sphygmograph, a device used in experiments by Wundt to record the rhythmic changes in artery caliber. The sphygmograph, which Marey referred to as a "pulse writer", represented a significant advancement over traditional methods of pulse measurement, where practitioners manually measured the pulse with two fingers and recorded the results.[66] Unlike its earlier version used by Karl Von Vierordt, which involved the use of smoked paper to create graphical representations of the pulse, Marey's sphygmograph allowed for direct inscription onto paper. This automatic registration of arterial displacement ensured that measurements could be obtained objectively and accurately, even in the absence of a human subject, marking a significant departure from conventional pulse-taking methods.[67]

The graphic method offered a replacement for an older method that was susceptible to human error. Despite the production of visual representations with the sphygmograph, it did not incorporate a theory of vision in the pursuit of objectivity. Marey's contribution to the field of photography was in the realm of chronophotography, a technique for capturing photographs over time.[68] These images were created using high-speed rotary shutters, capturing photographs of well-lit objects against dark backgrounds. Marey believed that these photographs, contrary to the common assumption of the nineteenth and twentieth centuries, presented "a different image" from what is actually seen by the eye when looking at the object itself.[69] While photography, often criticized as representing nothing more than the "external reality," the immediate, the material, and therefore the trivial, as Baudelaire pointed out, Marey's chronophotographic gun was capable of revealing

64. Daston and Gallison, "The Image of Objectivity," 82.
65. Daston and Gallison, 116.
66. Joel Synder, "Visualization and Visibility," in *Picturing Science Producing Art*, ed. Caroline A. Jones and Peter Galison (London: Routledge, 1998), 385.
67. Synder, 384.
68. Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 20.
69. Synder, "Visualization and Visibility," 390.

the invisible without the use of X-rays.

According to Galloway, if we understand "digital" in terms of any mode of representation based on discrete units, chronophotography can be considered a digital process, as it involves a series of photographic impressions that are "segmented across time".[70] In his studies of animal locomotion, Marey successfully eliminated the limitations that previously hindered observers from accurately registering rapid changes. These displacements were too swift to be recorded accurately without the application of chronophotographic methods.[71] Contrasting with Louis Daguerre's method of capturing long-exposure, fixed-camera images of seemingly empty rivers and streets — where boats and people passed unseen during the exposure — Marey's chronophotography allowed the audience to visualize what was previously invisible to the eye, revealing it through a new mechanical sensibility.[72]

At first glance, Marey's work resonates as a critique of human senses, highlighting their inherent defectiveness and inadequacy. His techniques, with their potential to challenge and even replace the "testimony of sight, hearing, and touch", could easily have been perceived as defensive tools against our sensory limitations.[73] However, his instruments did not merely provide alternative or more reliable registrations of what could be sensed by touch or sight; they brought about "revelations", unveiling aspects of reality previously concealed from human perception.[74]

This could be interpreted as adding a new layer to the phenomena scientists were attempting to uncover, rather than unveiling the truth. Alternatively, it could be seen as a shift in scientific observation, where simple perception is no longer sufficient in understanding complex phenomena. Science, with these advancements, could finally embark on a "conquest of truth" without relying on human perceptual capacities. However, these instruments did not necessarily make the phenomena themselves directly accessible; rather, they made visible what was not existing before, like the machine-graphs they produced. These outputs were in the form of curves, notations,

70. Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 20.
71. Synder, "Visualization and Visibility," 387.
72. Synder, 392–393.
73. Synder, 381.
74. Synder, 381–382.

and tracings. Instead of making previously unattainable phenomena visible, they were creating representations intended to depict the movements Marey sought to investigate.[75] While seeking a form of objectivity that excluded subjectivity, Marey's introduction of chronophotographs paradoxically brought the observer back into the scene.

Graphs and chronophotographs offered the potential to enhance human understanding without eliminating human intervention, as they record phenomena that are beyond the scope of human perception. As "graphic records charting relations" began to represent phenomena that eluded or escaped the observer's attention, the role of the observer, and thus their intervention in scientific activity, became less prominent.[76] In this scenario, the instrument emerged as a tool granting access to domains previously inaccessible. As human senses fall short in precision and accuracy in this pursuit, certain methods began to compensate for these deficiencies. However, Snyder notes that in Marey's attempt, the focus shifted from observing the phenomena themselves to examining their translations into graphic or pictorial visualizations. These visualizations, while mechanically derived from the phenomena, were no longer directly connected to them.[77] Therefore, the phenomena and the new visualizations derived from them could only be effectively coupled if the scientist or author facilitating the production of these visualizations was integrally involved in the process.

This shift in Marey's approach coincided with the period from 1873 to 1883, a time when photography began to undergo a significant evolution and diversification: "to split and evolve again".[78] With the advent of discrete segmentation in photography and the development of apparatuses capable of capturing large numbers of photos in short intervals, one particular future emerged, "took hold, and-the story goes-evolved into cinema and moving picture".[79] Geometric chronophotography, utilizing fixed-plate cameras to record multiple instances, effectively multiplied the "act of inscription": accumulated like a palimpsest, reminiscent of how the brain is

75. Synder, "Visualization and Visibility," 387.
76. Synder, 380.
77. Synder, 382–383.
78. Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 26.
79. Galloway, 27.



Figure 2.2: Etienne-Jules Marey, chronophotograph of fencer showing two positions of visibility, 1890 (Marey, Collége de France. In "Visualization and Visibility" in *Picturing Science*. Edited by Caroline A. Jones and Peter Galison. London, Routledge, 1998, 389.)

theorized to bury "everlasting layers of ideas, images, and feelings".[80] The rudimentary engravings, resulting from the method Marey adopted with chronophotographs, highlighted an unbridgeable gap between vision and reality. This gap underscores the difference between "what one sees" and "what really exists", with the latter assumed to be depicted in these chronophotographs.[81]

The concept of "positions of visibility", a term introduced by Marey, lead to significant alterations in drawings and paintings. **[Figure 2.2]** As these positions became increasingly familiar through various media, their impact on art, and particularly on what Marey termed "the education of sight", grew more profound. This concept became instrumental in reconciling the differences between our natural vision and what is made visible through chronophotography plates. For Marey, the images were intended to appeal more to the imagination than to the eye, as they depicted scenes quite unlike what we typically see. Thus, they served as tools to train the eye to seek a more comprehensive representation of movement. Essentially,

80. Charles Baudelaire, *Artificial Paradises*, trans. Stacy Diamond (New York: Citadel Press, 1996), 147 cited in Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 27

81. Synder, “Visualization and Visibility,” 393.

what Marey's moving-plate chronophotography constituted is what we now refer to as cinema.[82] These moving images, where motion is directly presented to the eye, required no interpretation. In contrast, the still photographs capturing instantaneous images needed to appeal to the imagination —a mechanical and synthetic imagination. Moving images aimed to educate sight by visualizing both the visible and the non-visible, effectively recreating the conditions of visibility.[83] This influence of still photographs and moving images extended into the realm of painting, as exemplified by Marcel Duchamp's "Nude Descending a Staircase".[84]

2.1.5 Subjectivity: Limit of experience

The nineteenth century was rich in revelations. Among them, Charles Mansfield Ingelby wrote in 1853 about a transformative moment in the understanding of vision, stating that "eyes can afford no dependable reports of objects": this insight was a direct consequence of the invention of the stereoscope fifteen years earlier.[85] The stereoscope's commercialization became possible through its transformation into the parlor telescope. This version was a reinterpretation of the original laboratory device, which had been designed to question the reliability and status of human vision.[86] The phenomenon of binocular vision, arising from the placement of two eyes on the human face and each eye capturing a slightly different perspective, has been a subject of fascination for artists and philosophers for centuries. However, the public introduction of stereoscopes by Sir Charles Wheatstone in 1838 marked a pivotal moment: it empirically proved the significance of binocularity in perceiving depth.[87]

By merging two monocular, two-dimensional images using two mirrors placed at right angles, the stereoscope assisted the eyes in combining these images to create a perception of a three-dimensional solid. By the mid-nineteenth century, the study of vision had evolved into an independent discipline focused on the eye and its sensory

82. Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 30.
83. Synder, "Visualization and Visibility," 396.
84. Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 31.
85. Schiavo, "From Phantom Image to Perfect Vision: Physiological Optics, Commercial Photography, and the Popularization of the Stereoscope," 113.
86. Schiavo, 114.
87. Schiavo, 114–115.

capacities, predominantly concerned with the phenomena related to the body.[88] Wheatstone's device, on the other hand, emerged as a pivotal element in the field of physiological optics, drawing attention to the subjectivity and variability inherent in human vision.[89] The diminishing trust in a fixed and objective relationship between the external world and its representation necessitated a reevaluation of the body's role in perception.[90]

The creation of solidity and depth from two-dimensional images challenged the long-held assumption of direct correspondence between objects and their retinal projections, a cornerstone of the dominant models of binocularity since the seventeenth century.[91] The introduction of the stereoscope highlighted a newfound awkwardness in visual perception. Stereographic space was regarded as an advanced form of the earlier perspectival space, creating a kind of "tunnel vision" that provided the experience of depth where none actually existed. As Crary observes, this perceived depth is what fundamentally distinguishes stereographic space from traditional photography or painting. The camera obscura epitomized classical vision, imposing "a notion of vision as stable, transcendent, and passive", characterized by a rational, detached observer.[92]

In contrast, stereography disrupted the traditional organizational principles of metric and homogeneous space in planar representations, revealing instead a "fundamentally disunified and aggregate field of disjoint elements".[93] When the interaction between the body and the external world is considered the locus of sight, the distinction between this internal and external realm becomes blurred, complicating the traditional understanding of how we perceive the world. This phenomenon marked the emergence of subjective vision. As theorists gained access to the concept that vision could be manipulated, they began incorporating the body and its productive capacities into vision theories. This approach challenged the traditional belief that vision could be geometrically represented, as suggested by

88. Schiavo, 116.
89. Schiavo, 114.
90. Schiavo, 114.
91. Schiavo, 116.
92. Schiavo, 119.
93. Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge: MIT Press, 1990), 123 cited in Galloway, *Uncomputable: Play and Politics in the Long Digital Age*, 41

Renaissance perspectives. As the nineteenth century drew to a close, the physiology of binocular vision began to be portrayed as illusory, capable of conjuring phantom-like images. This coincided with the emergence of subjective vision as a prominent theme in popular culture. The commercialization of stereoscopes followed this trend of fascination with how photographic technology and a device could combine to produce three-dimensional tableaux.[94]

Initially, the stereoscope was a scientific device with no reliance on photography. However, as these two technologies became "married", stereo-photography played a pivotal role in advancing the capabilities of photography.[95] Photography, originally rooted in the camera obscura, saw its perspective model displaced by the introduction of stereo-photography. With the popularization and commercialization of the stereoscope after world fairs and its adoption by companies in the USA, the device was simplified and assumed a reductionist approach, likening the dual lenses to the human eyes. Consequently, the stereoscope came to be seen as an imitation of the visual capabilities of the eyes, overlooking the complexities of binocularity that had challenged earlier theories of vision in physiological optics.[96] As popular discussions about the stereoscope gained momentum, it shifted away from its initial phenomenological inquiry and instead became a tool for "furnishing visual truths".[97]

2.1.6 Towards Vision Machine

The narrative I present begins by exploring the prevailing concept of objectivity that governed the practice of science during a period when fundamental questions about the sources of knowledge and the nature of reality were under scrutiny. This process was marked by both theoretical and practical developments that afforded a closer examination of human experience. The epistemological significance of experience played a pivotal role in expanding the possibilities for structuring various forms of knowledge.

Meanwhile, experience, particularly within the visual domain, became increasingly

94. Schiavo, “From Phantom Image to Perfect Vision: Physiological Optics, Commercial Photography, and the Popularization of the Stereoscope,” 117–118.
95. Schiavo, 119.
96. Schiavo, 126.
97. Schiavo, 127.

accessible due to technological advancements. However, as vision devices became more sophisticated and intricate, our understanding of experience and the meanings attributed to it underwent significant transformations. It was within this context that Gustav Fechner introduced psychophysics as an empirical science. His fundamental assumption was that a correlation could be established between the stimuli present in the physical world and the sensations experienced by the subject.[98]

Fechner's primary objective was to bridge the gap between knowledge derived from the mind and knowledge acquired from the external world. He pursued this goal by developing a mathematical formula that established a correlation between the intensity of a stimulus and the intensity of the immediate sensation experienced by the subject. What distinguished Fechner's formula as groundbreaking was its departure from establishing causality between these two domains. Instead, it posited a "relationship of correspondence based on an assumed parallelism".[99] The transition from the physical realm to the mental realm did not necessitate Cartesian dualism, where two separate domains had to be synchronized through divine intervention. Much like Helmholtz's explanation of the difference between Goethe and Newton, psychophysics also relied on the concept of parallelism, employing different perspectives to explain a single phenomenon.

In addition to this, the devices developed in psychophysics were grounded in the logic of comparison. Rather than claiming to directly record experiences themselves, these devices quantified the discernible differences between experiences. This approach involved a description of life and consciousness as having a distinct nature that could not be further reduced to natural phenomena. At the same time, it upheld the integrity of the physical world by adhering to the laws of nature. This approach was often characterized as borrowing methods from the natural sciences without relinquishing teleological considerations.[100]

According to Çelik Alexander, Helmholtz managed to conceptualize an alternative approach to knowledge that was grounded in experience. Fechner, on the other hand, developed methods to analyze this experiential knowledge. Meanwhile, Wilhelm

98. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 45.
99. Çelik Alexander, 45.
100. Çelik Alexander, 46.

Wundt succeeded in aligning this scientific approach "with a model of selfhood that conformed to the ideals of nineteenth-century *Bildung*".[101] Nevertheless, the investigation of experience itself, especially in an environment where objectivity was facilitated through the use of devices in scientific methods, resulted in a concentration on the "surfaces of the body where visual, auditory, tactile, or olfactory sensations" were localized.[102]

Similar to Goethe, as noted by Çelik Alexander, psychophysics did not delve deep into phenomena but remained within the realm of aesthetics. Fechner himself referred to his experimental approach as "aesthetics from below". By 1876, his focus had shifted towards enumerating methods that were fundamentally statistical, revealing insights into subjects' responses to specific forms, colors, or proportions.[103]

While this position clearly opposed the views of Kant, Hegel, and Schelling, who relied on a transcendental being to explain the pleasure derived from experience, it can be likened to photography, which, by multiplying "proofs" of reality, paradoxically exhausted the reality itself. According to Virillio, the domain opened up by *Kennen* and explored through psychophysics was inherently flawed from the beginning. This alternative mode of knowing sought to address the antinomies of the Enlightenment by empowering historically marginalized perspectives. However, it remained rooted in a foundationalist epistemology and could not escape the inherently subjective nature of experience, ultimately resorting to the subject.[104] In this framework, I aim to address the cleavage between what is visible and what is not visible, not as segregated fields but as a continuous spectrum. This spectrum becomes meaningful through experience, serving as an epistemological currency. Within this context, I will position Kiesler's Vision Machine.

101. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 49.
102. Çelik Alexander, 47.
103. Çelik Alexander, 47–48.
104. Çelik Alexander, 61.

2.2 Vision Machine

2.2.1 Laboratory of Design Correlation and the Perennial Crisis in Architecture

Kiesler's Vision Machine warrants a closer examination, especially following our outline of the nineteenth century where vision emerged as a key symbol in exploring experience. I argue that for Kiesler, the Vision Machine was more than an insightful tool; it echoed the underlying themes from his 1925 manifesto on *Vitelbau*. This connection not only provided a foundational framework but also a continuous thread of thought for his subsequent correalist vision. Kiesler's practice, notably in his role as an educator, was pivotal in addressing the social and economic milieu of the twentieth century. He was deeply invested in an alternative pedagogical model, which he actively shared with a cohort of artists, architects, and professionals. These pioneers in architectural education gathered at the "Conference on Coordination in Design with respect to Education in Architecture and Applied Design", held at the University of Michigan in Ann Arbor on February 3-4, 1940. Although there is no transcript of Kiesler's speech at the conference, a review published by Kenneth C. Black in the *Weekly Bulletin of the Michigan Society of Architects* offers some insights:

> Apparently taking the conference by surprise … and certainly received by them in stunned silence was a resolution offered by Mr. Kiesler … Strange as it seems, the resolution simply suggested that students be educated to think for themselves! Not to think in terms of technics (a la Moholy-Nagy) or of materials (a la Gropius) but to be trained in a broad scientific approach to universal problems of design.[105]

Kiesler first learned about the "Conference on Coordination in Design" from a letter dated December 7, 1939, sent by Wells I. Bennett, Dean of the University of Michigan Ann Arbor College of Architecture and Design. Bennett invited Kiesler to participate in this conference, aimed at developing a roadmap for "coordination of design education" in alignment with the social and economic contexts, and to explore more inclusive design aspects.[106] The conference, held in Ann Arbor on

105. Kenneth C. Black, "The Ann Arbor Conference," *Pencil Points*, March 1940, 68.
106. Wells I. Bennett, "Letter from Bennett to Kiesler" (December 7, 1939), ÖFLKS, Box Ann Arbor.

February 2-3, 1940, was organized by Walter Baermann, Joseph Hudnut of Harvard University, and Bennett himself. **[Figure 2.3]** It featured round table discussions and a lecture by Walter Gropius on Contemporary Architecture.[107] Although there was no specific time slot for Kiesler in the program, he was invited for his significant contributions to the round table discussion on "Coordination in Design Education". Kiesler, who had been an educator since 1930 at Columbia University's School of Architecture and ran a design correlation laboratory there since 1937, attended the conference along with Leopold Arnaud, the dean of his school.

In preparation for the conference, Kiesler issued a statement outlining his primary agenda: the "elimination of the Perennial Crisis in Architecture".[108] He emphasized the need for a scientific approach to architecture, beyond studying past and present architectural styles, focusing instead on life studies. Kiesler proposed a fundamental shift in educational attitudes, suggesting that students should understand not only the business laws but also the laws governing human nature and societal changes, lack of which was the reason for this "Perennial Crisis".

Introducing the concepts of "Correlation" and "Biotechnique" to Dean Bennett, Kiesler described them as investigations into the interrelationships of natural and man-made organisms and their application to housing as an applied science.[109] This introduction piqued Bennett's interest, leading him to inquire about the future of Kiesler's Laboratory for Design Correlation and express interest in exploring Kiesler's research approach at Michigan, after the conference.[110]

In response, Kiesler emphasized the dependency of his laboratory's continuity on Columbia's funding and expressed his interest in spreading his knowledge. He proposed sending junior faculty members from Michigan to study at his laboratory for a year and offered to conduct lectures and form a study group at Michigan. This group would apply a correalistic approach to develop biotechnical solutions under Kiesler's guidance. He stressed the importance of involving other branches of

107. "Conference on Coordination in Design with Regard to Education in Architecture and Applied Design," Conference program (1940), ÖFLKS, LD 3092/0.
108. Frederick Kiesler, "On General Design Correlation," Statement prepared for Dean Wells I. Bennett: (1940), ÖFLKS, TXT 3015/0/N1–N2.
109. Frederick Kiesler.
110. Wells I. Bennett, "Letter from Bennett to Kiesler" (March 8, 1940), ÖFLKS, LET 301?/0/N1.

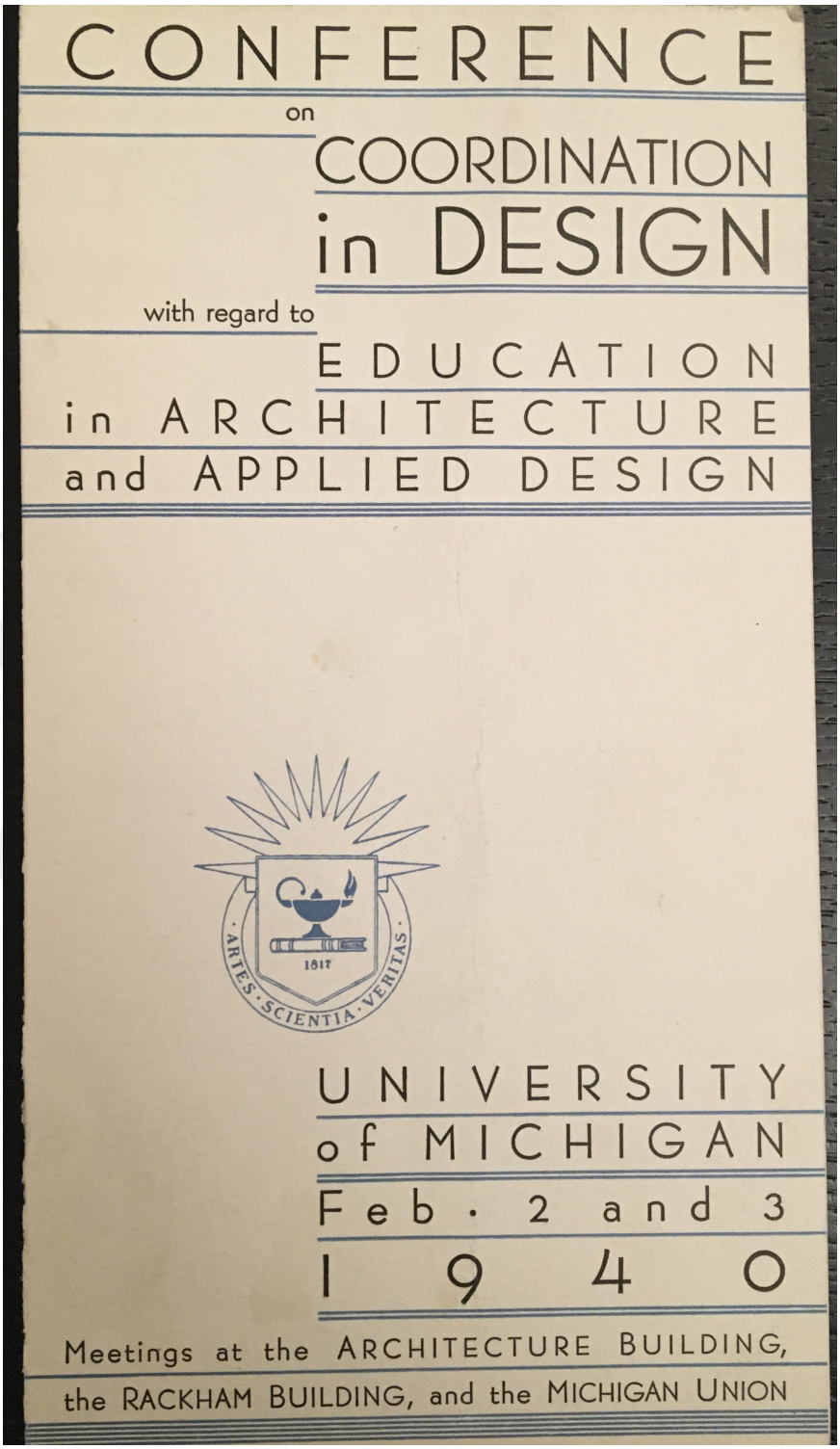


Figure 2.3: Catalog for "Conference on Coordination in Design" at University of Michigan in 1940. ÖFLKS, LD 3092/0.

science in their work, highlighting the interdisciplinary nature of his approach.[111]

The Ann Arbor conference presented Kiesler with a prime opportunity to showcase his innovative design pedagogy and research methodologies. While Kiesler's laboratory was short-lived, primarily due to resource constraints at the onset of the World War II, it was a period where Kiesler established himself as a notable figure in architecture and design education, comparable to contemporaries like Gropius and Moholy-Nagy. This is evidenced by Bennett's keen interest in Kiesler's work.

However, despite Bennett's enthusiasm for Kiesler's research methods and approach to design education in 1940, especially following his prominent participation at the Ann Arbor conference, the subsequent year marked the beginning of the end for his laboratory. The growing interest in his research unfortunately did not translate into sustained support or continuation of his laboratory's work.

It was infact in the early 1930s, when Kiesler first proposed the concept of a Laboratory for Social Architecture to the Association of Industrial Designers. This proposal aimed to research and establish new standards for progressive contemporary architecture, which he defined as "biotechnic"[*sic*]. Central to this concept was the focus on the "relationship of human to its surroundings, social, spiritual, physical, mechanical".[112]

Kiesler had already identified what he believed to be what he would refer as the "perennial crisis" in architecture here, necessitating an innovative pedagogical approach with a distinct set of tools. He attributed part of this crisis to the "adaptation of foreign styles, past and present", leading to a breakdown in traditional architectural planning. Kiesler's solution to this crisis was clear:

> European achievements in this field are highly progressive yet adhere to tradition both from the standards of living and from the industrial point of view. New architectural standards in this country must grow from the traditions, needs, and resources in the United States.[113] "

The overarching theme of Kiesler's work was the relationship of individuals to their environment, a focus that permeated his entire career in practice and research. While

111. Frederick Kiesler, "Letter from Kiesler to Bennett" (May 1, 1940), LET 3109/0/N1–N2.
112. Frederick Kiesler, "Laboratory for Social Architecture" (nd.), ÖFLKS, TXT 504/0/N2.
113. Frederick Kiesler, ÖFLKS, TXT 504/0/N2.

his initial proposal in 1933 for a laboratory addressing housing issues did not come to fruition, Kiesler would eventually establish LDC at Columbia University. This opportunity arose after the Dean of Columbia's School of Architecture, Arnaud, agreed to provide Kiesler with an independent field for two to three years to develop and coordinate his new study.[114]

A letter from Kiesler to Gano Sillick Dunn reveals Kiesler's desire to continue his laboratory work even after Columbia University ceased funding it in 1941. In his letter to Dunn, who was the President of Cooper Union at the time, Kiesler expressed a deepening concern about the ongoing crisis in architecture during the early 1940s. Despite significant societal, economic, and industrial changes, Kiesler was still pointing to the absence of "coordinated basic research in design on a scientific scale".[115]

Kiesler's Laboratory for Design Correlation at Columbia University, operational from 1937 to 1942, was fundamentally rooted in his concepts of Correalism and Biotechnique. This laboratory served as a practical platform for Kiesler to experiment with and validate his theories through diverse studies. The comprehensive insights into the laboratory's function and impact are significantly derived from the reports Kiesler submitted to the Dean. Bechara Helal, in his extensive study, explores the nuances of Kiesler's laboratory, emphasizing its alignment with Kiesler's innovative and unconventional views.[116] Helal's study of Kiesler's laboratory at Columbia University probes into the defining elements of the lab rather than the projects it undertook. A key element identified by Helal was Kiesler's intensive, reflective approach towards both his own work and that of his students. This approach was evident throughout the lab's operation from 1937 to 1942. During this period, Kiesler submitted four comprehensive reports to Dean Arnaud, detailing the activities and investigations carried out in the Laboratory for Design Correlation. These reports served to inform the dean about various aspects of the laboratory, including its internal structure, the range of activities undertaken, the profile of visitors, and the lab's internal budgeting.

114. Frederick Kiesler, "First Report on Laboratory for Design Correlation."
115. Frederick Kiesler, "Letter Addressing Gano Sillick Dunn."
116. Helal, "Les Laboratoires de l'architecture: Enquête Épistémologique Sur Un Paradigme Historique."

2.2.2 Studying Vision at LDC

The reports provide a clear understanding of the laboratory's structure, revealing that it comprised a series of projects conducted by students, sometimes in groups or individually, and occasionally in collaboration with Frederick Kiesler himself. Notably, in the second report, there is a mention of research related to what might pertain to a vision machine, highlighting this as one of the significant programs undertaken in the laboratory.[117] In the laboratory, without explicitly naming the "vision machine", one notable project was undertaken by a student named A. Thompson. This project is described as a "theoretical study on aesthetics, with special reference to the human eye as medium of perception".[118] Additionally, there is a mention of a group project led by Frederick Kiesler himself. This project focused on Kiesler's design of a device intended for the practical demonstration of optical perception, highlighting the correlative forces of vision.

The construction of the machine, as noted in Kiesler's reports, was an ambitious endeavor involving "a thorough study combining new materials in industrial design".[119] This innovative approach is highlighted in the third report, which reiterates the mention of two key projects: "Theoretical study on Aesthetics with special reference to the human eye as medium of perception," and "Design of a machine for practical demonstration of optical perception, showing the correlative forces of vision".[120]

These projects underscore Kiesler's commitment to exploring the intersection of aesthetics, perception, and innovative design. Interestingly, the third report from Kiesler's laboratory does not specify any student assignments directly associated with the overarching theme of the vision machine. This omission suggests that while the vision machine was a significant part of the laboratory's focus, individual student involvement in this specific project at that time may not have been explicitly documented or non existing. Additionally, the timeline of these reports is further

117. Frederick Kiesler, "Second Report on Laboratory for Design Correlation" (May–, June 1938), ÖFLKS, TXT 208/0/N1–N8.
118. Frederick Kiesler.
119. Frederick Kiesler, "Third Report on Laboratory for Design Correlation" (November 3, 1939), ÖFLKS, TXT 5237/0/N1–N12.
120. Frederick Kiesler.

clarified with the fourth report, which is dated March 15, 1940. This report potentially sheds more light on the laboratory's activities during this period. This is the last report submitted by Kiesler to the dean of School of Architecture and there is no mention of a vision machine or a research that dwells around the concept of vision.[121]

This absence suggests that the vision machine project may not have been a focal point of Kiesler's laboratory practice. Furthermore, this project does not prominently feature in two significant outputs from the laboratory: "On Correalism and Technique: A Definition and Test of a New Approach to Building Design" (1939) and the "Manifesto of Correalism" (1949). Given the limited recognition of the vision machine and Kiesler's exploration of vision outside his exhibition designs, it seems both timely and original to highlight this project within the broader context of Kiesler's complete oeuvre. By placing greater emphasis on the vision machine project, it is possible to uncover a theoretical undercurrent in Kiesler's work. This focus could provide deeper insights into Kiesler's relationships with artists and his research on Correalism. Moreover, it can offer a more nuanced understanding of Kiesler's perspective on how both the built and unbuilt environment impart information, thereby enriching the interpretation of his architectural philosophy.

On April 11, 1938, Selig Hecht paid a visit to Frederick Kiesler and his students at LDC. The primary purpose of his visit was recorded as "to check [the] proposed aesthetic model of processes".[122] This "aesthetic model of processes" that Kiesler was working on in his laboratory is what he referred to as the "Vision Machine". Selig Hecht, a professor of biophysics, contributed to this exploration during his visit. He delivered a talk focused on the eye, specifically discussing its connection with visual fluids, as documented in the notes from his visit. However, contrary to what might be expected, the model proposed by Kiesler was not designed to simulate the functioning of the human eye. Instead, Kiesler's vision was to demonstrate a comprehensive model of vision through an "aesthetic model", in which the eye was just one component among many. To achieve this, Kiesler planned to assemble an advisory board for the study and design of this vision-model with members

121. Frederick Kiesler, "Fourth Report on Laboratory for Design Correlation" (February-March, 1940), ÖFLKS, TXT 5236/0/N1–N7.
122. "Dr. Hecht - Visit" (April 11, 1938), ÖFLKS, TXT 841/N1–2.

belonging to the fields of "Biophysics, Chemistry, and Psychology".[123] This board was then declared to be comprised of anatomy professors, neuroscientists, educational specialists, anthropologists, and a curator from American Museum of Natural History.[124] The collective expertise of this group was intended to guide the development of the vision-model, particularly in the context of a public institution.

Although Selig Hecht was not formally listed as a member of the advisory board for the Vision Machine project, he was an early consultant. In this capacity, Kiesler posed a thought-provoking question to him: "If pictures are produced by the mind and not the eye, can blind people perceive such images? Can the blind experience imagery in dreams?" This inquiry reflects the depth and complexity of Kiesler's exploration into the nature of perception and visualization.[125] The minutes from Hecht's visit to Kiesler's studio do not record his response to Kiesler's probing questions. However, the essence of Kiesler's Vision Machine project lay precisely in exploring and demonstrating these kinds of philosophical and perceptual queries. The ability to illustrate how perception might occur beyond the physical act of seeing would have been a testament to the authenticity and innovation of Kiesler's model.

Kiesler's initiative to form advisory boards and facilitate discussions in his studio was a significant aspect of his work, particularly in advancing his correalist agenda. His approach often involved bringing together experts from diverse disciplines to address questions related to what he termed the "science of life". However, Kiesler's interdisciplinary calls were not always met with enthusiasm or acceptance. For instance, his early attempts to assemble scientists from fields like chemistry, biophysics, and psychology were not entirely successful. The lack of substantial outcomes or revelations from their involvement in the laboratory hinted at a path Kiesler would eventually embrace — that of pursuing his visionary work more independently, almost as a solitary figure.

123. Frederick Kiesler, "Stages in the Procedure of Work," ÖFLKS, Box Vision Machine.
124. "Advisory Board: For the Study and Design of the Vision-Model" (nd.), ÖFLKS, Box Vision Machine.
125. "Dr. Hecht - Visit."

2.2.3 "Genesis of Design by Light"

The Vision Machine was Kiesler's ambitious attempt to demonstrate a comprehensive network of correlations, intertwining visual and tactile information with the mind, eye, body, and environment. It aimed to illustrate the entire creative cycle of imagination, showcasing how these diverse elements interact and influence each other in the process of perception and creativity.[126] Kiesler's model was a complex assembly involving cathode tubes and X-ray machines. The mechanism was designed to be activated by a rotary switch, which, upon being turned, would generate a spark. This spark would then set the entire machine into motion, initiating its various functions and demonstrating the intricate processes Kiesler intended to explore.[127] **[Figure 2.4]**

Philips characterizes Kiesler's model, which was planned to include components such as an electrostatic generator, brass balls, blown glass tubes, colored gases, and electric wires, as resembling a "push-button exhibit at a local science fair". .[128] While Philips' description might give the impression of the Vision Machine as a straightforward, almost elementary exhibit, the reality of Kiesler's creation was far more complex and profound. Despite the fact that the Vision Machine did not become the subject of a specific paper published by Kiesler, nor did it form the basis of any of his published works, it was a crucial part of his research. This research was driven by a desire to design a device, that could demonstrate the intricate interplay of networks of nerves and how they correlate visual and tactile information across the mind, eye, body, and the environment.[129] This aim reflects a deep exploration into the interconnectedness of perception and the physical world, underscoring the correalist nature of Kiesler's work in vision. Insights into this research can be traced back to Kiesler's articles published in 1937, revealing the depth and foresight of his explorations into the tools responding to the need of the interplay of sensory perception and environmental interaction.

From February to August 1937, Frederick Kiesler published a series of six articles in

126. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 153.
127. Phillips, 153.
128. Phillips, 153.
129. Phillips, 153.

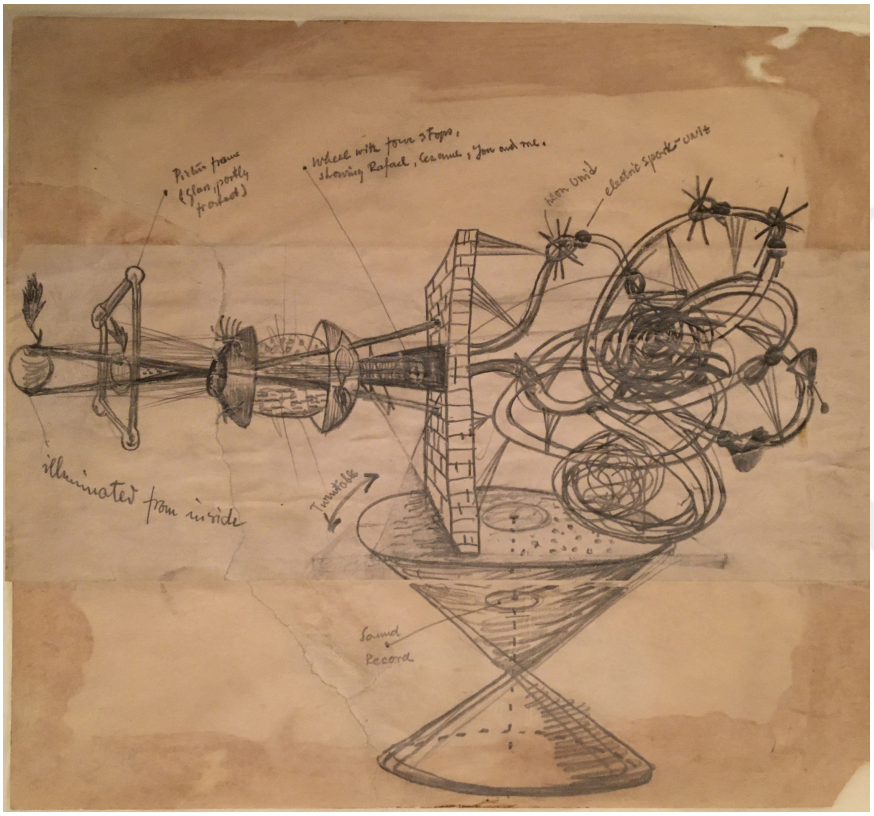


Figure 2.4: Sketch of the model of Vision Machine by Frederick Kiesler. Pencil on paper. ÖFLKS: SFP858/0

Architectural Record, under the column "Design Correlation". A significant portion of his research, particularly on the evolution of devices for capturing visual data, was featured in a two-part article titled "Certain Data Pertaining to the Genesis of Design by Light". In these articles, Kiesler traced the history of photography, beginning with the camera obscura. He dated this early form of photography back to 300 BC, referencing Aristotle's observation of the "phenomenon of an inverted image cast through a minute hole on an opposite wall in a dark room".[130]

Kiesler conceptualized photography as an extension of human desire to transcend the temporal confines of existence. He positioned photography alongside realms like religion, art, philosophy, as well as science and technology, all of which, he believed, were developed by humans primarily for survival. **[Figure 2.5]** In Kiesler's view, the inability of humans to endure physically led them to create more lasting records as a coping mechanism. From this existential perspective, he saw photography as a manifestation of capturing ephemeral images, a process of preserving fleeting moments through the medium of light.[131]

In Kiesler's analysis, there was a transitional period following the invention of photography when it was primarily viewed as a tool for guiding artists in their representation of nature, similar to Daston and Gallison's interpretation of photography as a policing tool for artists. However, Kiesler believed that this role of photography evolved significantly with the contributions of gifted artists like Henry Fox Talbot. He cites Talbot's 1844 work *The Pencil of Nature* as a pivotal moment when photography began to be recognized as an independent form of representation. Kiesler poetically notes that Talbot's work hinted at the existence of "invisible rays" alongside visible light, suggesting a deeper, more nuanced understanding of photographic art.[132] Kiesler was profoundly impressed by Talbot's speculative insights into the nature of light and photography. He was particularly struck by the technological advancements that emerged about ninety years after Talbot's work, notably the development of infra-red cameras. These cameras, capable of activating sensitive surfaces, made it possible to capture images using the "invisible rays"

130. Frederick Kiesler, "Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light. Part II," *Architectural Record* 82, no. 8 (August 1937): 89.
131. Frederick Kiesler, 89.
132. Frederick Kiesler, 89.

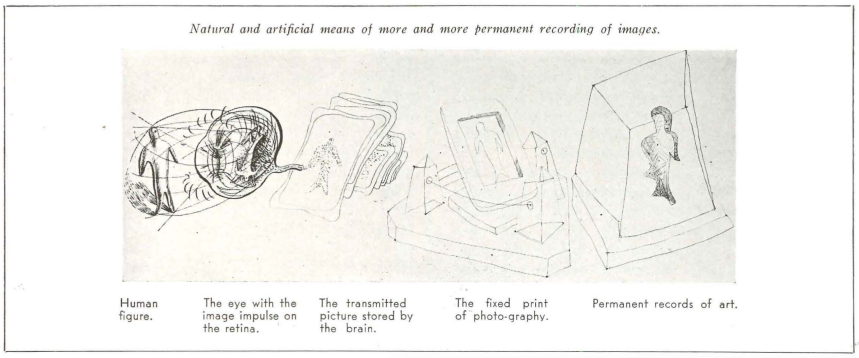


Figure 2.5: Diagram of “Natural and artificial means of more and more permanent recording of images". (Illustration by Frederick Kiesler in *Architectural Record* 82, no.8., 90.)

Talbot had speculated about, turning his visionary ideas into a tangible reality.[133]

For Kiesler, an equally significant milestone in the exploration of invisible rays, preceding the development of infra-red photography, was the discovery of X-rays. This breakthrough came with Wilhelm Konrad Röntgen’s groundbreaking discovery in 1895, followed by the first X-ray photographs taken in 1896. Kiesler regarded this as a major leap in the ability to visualize and understand aspects of the world beyond the visible spectrum. Writing during a period when the sound-film industry was already well-established, Kiesler noted that television technology, in contrast, was not yet technically or economically prepared for widespread release. His reflections on the advancement of devices capable of recording and distributing representations were enriched with diagrams and charts. In these, Kiesler postulated three distinct modes of representing an object of perception, each illustrating a different approach to how we capture and understand the world around us.

Kiesler identified three primary modes of representing an object. The first is the image formed as a result of an impulse on the retina of the eye. This representation is close to the actual figure but lacks detail, resembling an impression on a palimpsest of frames. The second mode is the fixed print produced by photography, capturing a moment in time with greater detail and permanence. The third mode encompasses the permanent records created by art, which can be seen as more interpretive and

133. Frederick Kiesler, “Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light. Part II,” 89.

conceptual. These representations are organized in ascending order of their permanence and the mediums that produce them: the transient and less detailed images produced by the eye, the more concrete and detailed photographs captured by light, and finally, the enduring and interpretive works of art, which Kiesler suggests are products of the brain.[134] This hierarchy of representations, as illustrated in the sketch, aligns with Kiesler's research on the Vision Machine, further exploring the complex interplay between perception, light, and cognitive processes.

In the second part of his article addressing the "genesis of design by light", Kiesler extends his exploration beyond the initial tracing of optico-chemical and social aspects of biotechnical reproduction.[135] In this segment, he delves into the processes of reproduction and transmission of pictorial messages, examining the technology underpinning these processes. Kiesler traces the origins of these technological advancements back to the discovery of printing, suggesting a historical continuum that links past innovations with contemporary methods of image reproduction and communication.[136] Kiesler discusses the evolution of image reproduction, noting the transition from the use of chemicals and manual mechanization to the introduction of light as a key element in photography. According to him, the era of manual printing, where artists played a crucial role in transmitting pictorial messages through their engravings, began to shift with the advent of photography. This new technology introduced a form of mechanization in the image reproduction process. Photography marked the beginning of what Kiesler describes as the "mechanization of fixing the design by chemical means", where light became instrumental in capturing and preserving images.[137] Kiesler asserts that the transmission of visual information became fully mechanized with a significant shift in technology. He notes, "optical lenses and chemical emulsions replaced the artist".[138] This observation highlights the transformation in image reproduction processes, where the traditional role of artists was supplanted by the advancements in optical and chemical technologies.

Kiesler's narrative, while not mirroring Daston and Gallison's concept of mechanical

134. Frederick Kiesler, 90.
135. Frederick Kiesler, "Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light. Part I," *Architectural Record* 82, no. 7 (July 1937): 89–92.
136. Frederick Kiesler, 79.
137. Frederick Kiesler, 79.
138. Frederick Kiesler, 79.

objectivity, similarly recounts a shift where artists are gradually replaced by devices. In the same article, Kiesler's graphical timeline on the evolution of "light" devices in the nineteenth century begins with the Camera Lucida. This late eighteenth-century instrument, designed to project views onto a drawing board, assisted artists in the reproduction of natural images. He then discusses Niepce's breakthrough in 1816 with a camera obscura to capture nature's image, which was later refined by Daguerre. Kiesler tracks how these advancements led to cameras becoming more accessible and mobile, reflecting the technological progression throughout the nineteenth century.

Kiesler also showed a keen interest in the works of Marey and Eadweard Muybridge, particularly focusing on their contributions to the field of moving pictures. He was intrigued by how their innovations in capturing motion helped in crafting "continuous narratives".[139] This interest differs from their widely recognized achievement in revealing aspects of motion previously invisible to the human eye. Kiesler valued their work more for its narrative potential in moving images than for its technical ability to capture what had been beyond human perception, as previously discussed. Kiesler's fascination extended beyond just capturing images; he was particularly interested in how devices could transmit visual data. This led him to focus on technologies like the Kinetograph, a device designed to record objects in motion, and Phantascopes, which transformed the traditional camera obscura into a tool capable of performing "visionary images by enlarged projection".[140] Kiesler's interest took a further turn with Röntgen's discovery of X-rays. This breakthrough captivated him with the possibility of visualizing "invisible deep layers of matter", shifting his attention to exploring beyond the surface level of visual perception.[141] In Kiesler's extensive six-page timeline, the central theme is not so much the epistemological significance of imaging devices — what they could or could not represent — but rather their increasing accessibility and mobility. Kiesler observed that as these devices became more portable and widely used, they progressively integrated into the human-made environment. This shift highlighted a transformation in how these technologies were perceived and interacted with, becoming an integral part of everyday life and altering the landscape

139. Frederick Kiesler, "Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light. Part I," 82.
140. Frederick Kiesler, 82.
141. Frederick Kiesler, 83.

of human experience.

Kiesler's timeline reaches its zenith with the advent of the Cathode-Ray-Tube technology, capable of generating X-rays. He regarded this innovation as the "eye of infinite vision" for the television camera, marveling at its ability to transmit images via scanning with a magnetic field and project them far beyond what the human eye can perceive.[142] This technological leap deeply fascinated Kiesler. He envisioned a future where the theory of radiation would intersect with the interconvertibility of thoughts, allowing for the recording of brain visions by "arresting the energy emanation".[143] This would enable capturing and rendering subconscious images, which remained enigmatic to both the human eye and the traditional lens of the camera obscura.

Kiesler predicted that the industry would gradually embrace avant-garde techniques, especially as devices for "light-design-recording" became more widely accessible to the general public.[144] He believed that photography was inherently meant for the masses, describing it as pro-social due to its broad reach and accessibility. In contrast, he viewed easel painting as representative of a more solitary or a-social approach to art, a perspective worth noting in the context of his collaborations with contemporary artists. Kiesler saw photography's growing ubiquity as a democratizing force in the world of art, marking a shift from the exclusive realm of easel painting to a more inclusive and collective visual experience.

A few years after his work on the Space House and its connection to art in the context of modern life, Kiesler's study of optical devices aimed at visualizing and recording visions led him to an almost anthropological examination of photography. Diverging from late twentieth century thinkers, Kiesler placed greater importance on the technologies these devices made available rather than their epistemological significance. His focus was on visual documentation and the possibilities of representation through such devices, and how they became mainstream or a standard in the context of his correalistic philosophy.

In this way, Kiesler was essentially identifying and articulating a nascent ideology

142. Frederick Kiesler, 84.
143. Frederick Kiesler, 84.
144. Frederick Kiesler, 84.

of perception and seeing in the twentieth century at an early stage. He recognized the shift towards a society increasingly oriented around visual documentation and representation, and how that could be shaping perception and understanding in the modern era.

2.2.4 Dream Images

Before giving a detail account of Vision Machine itself, it is crucial to position the Vision Machine as a project fundamentally concerned with the transfer of information from one medium to another. This project represents more than just technological innovation; it encapsulates Kiesler's interest in the fluid transgression between various mediums. I argue that for Kiesler, this intermedial transference was not just a technical challenge but an aesthetic one. The Vision Machine, therefore, can be seen as an embodiment of his pursuit to understand and aesthetically represent the dynamics of information transfer across different forms of media. This perspective illuminates Kiesler's endeavor as one rooted in an aesthetic exploration, reflecting a deep engagement with the nuances of how information and sensory experiences are conveyed and transformed from one medium to another. Phillips refers to Kiesler's aspiration, which he finds evident in Kiesler's idea of making dreams more accessible, finds resonance in an unpublished manuscript titled "Manuscript: Dream-Recorded".[145] In this work, as Phillips reports, Kiesler envisaged a tool that could be utilized by therapists to circumvent both their own and their patients' biases. His concept aimed at extracting and producing more accurate images directly from a person's memory.[146] **[Figure 2.6]** This speculative approach reflects Kiesler's deep interest in bridging the gap between the intangible world of dreams and conscious understanding, potentially transforming therapeutic practices by providing a more direct and unbiased insight into the human psyche. Kiesler's concept hinged on the use of advanced technologies like electroencephalograms, cathode ray tubes, electrodes, and an oscillograph. These tools were intended to record visual representations on light-sensitive materials or continuous rolls of paper. He theorized that the unconscious brain, through its "latent energies,

145. I was not able to access to this manuscript in the archives but this document is cited in Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 154
146. Phillips, 154.

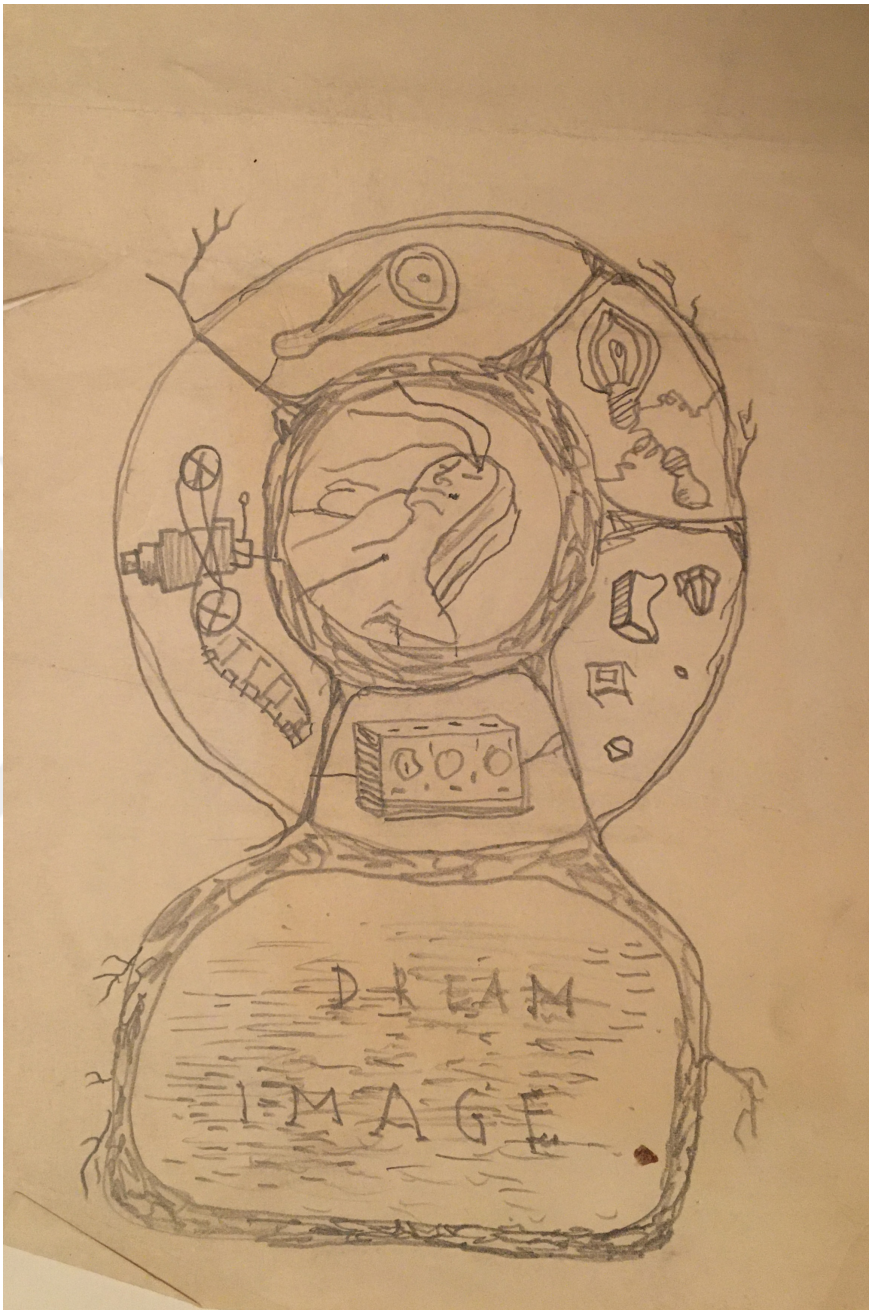


Figure 2.6: Sketch of a person having dream images inside a structure that resembles a crystal ball by Frederick Kiesler. Pencil on paper. ÖFLKS, SFP871/0.

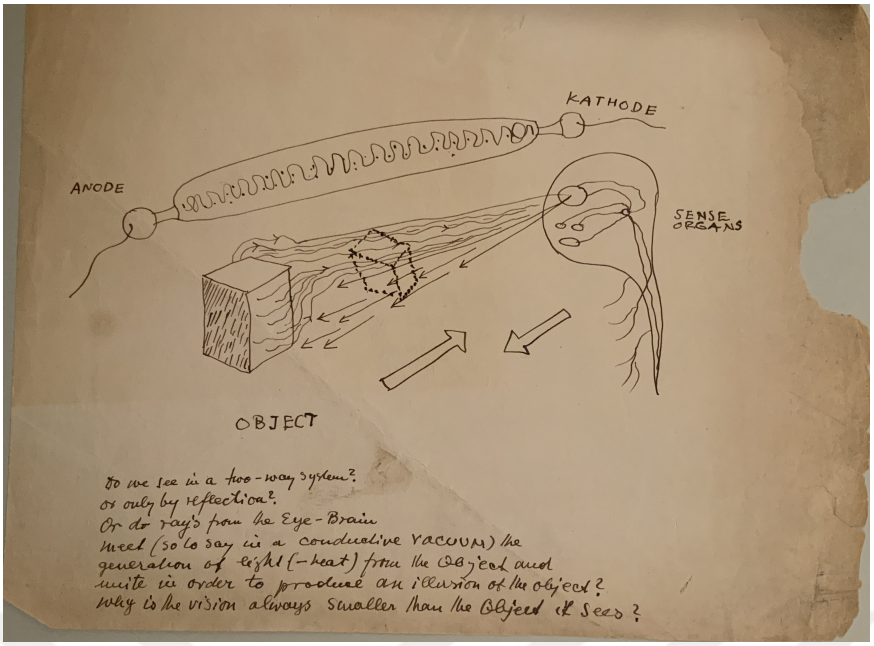


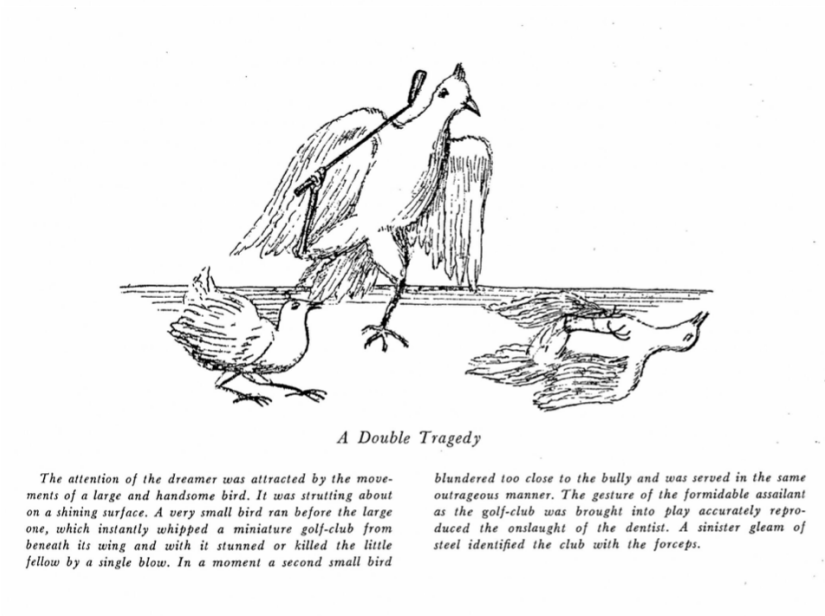
Figure 2.7: Sketch of a process which suggests using cathode-ray tubes to transmit dream images. Pen on paper. ÖFLKS, SFP875/0.

excitations, and phosphorescence", could be tapped to provide meaningful visual images.[147] This innovative idea proposed using these technological means to translate the inaccessible processes of the unconscious mind into tangible, interpretable visual forms. **[Figure 2.7]**

In 1942, Kiesler published an article titled "Some Testimonial Drawings of Dream Images" in the journal *VVV*. In this piece, he revisited his idea of recording dream images, which he described as "honest attempts to convey the phenomena of dream images devoid of artistic perjury".[148] This statement underscores Kiesler's commitment to capturing the essence of dreams in their purest form, free from the distortions of artistic interpretation. He sought to present dream images as authentic and unaltered experiences, reflecting his ongoing exploration into the realms of the subconscious and the potential of technology in visualizing these experiences.[149]

In his 1942 article, Kiesler delineates five distinct orders of dream records. He specifically references drawings by Percy Goldthwait Stiles from the 1927 book

147. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 154.
148. Frederick Kiesler, "Some Testimonial Drawings of Dream Images," *VVV* 1, no. 6 (1942): 27.
149. Frederick Kiesler, 27.



A Double Tragedy

The attention of the dreamer was attracted by the movements of a large and handsome bird. It was strutting about on a shining surface. A very small bird ran before the large one, which instantly whipped a miniature golf-club from beneath its wing and with it stunned or killed the little fellow by a single blow. In a moment a second small bird blundered too close to the bully and was served in the same outrageous manner. The gesture of the formidable assailant as the golf-club was brought into play accurately reproduced the onslaught of the dentist. A sinister gleam of steel identified the club with the forceps.

Figure 2.8: A sketch which Frederick Kiesler refers as a third order dream image where a bird stuns a little bird with a miniature-golf club. Illustration by Percy Glodthwait Stiles. From the 1927 book *Dreams*, published in *VVV* 1, no.6, 1942, 27.

Dreams as examples of the third order. **[Figure 2.8]** Kiesler's scale for categorizing dream records begins with the dream itself as the first order. The second order is the memory imprint of the dream, which represents how the dream is recalled by the individual. The third order, as illustrated by Stiles' drawings, involves any design or representation created from that memory imprint. This classification system underscores Kiesler's methodical approach to analyzing and understanding the various stages through which a dream is experienced, remembered, and subsequently represented. Kiesler appreciated the authenticity in Stiles' approach to recording dreams, as depicted in his book. He valued Stiles' work for its lack of symbolic interpretation, in contrast to Carl Jung's approach, which Kiesler perceived as relying on "decorative" elements and a consistent style.[150] Kiesler classified Jung's method as the fourth order in his system of dream records, characterizing it as an "interpretive drawing of a past dream using standard symbols".[151] According to Kiesler, this fourth order deviated from the authentic representation of dreams, as it

150. Frederick Kiesler, 28.
151. Frederick Kiesler, 29.

involved the application of preconceived symbols and interpretations rather than a direct and unembellished depiction of the dream experience.[152] Kiesler's categorization of dream records culminates in the fifth order, which he defines as "a consciously invented dream composition".[153] This category represents a departure from the more direct forms of dream representation, involving creative invention rather than recollection. Kiesler introduces these orders as a means to probe a fundamental question: "How closely can a design represent an after-image of the memory flash?" This inquiry, central to his exploration of memory and representation, appears to remain unresolved for some time, potentially until his work on the design of the Shrine of the Book. The question reflects Kiesler's enduring interest in the fidelity of representation, especially in how memories and subconscious experiences are visually captured and conveyed.

For Kiesler, the phenomenon of dreaming was a subject of great intrigue. As Phillips notes, his views seem to echo the thoughts of Henri Louis Bergson, particularly those expressed in Bergson's 1914 essay on dreams: *Dreams*.[154] Bergson, like Kiesler, did not propose an alternative pathway for dreams to manifest, other than through visions comparable to actual sight. "The mechanism of the dream is the same, in general, as that of normal perception," Bergson asserted.[155] This perspective, which highlights the significant role of memory and the psyche in shaping our perceptions, appears to have laid the groundwork for Kiesler's understanding of the mechanism of seeing. Bergson's observation that what we actually see — the "sensible matter" of our perception — is minimal compared to what our memory contributes to it, resonates with the ideas suggested in Kiesler's study diagrams.[156] Bergson posits that the process of seeing and perceiving is heavily reliant on prior experiences and familiarity with what is being observed. He emphasizes the crucial role of memory, suggesting that it is the "appropriate remembrance" which initiates the realization of perception.[157] According to Bergson, it is this remembrance that is projected externally, often in a hallucinatory

152. Frederick Kiesler, "Some Testimonial Drawings of Dream Images," 29.
153. Frederick Kiesler, 29.
154. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 187.
155. Henri Bergson, *Dreams*, trans. Edwin E. Slosson (London: T. Fisher Unwin, 1914), 41.
156. Bergson, 41.
157. Bergson, 43.

form, and not the actual object itself, that the observer perceives. He argues that what we perceive is influenced and shaped by our memories and past experiences, which provide the context and framework for understanding and interpreting sensory information. This concept implies that our perception of reality is, in many ways, a reconstruction based on our previous encounters and memories. Both Bergson and Kiesler converge on the notion that the mechanisms of vision during wakefulness and in dreams are akin to one another, as in both states we perceive "merely a sketch of the object".[158] Bergson characterizes this perception as a kind of "hallucination, inserted into a real frame", suggesting that our everyday perceptions are colored by subjective interpretations, much like dreams.[159] Kiesler shared this fascination with the nature of perception and was particularly enthusiastic about the prospect of accessing these hallucinatory experiences directly. He saw potential in not just understanding these perceptual processes but also in capturing and representing them in a tangible form, thus bridging the gap between subjective experience and objective representation.

Kiesler's desire to record fleeting memory flashes was deeply intertwined with his fascination for the concept of interconvertibility. He was intrigued by the possibility of transforming a piece of information into a storable format, which could then be re-inscribed or translated across different mediums. This concept of transmutation not only fueled his curiosity but also served as a significant source of inspiration, as evident in another of his unpublished manuscripts which seems to be a study of Kiesler on another writing that is on "Transmutation". This manuscript likely contributed to his further explorations in correalist architecture.

In it, Kiesler explored the idea that stimuli often carry more information than we initially perceive, and that devices and methods could enable the exchange of this information between various fields or mediums. He was interested in how phenomena or inputs could be represented in different ways: "If we receive light, it must not be light at all; it can be, for instance: sound that has been transmuted into light".[160] This perspective underscores Kiesler's innovative approach to understanding and representing the interplay between different sensory experiences

158. Bergson, 44.
159. Bergson, 44.
160. Frederick Kiesler, "Re: Transmutation," ÖFLKS, TXT/IMG0219/N1.

and mediums.

The concept of a representation being fundamentally different from what it initially appears to be was not just a theoretical fascination for Kiesler, but it also had practical implications. He saw the sound and motion industry as a prime example of this idea in action. Kiesler was intrigued by the process of recording sound and then transferring it into a different medium, allowing for the recreation of the original phenomenon in a new environment. He emphasized the role of "electric currents" in this process and how our understanding of physics enables us to replicate sounds by analyzing their corresponding physical properties, such as vibrations, wavelengths, and frequencies.

Kiesler viewed this ability to transform and manipulate sound as a testament to human ingenuity: "We have been able to guide powers of nature into desired channels and learn how to control them for our advantage".[161] This perspective highlights Kiesler's appreciation for the practical applications of theoretical concepts, demonstrating how abstract ideas about representation and transmutation can be actualized in tangible, beneficial ways.

Technological advancements in the fields of medicine and biology were particularly captivating for Kiesler, serving as significant sources of awe and inspiration in his work. He expressed a keen interest in how these advancements contributed to our understanding of biological processes and their potential applications. Kiesler specifically noted developments in treatments related to glandular disorders and the implications of organ transplantation. He saw these medical breakthroughs, which included altering physical conditions such as different sized heads and the effects of organ transplants, as profound examples of transmutation in the biological realm. These advancements not only demonstrated the possibilities within medical science but also resonated deeply with Kiesler's broader explorations into the transformation and manipulation of natural phenomena.

In Kiesler's conceptual framework, vision encompassed the potential for convertibility, leading to the ability to recreate one's perceptions. Within the array of research material for his Vision Machine — which includes sketches, doodles, and notes on topics like dioptric mechanisms, osmosis, and technical specifications of

161. Frederick Kiesler, "Re: Transmutation," ÖFLKS, TXT/IMG0219/N4.

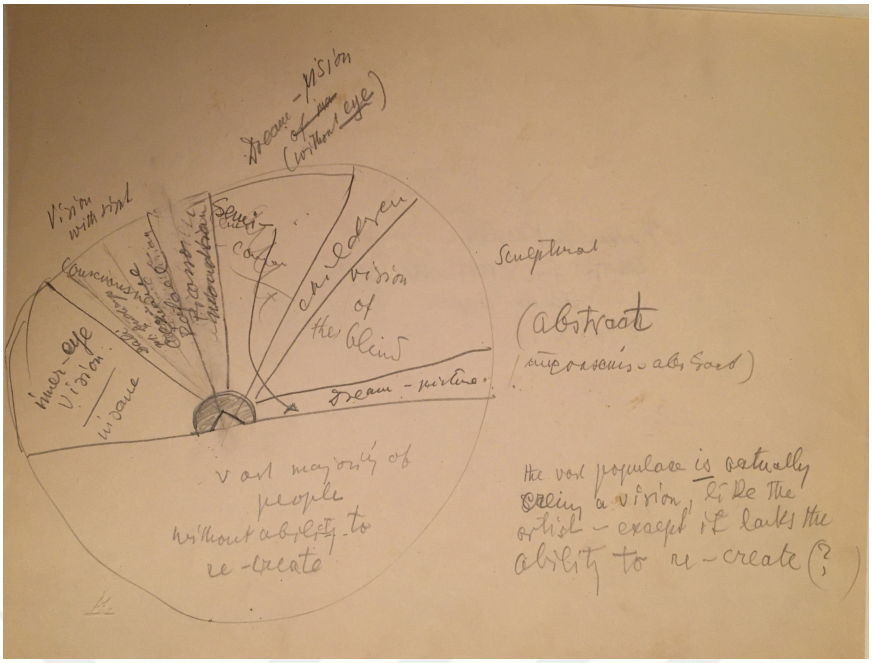


Figure 2.9: Chart for Vision Machine by Frederick Kiesler with notes. Pencil on paper. 1938. ÖFLKS, SFP874/0-KE 4429.

projection machines — Kiesler also developed pie charts to categorize different types of visual images accessible to humans.

In one of these pie charts, Kiesler made a striking observation: he suggested that the "majority of people" lacked the capacity for recreation, implying that they were merely "seeing" without engaging in the process of "transmutation" or converting their visual experiences into other forms of visual representation. [**Figure 2.9**] This assertion highlights Kiesler's interest in the depth and complexity of visual perception, as well as his exploration into how different individuals engage with and interpret their visual experiences. Kiesler's pie charts, while not grounded in scientific research, offer insightful reflections on his perception of vision and understanding of perception from an aesthetic standpoint. These charts categorize vision types based on their representational qualities and the demographic groups that typically experience them. A significant portion of the chart dedicated to those who could "re-create" vision was attributed to artists, who occupied about a quarter of this segment. The majority of the remaining chart illustrated types of vision accessible to children, visually impaired individuals, and those with mental

challenges, including dream visions.

In a separate version of this graphical representation, Kiesler provided a clearer delineation between different kinds of vision and their respective representations. This version specifically named artists such as Dali, Marcel Duchamp, Cezanne, Rafael, Picasso, and Mondrian, highlighting the distinct ways these artists visually interpreted and represented their perceptions. [**Figure 2.10**] Kiesler identifies light, the eye, and the brain as the primary mediums through which vision images are produced. This conceptualization emphasizes the interplay between external stimuli, physiological mechanisms, and cognitive processes in the formation of visual perception. The chart itself is divided into three nearly equal segments, each labeled distinctly as "vision without sight", "vision with sight", and "reverse vision". This tripartite division reflects Kiesler's exploration into the different modes of experiencing and interpreting visual information to re-create. "Vision without sight" suggests a form of perception that transcends the physical act of seeing, possibly encompassing experiences like blind sight or visualization in the mind's eye like dreams. "Vision with sight" likely refers to the conventional understanding of vision based on ocular perception but from the chart, one sees that it actually hints at artistic or imaginative interpretations of visual stimuli. "Reverse vision", a more enigmatic category, could imply a form of perception that inverts or alters the usual process of seeing.

2.2.5 Seeing as a creative process

This division and Kiesler's chart can be interpreted in the context of his study on the "genesis of design by light", where he reflects on the transient nature of images created by humans. He suggests that the documents comprising human history should be viewed through the lens of an aesthetic evolution. In this sense, Kiesler's work aligns with a history of aesthetics, wherein the changing nature of image creation and perception over time is considered.

Additionally, Kiesler shows a keen interest in the aspects of perception that are often overlooked by the general public, particularly in how they relate to representing ancestry. He revisits his earlier query about whether the blind can experience

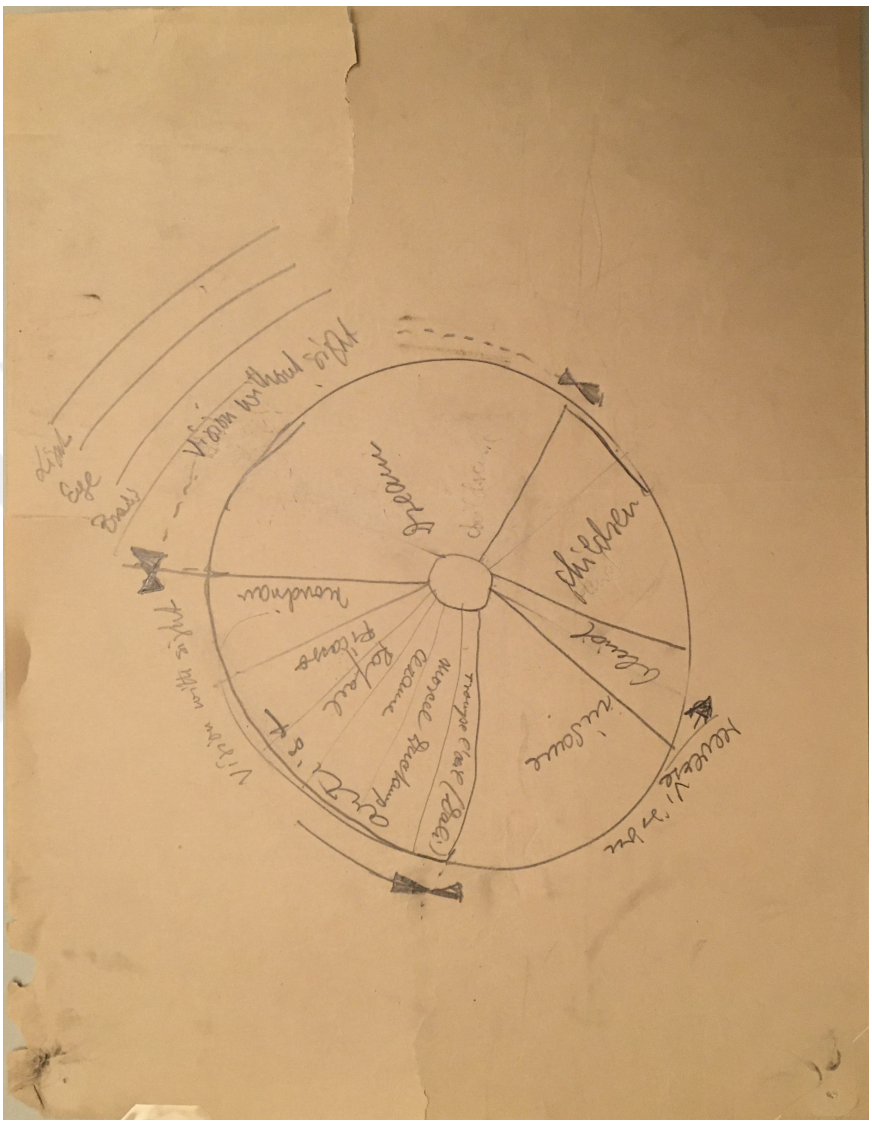


Figure 2.10: Chart for Vision Machine by Frederick Kiesler. Pencil on paper. ÖFLKS, SFP873/0.

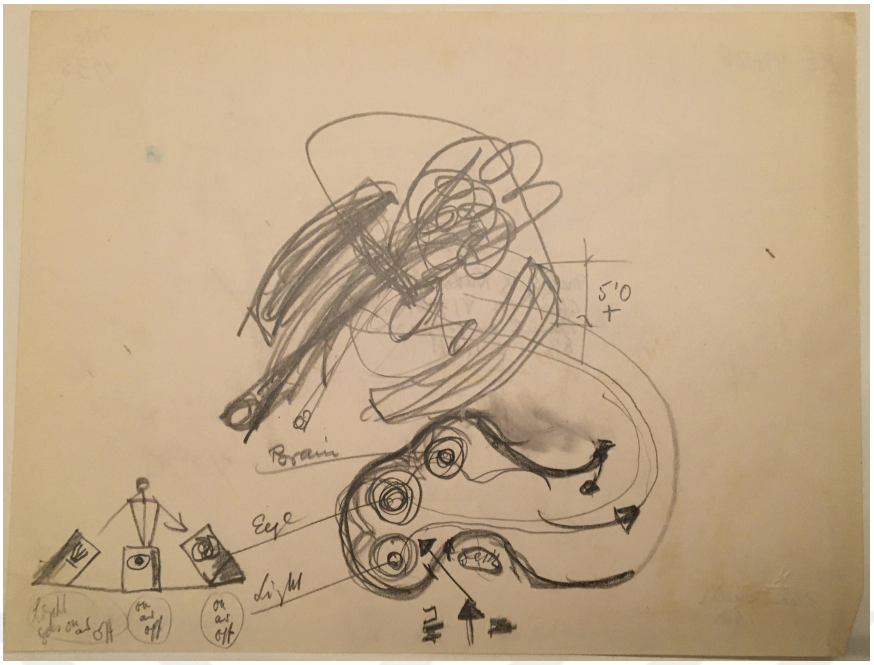


Figure 2.11: Chart for Vision Machine by Frederick Kiesler. Pencil on paper. Source:ÖFLKS, SFP862/0-KE 4428.

imagery in dreams. In his categorization, "vision without sight" is associated with dreams, while "reverse vision" is a type of perception that, according to Kiesler, is mainly accessible to children, the mentally challenged, and the visually impaired. For Kiesler, these groups represent a united third front, demonstrating how physical and physiological processes intertwine in the act of seeing. Kiesler posits that while the eye is a crucial component of vision, it is not the sole determinant. He argues that even without sight, or in the absence of conventional brain function, humans are capable of producing images. **[Figure 2.11]** This idea forms the cornerstone of his Vision Machine, which aims to showcase how humans can create visual representations through various means, transcending traditional notions of sight and perception.

For Kiesler, vision was not a universal and homogenous process applicable to all individuals in the same way. He believed in the existence of various forms of seeing, each uniquely accessible to different groups of people. Artists, children, and individuals with mental disorders or visual impairments, in his view, experienced distinct kinds of vision that were not universally shared. Kiesler did not see this

diversity as a limitation; rather, he was optimistic about the potential of technological advancements to bridge these visual experiences.

One source of Kiesler's inspiration was the television's ability to scan images, convert them into light, and transmit them to distant locations for re-creation. He envisioned a similar technology capable of making "images without sight" accessible, such as translating dream visions into visual representations. Kiesler's approach suggested that these images could be rendered without subjective alteration by therapists or artists, thereby avoiding the introduction of biases and subjectivity.

Furthermore, Kiesler was confident in his understanding of the mechanics of vision, believing it would lead to greater control and comprehension of different visual experiences. He anticipated that this enhanced understanding would not only refine the aesthetics of vision but also expand the ways in which we perceive and interpret visual information. Kiesler's vision was thus a blend of optimism for technological progress and a deep belief in the variability and richness of human perception.

Kiesler acknowledged the inherent subjectivity in perception, understanding that it is influenced by both physical and psychological processes. Recognizing this subjectivity was, for him, the first step towards making informed judgments about images. This perspective also lent greater authority to those involved in shaping the visual and sensory environment for others, such as artists, architects, and designers. Kiesler believed that vision was experienced differently by various subjects, manifesting in diverse forms and mediums. Furthermore, in discussing vision, Kiesler also emphasized the importance of the subject's ability to represent these visual experiences. He saw this representational capacity as crucial in conveying the unique ways in which individuals perceive and interpret their sensory experiences.

Kiesler's interest in vision extended beyond the mere correlation of stimuli and their resulting images, or the interaction of a subject with its surrounding environment. He was deeply engaged with understanding how vision is processed and converted, either into a form of representation or for utilitarian use. However, it is evident that Kiesler was particularly captivated by those images that lay beyond the reach of ordinary sight.

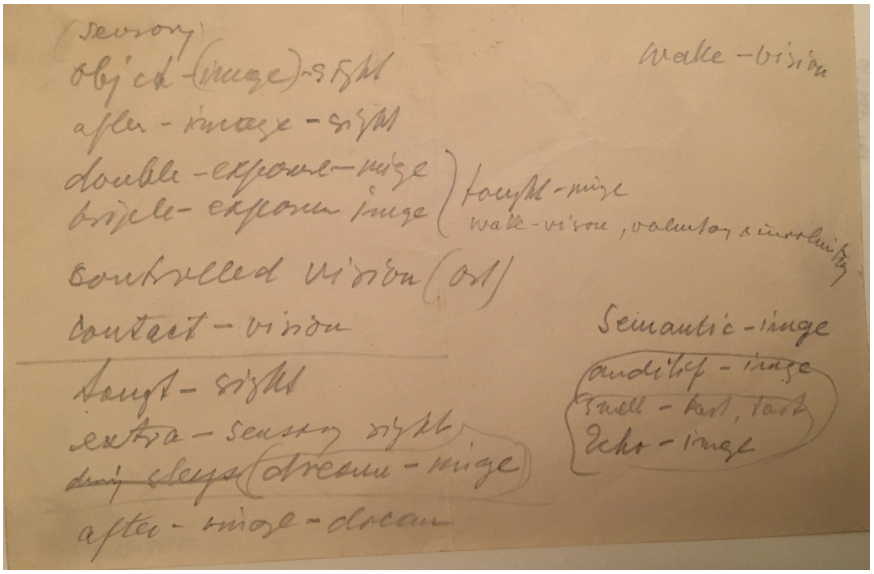


Figure 2.12: A list of different kinds of visions. Pencil on paper. ÖFLKS, TXT/6003/0.

For Kiesler, the act of seeing encompassed more than just the reception of a stimulus by an organ, followed by its processing through various faculties to produce an output. He perceived it as a continuous process that, while certainly generating an image or projection, did not guarantee its accessibility or visibility to everyone. Moreover, in Kiesler's view, these resultant images did not necessarily claim to represent the true essence of anything. In fact, his understanding of seeing suggested that there were a number of modes of seeing or vision. [**Figure 2.12**] Kiesler's theory of vision was distinct in that it did not primarily seek to provide a biological or neurological explanation of how we see. Instead, his focus was on offering an account of the aesthetic evaluation of vision and the images produced through this intricate process. He aimed to understand vision through a lens that combined both physiological and psychological aspects. This approach is evident in his diagrams, where he integrates these two dimensions to present a more holistic understanding of vision. [**Figure 2.13**] Kiesler's interest, therefore, extended into the realm of aesthetics, exploring how the complexities of seeing contribute to our interpretation and appreciation of visual images.

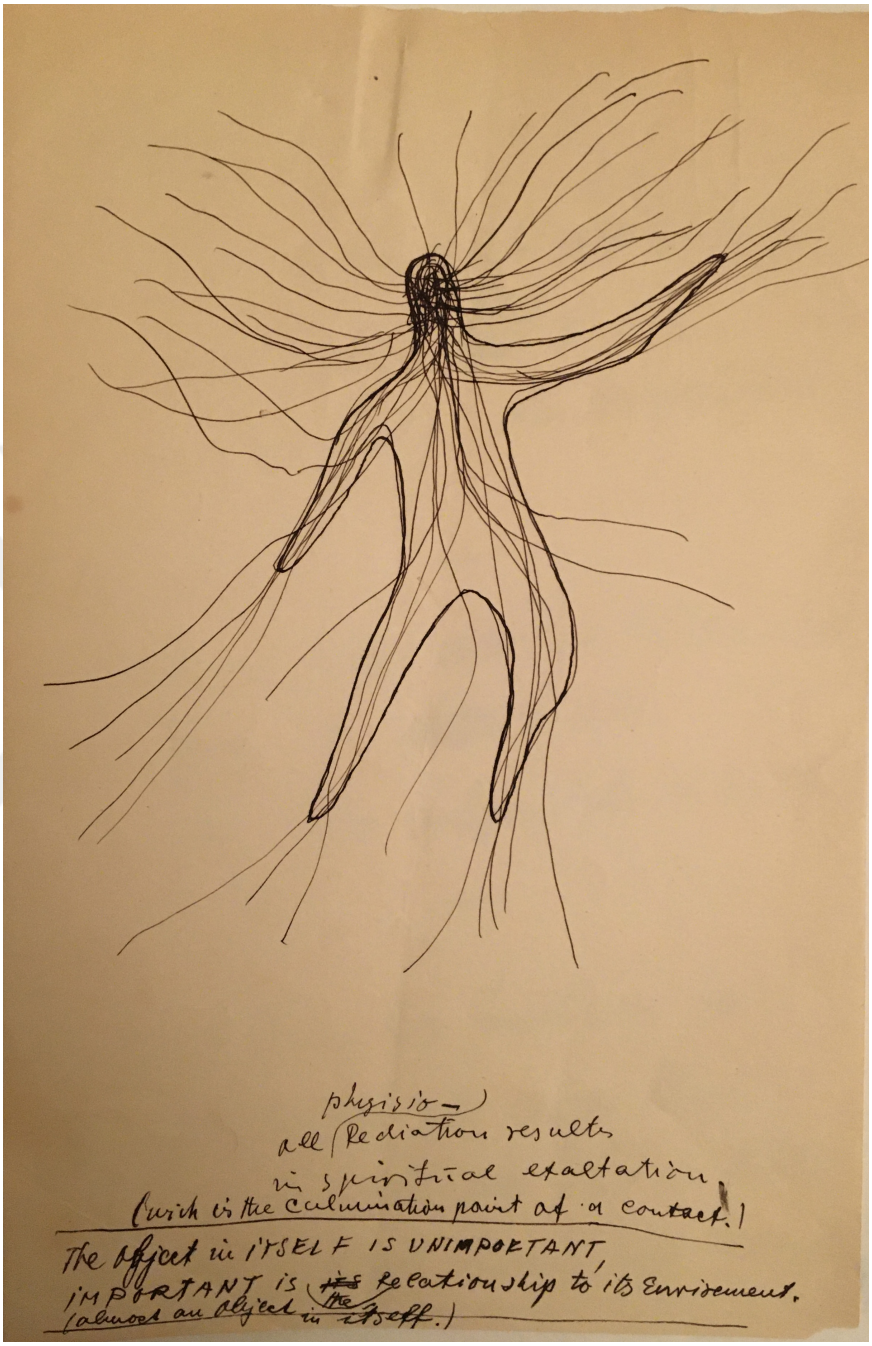


Figure 2.13: A sketch for study of vision. ÖFLKS, SFP6122/0.

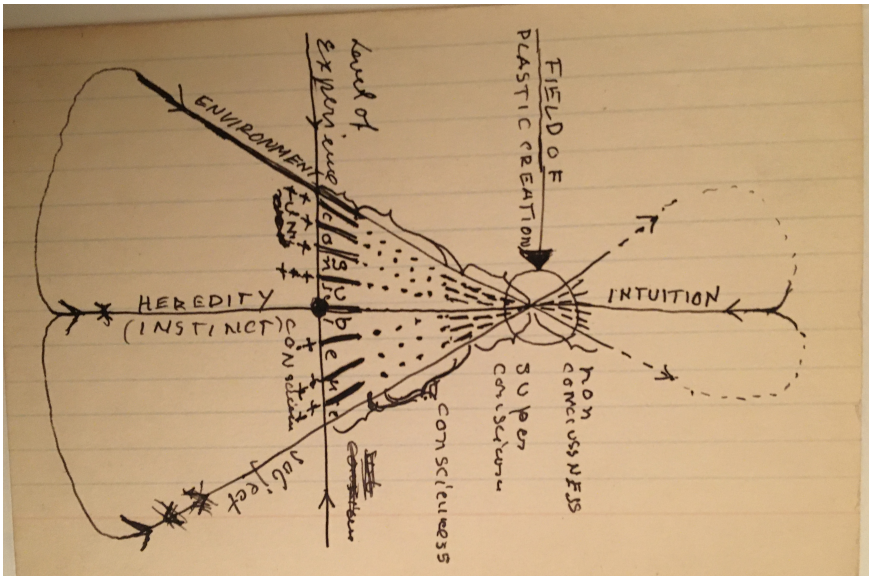


Figure 2.14: A diagram for study of vision. ÖFLKS, SFP870.

2.2.6 Seeing as an experience

In one of his unpublished manuscripts, Kiesler delves into the intricacies of "Optic Perception" in a paper titled "Continuity of Optic Perception, Semi-Conscious Sight and the Psychic Image". In this work, he shifts his focus to explore the nuances of semi-conscious sight and the psychic image. This perspective represents a deeper layer of Kiesler's exploration into vision, going beyond the physical aspects of seeing. He investigates the realm where conscious and subconscious experiences intersect, offering insights into how these semi-conscious states contribute to our overall perception. Kiesler's approach in this manuscript underscores his continued interest in the psychological dimensions of sight and how they shape our understanding and interpretation of visual stimuli.

For Kiesler, the eye functions similarly to a camera. He believed that the retina mechanically registers all light that it encounters, subjecting us to these light inputs regardless of our interest or intention. This constant exposure to *uninvited* light inputs means that we are always *seeing* in a mechanical sense. However, Kiesler distinguished this mechanical aspect of vision from the process of conscious seeing.

According to Kiesler, conscious seeing is a slower process than the optic event of

seeing. It aligns with Bergson's analysis of perception, where conscious seeing requires additional time to process and interpret these "new sight-impacts".[162] This processing is necessary to ascribe full meaning to these visual experiences within the psyche. Thus, for Kiesler, while the eye may capture images rapidly, the mind's interpretation and understanding of these images is a more deliberate and time-consuming process.

Kiesler theorized that nature has developed an efficient solution to bridge the gap between the perception of an extraordinary image and its subsequent cognitive processing. He described this as "habitual moments" being activated to conserve time-energy. This concept reflects an economy of vision where habits, memory, and light play crucial roles. According to Kiesler, this economical approach is essential for maintaining "energies" in a ready state, allowing for the full cognition of significant optical events when they occur.[163]

Kiesler further suggested that in situations demanding rapid response to visual stimuli, the nervous system must adapt quickly to cope with the sudden influx of light. This adaptation involves a high-frequency transmission mechanism to ensure the nervous system can effectively process new visual information. Without such adaptation, Kiesler posited, the next light impression would not find an available receptor, thus impacting the efficiency and effectiveness of our visual perception.[164]

Kiesler held a profound belief in the human nervous system's capacity to respond not only to sensorial stimuli but also to extra-sensorial impressions. He was intrigued by the idea that both visible and invisible, audible and inaudible elements were continuously interacting with humans, influencing and "attacking" our bodies, which in turn react to these stimuli.[165] [**Figure 2.14**] This interaction fascinated Kiesler, particularly in an era when advancements in sound technology, X-rays, motion pictures, movies, and other similar technologies were rendering previously inaccessible phenomena perceptible.

For Kiesler, the fields of sensation were no longer confined to the limits of the

162. Fredeerick Kiesler, "Continuity of Optic Perception, Semi-Conscious Sight and the Psychic Image" (nd.), ÖFLKS, TXT 300/0/N1.
163. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N1-2.
164. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N2.
165. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N2.

human body. Through various modes of representation, transmutation, and the interchangeability of these mediums, sensations and experiences previously unthinkable or inaccessible were now becoming available to a broader audience. Kiesler envisioned a world where the boundaries of perception were expanded, enabling a richer and more diverse engagement with both the seen and unseen aspects of our environment.

Kiesler argued that the preeminence of vision in human experience was rooted in the evolutionary and embryonic origins of the brain, which he closely associated with the development of the eye.[166] He drew an analogy between humans' reliance on vision and fishes' dependence on olfaction. This perspective led Kiesler to speculate that dream visions could actually be "formed ... without immediate outside influence".[167] He referred to this phenomenon as "visual breathing", a process he believed could occur without direct influence from the outside world.[168]

According to Kiesler, this concept of visual breathing demonstrated the potential, and perhaps the necessity, to transcend the traditional dichotomy between the external environment and the internal self, the outside and the inside, or the environment of any character and the ego.[169] In his view, the possibility of the mind to generate dream-visions autonomously was evidence of a more integrated and fluid relationship between our internal experiences and the external world.

Kiesler posited that all influences on humans initially manifest as visual sensations. He described "visual breathing", as a fundamental process that connects the inner self with the outside world, effectively dissolving the distinction between the environment and oneself, the internal and the external. In Kiesler's view, mental images and memory-material precede the act of seeing, imbuing our interactions with the world with meaningful semantic quality. These mental images, formed before the act of sight, resurface when visual connections are made. **Figure 2.15**

While humans are optically aware of their surroundings, Kiesler noted that this awareness could fade even as visual breathing continues with open eyes. In his

166. Fredeerick Kiesler, "Continuity of Optic Perception, Semi-Conscious Sight and the Psychic Image," ÖFLKS, TXT 300/0/N2.
167. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N3.
168. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N3.
169. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N3.

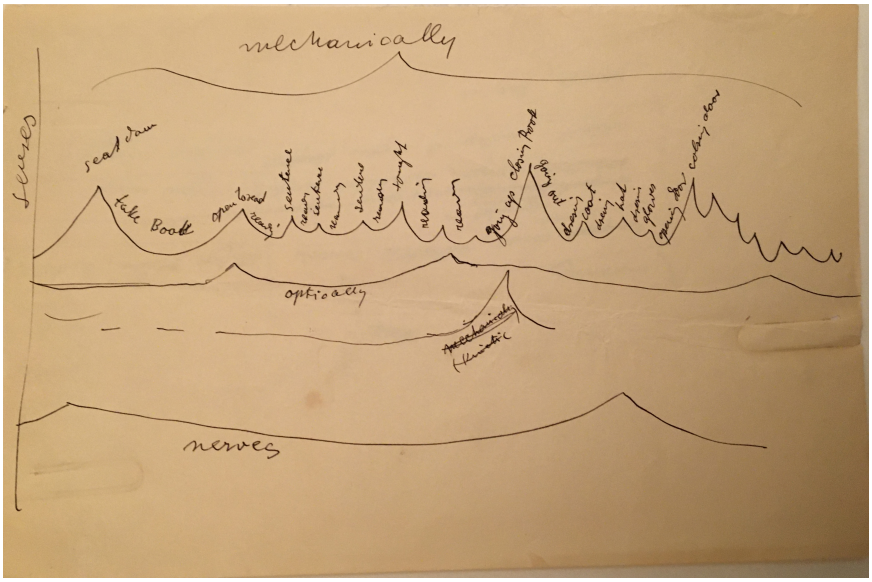


Figure 2.15: A graphical representation of visual (breathing) using a routine daily activity, reading a book, as the example. Pencil on paper. ÖFLKS, TXT6005/0.

conceptual framework, reality is continuously shaped by sensations and memories, emerging and receding in an ongoing cycle as one consciously navigates the world. Kiesler illustrates this process with the example of writing on a pad on a table, using this everyday action to explain how our perception of reality is a dynamic interplay of sensation, memory, and conscious experience.[170] Kiesler's critical observation centers on the initial contact maintained with the optical environment, a process involving both sight and psychic reaction. He notes that the environment invariably impacts our retina and consciousness, regardless of whether its presence is desired. This influence occurs even when our attention is focused solely on a specific object or thought. The environment exerts its effects automatically upon the optic nerve, making it an inseparable part of our optical experience.

Kiesler underscores that while the focus of our attention might be voluntary, the broader environmental context in which this focus occurs becomes an integral part of the experience, whether at a semi-conscious or subconscious level. Therefore, this interaction between the individual's focus and the surrounding environment is not merely incidental but a willful aspect of optical experience while demonstrating the inevitable integration of external stimuli into our perceptual processes, shaping how

170. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N3.

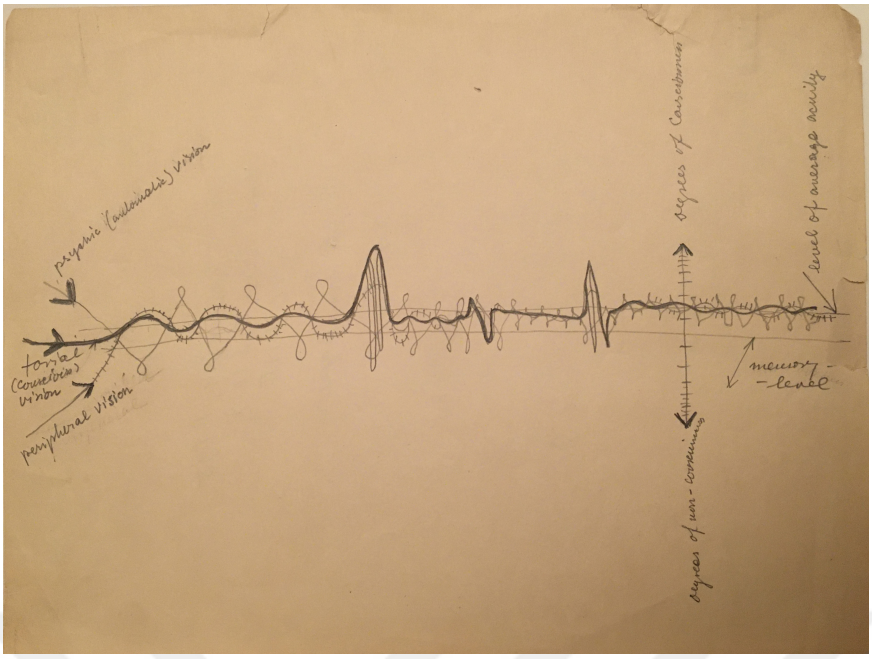


Figure 2.16: A diagram for study of vision to explain how different modes form the correalist vision. ÖFLKS, SFP870.

we experience and interpret the world around us.[171] Kiesler posited that such willful optical experiences are learned phenomena. He used the simple act of writing on a table as an illustrative example. In this scenario, there is a prior experience influencing the process – as decisions are made by the will, the memory simultaneously captures the scene:

> I see clearly the table on which I am soon to write, but after my conscious intention has manifested itself by focusing the table, this image of the table fades out, and slips into my memory as soon as I am sitting down to write. I was actually in contact with the table before I touched it with my elbows and hands which rest now on it. Yet, even before my "visual contact" in "seeing" it, I had already contact with it before that, namely, when I had decided to use it and visualized without my will, simply by thinking of my forthcoming action..[172]

However, the associated sensory impressions are not immediately discernible through sight; they transcend direct visual perception and belong to the realm of visions. These experiences, according to Kiesler, can occur under any condition,

171. Fredeerick Kiesler, "Continuity of Optic Perception, Semi-Conscious Sight and the Psychic Image," ÖFLKS, TXT 300/0/N6.
172. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N3-4.

regardless of whether the eyes are open or closed.

Kiesler was particularly fascinated with these experiences, which he termed "pre-visions of sight" or "psychic images". [**Figure 2.16**] These are not direct visual perceptions but mental images formed by the psyche, influenced by memory and subconscious processing. For Kiesler, these psychic images represent a deeper layer of seeing, where the boundaries of visual perception extend beyond the immediate and tangible, tapping into a more profound, psychic understanding of the world.[173] Kiesler viewed psychic images as crucial connectors between actual points of sight, forming the intervals between optical notes. These images are integral to our sense of orientation, playing a key role in how we navigate and interpret our surroundings. They serve an automatic function, bringing the significance of every optical event — whether it conveys security or insecurity — to our conscious awareness. Kiesler identifies these images as Visions, as they "cannot be classified by "sight", since they are not immediate...although they occur at full daylight with eyes open".[174] While these psychic images operate subtly in the background during wakefulness, their presence becomes more pronounced in sleep.

Kiesler noted that when the dominance of eyesight is reduced during sleep, even the slightest osmico-chemical action disrupting physical equilibrium can bring these images to the forefront. This phenomenon highlights the dynamic interplay between our physical state and subconscious processes, where these psychic images gain prominence in the absence of active visual perception, shaping our dreams and subconscious experiences.

2.2.7 Vision Machine as a model of aesthetics

The design of Kiesler's Vision Machine was intricately aligned with his complex theory of vision, which encompassed various levels of physiological and psychological activities. His theory posited that these activities collaborate to produce images, thereby influencing the sensory environment of the observer. This interaction transforms the process of seeing into a continuous loop, with these

173. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N6.
174. Fredeerick Kiesler, ÖFLKS, TXT 300/0/N6.

circuits operating either consciously or subconsciously. [**Figure 2.17**] However, the primary intent of the Vision Machine's design was not to demonstrate this loop of seeing. Instead, Kiesler aimed to facilitate the flow of "visionary images", originating from the synchronization of both physiological and psychological systems.

His focus was on capturing and representing these images, which are products of the intricate interplay between the body's physiological responses and the mind's psychological processes. Kiesler envisioned the Vision Machine as a tool to materialize these complex visual experiences, bridging the gap between internal perception and external representation. Kiesler's Vision Machine design was composed of six distinct parts, each playing a crucial role in its operation. The first component was an "object" symbolizing the eye, situated as a dividing partition between the external and internal realms. **Figure 2.18** This was linked to a cycle system representing the physiology of a person. The entire assembly was supported by a base, which also housed the mechanical apparatus and a speaker unit. The speaker was designed to play a recording once the machine was activated.

Activation of the machine was proposed to be through a button, which would initiate a process involving the "object" – a glass apple in Kiesler's specific design – emitting light waves. These waves were intended to travel through glass tubes and bubbles, simulating the journey of light as it enters the eye. Within the eye component, the light would continue to travel, generating sparks and changing colors to symbolize different stages and layers of the visual perception process. The culmination of this journey would be the production of various projections, each representing different interpretations of the perceived image. Based on the reports generated from Kiesler's work on the Vision Machine, his significant conclusion about the nature of perception would be demonstrated through this machine and show that "neither light nor brain alone was in charge of seeing".[175] Instead, Kiesler emphasized that seeing is the result of a coordinated human experience. This coordination does not simply replicate the actual object in question, but rather constructs our conception of the object. In Kiesler's view, the act of seeing involves an intricate interplay between external stimuli (like light) and internal cognitive

175. Frederick Kiesler, "Brief Description of Vision Machine" (nd.), ÖFLKS, TXT 303/0/IMG1103.

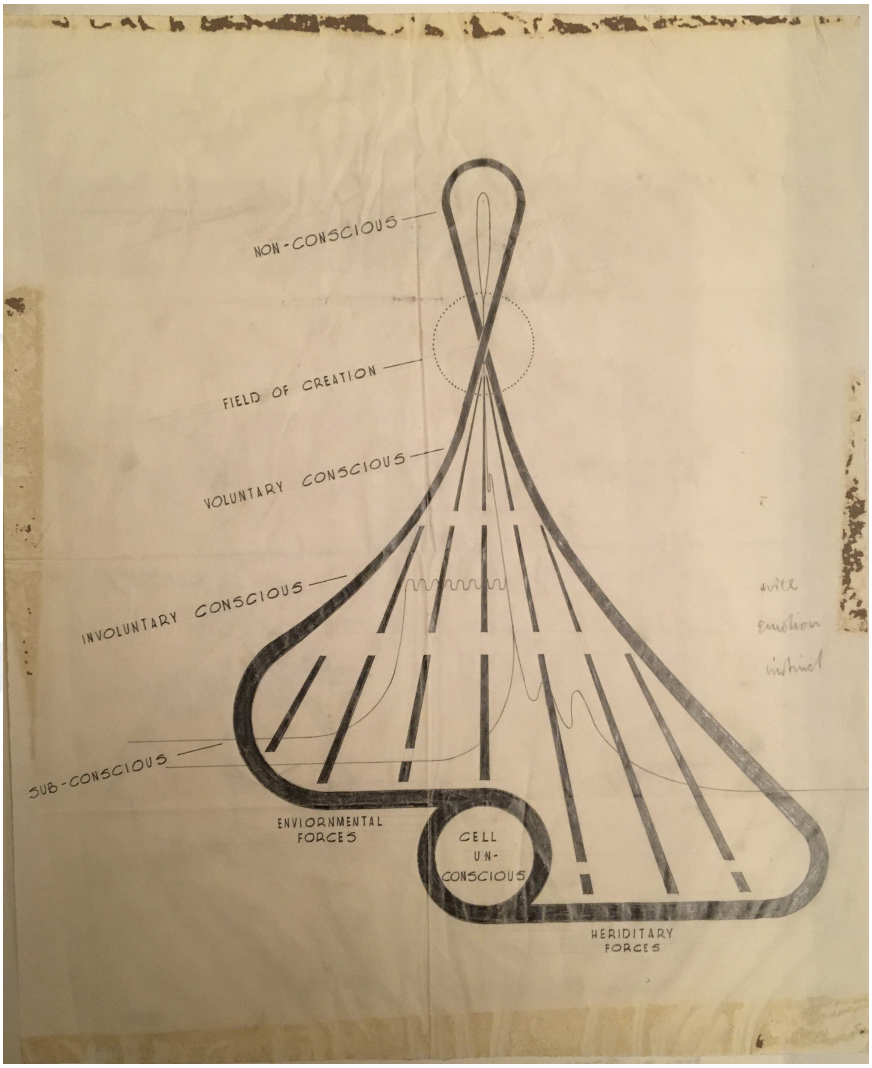


Figure 2.17: Diagram for the looping flow of vision. Chart for Vision Machine by Frederick Kiesler. SFP848/0.

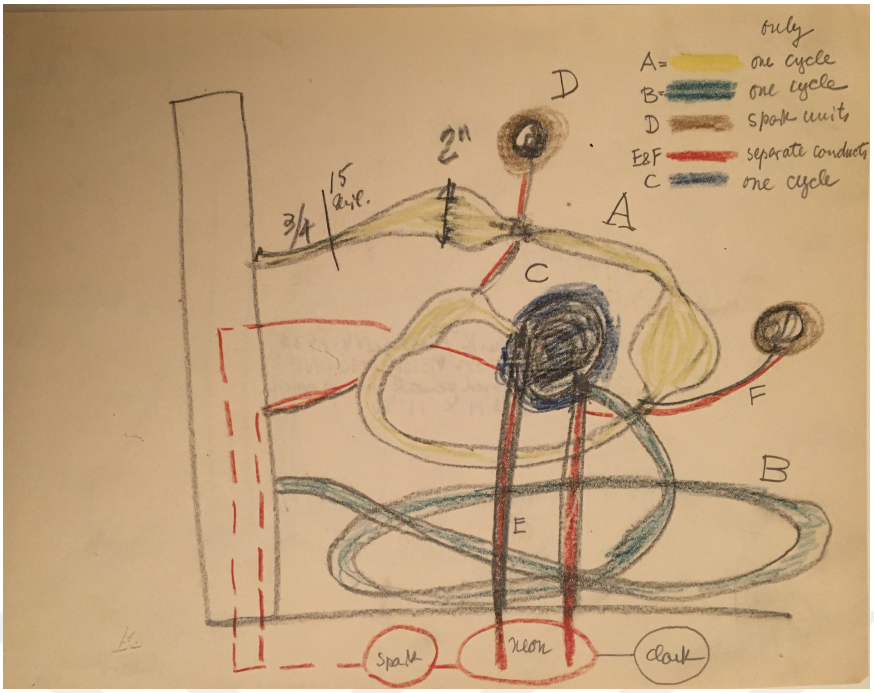


Figure 2.18: A drawing for the mechanism of the proposed model. Chart for Vision Machine by Frederick Kiesler. Colored pencil on paper. 1938. SFP907/0-KE 4452.

processes (involving the brain), ultimately leading to our subjective interpretation and understanding of what we perceive. Kiesler's conception of seeing transcended the idea of mechanical reproduction, elevating it to a form of creative ability. He posited that vision itself is an act of creativity, suggesting a profound departure from conventional understanding. The Vision Machine, while seemingly resembling a "push-button exhibit at a local science fair", as Phillips noted, was actually intended to illustrate the subjective nature of perception – highlighting its temporal and personal dimensions.

It is important to recognize that the aim of Kiesler's laboratory extended beyond mere production. His goal was to introduce and demonstrate new design principles to the general public. In this context, the Vision Machine was not envisioned as a revolutionary device capable of producing images from dreams or capturing the missing subjectivity in camera-based processes. Rather, it served as an educational tool, akin to, indeed, a science fair project, designed for distribution across various educational levels. Kiesler's objective was to use this project as a means to teach aesthetics and design, thereby broadening the understanding and appreciation of

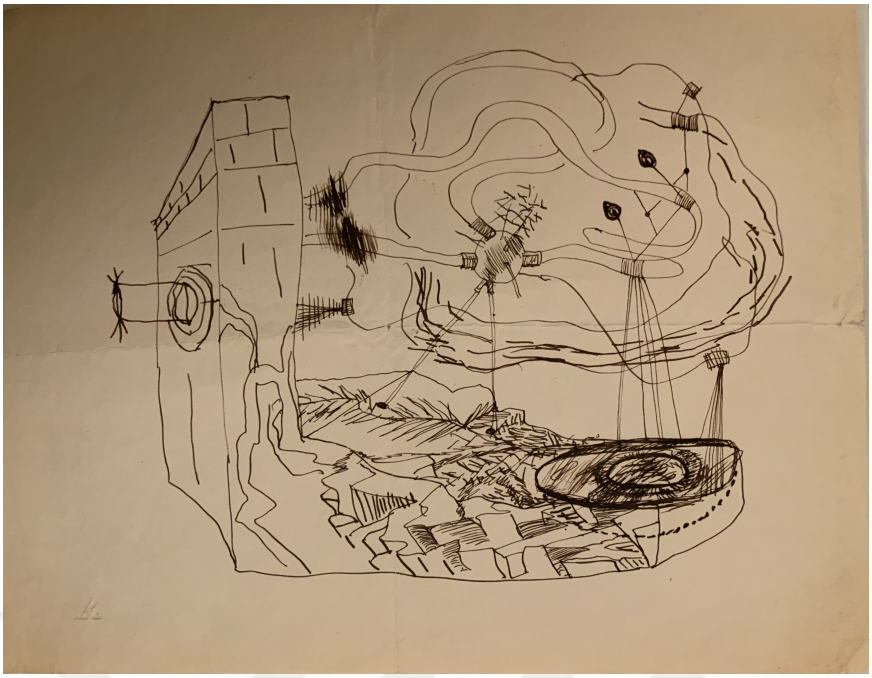


Figure 2.19: A sketch for the proposed model. Chart for Vision Machine by Frederick Kiesler. Ink on paper. 1938. Source SFP855/0-KE 2205.

these concepts among students and the public

In his memorandum outlining the rationale for investing in the Vision Machine, Kiesler underscored the significance of visual education. However, his approach at this juncture differed from the broader epistemological concerns that were typical around the turn of the nineteenth century. Instead, Kiesler narrowed his focus, concentrating specifically on the realm of architectural design education.

In this context, he advocated for the Vision Machine as a tool not just for expanding understanding of visual perception but also for enhancing educational practices in architectural design. Kiesler's emphasis in this memorandum was on the practical application of visual education principles within architectural design, rather than delving into the larger philosophical questions of how we know and understand our world. His proposal thus positioned the Vision Machine as a pivotal educational instrument, aimed at enriching the architectural design curriculum with a deeper, more nuanced understanding of visual perception.[176] According to him, art application alone could not resolve the problems of aesthetics in architectural design,

176. Frederick Kiesler, "Memorandum," ÖFLKS: TXT/IMG1108/N1–N4.

but with a proper understanding of the mechanism of vision, visual education could be advanced. Kiesler considered the question of aesthetics to be a critical component in architectural design education. He believed that addressing this issue required exploring why different people perceive and represent their environment in diverse ways. By posing these questions, Kiesler aimed to delve into the subjective nature of perception and its influence on architectural representation. He sought to understand the underlying reasons behind the varied ways individuals interact with and interpret their surroundings. This inquiry was central to reworking the traditional approach to aesthetics in architectural design, opening up new avenues for understanding the relationship between personal perception and architectural expression.

The primary objective of Kiesler's study around the Vision Machine was to explore the creation of invented images and their correlation with both external impressions and the internal worlds of individuals. This endeavor extended beyond merely addressing the functional and mechanical aspects of architecture and industrial design, which Kiesler would discuss at the 1940 Ann Arbor conference. Instead, the Vision Machine was conceived as a potential example of a tool to facilitate a deeper, more insightful understanding of aesthetics and its implications within the realms of architecture and design.

Kiesler's approach with the Vision Machine was to go beyond conventional considerations, probing into how aesthetic experiences are shaped by the interplay of external stimuli and personal, subjective interpretations. By doing so, the Vision Machine was intended to offer a new perspective on aesthetics, one that considers how perceptions from our surroundings interact with our internal thought processes to influence design and architectural concepts.

Kiesler envisioned a mechanism of vision that accounted for the compatibility and interplay among various faculties and structures involved in the process of seeing and creating visual images. His aim was to advance the understanding of how these different elements work together to shape our perception and interpretation of visual stimuli. This vision mechanism was not just a theoretical construct; Kiesler intended it to have practical applications in the realm of education, particularly in the teaching and pedagogy of aesthetics.

Kiesler's correalist approach, which integrates both physiological and psychological aspects, offers a holistic perspective on the process of vision. He advocated for a multidimensional understanding of aesthetics, believing that this comprehensive view would significantly enhance educational methods in the field. Kiesler posited that tools and teaching methods developed with this correalist approach could provide students with a nuanced understanding of how visual perception, interpretation, and creation operate from a biotechnical standpoint.

This integration of vision theory into the aesthetic curriculum was aimed at transforming it from a purely theoretical framework to one that is more biotechnically oriented. By doing so, Kiesler sought to foster a deeper appreciation and knowledge of the artistic and design processes. He envisioned that the practical application of this theory, such as in the design of machines like the Vision Machine, would demonstrate the value and efficacy of this biotechnical perspective in understanding and teaching aesthetics. In essence, Kiesler's approach was not just about advancing theory but also about applying these ideas in practical, educational settings to enhance the learning experience in art and design.

In a manuscript that Kiesler never released, he trademarked the term "Correalism" proposing it as a foundational concept for a journal. In this proposed publication, Kiesler intended to present his ideas in both fiction and non-fiction formats in future issues. The manuscript, titled "Correalism™: Bio-Technique- A New Approach to Design"draws a parallel between his earlier concept of *Vitalbau* (1925) and what he defines as biotechnique. Kiesler describes biotechnique as the study of humans in relation to their built environment, an idea that he considers a progression beyond the scope of ecology. He explains that, in his view, ecology primarily focuses on the study of humans in relation to their natural environment.[177]

In this manuscript, Kiesler also references his work on the Space House from 1933, elucidating further on his evolving concept of Correalism. He articulates how this idea extends beyond traditional architectural and ecological studies, offering a more integrated approach to understanding the relationship between humans, their built environments, and the broader ecological context:

177. Frederick Kiesler, "Correalism - Trademark," ÖFLKS, TXT 6191/0/IMG0303.

> Architecture was always threefold, social, tectonic, structural. But Corbusier, Mies, Oud and others have started with the concept of a House; or with a collective instead of a threefold architectural principle. They started with the IDEA OF A HOUSE; not with a UNIFIED DOGMA. Not from Architecture as a Science. Not from Architecture as Biotechnique. The interrelation of a body to its environment: spiritual, physical, social, mechanical. The work of these men deals primarily with Houses: esthetic or techno-functional semi-solutions.[178]

In contrast, Kiesler posited that learning the art of building effectively required understanding "the laws of integration of a certain function" in order to address the crisis he identified architecture to be in.[179] He underscored the importance of biology in architectural studies, declaring it "an important new demand for architects".[180] Kiesler believed that a deep engagement with biology and the natural world was crucial for architects to develop efficient and integrated design principles. After considering nature as the primary source of information and guidance, he identified "continuity" as the fundamental principle underpinning his approach to building. This concept of continuity, derived from his study of natural laws and biological systems, formed the basis of his architectural philosophy, emphasizing the seamless integration of structures with their natural and functional contexts:

> All matter and all formation in nature are contact points of continuity. Everything influences everything. The effect of this influence is contuniuty. The object lives through the constant exchange of influences. It applies to human being, as well as any other unit of living. The exchange of in life, the coordination of the various points of impulse of matter is reality.[181]

Kiesler defined Correalism as the power derived from the coordination of these continuous flow of life forces. He saw this concept as a fundamental principle governing the dynamic interplay of various elements within the realm of life and creation. In this context, the Vision Machine can be viewed as an embodiment of Correalism, playing a critical role in this relationship. Its design and function are representative of the coordinated, continuous forces that Kiesler identified as essential to life and creativity.

178. Frederick Kiesler, “Correalism - Trademark.”
179. Frederick Kiesler, “Book Layout,” Typeset proposal submitted to editors, ÖFLKS, TXT 6191/0.
180. Frederick Kiesler.
181. Frederick Kiesler.

Furthermore, the implications of the Vision Machine, particularly within the domain of aesthetics, align with the core principles of Correalism. It exemplifies how technological innovation can mirror the seamless integration and flow of life forces, thereby contributing significantly to our understanding and appreciation of aesthetics. The Vision Machine, in Kiesler's view, is not just a tool for visual exploration but also a manifestation of Correalist philosophy, offering insights into how aesthetics can be reinterpreted and enriched through this holistic approach.

CHAPTER 3

CORREALISM AND STRATEGIC DEMARCATION

In 1965, Frederick Kiesler made a notable contribution to *Architectural Forum*, a publication he had been associated with since his first contribution as it served as a final retrospective examination of his philosophical and architectural endeavors, coinciding with the completion of the *Shrine of the Books*, known as the sanctuary for the Dead Sea Scrolls. Reflecting on his two significant projects, The City in Space (1925) from his early career and the Universal Theater (1961) designed for the Ford Foundation, Kiesler emphasizes the principle of "Correalism", a concept that informed all of his works. In his reflection on his body of work, Frederick Kiesler discusses the "Correalist designer", emphasizing the imperative understanding of "life forces" essential for architects or designers before conceptualizing any structure meant for human inhabitation.[1] Notably, Kiesler's distinct approach to creating universes of varying scales highlights the importance of comprehending these fundamental forces. This chapter aims to offer an interpretation of Kiesler's evolution, elucidating his concept of "life forces'" and examining how he addresses this critical aspect that underpins his work as an artist, architect, and thinker.

This chapter is organized in two sections to provide a background to Kiesler's correalist project and introduce the idea of Kiesler's ideas' transmutation between Europe and North America. Therefore the first section is organized in two subsections to underline the different geographical markers, and the last section is dedicated to Kiesler's correalist project.

1. *Raum* vs Space: The first subsection "*Raum*" introduces Kiesler's roots in the European avant-garde movement and his eventual transition to the United States.

1. Frederick Kiesler, "Kiesler by Kiesler," 64.

Kiesler's early endeavors in Europe were marked by a fervent engagement with emerging artistic movements, where he explored the intersections of theater, performance, and spatial design. His involvement with influential groups and figures in the avant-garde scene allowed him to develop a unique perspective that challenged traditional notions of space and architecture.

The transition to America signified a pivotal shift in Kiesler's career. Confronted with a new cultural and architectural landscape, he adapted and expanded his ideas, navigating through the challenges and opportunities presented by a different societal context. This move did not merely signify a change of location; it represented a transformation in his approach to design and theory in order to accomodate his new audience, as I will demonstrate in the following chapter. But it is safe to say that in America, Kiesler continued to push the boundaries of architecture and art, experimenting with innovative concepts and methodologies that resonated with the dynamic spirit of his new environment while he still learns how to do the "business" as it will be elaborated in Chapter 4.

In the second subsection "Endless", it becomes clear that Kiesler's vocabulary in architectural research expands beyond theater and with the Space House, Kiesler's integrated approach to living spaces, where architecture is not merely a physical construct but a confluence of social, technical, and environmental dynamics is translated into an idea of a modern shelter. The Space House exemplifies how Kiesler fused practical necessities with artistic expression, advocating for a living space that adapts to and enhances human experiences. In this chapter, the exploration of Kiesler's American period highlights his relentless experimentation and conceptual development which would find its maturity in .

2. Writing Correalism: The second section is where Frederick Kiesler's development of the theoretical frameworks of Correalism and Biotechnique are presented via his unpublished manuscript. Correalism, a term coined and trademarked by Kiesler, emerges as a central idea, representing his understanding of the dynamic interrelationship between humans and their environment. It underscores the continuous exchange and adaptation between individuals, society, and technology, challenging conventional static perceptions of architecture and space. Correalism

serves as a lens through which Kiesler views the world, emphasizing the interconnectedness of all aspects of life and the necessity for design to embrace this holistic perspective. Even though Correalism and Biotechnique coincide with architectural modernisms represented by institutions like Bauhaus at the same historical moment, their attempt to explore life forces as a science does not shy away from bordering on pseudoscience, showing a bias towards the unknown, hidden, or, in terms of profanation, the sacred. For Kiesler, despite the unity and connection of unique individual experiences, his exploration of life forces employs methods and approaches that are systematic and scientific. However, he refuses to transition into a realm of commonality, opting instead to remain within a domain that is personal and private.

3.1 *Raum* vs Space

Before moving forward, let's return to Huxtable's assessment of Kiesler's Endless House. As she she points out a fundamental flaw in Kiesler's approach even though she acknowledges Kiesler's charismatic ability to captivate his audience with promises of the "liberation of the personality" and the "sensuous satisfactions of life in eggs, cocoons, and nameless sculptural shelters".[2] Drawing on Kiesler's work, particularly within the realm of art galleries, Huxtable discerns that Kiesler's conception of architecture leans more toward the sculptural than the architectural. Criticizing Kiesler's inability to realize his Endless House despite advancements in concrete construction techniques, Huxtable characterizes Kiesler as esoteric, questioning the rationale behind his experimental endeavors.

In response to Huxtable, Kiesler penned a retort twenty days after her article was published in the same newspaper. A perturbed Kiesler, referencing Huxtable's citation from Johnson's "double-edged compliment," reminded the author of his "actual constructions," listing the "Space Stage" in Vienna in 1924 and the Ellenville Festival Theatre in 1956. Furthermore, he asserted his persistent rejection of purely commercial projects, affirming Johnson's earlier remarks regarding his lack of interest in commercial success. He emphasized his preference for being known as

2. Huxtable, "Architecture on TV: 'Greatest Non-Building Architect of Our Time' Expounds His Ideas."

"the greatest non-building architect of our time" rather than "a most-building non-architect".[3]

Kiesler's swift response to Huxtable finds resonance in an interview he granted in 1961, where he addressed Thomas Creighton's inquiry about the recent mainstream reception of his ideas in the journal *Progressive Architecture*.[4] While the 1965 article mentioned at the beginning of this chapter conclusively represents one of the last articles Kiesler would publish before his death, the 1961 interview provides a detailed account of his oeuvre up until that year, along with insights into his philosophy and professional practice.

It is in this 1961 interview, around the time when Kiesler began to gain prominence among architects, he himself elucidated why his work on the Endless House had garnered attention, attributing it to a newfound public consciousness about space, propelled by the burgeoning interest in nuclear science, fission, fusion, and satellites, which had propelled everyone's imagination into outer space, thus making the concept of the "Endless" seem natural.[5] Kiesler's enduring fascination with the intimate surroundings of the human environment and the complex and potential relationships within it became a concern shared by the general public following the conquest of outer space, as Kiesler observed, "What the interest in outer space brought about is the awareness of man's fate in a world shaken in its traditional beliefs in religion, later on in science and now in technology".[6] In this context of heightened emotional turbulence, which Kiesler depicts, a reevaluation of the "paraphernalia, social and technological, that we are living with" becomes consequential.[7] According to Kiesler, this state of mind offers the most fitting description of the Endless House as "Emotion engulfs us like the turbulence of outer space and it creates its counterpart — the peace within".[8]

Kiesler contextualized his theory within a crucial historical moment, expressing concerns about ideas needing sufficient time to take root and develop organically. He

3. Frederick Kiesler, "Re: Architecture on TV: 'Greatest Non-Building Architect of Our Time' Expounds His Ideas," *New York Times*, April 1960.
4. Creighton and Kiesler, "Kiesler's Pursuit of an Idea."
5. Creighton and Kiesler, 112.
6. Creighton and Kiesler, 115.
7. Creighton and Kiesler, 115.
8. Creighton and Kiesler, 115.

likened the broad acceptance of his concepts without proper understanding to administering "marijuana [to people] architecturally speaking".[9] Kiesler remained confident in the continuity and multifaceted nature of "an idea" until it gained widespread recognition. Additionally, Kiesler's assertions from his essay "On Correalism and Biotecnique" in 1939 are referenced by Geral Bast in the foreword of the compiled book on Kiesler, *Endless Kiesler*, where Kiesler regards architecture as a "socially constructive facto".[10] Bast further quotes Kiesler's belief that architecture should be understood as an engagement with all facets of life, rather than "a series of disparate, overspecialized, and unevenly distributed products".[11] Notably, in 1961, Kiesler concluded the interview by reiterating his manifesto "Vitalbau—Raumstadt—Funktionelle Architektur", also referred to as the "Manifesto of Tensionism", where he introduced his concept of the City in Space in 1925. In a sense, this idea embodies the breakthrough moment in Kiesler's career and his complete body of work.

In 1925, Kiesler made his architectural stance clear with the declaration, "We are satiated with architecture. We want no new editions".[12] This proclamation emerged only a year after Le Corbusier's *Vers une architecture* (*Towards an Architecture*, 1924), where he advocates for the idea of the house as a machine, emphasizing functionality and efficiency, akin to a machine's characteristics. Kiesler's "Manifesto of Tensionism", initially in the form of a flier, was published in the magazine *De Stijl* in 1925. It accompanied his project "*Raumstadt*" (City in Space, 1925), designed as a display system for the contemporary Austrian theater at the *Exposition Internationals des Arts D'ecoratifs et Industriels Modernes* in Paris. Although the exhibition opened without the City in Space, this piece which defined the principles of "Correalism" came into being as Kiesler distributed flyers to the public in collaboration with Maurice Raynal after the opening of the exhibition to the public.

The manifesto they distributed was later published in the magazine under the title "Vitalbau - Raumstadt - Funktionelle Architektur" ("Organic Building - The City in

9. Creighton and Kiesler, 115.
10. Gerald Bast, "The More Complexity, the More Kiesler," in *Endless Kiesler*, ed. Klaus Bollinger and Florian Medicus (Basel: Birkhäuser, 2015), 7.
11. Bast, 8.
12. Frederick Kiesler, "Manifesto of Tensionism: "Organic Building—The City in Space—Functional Architecture."

Space - Functional Architecture", 1925), emphasizes Kiesler's disinterest in architectural styles, forms, building techniques, or structures. Instead, he focuses on the dynamic nature of life itself, highlighting the "ELASTICITY OF LIVING", in capital letters, to underscore the continual transformations in people's lives due to technological advancements and urban living. Kiesler underscores his indifference to styles or forms, stating, "It is irrelevant whether cupolas or cubes dome humans".[13]

For Kiesler, the critical question lies in adapting architecture to facilitate new ways of living rather than fixating on the formal qualities of the built environment. "The City in Space" serves as an alternative to what Kiesler refers to as "coffins with airholes", representing his vision for a transformed urban habitat. In the manifesto, Kiesler outlines four stages of the city's progression, from the "country-city" abolishing the division between city and country to the "automatic-city" where "the process of daily life is mechanized".[14] He declares walls no longer relevant as he lists his architectural demands as: "Transformation of surrounding area of space into cities. Liberation from the ground, abolition of the static axis. No walls, no foundations. A system of spans (tension) in free SPACE. Creation of new kinds of living, and, through time, the demands which will remould society".[15]

It is in this manifesto, where Kiesler first introduced the term *Vitalbau*: organic building. And over the following years, he would redefine the notion of "tension" as he elaborates on the concept "continuous" along with "universal" and eventually call his primary principle in his design to be "endless". This chapter traces a thread in Kiesler's thinking from his early career as a set designer to his development of the architectural theory of Correalism. Kiesler, functioning as both an artist and an architect, engages practically and theoretically with architecture to demonstrate the irrelevance of the distinction between arts and architecture in the twentieth century. His journey from set design to architectural theory reflects an integrated approach, emphasizing the interconnectedness of artistic expression and architectural functionality. Through practical endeavors and theoretical articulations, Kiesler

13. Frederick Kiesler, "Manifesto of Tensionism: "Organic Building—The City in Space—Functional Architecture."
14. Frederick Kiesler.
15. Frederick Kiesler.

challenges traditional boundaries and advocates for a holistic understanding of the relationship between art and architecture. These boundaries are manifested in Kiesler's body of work both geographically and linguistically. The discussion will delve into Kiesler's experience in Europe and its translation to the North American context, particularly focusing on Kiesler's use of the term "Raum" and its adaptation into English after his relocation to New York City in 1926. This linguistic transition reflects Kiesler's evolving perspective and the impact of cultural and geographical shifts and more importantly, continuity on his conceptual framework.

3.1.1 *Raum*

McGuire refers to Kiesler's early spatial experiments as "architectural kinesis," involving continuously moving elements.[16] Kiesler's initial forays into theater set designs allowed him to transform static structures into dynamic mechanisms, altering the audience's experience at a time when industrialization was reshaping human life and environments. Drawing on the practical conveniences offered by machines, Kiesler's set designs for Karel Čapek's play "R.U.R." at the Kurfürstendamm Theatre in Berlin in 1923 and Eugene O'Neill's "The Emperor Jones" at the Theater am Halleschen Tor in Berlin later that same year enabled him to experiment with movable and transforming spaces on stage. It was after witnessing his set design for "R.U.R." that the members of De Stijl became acquainted with Kiesler, leading to his subsequent involvement with the group.

Berlin was a spot for "emigrants" from Vienna who were leaving the Empire after the war. While in Vienna Kiesler was already had the company of figures such as Adolf Loss, John Warren suggests that through Hans Richter, who was the editor of the journal *G*, with whom Kiesler met in Berlin in 1921 Kiesler was influenced by Russian constructivism.[17] In fact, Kiesler himself considered the years 1922, 1923, and 1924 to be the most productive period of his life.[18] During this time, Kiesler

16. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 57.

17. John Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," in *Theatre and Performance in Austria: From Mozart to Jelinek*, ed. Ritchie Robertson and Edward Timms (Edinburgh: Edinburgh University Press, January 1, 1994), 81–92.

18. Creighton and Kiesler, "Kiesler's Pursuit of an Idea."

frequently shuttled between Vienna and Berlin. In the interview Creighton, however, rather than Berlin, it was more likely that Vienna was the city for his formation as Kiesler presented a diagram depicting Vienna's Karlsplatz, which embodied what Colomina describes as a blueprint for Kiesler's architecture: "a collection of interiors, a system of caves loosely connected by overlapping physical trajectories".[19] According to Zillner, Kiesler identified these trajectories as "his school" in the 1961 piece.[20] In post-World War I Vienna, within these coffee houses, which Colomina describes as private spaces carved out of public life, Kiesler encountered the widespread disapproval of traditional theater among the regular coffeehouse patrons.[21] It was in one such establishment that Kiesler met the entrepreneur Eugen Robert, which led him to the avant-garde artist circles through his set design for Kiesler's production of the robot dystopia "R.U.R." by Karel Čapek, directed by Robert at the Theater am Kurfürstendamm in Berlin in 1923.

3.1.1.1 R.U.R

In the vain for a "Viennese contribution to what Fiebach terms 'Abstract and Total Theatre'", Warren finds Kiesler and his "mechanical-kinetic sets for Čapek's R.U.R." to be an early example of the impacts of Constructivism.[22] In his set design for "R.U.R.", Kiesler made use of "optokinetic and acoustic inventions of time".[23] He claimed that his "R.U.R." set was the "first 'electromechanical' set ever employed in theater".[24] McGuire found this assertion reasonable, considering Kiesler's incorporation of film integration, neon lighting, and optical devices that were used in puppet shows at the turn of the century.[25] According to Jill Meißner, Kiesler's use of film projection in his set design brought him into contact with Theo van Doesburg, Hans Richter, and László Moholy-Nagy.[26] Kiesler himself

19. Colomina, "Endless Interior: Kiesler's Architecture as Psychoanalysis," 127.
20. Zillner, "Biographical Miscellanea and Nodes in the Network," 18.
21. Zillner, 18.
22. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 81.
23. Barbara Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe," trans. Jennifer Taylor, *springerin*, no. 2 (2010), accessed December 11, 2023, https://www.springerin.at/en/2010/2/friedrich-kieslers-theaterschaffen/.
24. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 58.
25. McGuire, 58.
26. Jill Meißner, "Designing Tomorrow. Frederick Kiesler Architect?!," in *Endless Kiesler*, ed. Klaus Bollinger, Florian Medicus, and the Austrian Fredeerick and Lillian Kiesler Private Foundation (Basel: Birkhäuser, 2015),

highlighted this meeting with van Doesburg as pivotal, as van Doesburg played a significant role in making Kiesler a better-known figure, as stated in the 1961 interview. According to Kiesler, van Doesburg and a group of other prominent artists seized him after the play, taking him to a club where they discussed the future of theater.[27] Kiesler's formal induction into the De Stijl group occurred after van Doesburg published a collage image of Kiesler's "R.U.R." set in June 1923.[28] The illusionary environments Kiesler incorporated into the "R.U.R." set expressed the visual and corporeal expansion brought about by nineteenth and twentieth-century advances in photography and film on spatial perception.[**Figure 3.1**][29]

3.1.1.2 Emperor Jones

Following the possibly first electromechanical set design in theater, Kiesler employed "time-space planning" in his design for "The Emperor Jones," a play by Eugene O'Neill directed by Berghold Viertel. Kiesler described this production as taking place in a very poor theater in Friedrichstrasse, Die Truppe.[30] In his account, Kiesler explained that the set's scene transition was made possible by a mechanism enabling the "continuous motion of its funnel-shaped construction".[31] He further detailed the elevated stage floor inclined at an angle of 32 degrees and the ceiling tilted toward the back of the stage by 20 degrees, with such precision, creating a funnel shape that extended the auditorium into a square funnel.[32] The stage transformation followed the rhythm of the play, depicting the emperor haunted by dark visions and memories as he sought refuge in a forest while escaping from his people.[33] Lésak suggested that Kiesler's "funnel stages" could be better understood by examining Kiesler's renaming of a montage of four stage scenery sketches into funnel stages, which he placed in a film frame alongside a timeline and labeled

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23.

27. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 109.
28. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 41.
29. Phillips, 41.
30. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 110.
31. Frederick Kiesler, "A Festival Shelter: The Space Theatre for Woodstock, New York," *Shelter* 2, no. 4 (1932): 43.
32. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 111.
33. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 44.

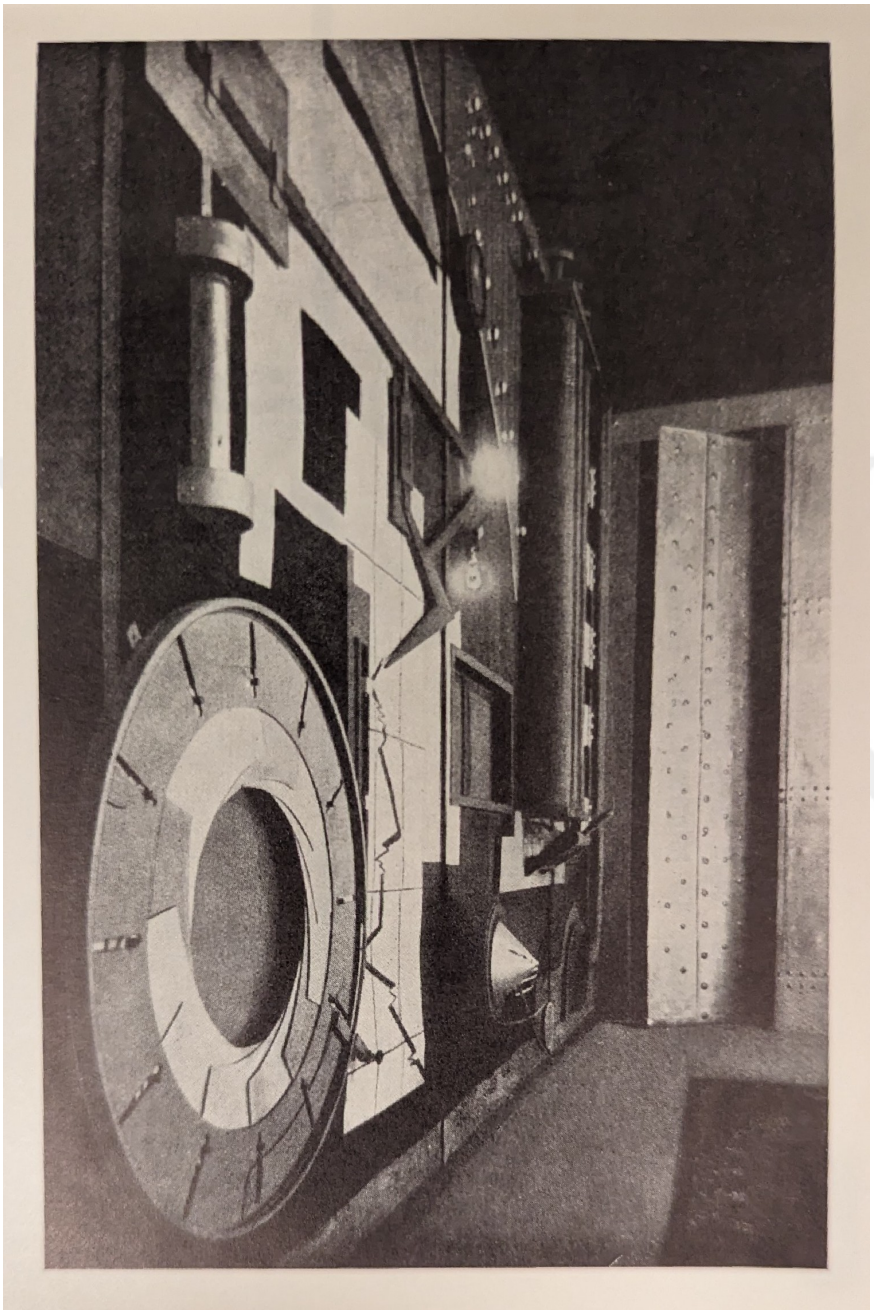


Figure 3.1: R.U.R. stage design. (In *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik*, 1924, 20.)

"Sequence of Mechanical Scenery".[34] Prager collected various critiques and responses to the play, ranging from outright rejection to a lack of understanding, with opinions referring to Kiesler's set design as a "non-space stage," a "drying room" with sheets hanging sideways, and criticized for excessively long pauses during stage changes.[35] However, Hans Richter, who attended the play, described Kiesler's set design as "a masterwork in its simplicity, using what appeared to be very simple stage techniques".[36] Despite varying reactions, Kiesler's foray into the avant-garde through his early use of 'media and technology in theater' with "R.U.R." was solidified within the De Stijl circle. Even four decades later, Hans Richter commended Kiesler for crafting an otherworldly environment, this time "out of nothing".[37]

3.1.1.3 International Exhibition of New Theatre Techniques

Kiesler's set designs not only garnered recognition among artists, architects, and intellectuals, but also afforded him the opportunity to organize the Internationale Ausstellung neuer Theatertechnik: the esteemed 1924 International Exhibition of New Theatre Techniques at Vienna's Konzerthaus as part of Vienna's Music and Theater Festival.[38]

The Gesselschaft zur Förderung moderner Kunst in Wien (GFMK) (Society for the Promotion of Modern Art in Vienna) hosted this exhibition. Founded by Hans Tietze in 1923, the society aimed to foster and promote "independent living art" and "to inspire and encourage a modern attitude in all spheres of spiritual life".[39] As Caruso details in his examination of the short lifespan of GFMK (1923-1934), Kiesler's introduction to the executive committee of the GFMK occurred through Hans Tietze. This happened by submitting a proposal by Kiesler to organize an exhibition on

34. Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe," 43.
35. Katharrina Prager, "Intersections Between Circles," in *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, ed. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation (Basel: Birkhäuser, 2019), 75.
36. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 44.
37. Meißner, "Designing Tomorrow. Frederick Kiesler Architect?!," 24.
38. Meißner, 24.
39. Alexandra Caruso, "Towards a Modern Attitutde in All Spheres of Spiritual Life!," in *Vienna 1924: Hotspot of the Avant-garde*, ed. Peter Bogner (Vienna: Friedrich Kiesler Stiftung, 2018), 21.

Alexander Archipenko. Although the society did not pursue Kiesler's proposal, on June 18, 1923, art historian Kurt Rathe first proposed asking Messrs Csokor to organize an exhibition of "modern theater art".[40]

Subsequent to this proposal, Rathe's asked to grant both Csokor and Kiesler "the power of attorney to form the committee and handle all preparatory tasks," for organizing this exhibition, the group decided to request exposés from both names.[41] With Rathe submitting the exposé written by Kiesler and Kiesler conveying the municipality's plan for a theater week to the society, Tietze contacted the city councillors and secured funding for the exhibition. On March 15, 1924, as Caruso reports from Erica Tietze-Conrat's diary, Kiesler was "officially" appointed for the exhibition.[42]

As mentioned earlier, the exhibition was a part of the second Festival of Music and Theatre in Vienna, organized by the socialist administration of the city, inaugurated on September 14, 1924. In addition to theatrical and musical performances, the festival featured numerous exhibitions. According to John Warren, the International Exhibition of New Theatre Techniques was the most significant, as it showcased to the Viennese audience who were used to observing "routine traditional theater," that there existed "a whole range of exciting modernist theatrical experiments" in other cultural centers of continental Europe.[43]

Kiesler was designated as the artistic director of this exhibition, which opened on September 24, 1924. His role was exceptionally multifaceted, acting as, in the words of Maria Lind, a "*curator avant la lettre*" with the aim to "intensify the encounter between the item on display … and the viewer and to maximize the relations and exchange between people and the world around them".[44] Kiesler performed his duties by designing a display system, selecting exhibited pieces and artists, editing the exhibition catalog (which he also designed), and overseeing the creation of stationery, posters, and tickets. [**Figure 3.2**]

40. Caruso, "Towards a Modern Attitutde in All Spheres of Spiritual Life!," 26.
41. Caruso, 26.
42. Caruso, 27.
43. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 84.
44. Maria Lind, "The Urge of the Age: Frederick Kiesler between Curator and the Curatorial," in *Friedrich Kiesler Lebenswelten: Architektur - Kunst - Design = Life Visions ; Architecture, Art, Design* (Basel: Birkhäuser, 2016), 73.



Figure 3.2: Kiesler's 1924 design for the *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik*.

Moreover, Kiesler actively participated in the exhibition with his own writing and his stage design *Raumbühne* (Space Stage). Lind, referring to the testimony of Theo van Doesburg, suggests that the unique "experience of the 'International Exhibition of New Theatre Techniques', including the Space Stage," can be understood by comparing it with the typical spectatorship model orchestrated by major public art museums in Europe in the first decades of the 20th century.[45]

Lind cites the art historian Charlotte Klonk, describing this model as an experience based on the "interiority and intimacy" of the "harmonious sanctuaries," characterized by neat and orderly organizations of art.[46] Klonk notes the influence of German expressionism, allowing strong wall colors to enter galleries and museums.[47] In contrast, Kiesler's model proposed "a dynamic spatial experience" for the "new, collective, and vigorous constructivist spectatorship model".[48]

The existence of an a priori set of concepts, requiring an understanding of the "modern" society as a prerequisite, may have driven Kiesler to produce an exhibition design where he had total control over every aspect. Kiesler used this exhibition as a tool make accessible the materials for presenting a backdrop for his work to the audience as he used visual and architectural design to emphasize potential alternatives within the space which could inspire both the audience as they did inspire his work. In other words, the exhibition catalog, exhibits, and the design for the display system could be viewed as if Kiesler compiled a textbook for the audience to read before encountering his contributions in the exhibition.

The Viennese were presented with examples from theater designers in Europe, showcasing architectural models, photographs, figurines, and sketches..[49] The exhibition was documented and accompanied by an 80-page publication featuring contributions from artists and designers whose work was exhibited in the show. Notable contributors included Fernand Léger, Filippo Tommaso Marinetti, Enrico Prampolini, El Lissitzky, Hans Fritz, George Grosz, to name some. In addition to the modern inhabitants of Vienna, contributors and the artists themselves were Kiesler's

45. Lind, "The Urge of the Age: Frederick Kiesler between Curator and the Curatorial," 73.
46. Lind, 73.
47. Lind, 73.
48. Lind, 75.
49. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 85.

targeted audience. He opened the catalog with a statement on "Railway theater" and a call to "disarmament of art".[50] In this call, he addressed futurists, expressionists, cubists, and constructivists, urging them to descend from their pedestals and remember why art was "demobilized: to live."[51]

In other words, for those who sought "realities," access became possible after the removal of "art's protective scaffolding".[52] This was, in fact, a Constructivism-infused call aiming to re-situate art into everyday life, "to help generate the new society in the making".[53] Besides Kiesler's editorial role in the catalog, he also served as the designer, overseeing various graphical designs for the event.

Kiesler's constructivist appreciation of what industrial culture brought with the "machine," described by Haran as the "binding motif of constructivism" and the "core symbol of the avant-garde's appropriation of technological modernity,"[54] was evident in his call, graphic design, and text selection. "Railway theater: Das Railway-Theater" was Kiesler's vision of speed and how modern theater should take shape, considering the idea of time and movement. Kiesler envisioned a Theater of Time that floated in space, featuring an open construction raising the stage above the ground in circles, creating a spherical central stage. This stage design, similar to a sports arena, as noted by Warren, would redefine the roles attributed to actors, scenes, and authors. "The individualistic actor, like the 'wings' ... will disappear … and the author will be replaced by the engineer who, with the greatest mathematical precision, will create … an 'optophonetischen Spielsymphonie'".[55]

The subsequent pages of the catalog present the sole demonstration of what an "optophonic symphony" might entail. This demonstration is showcased in the exhibition curated, designed, and presented by Kiesler. Alongside the contributions from various artists and intellectuals who engaged with the evolving theatrical methods and addressed the contemporary lifestyle embraced by the European

50. Frederick Kiesler, ed., *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik [Konzerthaus], unter Mitw. d. Gesellschaft zur Förderung moderner Kunst in Wien im Rahmen des Musik- und Theaterfestes der Stadt Wien 1924* (Vienna: Würthle & Sohn Nachf, 1924), 5.
51. Frederick Kiesler, 5.
52. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 86.
53. Barnaby Haran, *Watching the Red Dawn: The American Avant-Garde and the Soviet Union* (Manchester: Manchester University Press, 2016), 11.
54. Haran, 11.
55. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 86.

avant-garde, the catalog incorporated texts and photos of exhibited works. Notably, two stage designs by Kiesler were featured.

The first design, titled "De La Nature Morte Vivante" ("From Still Life"), elucidated Kiesler's rationale behind design decisions.[56] It expounded upon the coordination of tempo and rhythm between lights, movements, and actors' speech, encapsulating Kiesler's concept of a "mechanistic-kinetic stage design".[57] Subsequently, Kiesler referenced the "mechanically projected set," effectively reprising his design from "Emperor Jones" 1923 through six iconic snapshots, illustrating the progressive scene modification of his square funnel over 45 minutes.[58] [**Figure 3.3**]



Figure 3.3: 6 snapshots from the set of "Emperor Jones" showing what Kiesler calls as the gameplay of a mechanical spatial scenery. (Diagram by Frederick Kiesler. In *Katalog, Programm, Almanach: Internationale Ausstellung neuer Theatertechnik*, 1924, 22.)

Kiesler's final contribution to the catalog was a comprehensive article titled "Débâcle des Theaters – Die Gesetze der G.-K.- Bühne" ("Theatrical Debacle – the Rules of the G. -K. Stage").[59] In the opening statement, Kiesler asserted the absence of a contemporary theater, attributing this gap to an incapacity to conceptualize the stage in spatial terms within the confines of contemporary theater designs. Lacking architectural solutions for set designers desiring to transcend the constraints and conventions imposed by the proscenium, Kiesler provided insights, coupled with a mathematical formula, proposing the construction laws for the new theatrical form —a peep-show stage.

This article had the impression to be a guide for set designers, introducing space, speech, and color as instrumental elements in constructing a stage that determines the

56. Frederick Kiesler, *Katalog, Programm, Almanach*, 20.
57. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 86.
58. Frederick Kiesler, *Katalog, Programm, Almanach*, 24.
59. Frederick Kiesler, 43.

plays showcased in this new, contemporary dramatic style. It is here where Kiesler contends that the theatre of illusion and illustration is ended.[60] He was advocating instead for "open play," eschewing traditional theatrical stages with optical illusions and set design tricks.

With this piece, to facilitate the transition of traditional theater stages into this new form of dramatic art, Kiesler provides a blueprint for designers to unveil the mystery often concealed within peep-show stages. He argues that only when the stage ceases to be a static image and transforms into the elastic space it should be, does the play become an organism. This realization leads to another resolution: the systematic cooperation of actors and object becomes possible.[61] As noted by Warren, Kiesler's contribution signifies an attack on the proscenium stage and a plea to break free from the old slavery of actors to the text.[62]

Kiesler's critique and exploration of alternatives for the conventional "box with a curtain cover" theater stage are further enriched and contested by other contributors to the catalog. For instance, Léger advocated "for new forms of 'Schauspiel'" incorporating light, color, and film in his article "Das Schauspiel: Licht/Farbe/Film".[63] Additionally, contributions from Max Reinhardt, Herwarth Walden, and William Wauer challenged actors to become agents for this new form of theater, emphasizing the move away from mimicking life to actively creating it, without relying on traditional acting methods.[64]

In addressing various aspects of theater, including sound, film, and language, Arturo Larcati places significant emphasis on three manifestos by Italian futurists featured in the catalog. Marinetti's "Teatro antipsicologico astratto, di puri elementi e il teatro tattile" ("Abstract Anti-psychological Theatre of Pure Elements and Tactile Theatre", 1924), Luigi Russolo's "L'arte der rumori" ("The Art of Noises", 1913), and Prampolini's "L'atmosfera scenica futurista" ("Futurist Scenic Atmosphere", 1924) are accompanied by 200 works presented by the futurists.[65] According to

60. Frederick Kiesler, 53.
61. Frederick Kiesler, 57.
62. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 86.
63. Warren, 87.
64. Warren, 87.
65. Arturo Larcati, "The Reception of Italian Futurism in Vienna during the 1920s and 1930s," in *International Yearbook of Futurism Studies*, vol. 10 (Berlin: De Gruyter, 2020), 101, https://doi.org/10.1515/9783110702200-004.

Larcati's report, Prampolini notes that the Futurists, facing a shortage of avant-garde theater managers in Italy, achieved considerable success in Vienna. This success highlighted the distinctiveness of the Italian character in comparison to other presented works.[66]

While Kiesler's exhibition aimed to empower artists and the avant-garde as this was the mission of GFMK, it also became a ground for confrontations among themselves. Despite their shared dedication to a stage design that "integrated all the components of theoretical action in a unified whole," Larcati points to ideological differences between the avant-gardes in the exhibition, leading to a physical altercation between Lajos Kassák, editor of the Hungarian avant-garde magazine *Ma*, and Marinetti.[67] Their conflicting positions on topics such as war, nationalism, and fascism fueled this confrontation.

Marinetti had other similar occassions with other participants of the exhibition. One of them included a rather more intellectual one, through a journal article. Before coming to Vienna, in a lecture in Paris in January 1924 titled "Le Futurisme mondial" ("World-wide Futurism"), Marinetti presented "the most representative avant-gardists of his time," including Picasso and Kandinsky, as Futurists.[68] Theo van Doesburg, also an attendee of the exhibition, was listed among these figures. However, in 1925, van Doesburg wrote an article in the magazine *De Stijl* titled "The Death of Modernism," declaring the failure of early twentieth-century avant-garde movements, including Futurism. He criticized Futurism, suggesting that one should not inquire how it died but how it lived in the first place.[69] Despite Futurism's drive towards "a new way of thinking and seeing," according to van Doesburg, insecurity and distrust, fueled by the "venom of Nationalism," led to the movement's self-destruction.[70]

It was in this piece where van Doesburg resonated with Kiesler's call for the disarmament of the arts at the beginning of the 1924 Theater Exhibition catalog, as

66. Larcati, "The Reception of Italian Futurism in Vienna during the 1920s and 1930s," 103.
67. Larcati, 107.
68. Larcati, 96.
69. Gábor Dobó and Merse Pál Szerdi, "Network Diagrams in Futurist and Other Avant-garde Magazines: The Creation and Self-Positioning of an Imaginary Community," in *International Yearbook of Futurism Studies* (Berlin: De Gruyter, 2020), 86, https://doi.org/10.1515/9783110702200-004.
70. Dobó and Pál Szerdi, 87.

he expressed his skepticism about the ability of artistic "isms" to lead societal transformation. He considered a new form of architecture as the potential catalyst for societal change.[71]

I argue that the conflict between the Italian Futurists, especially Marinetti, and other participants of the exhibition highlights Kiesler's unique curatorial role. It's important to note that Kiesler's role did not necessarily foster conflicts, and bring people together as despite their disagreement in Vienna, Kassák continued to circulate Marinetti's ideas and Futurism without any role being attributed to Kiesler. However, Kiesler's curatorial total design for the 1924 exhibition served as a demonstration of his future projects, placing life and reality at the center of his design research. He was able to stand apart from established schools of thought, while he was making a room for them to be accessible and his ideas feeding from them at the same time. He was not lacking the ambitious goals of the Constructivists, Futurists, or Expressionists, but Kiesler as an individual artist and architect was ambitious enough to showcase his own project with the backdrop of all those "isms".

While the exhibition showcased various "isms" with different perspectives but a common agenda of relocating art within society, this was an opportunity for Kiesler to steal the stage and place himself at the center of the show. This was the case since exhibition was a success was in terms of his roles as an artistic director, editor, curator, designer, and architect of the exhibition were concerned. But also in literal sense, Kiesler's *Raumbühne* was exhibited right in the Middle Hall of the Vienna Konzerthaus, replacing the orchestra seating removed for the construction of Kiesler's Space Stage.

3.1.1.4 Leger und Trägersystem (L+T)

In the context of Kiesler's exhibition architecture, Lind refers to the art historian Mary Anne Staniszewski, who characterizes it as "New ideological scaffolding".[72] Staniszewski suggests that exhibitions like the International Exhibition of New Theater Techniques in the early 1920s should be perceived as "mass media, which,

71. Dobó and Pál Szerdi, 87.
72. Lind, "The Urge of the Age: Frederick Kiesler between Curator and the Curatorial," 75.

like radio, film, advertising, and the illustrated press, could...embrace and transform modern life".[73] For Kiesler, the exhibition was indeed his platform to disseminate his radical thinking on theater art. The exhibition was designed in such a way that the audience did not miss any thing before facing Kiesler's central piece. Notably, it was during this Vienna exhibition that Kiesler introduced the structural system of wood panels with slender stilts joining at right angles, a configuration he later utilized in the 1925 Paris Exhibition known as the City in Space. Formerly named *Leger und Trägersystem* (L+T), this modular display structure necessitated audience engagement and interaction with the exhibited objects as they navigated through the space. [**Figure 3.4**]

The implementation of this "new ideological scaffolding" was prompted by the constraints of the concert hall space, which lacked conventional walls for hanging exhibits. This limitation posed a challenge in displaying the nearly 600 pieces Kiesler assembled for the show, comprising models, photographs, figurines, posters, framed and unframed sheets of paper, and sketches.[74] Quoting Staniszewski, McGuire describes the system as "a framework for viewing art that acknowledges its reception by a viewer as necessary for the creation of meaning".[75] This meaning was conveyed through configurations of two roughly standardized components (*Leger* and *Träger*), providing free-standing and mostly vertical display space. Each element was painted according to the "'work' they performed," whether vertically or horizontally, creating an "inexpensive apparatus that could be serially produced".[76]

In an article published in *De Stijl*, Kiesler outlines the "recipe" for this exhibition system, constructing two "spatial structures" aimed at dissolving the rigidity of the room. The architectural arrangement forced visitors not to ignore any object and interact with each individual item.[77] McGuire contends that this model engaged in a perceptible conversation with El Lissitzky's "Proun Room" at the *Große Berliner Kunstausstellung* and sought to participate in a "universally intelligible system of

73. Lind, "The Urge of the Age: Frederick Kiesler between Curator and the Curatorial," 86.
74. Laura McGuire, "The Exhibition Display System Leger + Träger," in *Vienna 1924: Hotspot of the Avant-garde*, ed. Peter Bogner (Vienna: Friedrich Kiesler Stiftung, 2018), 33.
75. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 59.
76. McGuire, 59.
77. Frederich Kiesler, "Ausstellungssystem Leger Und Trager," *De Stijl*, XII, 6, nos. 10-11 (1924–25): 138.



Figure 3.4: At Vienna International Music Festival Frederick Kiesler (seated) experiencing his L+T display system with audience members including Theo van Doesburg (standing above). ÖFLKS, PHO 235/1

artistic expression" to systematically organize displayed artworks.[78]

This architectural endeavor challenged viewers to follow not only the artworks in front of them but also move from one element to another, guiding them through a room filled with successive elements to unfold the overall experience.[79] McGuire argues that this demonstrated Kiesler's "proclivities for the manipulation of perceptual stimuli that would define his career".[80] Van Doesburg would refer to this system as a step in the right direction (for an architecture of neo-plasticism) saying "its active movement-centered quality that flew in the face of 'criminal' frontal methods of hanging artworks" a complete surprise to him.[81] The exhibition that was almost immersive thanks to the structure Kiesler utilized showcased constructivist, futuristic, and expressionist approaches to theater and stage design prevalent in schools such as Bauhaus and avant-gardes. Kiesler's *Raumbühne* was, however, not displayed in one of those structures. It was, instead, a 1-1 model of the central stage of a more ambitious plan, later named the "Endless Theater."

3.1.1.5 *Raumbühne*

The works presented in the exhibition, along with excerpts from various avant-garde texts on theater art and its relation to the modern condition, can be considered essential reading for visitors encountering Kiesler's *Raumbühne*. According to Phillips, this was a "highly theoretical proposition derived through the study of a vast network of ideas elaborated" by contributors to the exhibition.[82] Without a doubt, Kiesler was not the first to conceive of a stage design as the "first theater-in-the-round for the modern play".[83]

The idea of altering the interaction between the audience and the actor through "concentric, spiral, and spherical spatial schemes" was already present in the work of

78. McGuire, "The Exhibition Display System Leger + Träger," 35.
79. McGuire, 36.
80. McGuire, 37.
81. Laura McGuire, "Influence and Elaboration," in *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, ed. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation (Basel: Birkhäuser, 2019), 156.
82. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 72.
83. Phillips, 65.

American theater designer Norman Bel Geddes, as well as in the "*Theater ohne Zuschauer — das Stegreiftheater*"(Theater without Spectators — The Theater of Spontaneity), where psychiatrist Jacob Levi Moreno used a similar design as a pedagogical tool to facilitate didactic storytelling[84] This resembelence between *Raumbühne* and Moreno's design would stir a public drama that would lead to a legal dispute between the two.

Bearing also the clear resemblance to Vladimir Tatlin's "Monument to the Third International of 1920", Kiesler employed the "spiral" as a tool to challenge the conventional picture-frame stage with a proscenium.[85] Positioned in the middle of the concert hall, extending from the orchestra to the balcony, the stage astounded all involved, as noted by Lesák.[86] This was the central piece of the exhibition, on which plays, performances, and lectures were planned. Featuring the play "*Im Dunkel*" ("In the dark") by Paul Frischauer, along with other dance performances, the wooden structure encompassed an elevator shaft surrounded by a spiral ramp leading from the orchestra to the central ring, encircled by the audience. [**Figure 3.5**]

The play by Frischauer was an "intimate chamber play" that "did not fit well at all with Kiesler's stage conception of dynamism, space, and movement".[87] However, Zillner notes that the *Raumbühne* enjoyed much more success when used as a stage for "presentations" rather than "drama".[88] Fernand Léger's *Ballet mécanique* was one of the films screened on the stage.

Given Kiesler's opening piece in the catalog of the exhibition, this spiral ramp that began from the ground floor and ascended up to the lowest balcony row in the concert hall allowed one to anticipate the field of movement and speed Kiesler was striving for. This three-dimensional stage countered what Kiesler referred to as a "peep show" or "picture stage," which he criticized for creating the illusion of "two-dimensional

84. Phillips, 42–46.
85. Barbara Lesák, "Frederick Kiesler's Visions and Ideas in Europe and the USA," in *Ideas Crossing the Atlantic: Theories, Normative Conceptions and Cultural Images*, 1st ed., ed. Waldemar Zacharasiewicz and Christoph Irmscher, Book, Section vols. (Vienna: Verlag der österreichischen Akademie der Wissenschaften, 2019), 363.
86. Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe."
87. Zillner, "Frederick Kiesler's Raumbühne as a Model and an Exhibition Piece: "Serpentine Trains of Thought"," 46.
88. Zillner, "Frederick Kiesler's Raumbühne as a Model and an Exhibition Piece: "Serpentine Trains of Thought"," 46.

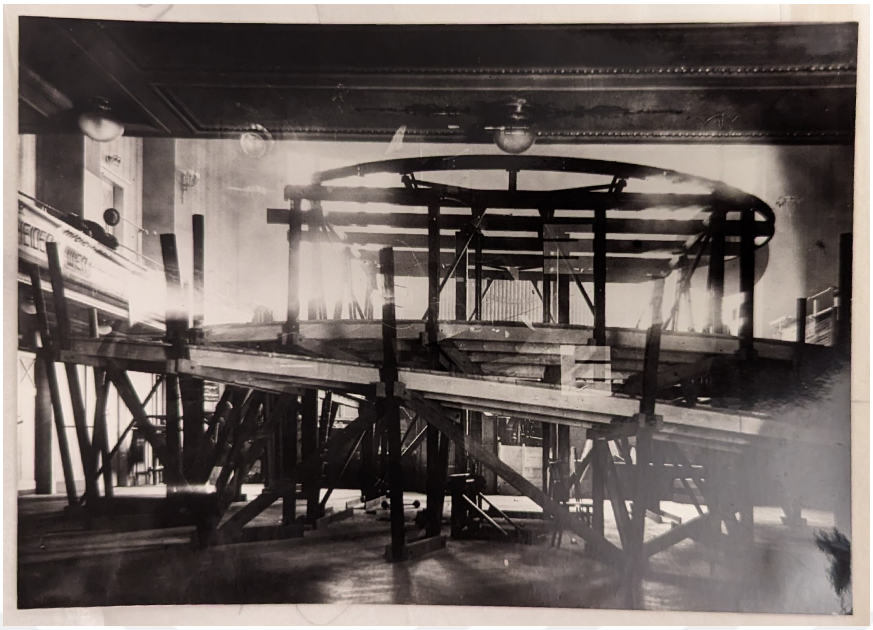


Figure 3.5: Kiesler's Space Stage, 1924, Vienna. ÖFLKS, PHO 334/0/LK2178

space when the action was, in fact, three-dimensional".[89]

Kiesler's idea on paper was put into practice, in contrast to most of the stage utopias of the avant-garde, as Zillner points out.[90] This, according to Zillner, made Kiesler's 1-1 scale model of his design more vulnerable to attacks.[91] In fact, it was attacked. Zillner reports that the "functional austerity of the structure of steel beams, wood platforms, ramps, and ladders invited disrespectful comparisons and caricatures".[92] In one of the cartoons published to ridicule and make fun of the avant-garde stage design of Kiesler, the dynamism, speed, and how the stage was encompassing all aspects of modern life were best depicted, maybe standing as the perfect illustration of what Kiesler had in mind when writing his text on the Railway theater and building the structure inside the concert hall.[**Figure 3.6**]

Regardless, amidst the controversy surrounding the stage from Kiesler's dispute with Moreno, who had called Kiesler a plagiarist before the exhibition was even open, Kiesler ended up writing a "sobering look back" at the exhibition and its central

89. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 59–60.
90. Zillner, "Frederick Kiesler's Raumbühne as a Model and an Exhibition Piece: "Serpentine Trains of Thought"," 45.
91. Zillner, 45.
92. Zillner, 46.



Figure 3.6: Cartoon ridiculing Kiesler's theater of "speed" with the caption saying "Or: There was no such rush". ÖFLKS, PHO 329/1.

piece Raumbühne on January 6, 1925, in the Viennese newspaper *Der Tag*.[93] In the article “Toward the New Theater”, Kiesler explains the lack of involvement from the participating countries regarding their contributions, the short period of time the exhibition was open to the public, as well as the last-minute change of the play planned to be staged on Kiesler’s *Raumbühne*.[94]

Along with this list of excuses, I believe Kiesler had a more substantial complaint that “in Vienna there was simply no theater troupe available that would have been suitable ‘for the completely new approach to playing in space that the stage setup demanded’”.[95] According to Kiesler, apart from Alexander Tairoff and Wsewolod Mayerhold, the challenge would have been unmet. However, as Zillner reports, Kiesler then suggests that some of the plays and performances planned to be staged on his stage were not realized for reasons outside his reach. Therefore, he also portrays a picture where *Raumbühne* was not used to its full potential in this very short period of time.

What sounds like an apologetic letter from what Zillner portrays, Kiesler also points out the strike of metalworkers during the preparations for the exhibition, which led the stage to be exhibited in its unfinished form.[96] However, once again, Kiesler also negates this to be an excuse, as he dismisses the critical reviews of the play "*Im Dunkel*" “that people had equated the model of the Space Stage with the Space Stage itself”.[97] *Raumbühne* was not what Kiesler designed as Space Stage; it was, first of all, a model, and secondly, a small portion of what Kiesler actually envisioned as the "Endless Theater", a theater for 100,000 people with Space Stage being its central spherical core that would be surrounded with audience seating to house “looping electromotoric motions”.[98]

Years later, Kiesler would be unapologetic and consider this stage to represent the first seeds of what Kiesler dubbed to be the first theater of happenings. While Lesák suggests that Kiesler perceived this new stage as a machine for an audience already

93. Zillner, 47.
94. Zillner, “Frederick Kiesler’s Raumbühne as a Model and an Exhibition Piece: "Serpentine Trains of Thought",” 47.
95. Zillner, 47.
96. Zillner, 47.
97. Zillner, 48.
98. Zillner, 48.

familiar with cinema and photography, he viewed this model as more than just a machine, forming the foundation of his theoretical endeavor later known as Endless. Kiesler aimed to blend the auditorium with the stage through poly-dimensional movement, introducing the notion of sphericality into his vocabulary.

Lesák further explains how Kiesler was inspired by the finely-tuned steel roller-coasters, commonly known as Railways in Europe, which influenced the name of the railway theater.[99] It was this stage design, characterized by its swift looping spatial configuration, that served as the architectural inspiration for the initial proposal of Endless.[100] Regardless of the critiques, Phillips notes that the theater had the potential to reach a broad audience, and avant-garde artists with revolutionary agendas utilized it in the 1920s to support political change amidst the societal shifts resulting from war and industrialization.[101]

The examples displayed in the exhibition catalogs and texts alongside the exhibition showcased Kiesler's belief that revolutionary theater demanded a new spatial resolution, illustrated in the Space Stage as he discussed in his essay published in the catalog of the exhibition, "Debacles des Theaters".[102] The design of the stage, which was described as 'a space that loops around with speed,' served as the architectural inspiration for the initial Endless proposal.[103]

The commission that followed "two sensational stage designs and three theater manifestos published in Berlin newspapers," ultimately paved the way for Kiesler's move to New York in 1926, immediately after the earlier mentioned exhibition in Paris in 1925, where he presented "The City in Space".[104]

99. Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe."
100. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 72.
101. Phillips, 52.
102. Phillips, 57.
103. Phillips, 72.
104. Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe."

3.1.1.6 City in Space taking over the *Exposition Internationals des Arts Decoratifs et Industriels Modernes*

On March 10, 1925, Kiesler received a letter from the Austrian Committee for the International Exhibition of Modern Decorative and Industrial Arts, which assigned Kiesler with designing the Austrian theater section at the Grand Palais in Paris. This time Kiesler had a very specific job-title, to design the exhibition space which was attributed to the works that were already selected by the committee as representative of the Austrian theater. Despite the Theater Exhibition prior to this commission was already demonstrative of the overall discord between Kiesler and the Austrian theater works, Kiesler did undertake this commission and installed a constructivist structure which "manifested as a model for an urbanist megastructure that floated freely in space".[105] This time, Kiesler's exhibition display system itself acted as a model for yet another of his visions regarding architecture, right after his denouncement of art in 1924. Kiesler had at his disposal a space measuring 24 meters in length, 11 meters in width and 9 meters in height, which he used to place the model for his "Manifesto of Tensionism. Organic Building–City in Space–Functional Architecture".[106] As Zillner reports from the press reviews and photos of this structure, Kiesler was able to use his stage design tool-set to create an object of interest through the "dynamic play of light and shadows" in a context where "Kiesler had the ceiling and walls draped in black fabric. Suspended from the ceiling and strutted between the walls, the installation seemed to float in an infinite spatial continuum. ... Kiesler's manifesto was projected onto a screen and ... visitors were invited, with the help of a reflector to illuminate the objects themselves in the relatively dark space". [**Figure 3.7**][107] Kiesler's City in Space was in fact, this display system he designed for this exhibition.

City in Space was not initially commissioned as a statement on modern architecture; it was intended as a structure for display. According to Kiesler's own account in a 1961 interview with Creighton, the project emerged as a product of improvisation. In this interview, Kiesler details the story behind the undertaking.[108] Josef Hoffmann, the head of the Department of Architecture at the School of Applied Arts, invited

105. Gerd Zillner, ed., *Raumstadt: City in Space* (Vienna: Friedrich Kiesler Stiftung, 2022), 5.
106. Zillner, 5.
107. Zillner, 5.
108. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 110.

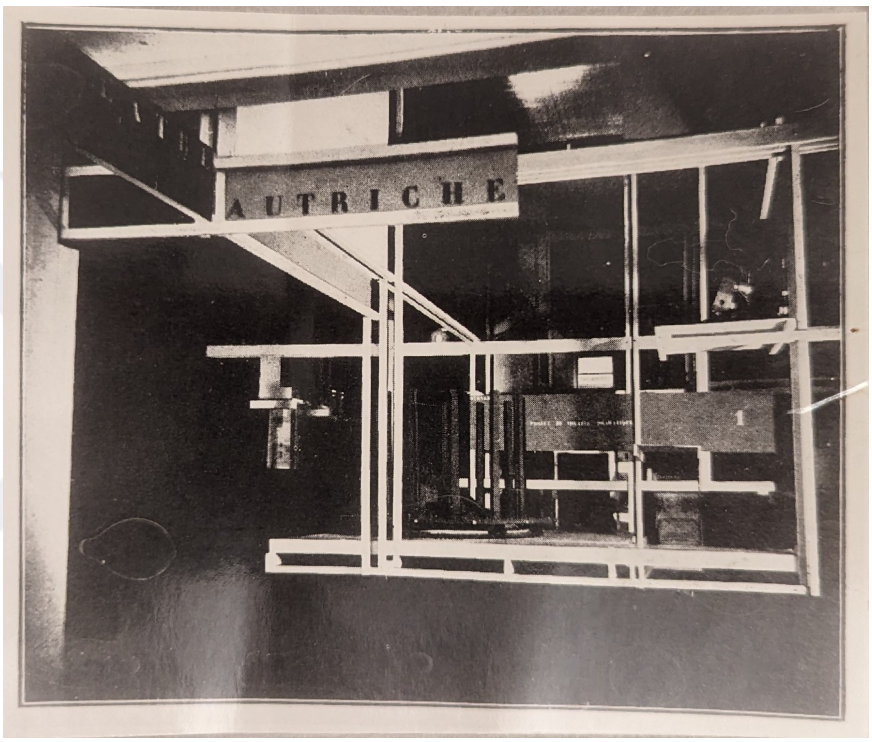


Figure 3.7: Display system of tension for Austrian theater section at the Grand Palais in Paris, 1925. ÖFLKS, PHO 330/1.

Kiesler to design a presentation of contemporary Austrian theatre at the fair.

Initially, Kiesler conceived what he describes as his only "neoplastic" building, intended to be situated adjacent to the Grand Palais along the Seine.[109] However, this design was deemed "too vague and too fantastic... to spend Government money on," prompting Kiesler to abandon it as it couldn't be realized.[110] Instead, under the pretext of "exhibiting pedestals for theater models," Kiesler improvised what he called the City in Space.[111] This "new ideological scaffolding" took the form of an "almost floating scaffold construction" designed to serve the purpose of "presenting stage models and designs".[112] Only after the exhibition opened Kiesler would declare this creation into a model for his architectural critique and a prototype "for a city without walls or foundations, supported entirely through a system of tension".[113] In his interview with Creighton, Kiesler recalls discussing City in Space with Le Corbusier in 1925 in Paris, where Le Corbusier asked him, "Do you intend to hang the houses from Zeppelins?" Kiesler responded with the notion of "suspension in tension".[114]

At this juncture, it is crucial to provide the context in which Kiesler published his manifesto, referred to as "Counter-architecture" during the exhibition, constituting the basis of his fundamental creative idea. This central idea, as he elaborates in the interview, is the pursuit of continuity. "Tension," in the context of this manifesto, serves as a tool for Kiesler to respond to the evolving landscape he describes. By challenging conventional perspectives that fail to embrace the moment of change, Kiesler prompts contemplation: what if the city were suspended instead of being built on foundations? His manifesto for City in Space envisions a city without walls or foundations. In a context where urban areas are experiencing disproportionate growth, Kiesler refuses to be complacent with this reality or constrained by traditional architectural elements, instead opting for a "liberation from the ground".[115] Through the concept of floating freely in space, Kiesler presents his vision for the unfolding

109. Creighton and Kiesler, 110.
110. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 110.
111. Creighton and Kiesler, 110.
112. Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe."
113. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 59.
114. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 123.
115. Frederick Kiesler, "Manifesto of Tensionism: "Organic Building—The City in Space—Functional Architecture," 123.

new life that he experiences and lives within. Therefore Le Corbusier's question is insignificant as it misses the underlying principle in Kiesler's thinking. "Liberation from the ground" would be a matter of continous progress, rather than a quick fix to the constraints of the day.

As mentioned earlier, Kiesler envisioned a city that he deemed relevant for an era transitioning from the aftermath of World War I to the vibrant 1920s, characterized by a richness in creative terms.[116] Florian Medicus suggests that the influence of the avant-gardes and architecture popularized the "idea of a non-Euclidean, dynamic geometry" and the concepts of space and time, leading to a shift toward technology on one hand and organicism on the other.[117]

Medicus further draws attention to Bruno Taut's 1914 call for the construction of a living organism, which resonates with Kiesler's advocacy for *Vitelbau*. Taut recognized the importance of understanding the functional and constructive preconditions of a building, allowing the right form to emerge naturally, creating a structure that "both breathes and lives".[118]

In the same year, in another essay titled "Eine Notwendigkeit," Taut also warned "against architecture taking over the external forms of painting".[119] Taut would re-consider the role of art in the society, but he warned against the mistreatment of art and assume architecture as the supreme answer. The concept of a total work of art was articulated to create an ideal building that incorporated "light compositions by Robert Delaunay in the windows, walls with cubist rhythms, ornament by Heinrich Campendonk, pillars with built-up sculpture by Alexander Archipenko, Franz Marc paintings, and the art of Wassily Kandinsky".[120] Yet again, bringing together all the "isms" in one pot to create the ideal architecture by keeping their integrity, without prioritizing one over the other, was not the ideal that Kiesler and van Doesburg had in mind.

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116. Medicus, "Spheres and Shells. The Construction of the Endless House," 182.
117. Medicus, 182–183.
118. Bruno Taut, "Das Prob Lem Des Opernbaus," *Sozialistische Monatshefte* 20 (1914): 355–357 cited in Medicus, "Spheres and Shells. The Construction of the Endless House," 183.
119. Bruno Taut, "Eine Notwendigkeit," *Der Sturm* 4, nos. 196/197 (February 1914): 355–357 cited in Detlef Mertins, "Transparencies Yet to Come: Sigfried Giedion and the Prehistory of Architectural Modernity" (PhD diss., Princeton University, 1996), 98.
120. Mertins, 99–100.

However, I do not think that they were directly responding to the call of the "Arbeitsrat für Kunst" (Workers Council for Art) and Novembergruppe (November Group) to "reform the institutional structures of art patronage, exhibition, and education"[121] either.

Kiesler's City in Space drew attention from Theo van Doesburg and Piet Mondrian on the day after the show's opening, who remarked, "You have done what we all hoped one day to do".[122] Given the dispute between the founders of neo-plasticism, Mondrian and van Doesburg, evident at the time of the Paris Exhibition, this achievement acknowledged by both figures before Kiesler's move to the United States, deserves further elaboration.

Van Doesburg's denouncement of art in favor of a new kind of architecture after the quarrels with the futurists in Vienna, along with Kiesler's call for a new kind of architecture in the "City in Space," seems to align with what Taut warned architects against in 1914. Mondrian, in this context, can be discussed through his architectural theory that overlooks what Kiesler marked as the beginning of a new exploration with his manifesto and model in Paris in 1925: a science of architecture which he named *Vitelbau* and then translated into English as "biotechnique."

"De Stijl Manifesto" declared the new consciousness of time to be universal amid the war that destroyed the old world with its contents. The role of the new art was to bring balance between the universal and individual, as plastic art was meant to form an international unity in life, art, culture. Bringing painters, architects, sculptors, and poets together, De Stijl hoped to attain collective creation.[123] The nature of this collective creation in neo-plasticism and its possibilities led to a dispute between Mondrian and van Doesburg. Right at the exhibition hall designed by Kiesler that showcased the City in Space, Kiesler joined the ranks of De Stijl, filling the place of Mondrian. Bois notes that in 1922, Mondrian suggested the "realization of neoplasticism in architecture was almost impossible, given existing economic and technical conditions".[124] He further declared, "What was achieved in art for the

121. Mertins, 100.
122. McGuire, "Influence and Elaboration," 158.
123. Yve-Alain Bois, "Mondrian and the Theory of Architecture," *Assemblage*, no. 4 (1987): 104, ISSN: 08893012, accessed December 13, 2023, https://doi.org/10.2307/3171039, JSTOR: 3171039, http://www.jstor.org/stable/3171039.
124. Bois, 106.

present be limited to art".[125] While Kiesler, as demonstrated in the aftermath of his design of the *Theater Exhibition* in 1924, would always acknowledge the limitation of their time as one of the reasons why the ideas they promoted could not be fulfilled, his career would be built around understanding and explaining those conditions to evolve into a reality that unites life and art in accordance with the potentials advanced inventions, technology, and science would allow.

Hence, while Mondrian was skeptical about the realization of such an architecture that would comply with neo-plasticism, van Doesburg's excitement after seeing Kiesler's proposal of a new city, for the new form of life, must be what made him so enthusiastic.

During this exhibition, Kiesler not only devised the model for the manifesto that resonated with the Dutch neo-plasticists but also managed to include them in the Paris exhibition. The exclusion of the De Stijl group from the exhibition by the Dutch delegation stirred a protest among participants from other countries, including Kiesler. While the De Stijl group was not invited to participate in the Dutch pavilion due to their disputes with the architects of the Amsterdam School, represented by the review Wendingen, whom Bois refers to as the "ever the enemy of De Stijl",[126] Kiesler's design and his manifesto gave the group a voice in the exhibition.

Kiesler's intervention in the exhibition through his design and manifesto gained attention from the press. In an entire volume devoted to the entire exhibition, Kiesler's contribution was praised as "Austrian inventive originality" that reclaimed "its role in the category, with a very strange but very harmonious arrangement".[127] However, the French press was not friendlier than the Viennese press. Kiesler's "Space City" was mostly ridiculed, and to some extent, it offended the media as they drew correlations between living in the forest and living in houses that were suspended. Many articles underlined either Kiesler not being an architect but an artist, or, as in the case of *The New York Herald*, noted that Kiesler "does not claim to have discovered or invented anything, but the idea is a mere matter of logical development of present-day conditions".[128] From these news clips, it is understood

125. Bois, 106.
126. Bois, 122.
127. René Chavance, "La Section Autrichienne," *Art et décoration* 2 (1925): 48.
128. "Artist Plans City in Air, Without Traffic Jams, Noise or Discomfort," *The New York Herald, Paris*, July 29,

that Kiesler gave interviews to the public where he suggested he was neither an inventor nor a prophet but simply presenting what the “age of aviation” demands.[129] Further, he suggests that Americans were already embarked on this path. In one of the articles, it is suggested that Kiesler’s project was supported by the “Gibbons Construction Company of New York” and says Kiesler would soon head for New York to confer with experts on the specifications of this project.[130] Kiesler expands on thus in a manuscript, which has not date but written after 1933, as he refers to what he calls "Space-in-Architecture" becoming popular a decade after. He claims a letter from a Gibson Construction Company offered Kiesler "qualifications as specialists in suspended Airplane-Landing-Platforms if a "City-in-Space should be built as anticipated by them meretriciously, after reading American Newspaper reports of the theory’s exposition in Paris".[131]

Despite its controversies, Kiesler would meet the American theater magazine *Little Review* publisher Jane Heap and get an invitation to take part in another theater exhibition in New York. And despite the controversial nature of the exhibition, which was also met with resistance from the Austrian government at the time, Kiesler found a platform to experiment with both architectural projects and an improvisational approach that would later inform his work on expanding what he would refer to as the “Endless” once he is in America.

3.1.2 Endless

Recapping these pivotal years in Kiesler’s career establishes the nucleus of his entire body of work, as will be demonstrated. Beginning with a profound interest in the performing arts, particularly theater, Kiesler’s stage designs served as responses to the rapid changes within the visual arts. His set designs for "R.U.R." and "Emperor Jones" in 1923 not only introduced new mechanics into the realm of arts and architecture but also sought to reshape the relationship between the audience and

1925.

129. “Newspaper Article on "City in Space",” ÖFLKS, TXT 6613/0.

130. “Une Ville Aérienne,” *Tribune Geneve*, August 1, 1925.

131. Kiesler writes in hand writing that when he arrived "to the States, the Gibson company had moved and their telephone was definetely out of order.Frederick Kiesler, “Manuscript on "Progressive Conception of Space-in-Architecture",” ÖLFKS, TXT 6461/0, N2

actors. This transformation extended beyond the stage by challenging the necessity of a proscenium in an era dominated by cinema and photography, adopting a constructivist approach to art within the De Stijl group, where creative practices were treated as tactical tools to achieve a unity of life in the changing context of modernity.

Following these pioneering experiments, Kiesler ventured into the *Raumbühne* in Vienna during the International Exhibition of New Theatre Techniques. Here, he incorporated what he would later articulate as a concept of the endless by creating a circular tower, which was constructed as an open skeletal structure featuring a spiral ramp that ascends upward. Notably, this exhibition marked the first implementation of his L+T display setting, a concept that would eventually materialize in City in Space in Paris in 1925, forming the foundation of his manifesto in the same year.

Buhmann draws attention to van Doesburg's impact on Kiesler's trajectory before he leaves for New York.[132] Since meeting Kiesler after seeing the play "R.U.R." and Kiesler's set design, through his invitation of Kiesler to the De Stijl group, befriending him with artists and intellectuals of his time, as well as contributing to his habit of writing, Buhmann quotes Kiesler as he admits: "from the point of view of architecture, industrial design, and what we called at the time not abstract painting or nonobjective painting —we called it fundamental painting, basic painting. It was the De Stijl group who furnished all the personalities, theories, and work".[133] Kiesler's move to New York would definitely change the direction of this reciprocal relationship, which would be further altered after van Doesburg's death in March 1931.

Kiesler's move to America can be metaphorically articulated in his earlier emphasis on the German word *Raum* and its translation into English. While having an etymological connection with the word *räumen*, which means empty, it has two meanings, as Phillips puts emphasis on: room and space.[134] Kiesler chooses to translate *Raumbühne* as Space Stage, despite the fact that Bühne translates as both

132. Buhmann, *Frederick Kiesler*, 60.
133. Buhmann, 60–61.
134. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 72.

theater and stage, and he translates *Raumtheater* as Endless Theater.[135] This translation of concepts into English can be thought of as a process that allowed Kiesler to position himself and his work among the American audience, as well as the fellow emigrate architects and artists who would soon shape the American architectural scene along with the threads of modernism they would bring with them. While Kiesler's first encounter with the American audience would be through theater, from now on, instead of theater art, Kiesler's research matter would evolve into the concept of "living" that would find its metaphor in a house.

3.1.2.1 The International Theater Exposition

The third edition of Kiesler's theater exhibitions provided him with an entry point into the American scene and established a platform where his ideas could be tested, developed, and disseminated across various grounds. As Buhmann puts it, following Kiesler's "European march of triumph" in Berlin, Vienna, and Paris, New York could have marked the next logical step.[136] And, in fact, it is. However, only after years for Kiesler to get to know and adjust his way of design practice into this new continent, translating a European project to achieve unity between art and life into an enterprise that would establish the conditions for the promised new life accessible to the masses.

Kiesler is reported to have received the commission to curate an exhibition on European avant-garde theater in New York after his showcase of the City in Space was over. The design process of the exhibition, which also included designing the catalog and the poster, as well as the selection of works that could be exhibited, had already started in Paris. While this could have been another chance for Kiesler to showcase his architectural position through yet another exhibition design on contemporary theater art, Kiesler's introduction to New York was not as glamorous as his rise in Vienna.

The International Theater Exposition was held on February 27, 1926, organized by The Little Review, the Theatre Guild, the Provincetown Playhouse, the Greenwich Village Theatre, and the Neighbourhood Playhouse. The exhibition was open for

135. Phillips, 72.
136. Buhmann, *Frederick Kiesler*, 67.

three weeks and was presented as the “largest event of the sort held anywhere at any time”.[137] While this presentation could be as American as it could get to introduce Kiesler to the USA, Kiesler was matching up with this proposition as the show exhibited “an enormous collection of 1500 theatre set designs, costumes, and props,” which Kiesler carried with him from Europe in around 70 cases.[138] This exhibition mirrored what he had already showcased in Europe, along with the modern American theater art.[139] Additionally, he exhibited his well-established theoretical inventions through his set design for the 1923 production of "R.U.R." and the Space Stage in the Vienna Concert Hall.

It is also plausible to suggest that Kiesler had the opportunity to reevaluate his work and engage in a form of self-retrospective study, thereby advancing his research within a different cultural context compared to his experiences in Europe. The catalog for the exhibition was published as one of the editions of *The Little Review* in the winter of 1926 that featured a total of twenty-three articles, including excerpts translated into English from the 1924 catalog, including Kiesler’s essay “Debacle of the Modern Theatre.” Different than the German version that was published in 1924, his essay had an introduction that suggested that Kiesler “championed” Space-Stage since 1916 and he was able to “attain partially in 1922, 1923, and 1924, and which” he hoped “someday to build completely”.[140] Kiesler was retrospectively putting together the pieces from his repertoire to construct a concept that would, as Kiesler would say in the "Foreword", give a “splendid burial” to theater, which Kiesler declared dead.[141]

The exhibition featured lectures both during and after the event, providing Frederick Kiesler with an opportunity to present his thoughts to the American audience. However, these presentations were delivered through a translator, specifically the actress Princess Matchabelli.[142] Only one presentation occurred during the exhibition, focusing on "The Theater of the Actor of the Future". Subsequent presentations on the theater of the fourth direction took place in April and June after

137. Buhmann, 71.
138. Haran, *Watching the Red Dawn*, 28.
139. Lesák, “Friedrich Kiesler’s Work in Theatre: The Inception of an Interdisciplinary Universe.”
140. New York International Theatre Exposition (1926) and Theatre Guild, *International Theatre Exposition, New York, 1926.* (New York: Little Review New York, 1926), 14.
141. New York International Theatre Exposition (1926) and Theatre Guild.
142. Haran, *Watching the Red Dawn*, 30.

the exhibition.[143]

Kiesler's call for "actor-less theaters of the fourth dimension" garnered attention from the press. In an interview with the New York Times, he emphasized, as expressed by Haran, that "Kiesler's esoteric Constructivism was non-political. In response to questions, Mr. Kiesler denied any intention to exemplify Soviet ideals and expressed surprise upon learning of his interpreter's affiliations with Bolshevist representatives here".[144]

3.1.2.2 Endless Theatre

Instead of the *Raumbühne*, that was now translated as the Space-Stage, in New York, Kiesler presented the audience with an egg-shaped plaster model, accompanied by "several large-format floor plans and elevations," creating the impression that it could potentially be constructed in the near future.[145] It was this model that Kiesler referred to as the "Endless".[146] In the New York presentation, the flattened sphere, previously hinted at in Vienna, was now depicted in three dimensions as "an ambitious spheroid-shaped arena enveloped in a structural shell of steel and an additional shell of opaque glass".[147] Kiesler explains that the purpose of this design was to create a dual enclosure of fused glass in relation to the interior of an elastic design featuring ramps, various free-standing elevators, and spiraling rows of seats.[148] He refers to this as the "first continuous shell construction scheme with no foundation to support it but rather resting within a cavity in the ground"[149] The flattened sphere, according to Kiesler, was not intended to represent a solid enclosure of space; instead, it was intentionally restricted by the shell to reveal the space within. The double shell of opaque glass (or plastic, as he adds) was envisioned to accommodate slides of images and house film projections, creating an illusion of infinity as envisioned by Kiesler. Utilizing the tensile shell, Kiesler envisioned

143. Buhmann, *Frederick Kiesler*, 71.
144. Haran, *Watching the Red Dawn*, 30–31.
145. Lesák, "Friedrich Kiesler's Work in Theatre: The Inception of an Interdisciplinary Universe."
146. Creighton and Kiesler, "Kiesler's Pursuit of an Idea."
147. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 47.
148. Creighton and Kiesler, "Kiesler's Pursuit of an Idea," 110.
149. Creighton and Kiesler, 110.

omitting interior supports or partitions, enabling his continuously spiraling ramp to serve as a replacement for a traditional stage.[150] Moreover, the expansive open space would allow the theater to be easily repurposed for various other activities, such as motor races, embodying the futurist concept of constant action and movement in modern life, with programs running continuously.[151] What Kiesler showcased in one-to-one scale in Vienna served as the central piece of a larger project, which was now exhibited in New York, almost as if the theater could have commenced construction the following day, as McGuire describes it. In fact, Kiesler had at least two instances where he implemented projects in the United States that integrated not only the formal principles but also the conceptual principles of this initial 'Endless.'

In New York, Kiesler's vision for the Space Theater involved seating for 100,000 people, matching the obsession present in the promotion of the event, while the specifics of the new dramatic style were still in the process of being developed. What remained consistent in Kiesler's subsequent designs, as he had the opportunity to construct various iterations of his theater projects, was the structural foundation for a building to host "the drama of life." In line with his manifesto on tensionism, the eggshell served as both a conceptual and structural tool to achieve endlessness, where the drama could unfold and evolve freely in space. This Universal Theater, described by McGuire, was "an ambitious spheroid-shaped arena sheathed in a structural shell of steel and a secondary shell of opaque glass".[152] With the conventional stage replaced by a continuously spiraling ramp, this space facilitated a range of configurations for different types of events. It shifted the focus from actors to the audience and their experience of the space, allowing them to participate in the events unfolding within the structure. The main premise of this design was the "aestheticization of contemporary urban life, transforming human interaction and movement into a massive, interactive entertainment spectacle".[153]

150. McGuire, "Influence and Elaboration," 47.
151. McGuire, 47–48.
152. McGuire, 47.
153. McGuire, 48.

3.1.2.3 Woodstock

In the subsequent years in America, Kiesler proceeded to develop a variation of his Endless Theatre, materializing in the Shelter Structure at Woodstock in 1931. This iteration retained the core concept of an endless spiral guiding the stage and remained committed to exploring the "elements of the new dramatic style" as its driving forces. Similar to the City in Space project in 1925 in Paris, this project was also conceived as an ephemeral venture that could be erected and dismantled within two weeks, owing to the "elastic building system of cables and platforms developed from bridge building".[154]

This "experimental theater" project, intended for the artist colony at Woodstock, emphasized self-sustainability, with Kiesler envisioning it as "more than a mere theater...it is to be a shelter for the drama of life".[155] Kiesler proposed an economical, practical solution that eschewed the need for "expensive equipment such as artificial air cooling or heavy enclosed shell construction." Instead, he advocated for a flexible, ephemeral construction technique achieved through tensional structures, lightweight easily fabricated tubular metal supports, and weatherproofed fabric web coverings.[156]

Revisiting his concept of the Endless Theater, Kiesler's participation in a competition for a flexible cultural center in 1931 led to an architectural triumph over renowned competitors, including Frank Lloyd Wright. Despite the project never coming to fruition, Kiesler's ideas revolving around the Space Stage crystallized into a theory of Endlessness, affording him the opportunity to reassess his theories within a North American context. In 1932, Kiesler's Festival Shelter was published in the magazine *Shelter*, with a foreword by the editor Buckminster Fuller. Referred as having a "Brooklynite ambitious to build" Fuller's foreword hints about Kiesler struggling in New York until then due to the language barrier and being "stranded in N.Y.C. Modernistics".[157]

In this article Kiesler re-circulates his stage design diagram from the 1923 "Emperor

154. Frederick Kiesler, "A Festival Shelter: The Space Theatre for Woodstock, New York," 44.
155. Frederick Kiesler, 44.
156. Frederick Kiesler, 43.
157. Frederick Kiesler, 42.

Jones", with the caption referring to it as "first demonstration time-space planning"[158] along with excerpts from his already published article in 1926 in *The Little Review* "Debacles of Theatre" along with pictures of models of his Woodstock Festival Shelter.

3.1.2.4 Universal Theatre

In 1961, Kiesler finally revisited the design of an actual theater at the invitation of the Ford Foundation, marking his ultimate foray into the theater world. This project, commissioned by the Theater Guild in New York to conceptualize an ideal theater, was a testament to Kiesler's stature at the peak of his influence. Notably, this invitation followed his selection among eight other designers by the Ford Foundation to reimagine a contemporary form of performance architecture, leading to the television show critiqued by Ada Huxtable.

Kiesler recognized that "a new prototype of theater for our day could not exist by itself either artistically or economically",[159] emphasizing the intricate relationship between art and the economy that he often stressed after his move to the United States.

His proposal aimed not to design just a theater but rather a center, a coordinate group of such units of the performing arts. This balance between vision and pragmatism was evident in his winning competition design for the Universal, which secured funding from the Ford Foundation.

Describing it as an endeavor to "bridge many centuries of the past leading to the next," Kiesler's initial vision from Paris in 1925 evolved into a skyscraper housing a "Greek-type arena" with a contemporary proscenium. In his proposal, he underscores the role of the architect in selecting pertinent elements from historical documentation and current industrial development to contribute to a creative way of living. Although the Universal Theatre did not exhaust the evolution of the Endless as a living concept for Kiesler, it can serve as a pivotal starting point to comprehend Kiesler's use of conceptual engagement in practice. This theater of 1600 people was "designed to give the audience as well as the actor an instrument which can be manipulated by the stage

158. Frederick Kiesler, 45.
159. Frederick Kiesler, "Frederick Kiesler 1923-1064," *Zodiav* 19 (1969): 44.

director as a transformation center of magic illusion and touch-and-go reality".[160]

I argue that throughout the 1920s, Kiesler's exploration of advancing technologies and the cultures of both visual and performing arts extended beyond the realm of theater and politics. While theater served as an early medium for Kiesler to experiment with the progressive technological aspects of modern life, it encompassed implications beyond simply advancing or altering the stage for the new century. Kiesler's pursuit revolved around seeking striking experiential and sensory encounters within interior spaces.[161] Kiesler's research into an experience of spatial organization that incorporated emerging technology bore significance not only within the realms of architecture and theater but also in repositioning the human within an environment that held untapped potentials. This resonates with what Kiesler presented to be Raumtheatre which is translated into English as "Endless theater" in the 1926 exhibition, essentially serving as an early variation of the endless house.

Even though Kiesler participated and actively engaged with the avant-gardes in Europe, some with clear political agendas to alter the *status quo*, Kiesler's discontent from the *status quo* was not rooted in a political ground but derived from the dissatisfaction of its limitations to adequately address the advancing technology and science that was changing life itself. Life, no matter what, would have been changed due to those alterations; Kiesler was after mastering ways to embrace those changes and make them possible.

According to his account, while residing in Paris in the aftermath of the World War I, a pivotal moment characterized by widespread reconstruction efforts after the war, Kiesler reflected on the historic significance of the Place de la Concorde. For Kiesler, the plaza was not merely a town square but an expanse shaped by the convergence of all roads from around the world leading to Paris, serving as an open sanctuary for the continual rebellion of contemporary spirit.[162] In this post-war context, Kiesler began to question the presence of the "Obelisk" at the site. He argued that the "Obelisk"

160. Frederick Kiesler, *The Universal: An Urban Theater Center Introductory Note*, 1961.
161. McGuire, "A Movie House in Space and Time: Frederick Kiesler's Film Arts Guild Cinema, New York, 1929," 47.
162. Frederick Kiesler, "Art and Architecture: Notes on the Spiral Theme in Recent Architecture," *Partisan Review* 15, no. 12 (Winter 1946): 101.

was out of place not only historically but, more crucially, in its failure to symbolize the spirit of "Concorde," as its essence, denoting its historical significance, failed to connect with the contemporary spirit. In response, Kiesler envisioned a structure that would host an unceasing and continuous flow of people, rising from the plaza's center in the form of a ramp that would wind its way upward, culminating in broad circles suspended over the entire city.[163]

The design called for four parabolic double arches supporting the structure, reaching out to the distant corners of the city, doubling as enclosed highways for aero-cars. Kiesler conceived this structure as an "endless stage for public events," imagining shops, fairs, and exhibitions on the lower floors and space-stages on the upper levels, suitable for sports and meetings. He proposed that this building would be structurally "continuous" with the possibility of further extensions facilitated through its parabolic arches.[164]

Although Kiesler's concept of an endless structure is comprehensible, he stops short of elaborating on how this structure might become the very expression of a living organism. Nonetheless, Kiesler's decision to replace the "Obelisk" with an "Endless Structure" serves as a significant indicator of his conceptualization of Correality. As demonstrated in this example, Kiesler's "Endless Structure" was not addressing a political concern, but rather a practical need that would be addressing the changing context, rather than attempting to change the context itself.

In the same article, Kiesler refers to the dual origin of the spiral theme, which informs his decision to construct two ascending spiral ramps in his Space-Theater project. He explains the concepts of "to and from" by citing examples of gravitation and radiation, denoting inward and outward drives. He highlights how such helical forms, whenever integrated, mimic the natural levels of mountain banks leading upward like steps, transforming the cube into spheres.[165] The spiral acted as a tool for Kiesler, enabling the "sphering of the cube" into a nucleus of action.[166] Similar to the display design that evolved into the City in Space, the Space Stage initially facilitated a distinct relationship between the stage users, including actors and the

163. Frederick Kiesler, 101.
164. Frederick Kiesler, 102.
165. Frederick Kiesler, 100.
166. Frederick Kiesler, 100.

audience, challenging the dynamics between the exhibition objects and the visitors. It formed the groundwork for future development, as the *Raum* is translated into English as Endless.

Certainly, Kiesler's engagement was not without its challenges. Phillips highlights the controversies surrounding Kiesler's involvement in theater —a crucial aspect to note, considering the evolution and fusion of his set and stage designs into the Correalist project. Understanding the fluctuations in his research becomes imperative to grasp how Correalism and his subsequent endeavors build upon the foundations that Kiesler repeatedly emphasizes in his later years. In this phase, Kiesler transcends his acclaimed role as a set designer to become a provocative thinker with influential yet controversial ideas about architecture.

The utilization of theater as a means to directly engage with the public, facilitating mass gatherings within these spaces, transformed stages into devices that could not only influence the audience during their time within the theater but also alter the narrative constructed within these environments. This transformation, aided by other instruments that challenged the conventional theater stage, aimed to inspire both actors and audience members to actively participate in events that supported certain agendas. As Phillips observes, the dynamic nature of war, modern history, and revolution in Europe led to the emergence of new forms of theater.[167]

Indeed, Kiesler's work was situated within a broader context of experimentation in the realm of set design and theater innovation during the early 20th century. One of the main figures was Vsevolod Meyerhold, whom Kiesler regarded as one of the two names suitable for comprehending his *Raumbühne* in 1924. Meyerhold had a focus on dynamic stage action and the removal of obstacles, similar to the way Kiesler was trying to contribute to the evolution of theater practices, to facilitate a new experience for the theater audience. By incorporating intricate freestanding devices and emphasizing pedagogical actor training, Meyerhold sought to immerse audiences in the contemporary rhythms of industrial progress and collective empowerment, integrating everyday life's automatisms into his performances.[168]

167. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 54.
168. Phillips, 60.

This emphasis on dynamic action and audience engagement underscores a shared exploration among contemporary innovators as they sought to redefine the boundaries and possibilities of the theatrical experience. Moreover, this idea of redefinition of boundaries was not limited to theater arts; in fact, these attempts in theater were part of a broader agenda of the Constructivist artists in Europe since the early twentieth century. Similarly, despite its formal pronunciation in the public took place in New York, the groundbreaking innovation of the shell spheroid structure for Kiesler, proposed in his Endless Theater, capable of standing independently without additional structural support, also finds resonance with the ideas put forth by contemporaries such as Bel Geddes, Adolf Loos, Walter Gropius, and various futurist theater designers during the same period, as noted by Phillips.[169] Additionally, these examples are not entirely dissimilar to the concepts conceived by Andreas Weininger at the Bauhaus in 1924.

In this universe of similar and accessible tools for the search for new boundaries, if not freed, between art and life, Kiesler's design for *Raumbühne* led to a legal dispute with Jacob Levi Moreno, who accused Kiesler of plagiarism for using spiraling ramps around a core stage. As mentioned earlier in this chapter, Moreno had devised a structure similar to Kiesler's *Raumbühne*, under the title *Stregiftheater* for children's theater with the assistance of architect Rudolf Honingsfeld in Vienna in 1923. Phillips elucidates that while there were formal similarities between Moreno's *Stregiftheater* and Kiesler's *Raumbühne*, Moreno's design was addressing a different question as it was oriented toward didactic storytelling for children, emphasizing a centralized stage and a controlled environment to facilitate a clear hierarchy and encourage children's spontaneous participation in the unfolding stories.[170] In contrast, Kiesler's *Raumbühne* aimed to create a continuous flow of input into a decentralized and ever-moving stage of events, encouraging movement and participation.

Kiesler was indeed aware of Moreno's design, as it was showcased in the catalog of his "New Theater Technique" exhibition in 1924, and he dismissed accusations of plagiarism. Following a successful court appeal, Kiesler managed to restore his

169. Phillips, 33.
170. Phillips, 65.

tarnished reputation and clear his name. Yet, this did not stop El Lissitzky from hesitating to include his work in Kiesler's 1926 New York Theater Exposition, suggesting that controversies and discrepancies surrounding Kiesler's *Raumbühne* contributed to Kiesler's reputation as a "smart manipulator" of the history of ideas.[171]

It is in this context where the terminology used by Kiesler, particularly the names *Raumbühne* and *Raumtheater* in German, appears to have evolved. The employment of the term "Endless" in his work only emerges after his relocation to New York, and it was only after 1932 that Kiesler referred to the conception of his Endless Theater as dating back to 1924, the same year that László Moholy-Nagy published the text "Das Kommende Theater: Theater der Totalität," which exerted influence on Gropius' design for Erwin Piscator's 1927 Total Theater.[172] As Phillips underscores, the Total Theater, initially referred to as "*Bühnenraum*" by Gropius in 1927, was inspired by Kiesler's *Raumbühne*, according to Kiesler's own account. Phillips tells that Kiesler invited Piscator in 1924 to see his *Raumbühne* and subsequently received a call in 1928 to visit Berlin to sketch an "entire *Raumtheater*," while he was in New York. This was eventually designed by Gropius as the "Theater of Totality".[173]

Kiesler's fascination with theater and his vision for the future of architectural circles likely originated from his time in Berlin after World War I, during which he experienced the city as a dynamic "melting pot," as highlighted by Welzbacher.[174] Welzbacher suggests that Kiesler began formulating his theater plans around 1923-1924, engaging in a discourse with Erwin Piscator, although not in person but at least through Eugen Robert, during the same period that challenged the prevailing conception of theater in a city that also housed Hans Poelzig's Grosses Schauspielhaus.[175] According to Welzbacher, the experiments that would lead to a *Raumbühne* by Kiesler and those of Gropius', Piscator's were mutually influential, and the concepts of neither Kiesler's Endless Theater nor the Total Theater would have been conceivable without the interactions between these figures.[176]

171. Phillips, 35.
172. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 35.
173. Phillips, 73.
174. Christian Welzbacher, ""Arriving Monday With Finished Sketches"," in *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, ed. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation (Basel: Birkhäuser, 2019), 54.
175. Welzbacher, 56.
176. Welzbacher, 57.

Indeed, the concept of "stage totality" formed a conceptual and formal thread that connected various artists and architects, with Gropius and Kiesler being key figures exploring this idea in their respective practices. Gropius, through the stage department at the Bauhaus, delved into the exploration of the organic and mechanical body, their movements, and the spatial aspects of sound, while Kiesler similarly pursued the collective formation of "the whole stage form".[177] Both the Bauhaus and Kiesler sought to investigate the collective reconstruction of theater arts and architecture, aiming to reimagine what this fusion might look like in practice.[178] While Kiesler experimented with stage design in 1923 during his second set design in Berlin for Emperor Jones, Gropius, in collaboration with Piscator, took these ideas further, adopting them for an entire theater that materialized as the architectural apparatus in the *Totaltheater*, also known as the Design for the Piscator stage.[179]

One last controversy can be referred to from 1926, when László Moholy-Nagy announced a book as part of the series of *Bauhausbücher*, which would be published in collaboration with Walter Gropius after Kiesler's *Raumstadt*: City in Space was made public in Paris, as noted by Blume.[180] Although this book project did not come to fruition, since Kiesler left Europe for New York in 1926, Blume also recalls, what is already mentioned, El Lissitzky's disdain for Kiesler, branding him as a "plagiarist" who reduced "great ideas" to the level of pettiness.[181] Blume suggests that this sentiment might be the reason why Kiesler's collaboration with the Bauhaus did not progress any further. It was not Kiesler's *Raumbühne* that piqued the interest of the Bauhaus for a publication, but rather the City in Space, the freestanding three-dimensional structure of the *Raumstadt*. After all, this structure did also serve as a performative staging of space, capable of innovating new relationships between the audience and the actors, with the potential to test concepts of spatial design in various fields, including exhibitions, housing construction, and urban development.[182] The convergence and mutual influence among these diverse initiatives highlight the rich interplay of ideas and experimentation within the theater

177. Torsten Blume, "A Bauhaus Book That Never Was," in *Frederick Kiesler : Face to Face with the Avant-Garde : Essays on Network and Impact*, ed. Peter Bogner, Gerd Zillner, and Frederick Kiesler Foundation (Basel: Birkhäuser, 2019), 105.
178. Blume, 106.
179. Blume, 111.
180. Blume, 97.
181. Blume, 98–99.
182. Blume, 99–100.

and architectural realms during this period. These contextual details highlight the interconnectedness and conflicts among the various architects and artists of the time, shedding light on the complex dynamics within the architectural and artistic communities in which Kiesler operated.

While Kiesler did enjoy the intellectual and artistic companionship of the De Stijl group and actively participated in shaping strategies appropriate for the constructivist agenda they had, prior to his move to New York, he already faced challenges and accusations of plagiarism, experiencing a sense of clash of interests despite supporters such as van Doesburg or Hans Richte. I suggest reading Kiesler's shift in terminology from "Space" to "Endless" in light of this social and intellectual context as well. This shift represents a notable transition in his conceptual framework, suggesting a departure from the confines of the theater and a broader engagement with the realms of art and architecture, as well as an attempt to reposition his work in this field of constructivist questioning. His earlier endeavors, particularly his responses to the theater crisis through set and stage designs, set the stage for his subsequent exploration of fundamental architectural concerns.

3.1.2.5 Space House

Lesák notes "heavyweight utopian concepts" *Raumbühne* and *Raumstadt* —hence *Raum*, in Kiesler's baggage when he arrives in New York.[183] While Kiesler's "theater utopias" found hardly any resonance in New York's theater scene, the idea of "endlessness was enduring and proved to be enduringly inspirational," says Lesák.[184] This evolution in Kiesler's thinking culminated in his declaration of the "death of theater" in 1926, prompting a reorientation of his focus toward addressing the essential human need for housing. By extending his inquiries beyond the limitations of the theatrical domain and embracing the architectural sphere, Kiesler embarked on a multifaceted exploration of spatial design that encompassed both artistic and practical considerations. This pivot in his approach underscores his commitment to grappling with the fundamental challenges and aspirations of human habitation and spatial experience, reflecting a holistic engagement with the essential

183. Lesák, "Frederick Kiesler's Visions and Ideas in Europe and the USA," 364.
184. Lesák, 365.

facets of human existence. This identification of this need of a principle coincided with Kiesler's "Americanization," referred to as the era after his move to the United States in 1926 that Halal depicts with Kiesler's preference for using the name Frederick, instead of its German version "Frederich." In this period, Kiesler's explorations through theater developed into an idea that art should be considered, along with everything else, as part of a continuous and coherent field.[185] *Raum* would find its American meaning not in the field of theater but in this bigger realm, which Kiesler would soon refer to as the architecture of life: Correalism. This Kieslerian "ism" would be a necessary consequence of, ironically, establishing a link between his call in 1924, to "remove art's protective scaffolding" and "abandon pedestals of the various artistic 'isms'"[186] and his manifesto in 1925 to call for an "elasticity of building adaquate to the elasticity of living."[187]

A newspaper clip titled "And Now It's the Space House: Latest Thing in Dwellings Likely to Leave You Gasping With Surprise" reminds its audience of the fast pace of the times they were living in. It opens with a visitor saying: "I love modernistic houses!" and continues, "I was one at the World's Fair that I just adored. All glass and steel and things".[188] In response, Martin Feinman, the head of Modernage Gallery and the sponsor of Kiesler's Space House, responds, "Was it streamlined? Bah!" The Space House was installed as another 1-1 scale model for Kiesler's attempt to create yet another organic space in flow. The article emphasizes the streamlined nature of the Space House and suggests that Frederick Kiesler demonstrated his "Einsteinian sounding" "Time-Space concept of architecture in Europe" and even speculates that he had built one in Vienna nine years ago, with someone still living in it. The article then adds, "Only it wasn't complete, as fully developed in idea and execution as the one Modernage has built for demonstration purposes here".[189] Whether this is a pun referring to the actual conception of the Space House in Kiesler's earlier works in Europe or an instance of bad journalism, it is accurate in the sense that this design represents two architectural principles for Kiesler. Rather than providing an ideal design for a single-family unit, the Space

185. Helal, "Les Laboratoires de l'architecture: Enquête Épistémologique Sur Un Paradigme Historique," 132.
186. Warren, "Frederich Kiesler and Theatrical Modernism in Vienna," 86.
187. Frederick Kiesler, "Manifesto of Tensionism: "Organic Building—The City in Space—Functional Architecture."
188. "And Now It's the Space House" (1933), ÖFLKS, CLP 6180/1.
189. "And Now It's the Space House."

House demonstrates the Time-Space concept, which he had worked out in his earlier theater set designs, and the fine-tuning of the shell construction, which he had previously only demonstrated in theory via drawings and models before the Space House. In what appears to be a press release for the opening of the Space House, referred to as the "Streamline House" dating back to March 10, 1933, it is stated that "[t]he word 'streamline' as used by Mr. Kiesler is not to be confused with its ordinary meaning of 'forms imitative of the ship or airplane' but connotes 'the scientific approach of least resistance to ideal living condition".[190] The "Stremaline House" was the Space House, which was constructed on the main floor of the Modernage Furniture Company's headquarters on East Thirty-third Street in New York City.

In his 1934 article on Space House, published in *Hound & Horn*, Kiesler expounded on the threefold aspects of architectural conditions — specifically, the "social, tectonic, structural" elements — illustrated in the design of the One-Family Shelter.[191] He posited the primary consideration as the social necessity, taking into account the constraints of family life imposed by tradition However, in this piece, Kiesler did not provide further explanation, except to emphasize its preference for the privacy of each inhabitant and the mechanization of labor in the house.[192]

Despite suggesting the prioritization of social necessity, Kiesler is more explicit about the tectonic and structural necessities. He introduces the notion of the "ONE SPACE UNIT," emphasizing that the Space House concept is always a "ONE SPACE UNIT," irrespective of the number of rooms, garages, or kitchens it may contain. He underscores the house's role as a generator for the individual, providing increased livability within the same area compared to other dwellings. Charging and discharging principles are introduced through a flexibility that contracts and expands the cubic content of segments within the house, referred to by Kiesler as "units".[193]

Acknowledging the "Static Nature of Separations" evident in lateral divisions, Kiesler introduces "semi-static vertical divisions".[194] These divisions serve as

190. Modernage Furniture Co., "Space House Press Release" (1933), ÖFLKS, TXT 6464/0.
191. Frederick Kiesler, "The Space House," *Hound&Horn* 7, no. 2 (1934): 292–297.
192. Frederick Kiesler, 294.
193. Frederick Kiesler, 294.
194. Frederick Kiesler, 295.

sources of "basic variety in motor-mechanism and of different materials adequate to function for soundproofing, light conditioning, and air control".[195]

In addressing structural concerns, Kiesler endeavors to construct the Space House using a single material instead of multiple materials. He argues that the ultimate goal should be a roof consisting of only one material, advocating for the replacement of "conglomeration with uniformity".[196] Viewing himself in a transitional era from "conglomeration to simplification," Kiesler envisions a "shell-monolith" or the dye-cast unit. Describing the "conversion of compression into continuous tension," he sees egg-shell construction as an exemplary illustration of how streamlining becomes an organic force, contributing to the dynamic equilibrium of body motion within the encompassed space.[197] Following Kiesler's City in Space in 1925, also referred to as the "Manifesto of Tensionism", and his design of the egg-shaped "Endless Theatre" in 1926, his subsequent works demonstrate a consistent direction with the central theme of tension. This concept of continuous tension represents a construction principle that Kiesler believes could eliminate column support and reduce dead load, exemplifying the structure's ability to unleash space.[198]

Space House serves as a critique of architectural proposals from the 1930s, including those by Le Corbusier, van der Rohe, and Oud. It underscores the absence of a unified architectural principle during that period, emphasizing the tendency to prioritize individual building types over a comprehensive approach.[199] According to Kiesler, the prevailing focus on the "Idea of a House" has resulted in a neglect of the need for a coherent architectural dogma, which he terms "Architecture as Biotechnique".[200]

Kiesler contends that contemporary structures often manifest as projects centered on "Houses or Housing or churches in steel" rather than the realization of a broader architectural vision.[201] In contrast to these prevailing trends, he introduces the concept of Biotechnique. Biotechnique, denoted by the term "Vitelbau" in German

195. Frederick Kiesler, 295.
196. Frederick Kiesler, 295.
197. Frederick Kiesler, 296.
198. Colomina, "Endless Interior: Kiesler's Architecture as Psychoanalysis," 130.
199. Frederick Kiesler, "The Space House," 292–293.
200. Frederick Kiesler, 292–293.
201. Frederick Kiesler, 293.

in 1925, translates into English as "Organic Building." This concept is equated with ideas such as "City in Space," "functional architecture," and "elasticity of building adequate to the elasticity of living".[202] In essence, Biotechnique represents a comprehensive approach to architecture, encompassing not only the physical structures but also incorporating elements of functional design and adaptability to the dynamic nature of human life. This concept represents an architectural approach that transcends the design of individual houses or buildings. Kiesler advocates for the formulation of a unified architectural principle that would underpin all aspects of architectural design and construction. His emphasis on the coordinated manifold of architectural elements implies a holistic and integrated approach to architecture, surpassing the conventional understanding of building design.

Hence, for Kiesler, the Space House is not merely a solution for a single-family shelter; it also represents a manifestation of these ideas within the conceptual framework of the time-space concept in architecture. In one of the drafts of the 1934 paper, Kiesler references Berlin and claims that the first illustrations of the principles of Space-in-Architecture were presented by him there in the early 1920s.[203] However, he notes that these ideas faced ridicule for their purpose and theoretical coherence. The term "Time-Space-Architecture" failed to draw attention, and Kiesler recounts a visit to Le Corbusier's office in Paris with Léger, after Kiesler's presentation of "City in Space" at the World's Fair in 1925.[204] He writes in the manuscript that their visit "echoed silence from his long-corridored office. Pencil and paper were cross-placed before me. . . .a graphical quiz".[205] He also mentions Mies van der Rohe dismissed his Time-Space-Concept as "youthful exuberance".[206] Kiesler credits only two names as supporters from that time, with a special acknowledgment of van Doesburg's support, emphasizing that without van Doesburg's publication and circulation of material on his "City in Space," which Kiesler begins referring to as the "Manifesto of 'Time-Space-Architecture,'" the theory and demonstration of his progressive living and working quarters would not have reached beyond the exhibition visitors.

202. Frederick Kiesler, "Manifesto of Tensionism: "Organic Building—The City in Space—Functional Architecture."
203. Frederick Kiesler, "The Space-House," Typeset draft manuscript, ÖFLKS, TXT 6461/2.
204. Frederick Kiesler.
205. Frederick Kiesler.
206. Frederick Kiesler.

Van Doesburg played a crucial role in disseminating Kiesler's ideas, while Loss, despite being an adversary of Hoffmann, acted as Kiesler's protector. Loos, described as "a brilliant peacemaker," came to Hoffmann's, and therefore Kiesler's rescue when Hoffmann was attacked by "petit bourgeois Austrian Parliament members for spending tax money on suspended houses", even though Hoffmann and Loos were life-long adversaries according to Kiesler.[207]

Kiesler then reflects on his time in America, describing it as "seven years of waiting".[208] During this period, he encountered what he refers to as "subterranean skyscrapers" under a sky void of airplane fields.[209] These seven years were marked by a search and research phase in the "decaying decade of prosperity," referring to the Great Depression years he experienced during his initial years in America. Kiesler highlights the Furniture Exposition at Modernage as a turning point, providing him with the opportunity to "enforce continued presentation of Time-Space-Architecture; this time through a house".[210]

Kiesler's model for the Space House, akin to the one designed for the Space Stage (*Raumbühne*) in Vienna, served as an approximation of his conception, allowing for a demonstration of the principle rather than its complete manifestation. However, practical limitations impeded the realization of his ideas in full accordance with their conceptual demands. One significant constraint was the inherent limitations of construction.

For instance, while Kiesler envisioned the Space House's shell construction as a means to reduce dead load and eliminate the need for column support, practical considerations forced compromises, when adapting the house for display at the Modernage Company's headquarters, primarily a furniture showroom, Kiesler had to make adjustments. The column visible in the front view of the Space House, he argued, could not be removed in this context.[211] In the showroom, the Space House served merely as a prop for furniture display, offering a general idea of architectural layout rather than a complete expression of the structure.

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207. Frederick Kiesler.
208. Frederick Kiesler.
209. Frederick Kiesler.
210. Frederick Kiesler.
211. Frederick Kiesler, "Front View of the Space House," ÖFLKS, TXT/6645/N1–N29.

Moreover, the exhibition space constraints dictated that no built-in furniture could be incorporated inside the house. Instead of showcasing the inherent furnishings of an ideal Space House, the furniture displayed was designed for conventional apartment boxes sold by the Modernage Furniture Company. The absence of essential elements like the kitchen and mechanical relief devices meant that the model failed to provide visitors with the full experiential scope of the house.[212]

This however, was conforming with the notion of the ripening of an idea, encompassing both its conception and design, stands as one of the guiding principles in Kiesler's thinking. Developing a unified theory for architecture demands patience —what Kiesler terms a "conscious attitude of patience".[213] He emphasizes that in our current state of accidental handi- and machine-craft, along with the incidental nature of state and private ownership, achieving an organic result becomes a challenging task.[214] To realize this, Kiesler asserts the necessity of a unified architectural principle, which he labels Time-Space-Architecture.

In Kiesler's 1934 writing on the Space House, a pronounced emphasis on the social aspect of the design is evident, delving into the daily movements of the inhabitants and the reciprocal influence on the design. The Time-Space-Architecture unity is deeply rooted in adaptability and the needs of the inhabitants, as indicated by the Space House press release. This unity revolves around adaptiveness and fulfilling the needs of its inhabitants. Contrary to a mere focus on the physical structure, Kiesler's house design, as suggested by the press release, is more about the principle of unifying time, space, and architecture. It seeks appropriate scientific conditions for the least resistance to the ideal living conditions of that given time.

Kiesler's Space House design includes a notable feature — a "Metabolism Chart of the House" that wasn't published alongside the article but serves to illustrate the operation of the two-way principle of the mobile space enclosure and the individual's role within it. This diagram portrays the organic process of the design, showcasing the individual's navigation through time subjected to the forces of "Anabolism" (building up) and "Catabolism" (breaking down). [**Figure 3.8**] A

212. Frederick Kiesler, "The Space-House: Footnote," ÖFLKS, TXT/6645/N1–N29.
213. Frederick Kiesler, "The Space-House."
214. Frederick Kiesler.

sketch of this diagram illustrates how vertical movements, involving expansion and segregation, create arcs to establish relationships within the whole system where Time, Space, and Individual are placed in the middle. [**Figure 3.9**] The opposing arc depicts horizontal movement connecting to the external world and is associated with sound and silence. Another set of relations perpendicular to this dichotomy consists of parabolic and spherical movements related to work and play, as well as color-texture and light-shadow in consecutive orders.

This diagram suggests the dynamic nature of space and how the individual can expand or contract within the house based on time-dependent needs. It serves as the fundamental unit constituting the architectural design: space and individual. Kiesler's note on this sketch emphasizes a shift in the currency of architecture, defining it not in terms of material but as an experience dependent on the changing needs and context of both the space and individual.

In Kiesler's discourse on the Space House, the social aspect of design is prominently featured, emphasizing the daily movements of inhabitants that intricately influence the design reciprocally. Within the framework of Time-Space-Architecture, the focus lies on adaptability and the needs of its inhabitants. Kiesler's design is fundamentally about the unification of Time, Space, and Architecture — a pursuit of appropriate scientific conditions for the least resistance to the ideal living conditions of that specific time.

Kiesler's emphasis on the individual's experience is evident as he redefines the currency of architecture, shifting from a focus on materials to an emphasis on experience that depends on the changing needs and context of both space and the individual. This is underscored in Kiesler's note on a sketch where he writes: "Rent per person and not per room or space per person, not per room," articulating his vision for architecture's valuation.

As mentioned, Space House was not the full realization of what Kiesler had in his mind. And Kiesler was not really eager to build a complete manifestation of his ideas yet. Kiesler's reluctance to build can be understood in relation to another chart accompanying his Space House studies which outlines a progression toward a moment when his Endless structures could be realized.

The "Morphology-Chart of Architecture", published alongside the article, outlines a developmental progression starting from craft and advancing through art, applied art, technique, ultimately reaching the realm of science.[215] [**Figure 3.10**] Craft, expressed in the form of a shelter, signifies the initial stage. As architecture evolves toward science, it manifests first in temples, then in residences and plants, culminating in community planning. This evolutionary trajectory suggests that Kiesler was writing from the era of technique.

For Kiesler, the realization of what he terms "organic result in building" required the establishment of science. This scientific foundation would enable the creation of multi-purposed units constructed from cast and molded elements, utilizing both synthetic and natural materials. The key to achieving a unity of time-space-continuity in these structures relied on continuous tension.

In his draft of the article on the Space House, Kiesler emphasized a "proportionate substitute indicating the actual possibilities of the original plan" at this critical juncture.[216] This highlights the importance of aligning the envisioned architectural concepts with the practical and achievable aspects of the original plan. Until then, Kiesler remains unresponsive to the constraints of durability, serving as yet another demonstration of his architectural thinking. In this context, Kiesler had no immediate intention or necessity to construct a physical dwelling; rather, his designs functioned as a display of advertisement for his innovative architectural concepts.

I perceive Space House akin to Kiesler's earlier work, City in Space, not just as a physical dwelling but as a manifestation of his overarching theories. While Space House is ostensibly a proposal for a one-family dwelling, much like City in Space was designed as a display system for exhibiting stage designs, both transcend their physical forms. Space House served as an apparatus for Kiesler to further articulate and express his theories, a body of work he had been cultivating for seven years since his move to New York.

The essence of what Space House represents becomes more apparent in Kiesler's later sketches. In compact mostly A5-sized papers, Kiesler drew eggs symmetrically

215. Frederick Kiesler, "The Space House," 297.
216. Frederick Kiesler, "The Space-House."

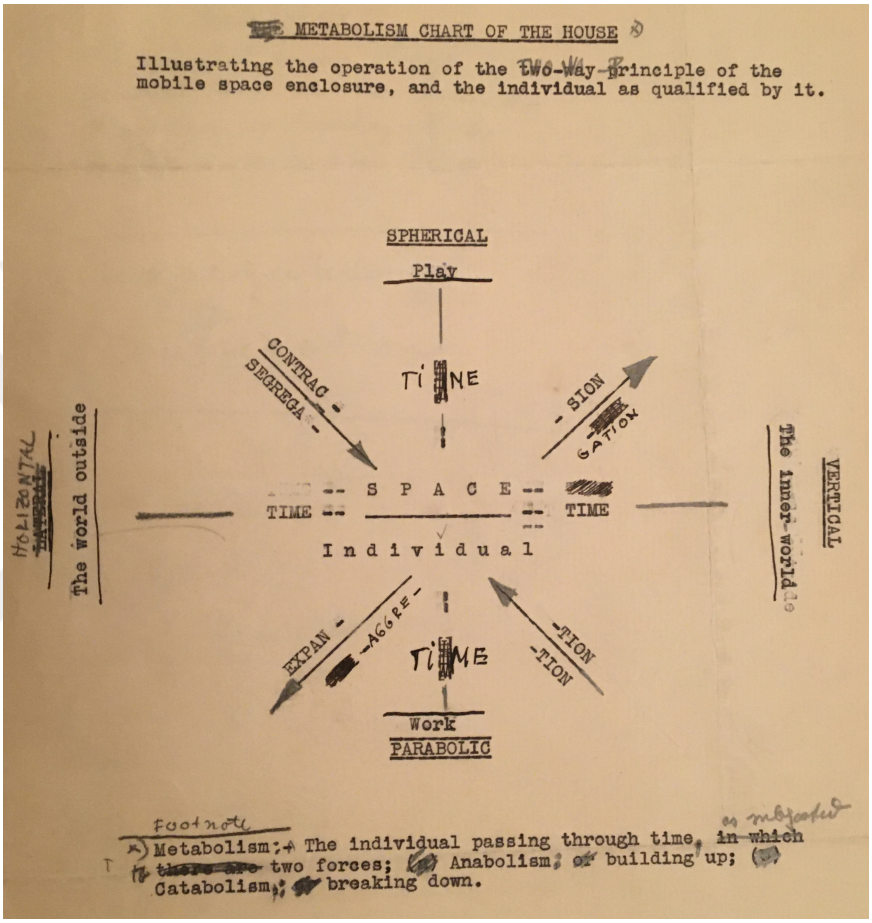


Figure 3.8: Type set Metabolism Chart of the House with footnotes to it. ÖFLKS, Box Space House.

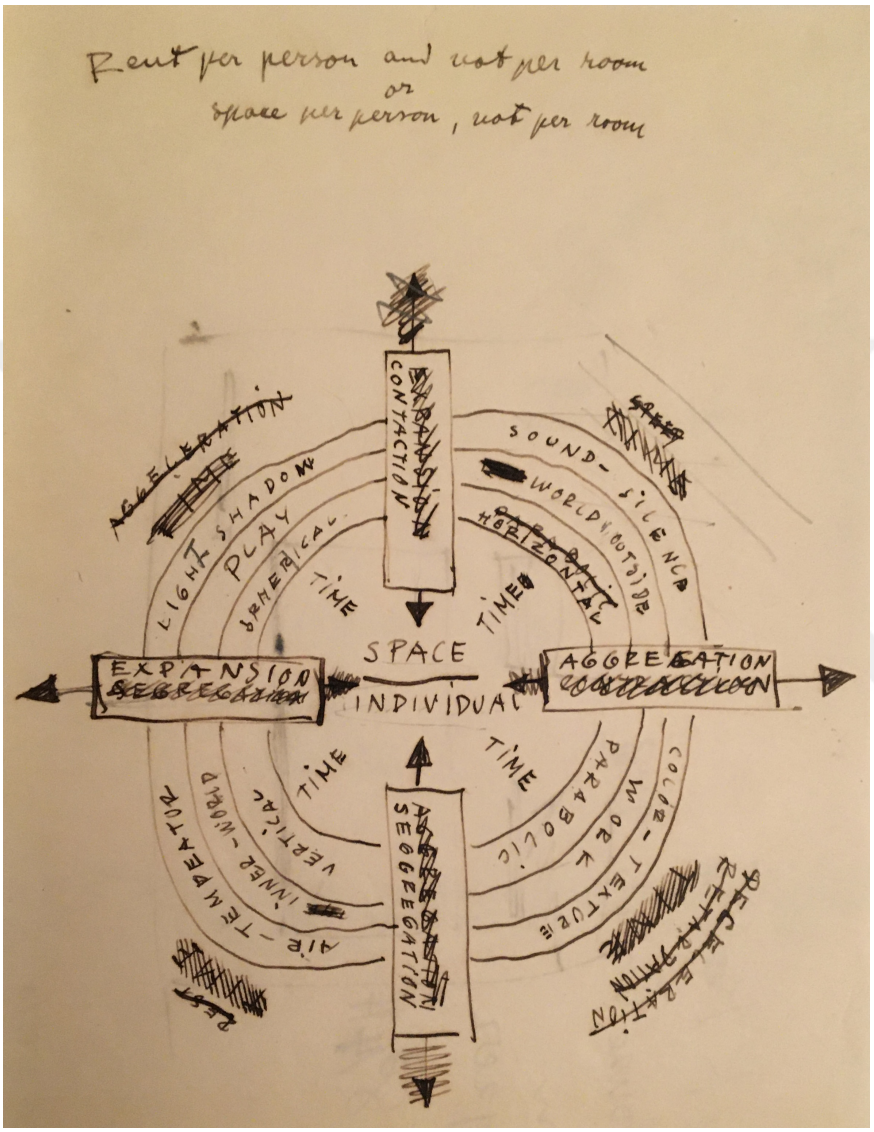


Figure 3.9: Hand drawn Metabolism Chart of the House. ÖFLKS, TXT 3582/0 N2

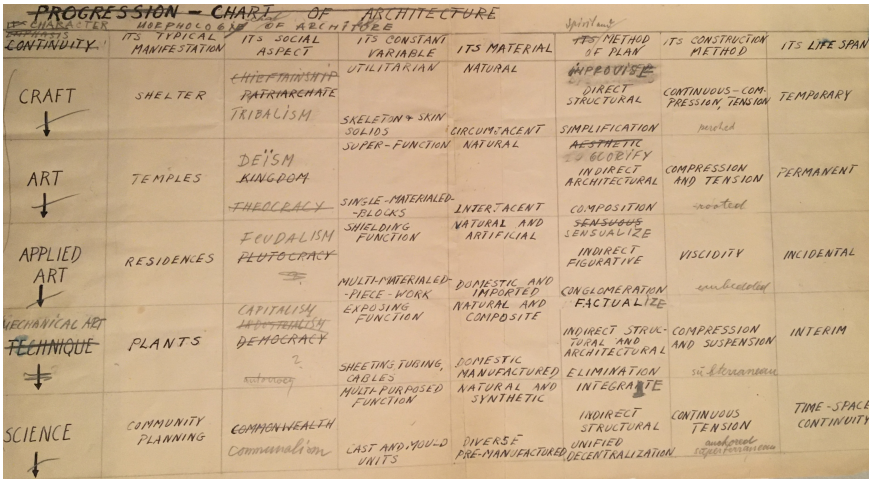


Figure 3.10: A draft of Morphology Chart of Architecture. ÖFLKS, Box Space House. Later published in *HoundHorn 2, 1934, 297.*

placed on the page. Folding the paper along the middle would divide the egg into two equal parts. Subsequent folds and tracings of smaller eggs within the larger one, with careful cuts, revealed intricate patterns. [**Figure 3.11**] This origami-like process, reminiscent of fractals, showcased his Space Stage when folded in one direction, and the streamlined shape of the Space House when folded in the other. With additional folds, a complex egg shape with two hearts emerged, revealing certain dates, such as 1925 and 1933.

These origami sketches serve as symbolic representations of Kiesler's evolving ideas. Space House, in essence, becomes a model for his architectural theory, where the kernels of ideas, most explicitly articulated in his 1925 manifesto, unfold and expand into a rich tapestry of architectural concepts.

3.1.2.6 Endless House

In a 1944 spread in the magazine *VVV*, Kiesler presented a collage featuring a photograph of his renowned flattened spherical structure, the Endless Theater models, alongside a photograph of the Space House model placed in the top left area of the spheroid structure. Notably, this Space House model was a streamlined version, differing from the original 1933 model. [**Figure 3.12**] The column in the

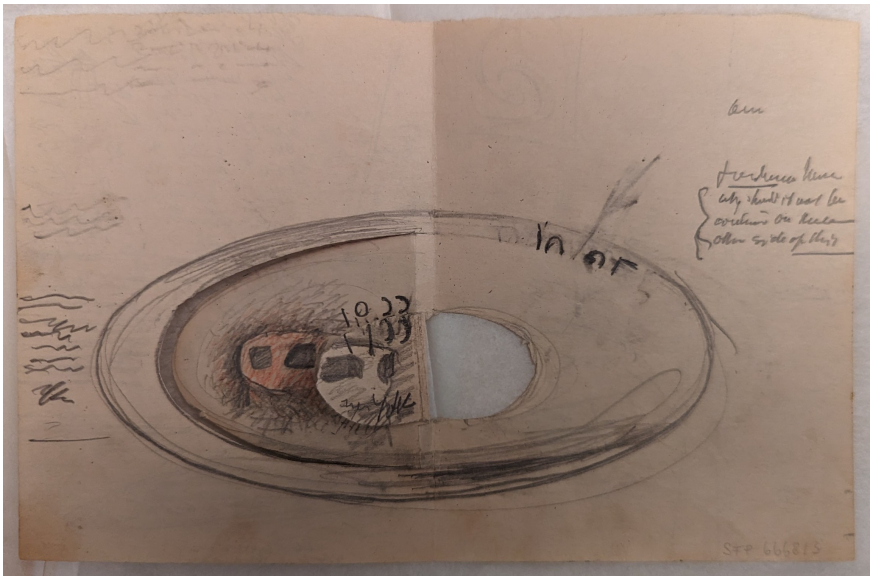


Figure 3.11: One of the multiple folding instances of the sketch for Space House. ÖFLKS, SFP 6668/3.

fron view is also removed from the picture. Eleven years after the creation of the physical model, Kiesler altered the collage version to enhance the appearance of a "streamlined" house, with a proper egg shell structure, addressing limitations bound to the construction techniques of its time.[217]

This arrangement in the collage conveyed the impression of the house as a cell nestled within the shell structure, reminiscent of an X-ray view or a niche with the house positioned inside — a visual parallel to the folded paper sketches of the Space House. [**Figure 3.13**] Below this composite image, a hand-drawn diagram depicted two diverging arrows converging in the middle to form an infinity symbol, with the words "Paris 1924" and "1934 New York" inscribed within each loop. The accompanying text indicated that the spheroid model represented the Endless House, documented in another exhibition, likely through a photograph taken by Kiesler.

One arrow extended to the interior shell of the Endless House, while the other led to the Space House. The caption beneath the eggshell structure highlighted that both projects were conceived by Kiesler as "structures in continuous tension," aiming to facilitate prefabrication in molds for plastics and accommodate the "continuous

217. Frederick Kiesler, “Endless House,” *VVV* 4 (February 1944).

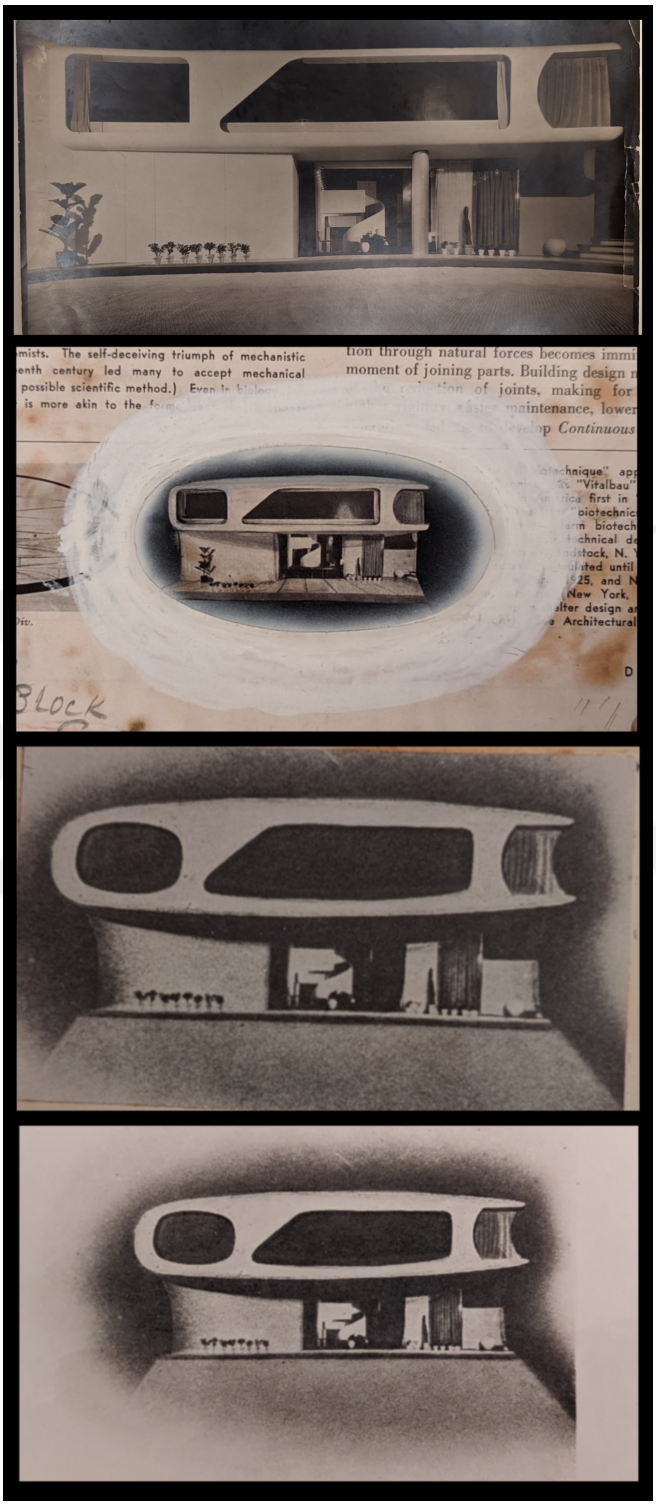


Figure 3.12: Streamlining process of the Space House. Diagram by the author.

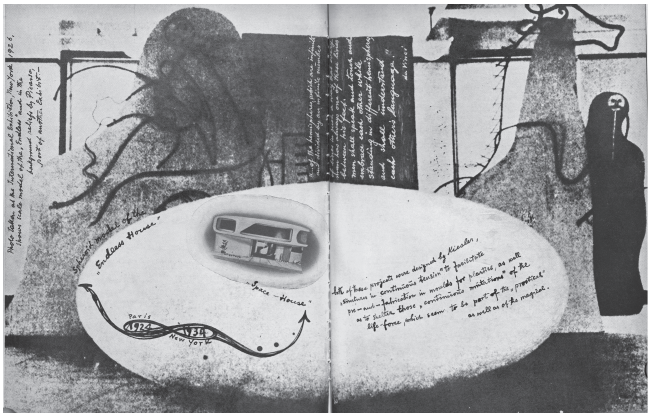


Figure 3.13: Collage of the Endless House. (Illustration by Frederick Kiesler. In VVV 4, no.2., 1944, 60-61.)

mutations" of the life force, encompassing the practical and the magical. Positioned centrally, above and behind the Endless and Space House montage, was a vertical caption quoting da Vinci: "of the hemispheres which are infinite and divided by an infinite number of lines in such a way that every man has always one of these lines between his feet. Men shall speak and touch and embrace each other while standing in different hemispheres and shall understand each other's language".[218]

Kiesler's method of connecting his prior works, presenting them as complementary elements while symbolizing a progression toward a point where architectural science enables design for a forthcoming era, provides a glimpse into his architectural theory construction. He encapsulates this era as the "coming age of Design of Continuity," as illustrated in a sketch by Kiesler. [**Figure 3.14**]

Within this diagram, Kiesler places his work within a contextual framework he defines. The first circle consists of Loos' Marble House, Tzara's House, and the Red Vienna Project between 1918-1921. This circle intersects with a central one encompassing "Endless early work" from 1923 to 1941, with specific emphasis given to the 1933 Space House by its direct naming. The last circle in this sequence of "the coming age of design" includes the names "Endless" and "Ford," "Ford" referring to his Universal Theater design. This arrangement suggests a deliberate structuring of his architectural theory, aligning his work within a historical context

218. Frederick Kiesler, "Endless House."

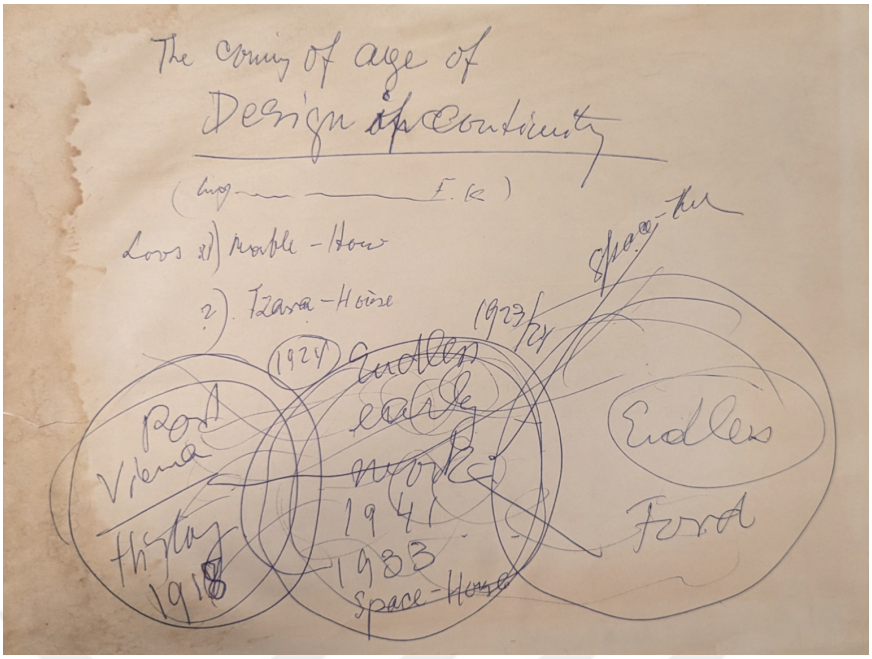


Figure 3.14: Sketch of the chain of the coming age of design contunity.

and projecting a trajectory toward a future age of continuous design.

The interview with James MacAndrew on Camera Three in 1960 marked a pivotal moment in Kiesler's career, particularly as it focused on his Endless House.[219] Aired on CBS on March 20, 1960, the interview allowed Kiesler to guide the audience through his design, showcasing drawings and a model projected on the TV screen. This presentation significantly expanded Kiesler's reach to a broader audience, capturing the attention of critics like Huxtable, whose remarks were referenced at the beginning of this chapter.

The timing of MacAndrew's introduction of Kiesler to the American audience coincided with plans to construct the Endless House in the garden of the Museum of Modern Art in New York. However, these plans were eventually shelved due to the museum administration's decision to prioritize expansion over construction. The initial plans for constructing the Endless House began in 1958, with the actual realization of its plans and model occurring in 1961.

The Endless House serves as the architectural manifestation of the concepts Kiesler

219. "Frederick Kiesler Explains His Architecture."

had been exploring since his initial conception of the notion of "a new concept of space." As he asserted on TV, this concept starts "with a new feeling for life, a greater liberation of your personality, of your individuality".[220] Unlike his earlier experience in Vienna, where he designed an exhibition on theater inch by inch, Kiesler's ideas found a new platform through television, reaching a wider audience.

The Endless House, according to Medicus, transformed the single-family unit into the most radical cell and a crucial building block for the future, even though Kiesler expressed reservations about adopting the single-family house as the foundation for the future.[221] Despite these reservations, Kiesler remained interested in the architectural principles guiding its construction, as evidenced by the evolution of the Endless House.

The term "Endless House" was first introduced by Kiesler in the journal *VVV* in 1944. Its journey extended from appearances in the 1947 Salle de Superstition for the Exposition Internationale du Surrealisme at the Galerie Maeght in Paris to the 1950 exhibition "The Muralist and the Modern Architect" at New York's Kootz Gallery. This is the trajectory which ultimately culminated in the announcement of its construction in the Museum of Modern Art's sculptural garden in 1958.[222]

In Kiesler's posthumously published text titled "The Endless House: A Man-Built Cosmos," he metaphorically likens the Endless House to the human body, emphasizing that "there is no beginning and no end to it".[223] The project involved a comprehensive exploration of fundamental human needs, with Kiesler emphasizing its independence from the mechanics of life activities or manufacturing techniques. While the Endless House could utilize reinforced concrete, Kiesler envisioned it as not bound by continuous plasticity, asserting that it could be made from any material. He underscored that the house is not a mere machine for living; rather, it is a living organism with a highly sensitive nervous system.

Kiesler's dedication to crafting a new form of living and addressing the evolving

220. "Frederick Kiesler Explains His Architecture."
221. Medicus, "Spheres and Shells. The Construction of the Endless House."
222. Zillner, "Frederick Kiesler's Endless House: An Attempt to Retrace an Endless Story."
223. Frederick Kiesler, "The Endless House: A Man-Built Cosmos," in *Endless Kiesler*, ed. Klaus Bollinger, Florian Medicus, and the Austrian Fredeerick and Lillian Kiesler Private Foundation (Basel: Birkhäuser, August 28, 2015), 245.

needs that will reshape society is what gives the Endless House its seemingly fluid and adaptable appearance. However, Kiesler is quick to clarify that despite its organic appearance, "The Endless House is not amorphous, not a free-for-all form. On the contrary, its construction has strict boundaries according to the scale of living. Its shape and form are determined by inherent life processes, not by building-code standards or the vagaries of decor fads".[224]

Understanding the "architectural principle" that Kiesler emphasized is crucial to grasping the concept of the Endless House, which might otherwise be perceived as, in Huxtable's words, Kiesler being "an aesthetic salesman on an ... evangelical level".[225]

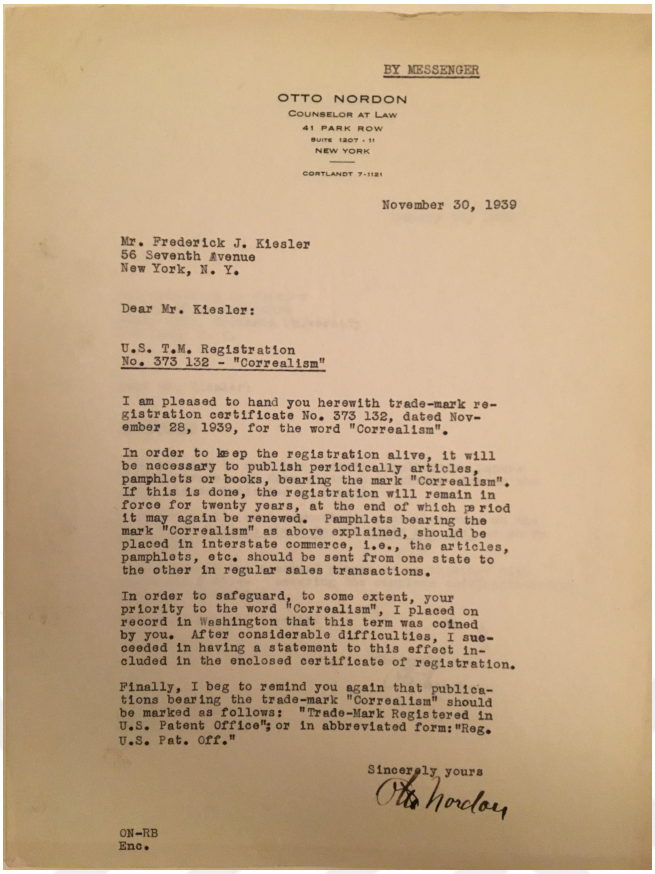
3.2 Writing Correalism

3.2.1 It all starts with Space

Kiesler viewed the Space House as a testament to the principle he championed: "The Interrelation of a body to its environment: spiritual, physical, social, technical".[226] He envisioned the Space House to function as an environmental influence, generating forces that would expand the individual's personality and elaborate their potentials.[227] This endeavor represented a pursuit of a unified theory from which new houses, factories or any other structure could result, emphasizing the importance of deriving structures from a unified theory rather than the reverse.

Kiesler was not particularly enthusiastic about immediate construction; instead, he aimed to provide glimpses of what it would resemble if the "plan of a unified architectural principle," which he termed Time-Space-Architecture in 1924 with his "City in Space," were realized in the form of a one-family unit shelter. By 1939, Kiesler successfully secured the trademark registration for what he termed "Correalism," enabling "Architecture as Science" to be recognized as Biotechnique,

224. Frederick Kiesler, 246.
225. Huxtable, "Architecture on TV: 'Greatest Non-Building Architect of Our Time' Expounds His Ideas."
226. Frederick Kiesler, "The Space-House Manuscript," Typeset draft manuscript, ÖFLKS, TXT 6446/1/N1–N4.
227. Frederick Kiesler, "Note on a House with a Sketch," Typeset draft manuscript, ÖFLKS, TXT 6570/0.



BY MESSENGER

OTTO NORDON
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CORTLANDT 7-1121

November 30, 1939

Mr. Frederick J. Kiesler
56 Seventh Avenue
New York, N. Y.

Dear Mr. Kiesler:

U.S. T.M. Registration
No. 373 132 - "Correalism"

I am pleased to hand you herewith trade-mark registration certificate No. 373 132, dated November 28, 1939, for the word "Correalism".

In order to keep the registration alive, it will be necessary to publish periodically articles, pamphlets or books, bearing the mark "Correalism". If this is done, the registration will remain in force for twenty years, at the end of which period it may again be renewed. Pamphlets bearing the mark "Correalism" as above explained, should be placed in interstate commerce, i.e., the articles, pamphlets, etc. should be sent from one state to the other in regular sales transactions.

In order to safeguard, to some extent, your priority to the word "Correalism", I placed on record in Washington that this term was coined by you. After considerable difficulties, I succeeded in having a statement to this effect included in the enclosed certificate of registration.

Finally, I beg to remind you again that publications bearing the trade-mark "Correalism" should be marked as follows: "Trade-Mark Registered in U.S. Patent Office"; or in abbreviated form: "Reg. U.S. Pat. Off."

Sincerely yours

Otto Nordon

ON-RB
Enc.

Figure 3.15: Letter noticing Kiesler about the trade-mark registration for the word "Correalism". ÖFLKS.

the unified architectural principle he claimed to have invented.

The concept of influencing the design of the built environment, not for stylistic or ideological reasons but for the sake of "living," originated from Kiesler's 1925 manifesto on tensionism and *Vitelbau*. This manifesto, originally in German, was translated into English in excerpts in the exhibition catalog of 1926 *International Theatre Exhibition* and in Kiesler's book on *Contemporary Art Applied to the Store and Display* in 1930.[228] To understand Kiesler's response to the lack of an architectural theory addressing life, it is crucial to explore his unpublished texts, particularly a manuscript often referred to as another "Manifesto" in an earlier draft for its cover design: "On Correalism and Biotechnique".[229] This manuscript aimed to

228. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display* (London: Pitman & Sons, 1930).
229. Frederick Kiesler, "On Correalism and Biotechnique," Unpublished book manuscript, ÖFLKS, TXT 6491/0.

elaborate on the terms "biotechnique" and "correalism" in the context of Kiesler's earlier work. While a condensed version of this manuscript was published in 1939, marking Kiesler's public statement on correalism and biotechnique, his writings in a column for *Architectural Record*[230] and six articles in 1937 under the column named "Design Correlation" shed light on these themes.[231] Concurrently, Kiesler directed the LDC at Columbia University (1937–1941), focusing on the theme of design correlation. In this role, he had the opportunity to test as well as advance his ideas on correlation through a series of design projects. He participated in what we can call today design research, leading the laboratory among students from various disciplines and collaborating with other scientists and professional experts until 1942. Amidst these endeavors, Kiesler's Space House and its extension become pivotal in understanding the role of correalism in his complete oeuvre.

In one of these studies, we can observe that, for Kiesler, the invention of air-conditioning for architecture is a very significant moment because, for the first time in history, according to him, instead of "accidental relations between outside and inside," "the gradual invention of air-conditioning brought, for the first time in the history of [human], control over one basic necessity of [their] very physical being, namely air for [their] lungs".[232]

Despite his acknowledgment of the lack of experimental evidence to back his arguments on how sleeping in an air-conditioned room would affect a person's health in comparison to sleeping in a non-air-conditioned room, Kiesler is confident in the advantages of this newly accessible technology for humans.[233] His logic can be followed in his explanation for the drive for the possibility of the invention of air-conditioning. According to his logic, "the experience of degenerated physical

230. "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," *Architectural Record* 86, no. 3 (September 1939): 60–75.

231. Frederick Kiesler, "The Architect in Search of... Design Correlation: A Column on Exhibits, the Theater and the Cinema," *Architectural Record* 81, no. 2 (February 1937): 7–15; Frederick Kiesler, "Design-Correlation: Animals and Architecture," *Architectural Record* 81, no. 4 (April 1937): 87–92; Frederick Kiesler, "Design-Correlation: Marcel Duchamp's Large Glass," *Architectural Record* 81, no. 5 (May 1937): 53–60; Frederick Kiesler, "Design-Correlation: Towards a Prefabrication of Folk Festival," *Architectural Record* 81, no. 6 (June 1937): 93–96; Frederick Kiesler, "Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light. Part I," *Architectural Record* 82, no. 7 (July 1937): 89–92; Frederick Kiesler, "Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light. Part II," *Architectural Record* 82, no. 8 (August 1937): 79–84.

232. Frederick Kiesler, "Unpublished Manuscript on Houses," Typeset draft manuscript, ÖLFKS, TXT 6645/0/N1-N24: N1.

233. Frederick Kiesler, ÖLFKS, TXT 6645/0/N5.

existence in what was called bad air" and the discovery of "high mountain air" being "more beneficial than any artificial medicament against deadly sickness of the respiratory organs" led to an "impetus for retaining health by way of steadily controlling air composition before a breakdown of the lungs".[234]

This somewhat simplistic history of "inventions" forms a basis for Kiesler's future reading on technology and science. Human history of technology and its three stages will form what Kiesler would refer to as "a field of correlatives".[235] For designers, this would also indicate "the battle for preponderance" of life forces, as the progression of discoveries and inventions, for Kiesler, would be the result of interests and attractions shifting from material facts to certain objectives or needs to an object. In this structure of trinity, the relative positioning of each component to one another, "according to their correlative position," not resulting in a static equilibrium, would allow the continuity of life, as "preponderance of one force over the others must ultimately develop".[236] This structure is, in fact, mentioned without being addressed as "the field of correlatives," with the example of "the discovery of radium substance" that could discharge "invisible rays of immense power" to be used practically to fight diseases like cancer and then made accessible to everyone commercially as it was harnessed in granulated form.[237] For Kiesler, "the abstract idea of air purification and control" was a greater idea discovery, however, because it was a discovery in a vacuum since no such technology was found in nature ready for humans to apply. This novelty being used to fight against diseases was its practical use and referred to its second state of discoveries, with the third harnessing this idea in machines and making them commercially available to the general public. While "steadily controlling air composition" in the 1930s was something humans were able to learn, according to Kiesler, "[a]lmost all other fundamental and auxiliary importance to our well-being are not under control yet," he says.[238] According to Kiesler, architecture is meant to be a branch of the "Government Department of Health" — and not art — because the "house builder is primarily a health builder" in a context where "we live a life of approximation in regard to ou[r] health with

234. Frederick Kiesler, "Unpublished Manuscript on Houses," ÖLFKS, TXT 6645/0/N1-2.
235. Frederick Kiesler, "Note on Preponderance of Life," Typeset draft manuscript, ÖFLKS, TXT 6399/0.
236. Frederick Kiesler.
237. Frederick Kiesler, "Unpublished Manuscript on Houses," ÖLFKS, TXT 6645/0/N4.
238. Frederick Kiesler, ÖLFKS, TXT 6645/0/N2.

incidental empiric remedies for accidents".[239] In this writing, Kiesler notes air and light as environment elements that could be individually controlled but puts the emphasis on not controlling these individual environment-elements but "the CONTROL OF THEIR COORDINATION" "as to their inherent and natural qualities and as to their artificially created super forces," as would be the case after introducing air-conditioned indoor environments and their consecutive effects on the human habitat.[240] Without naming it "the field of correlatives" yet, Kiesler makes the definition of a complex "body-environment" in relation to the example of sleeping. He refers to the "transmutation of fatigue into energy" to be able to identify "environment-elements" that affect sleep. The gain of health would be the definition of the transmutation of fatigue into energy through an interconnected and dependent system of air, sound, bed, body, and such. Kiesler compares these environment-elements to the "nuclear compound of the atom structure" where, in this example, the human body acts like the "nucleus in space" which moves from one occasion to another as it changes the "atomic structure" which results in what is identified as "the room, the apartment, the house, the town, the world." In later added handwritten words, Kiesler calls the result to be "an ever-changing Correalism".[241]

For Kiesler, objects or "environment-elements" that make up the "space" are measurable elements in terms of their "fatigue-and energy coefficients".[242] According to Kiesler, this would allow us to "compose better environment-units such as homes". This idea, in Kiesler's view, is "amazing" because those "environment units" would not be composed from an architectural, technical, or artistic point of view but from a "practical" point of transmutation of fatigue into energy view.[243] Hence restoring health is the primary existential condition for architecture, which he refers to as environmental units. Understanding this system would allow us to regulate and control the "correalistic currents" that keep us alive or make us collapse.[244] According to Kiesler, the correal relationship to the environment is a superpower. However, this superpower does not refer to an "astral or romantic"

239. Frederick Kiesler, ÖLFKS, TXT 6645/0/N2.
240. Frederick Kiesler, ÖLFKS, TXT 6645/0/N3-4.
241. Frederick Kiesler, ÖLFKS, TXT 6645/0/N5.
242. Frederick Kiesler, ÖLFKS, TXT 6645/0/N6.
243. Frederick Kiesler, ÖLFKS, TXT 6645/0/N6.
244. Frederick Kiesler, ÖLFKS, TXT 6645/0/N7.

relationship.[245] Kiesler is clearly writing from the age of the atom, where there is a fascination with the discovery of atomic bodies that can generate energy through the form of "electro-magnetic waves." The idea of electricity traveling in a copper wire, with electrons that "drift through" as the current flows "from the dynamo in the power station to the electric lamp in your house," sounds like an honest fascination with physicists' discoveries that leads Kiesler to establish an understanding of "correalism in nature".[246] The unifying theory for what architecture should bring about is pronounced as "the proper correlation of elements of our life environment" in order to transmute "long-embedded fatigue into rapidly storing energy".[247]

Another earlier instance when Kiesler employs the term "correalism" can be found in a text where he discusses his Space House design and its potential relationship with art.[248] This text, found in the archives of ÖFLKS, is also not dated. However, since it particularly focuses on the relationship between the Space House and art through a notion of correalism, it is possible to assign this piece of writing to a date between 1933 and 1937, the year Kiesler applied for the patent for correalism. [**Figure 3.15**] Moreover, in 1936 Kiesler published an article titled "Murals Without Walls" in *Art Front* on the artist Arshile Gorky's commission of a mural painting for the Newark Airport,[249] and this manuscript of "The Space House and the Future of Painting" can be considered as a basis for that article.

According to Kiesler, the framed easel painting, as an independent unit in the home, was already outdated and unsuited to a democratic society, but more fitting for a Fascist country, considering its relationship with its environment.[250] The conventional perception of art within a "golden or barren frame" with "closed frontiers" to live its own life necessitated a "magic circle that divides Art from life" and "Art from owner" in the easel painting.[251] This approach failed to address the contemporary manifestation of the society Kiesler found himself in the United States. Instead, Kiesler believed that "when one speaks of the relationship of

245. Frederick Kiesler, ÖLFKS, TXT 6645/0/N8.
246. Frederick Kiesler, "Unpublished Manuscript on Houses," ÖLFKS, TXT 6645/0/N8.
247. Frederick Kiesler, ÖLFKS, TXT 6645/0/N8.
248. Frederick Kiesler, "The Space House and the Future of Painting," Typeset draft manuscript, ÖFLKS, TXT 6463/0/N1–N5.
249. Frederick Kiesler, "Murals Without Walls: Relating to Gorky's Newark Project," *Architectural Record* 2, no. 11 (December 1936): 10–11.
250. Frederick Kiesler, "The Space House and the Future of Painting," ÖLFKS, TXT 6463/0/N2.
251. Frederick Kiesler, ÖLFKS, TXT 6463/0/N1-2.

painting and architecture one inevitably thinks of murals," which would ultimately lead to the idea of "solid walls covered with tattoo".[252] These represented traditional relationships between art and architecture, according to Kiesler, and with the new conception of shelter, they would both acquire new significance. With the new architecture based on a unified principle, "a new form will be a merger between easel-painting and mural".[253] Similar to relinquishing the capital A in architecture, Kiesler advocated an understanding of art without capital letters and proposed considering art as a "center of energy, as a center or accumulation of power, which manifests itself quite naturally in energy-radiation".[254] Thus, Kiesler suggests that a new "correlation between public, painting, and designers" can be established, albeit not overnight.

According to Kiesler, painting is yet another factor that affects health, as it is equally a factor "in shaping mentality just as the proper relationship of you to human environment or to sun-light, to your badly or air-conditioned house".[255] Through an examination of what art signified in the context of a house in modern-day America, Kiesler was able to articulate his desired principle that would guide his architectural designs. For the painting or art in the Space House to become a factor of "regeneration, in enforcing the well-being of the individual or society," a new concept of painting (art) "in its relation to structural and human environment" had to be established.[256] And this relationship had to be "based on a fundamental all-embracing force," which is "the new theory of space." In the remaining paragraph where Kiesler discusses this concept, the crossed-out part describes this relationship in more detail: "In this new concept, all factors of living are integrated: the human being, all living matter, and also what we like to call dead matter or inanimate substance, such as stones, bricks, steel, glass, tables, chairs: it is a sort of socialism in chemistry and physics and in biology: frontiers between chemistry, physics, biology, and art have been dropped: we know by now that there are no exclusive rights to one or the other force for a lifetime, that one can change into another, that modern science has proven the false aristocracy of man and of nature: that all are

252. Frederick Kiesler, ÖLFKS, TXT 6463/0/N1.
253. Frederick Kiesler, ÖLFKS, TXT 6463/0/N1.
254. Frederick Kiesler, ÖLFKS, TXT 6463/0/N2.
255. Frederick Kiesler, ÖLFKS, TXT 6463/0/N3.
256. Frederick Kiesler, ÖLFKS, TXT 6463/0/N2.

equal as far as life is concerned".[257] Through a reevaluation of the notion of art in a shelter conceived with Kiesler's Space House principles in 1933, Kiesler's 1924 manifesto is refined. However, Kiesler wasn't providing a guideline for architectural design through the example of art; instead, he was providing a principle that would consider all aspects of life, with architecture being just a part of that principle that needed reconsideration to address the concept of integration with one another. The elimination of frames in which art is placed was the logical consequence of "no more walls that are barriers, no more isolation as principles," as the relationship between things was the identifying marker of this era Kiesler was portraying. The practical consequence from the perspective of an architect and designer would merely address "design-correlation with a specific purpose... the will of the inhabitant and the will of the design-builder... merged on a common denominator... health".[258]

In 1939, Kiesler provided a thorough definition of both "Correalism" and "Biotechnique" in his article published for *Architectural Record*. Evolving into a science of relationships, the concept of correalism took shape and form through a series of writings, as demonstrated in the six articles published in the journal *Architectural Record* between February 1937 and August 1937 under the column "Design-Correlation." Although he was clearly using his "Correalist" ideas in his designs before then, with the Space House being the first comprehensive demonstration presented to the American audience, he referred to his work in Europe to demonstrate these very same principles. It is reliably assumed that at least between 1937-1939, Kiesler worked on a manuscript on what those principles meant, given the date for the proposed cover page design noted by Lillian Kiesler, as well as Kiesler's reference to the start of the Laboratory for Design Correlation and referring to it as if two years had passed since its start when mentioned in the text.[259] What was conceived as a book on a new principle of architecture by Kiesler with the title *Correalism Biotechnic Architecture: From Architecture to Life*, as it is suggested in a letter to the potential publishers, remained unrealized..[260] However, ideas developed through this manuscript were first circulated as a comprehensive essay in

257. Frederick Kiesler, ÖLFKS, TXT 6463/0/N4.
258. Frederick Kiesler, "The Space House and the Future of Painting," ÖLFKS, TXT 6463/0/N4.
259. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6491/0/N5.
260. Frederick Kiesler, "Book Layout."

1939.[261] In 1939, Kiesler published them in the form of a comprehensive paper in Architectural Record titled "On Correalism and Biotechnique," where he presented his architectural principle for new building design. In 1949, as McGuire notes, Kiesler reiterated his conclusions derived from these works and postulated that "architects had to study the energy transfers between people, environmental forces, and the inanimate,"[262] which he reiterated in "Manifesto du Correalisme" published in *L'Architecture d'Aujourd'hui*.[263]

On the title page of this manifesto was a photomontage, a slightly modified version of the double page with a photomontage from the one in 1944 that was published on the magazine *VVV*.[264] His principle is portrayed as his Endless House in 1944 in the collage he published in the magazine *VVV*, illustrating him framing what he referred to as Endless House between his manifesto on City in Space from Paris 1925 and his Space House in 1934. This bracketed time frame also coincided with the time his ideas on Correalism were taking shape or perhaps, translating to a new continent, to a new domain where they were forming his guiding principle for a new context. To some extent, if we are to consider Helal's reading regarding Kiesler's Americanization after his move to New York in 1926, the book manuscript describing and elaborating on Correalism that follows the translation of them with the Space House, could be seen as Kiesler's practice finding a home and growing in this new landscape.

The 1939 article is a condensed version of what he thought of as a book, incorporating early studies undertaken at the LDC into the text. It provides insight into Kiesler's laboratory's earlier attempts to test "re-housing biotechnically" and how the laboratory reviewed the "history of book-storing in Western civilization," which was shared with the readers.[265] Along with the inductive methods they appropriated for their research, the design of a library adequate for an architecture of correalism, hence a biotechnical design, was demonstrated.

What is equally interesting in this manuscript, in terms of understanding the unifying

261. "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design."
262. McGuire, "Influence and Elaboration," 76.
263. Frederick Kiesler, "Manifeste Du Corréalisme."
264. Frederick Kiesler, "Endless House."
265. "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," 70.

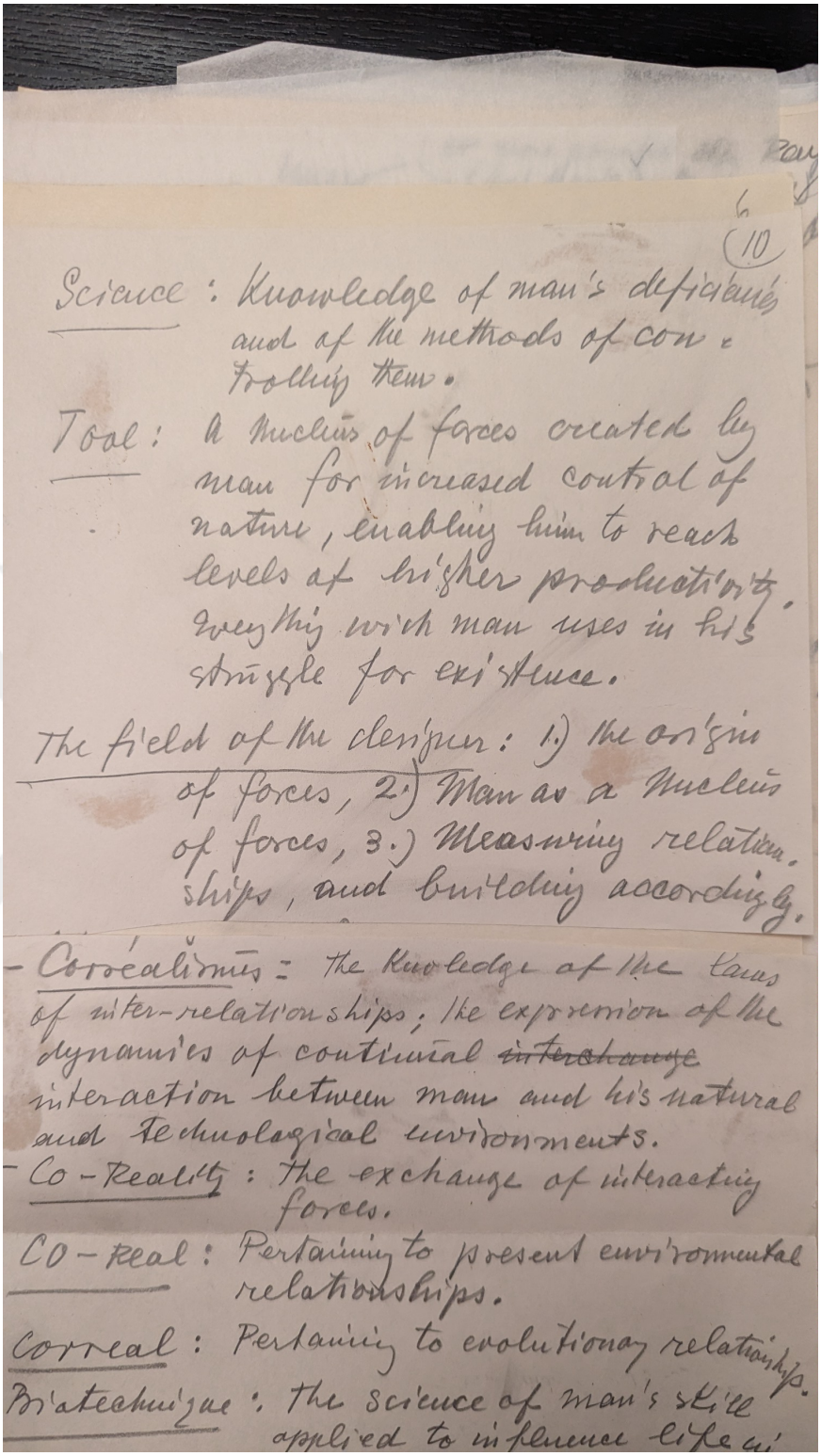
theory Kiesler was after, is the index of terms he delivered at the end of this article. [**Figure 3.16**] This index was the closest piece of writing that was published to what Kiesler had envisioned his manuscript would convey. Apart from definitions of "architecture," "correalism," "biotechnique," Kiesler defined the toolset he developed in his construction of the correalist theoretical apparatus, such as "fatigue," "maintenance," "health," "heredity in technology," but included definitions for broader and more intricate themes such as "international style," "perennial crisis in architecture," and even "reality".[266]

3.2.2 Book Manuscript

Kiesler's exploration of correalism poses a fundamental yet profoundly metaphysical question to designers, urging them to contemplate what constitutes reality within the realm of design. It is essential to note that while Kiesler expressed reservations about the over-specialization of professions and sought to transcend the boundaries between experts and their domains of knowledge, this did not imply a solitary pursuit. On the contrary, by intentionally blurring the lines between professions and skill sets utilized in project realization, Kiesler aimed to establish a platform where a diverse array of contributors could converge and collectively bring forth innovative responses to the evolving social and economic landscape. His objective was not to eliminate external input but rather to foster a collaborative environment that accommodated various actors, acknowledging the dynamic demands of contemporary society. Despite the challenges faced by the groups he was associated with, the pursuit of collective modes of production remained a shared aspiration, even if realization proved elusive at times.

In this context, Kiesler's inquiry into what constitutes reality for a designer gains further insight when considering his subsequent conceptualization, where he posits that reality is situated within relationships rather than inherent in the objects themselves. Through this question, Kiesler challenges the notion that the object of architecture is solely a building. For him, the reality for a designer does not reside in "that which it geometrically presents" or "the circumscription of any body in itself"

266. "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," 76–78.


(10)

Science: Knowledge of man's deficiencies and of the methods of controlling them.

Tool: A nucleus of forces created by man for increased control of nature, enabling him to reach levels of higher productivity. Everything which man uses in his struggle for existence.

The field of the designer: 1.) the origin of forces, 2.) Man as a nucleus of forces, 3.) Measuring relationships, and building accordingly.

- Correalism: The knowledge of the laws of inter-relationships; the expression of the dynamics of continual ~~interchange~~ interaction between man and his natural and technological environments.
- Co-Reality: The exchange of interacting forces.

Co-Real: Pertaining to present environmental relationships.

Correal: Pertaining to evolutionary relationships.

Biotechnique: The science of man's skill applied to influence life w

Figure 3.16: A handwritten draft for the index for the manuscript "On Correalism and Biotechnique". (ÖFLKS, "On Correalism and Biotechnique/ Text and Research Material", BOX TXT 19, later published in *Architectural Record*, 86, no.3, 74-75.)

.[267] Instead, he contends that reality is discerned "in the interplay of forces that are innate in nature and which [the designer] has in addition re-coordinated in ... artificial technological product".[268]

A designer's creations, according to Kiesler, and those of nature, are essentially trading posts of these forces. The crux of reality lies in the relationships between these trading posts; it is "the very substance life perpetuates" and "the very power of continuity.".[269] Coined by Kiesler and registered as a trademark, this term revolves around the dynamics of the continuity of life forces. This concept aims to break down the barriers between sciences, as Kiesler aspired, in the pursuit of establishing correalism as a science in its own right. For architects, the methodology derived from the science of correalism would be biotechnique, initially referred to as *Vitelbau* in 1925 in his manifesto on "The City in Space" and first articulated within the American context in 1934 in his writing on the "Space House." While Correalism represents the Science of Life, Biotechnique serves as the Science of Housing.

Correalism and biotechnique were bestowed with the title "manifesto," as meticulously handwritten by Kiesler during the design phase of the book layout. The book, vividly envisioned in Kiesler's mind, includes detailed layout designs and a persuasive pitch to potential publishers, as elucidated in his text titled "Book Layout". The envisioned book comprises 300-500 pages with preconceived line drawings. Although the cover design bears the title "Manifesto CORREALISM and biotechnique," within the text, it is referred to as "CORREALISM BIOTECHNIQUE ARCHITECTURE" with the subtitle "From Architecture to Life.".[270]

The proposed cover illustration features a folded double-sized page, depicting the back of a naked person from their torso upwards, situated in the middle of the page, observing a variation of Kiesler's spherical shells. [**Figure 3.17**] Kiesler's introduction to the book layout commences by suggesting that Le Corbusier's "Vers Une Architecture" from 1924 represents the latest book embodying new architectural principles. However, Kiesler crosses out a statement mentioning a

267. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6491/0/N8.
268. Frederick Kiesler, ÖLFKS, TXT 6491/0/N7.
269. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6491/0/N8.
270. Frederick Kiesler, "Book Layout."

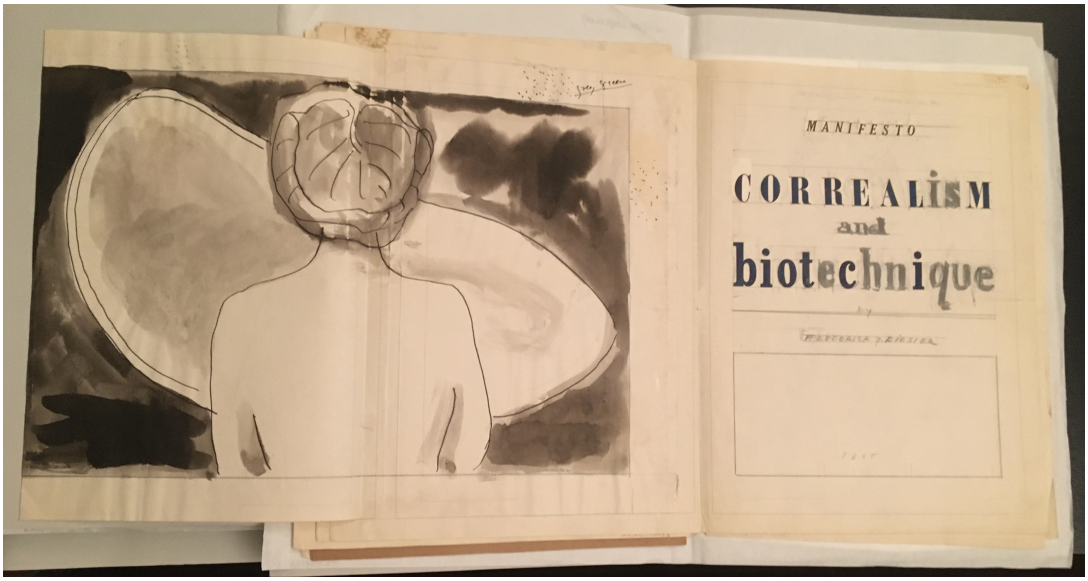


Figure 3.17: Proposal for cover design for the book *Correalism and Biotechnique* by Frederick Kiesler. (ÖFLKS.)

decade of architects and designers lacking access to information, asserting that the book would incorporate "the new directives in this struggle of social and technological forces of today".[271]

Kiesler promises a realistic approach to architecture, countering the romantic treatment that confined architecture to either "emergency shelter for the lower income groups" or "pseudo-function plus Art for the higher income groups".[272] This scientific approach, according to Kiesler, has become accessible due to strides in both social and scientific fields over the last decade. He envisions a "new spirit of approach to all matters of daily life" among sciences, demanding architecture to transform into a scientific activity. In this new definition, the architect becomes a scientific coordinator, evolving from the old type of individual architect to a member of a large office staff or collective working groups.[273] As individual inventors are replaced by collective laboratory and research efforts, the new architect, guided by an understanding of correalism and utilizing biotechnique, would be "supported by laboratories of industries and of the government".[274] Kiesler envisions this future

271. Frederick Kiesler.
272. Frederick Kiesler.
273. Frederick Kiesler.
274. Frederick Kiesler.

context and projection of the discipline as he promotes his book and the accompanying theories, which are both a reflection of the projected future and a result of introspection regarding what that context entails. The architect of tomorrow is referred to as "the coordinator," who, through a study of biology, understands the "power of coordination and the continuous flow of correlation," termed by Kiesler as Correalism..[275] This book layout provides one of the most straightforward descriptions of what Correalism signifies and how it is employed, serving as Kiesler's showcase of the term rather than its application in his writings, research, or designs. While the latter aspects constitute the application of this conceptual toolset, this piece of writing offers valuable insights into understanding the entirety of Kiesler's project. It serves as a tool to shift the epistemological ground for architecture. However, to justify this shift, Kiesler develops a metaphysical framework, without iterating any precursors or schools of thought except his own works from 1925 onwards. To a certain extent, this serves as an advertisement piece for the architectural principle that Kiesler aims to circulate among a broader audience. Its primary audience isn't the end-users but those who have the capacity to facilitate its circulation to Kiesler's intended audience. He identifies this audience as the general public, scientists, and manufacturers/distributors. Kiesler contends that this book and the advocated theory would empower the general public to access better services, akin to the advancements in technology and science. However, due to the lack of continuity and established connections among modern environments and tools — especially without the scientific approach that Correalism could provide — the public struggles to comprehend and fully utilize what is newly available to them. The book's purpose is explicitly outlined: "further informing the general public about what its individual products will mean to them, with or without coordination to their environment".[276] Those who gain such understanding would naturally recognize the necessity for a world structured around biotechnique.

Writing towards the end of the interwar period, Kiesler recognized the federal and local government's involvement in shaping the "building up of a new technological and economic structure" in the United States.[277] He referred to what he termed

275. Frederick Kiesler, "Book Layout."
276. Frederick Kiesler.
277. Frederick Kiesler.

"Progressive Housing Legislation," and believed that a foundational shift in architectural thinking was necessary to meet the urgent needs of the entire building industry and institutions, aligning with the evolving societal demands. In this context, Kiesler proposed his book as a solution to eliminate the question-style approach in architecture. His fascination lay in the zeitgeist of large-scale manufacturing, driven by technological processes and scientific findings. Einstein, Polatz, and Carrel were among the scientific figures he enlisted when discussing these advancements. Kiesler argued that the scientific community was already seeking ways to coordinate scientific findings with actual living conditions, moving away from confining them to laboratories for abstract experimentation or business advantages. Kiesler drew a direct link between the construction industry, chemistry, and physics, anticipating a new form of living within houses built with innovative materials. He emphasized the correlation between various elements, extending from the layout of a community to the minutest details of house interiors. Notably, Kiesler shifted his focus from theater designs to housing proposals, adapting to his American audience. The language in this manuscript, labeled as a "manifesto" in accompanying sketches of the book layout, is didactic rather than provocative, reflecting Kiesler's evolving context and approach. While the manuscript consists of ten chapters spanning 95 pages, the core concepts derived from Correalism can be grouped into four categories: Biotechnique, Health, Tools, and Heredity. These concepts form the theoretical foundation for Kiesler's arguments against modern architecture, his critique of modern notion of Functionalism, and his advocacy for correalism.

In the index of the 1939 article, Kiesler would refer to "reality" as: "The sum total of activating positive and negative forces, and not merely the visible result of these energies".[278] Positing reality as a simple interplay of integration and disintegration forces, this definition could provide the designer with tools to pursue a science he would refer to as "correalism. This would be the science of inter-relationships between humans and their "technological environment".[279]

Kiesler's introduction to his book starts with this definition of what the technological

278. "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," 76.
279. "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," 76.

environment is. While incorporating many anachronistic vitalist elements in his depiction of co-reality, namely the exchange of interacting forces, Kiesler is clear in his distinction between ecology and correalism. Ecology, according to him, is the study of organisms in relation to environmental conditions. These conditions are organic, meaning not artificial for Kiesler. Artificial environments are defined on the verge of an instance of anachronic and anthropocentric definition. Environmental control means the interaction between the environment of humans and the natural environment through what Kiesler identifies as the “technological environment.” For Kiesler, this technological environment is the domain of design. Health is the common denominator that constitutes "reality," and it determines the validity of the technological environment the correalist designer would deliver in relation to “biotechnical minimum standards.” These standards are defined in relation to the optimum needs for a human to be healthy, and architecture would be "a tool for the control of … health" if it could stop being a "disparate, overspecialized, and unevenly distributed project”.[280]

Kiesler’s starting argument in this manuscript is to demonstrate why modern architecture is in crisis. His answer is that there is a lack of a basic science of human behavior. According to Kiesler, architecture, at the moment, is a science constituted of a series of disparate, overspecialized styles. His discontent with this, since his 1925 Vitelbau manifesto, is directed at establishing a basic science of human behavior, after which growing knowledge would lead to the specific field of housing for humans. To achieve this, Kiesler suggests three necessary steps: 1) redefinition of fundamental concepts; 2) tracing the evolution of technology, and finally, 3) analyzing the meaning of correalism and biotechnique.[281]

One question that Kiesler emphasizes is relevant to deriving this science of human behavior: "How did housing become architecture?" According to Kiesler, only after answering this question is it possible to make an architectural attempt to provide shelter in the form of housing. In a crossed-out section in the draft of this manuscript, there is a part where Kiesler refers to the need to define housing, stating that we would not define it unless we grasp the necessity of housing. This leads him to question

280. “On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design,” 76.
281. Frederick Kiesler, “On Correalism and Biotechnique,” ÖLFKS, TXT 6491/0/N1.

why humans live in artificial environments and asks a simple yet existentially loaded question: Why are "artificial environments" necessary for humans?

Kiesler proposes that the endgame for humans is to prolong and sustain life. For this purpose, developing tools becomes a basic way of doing so. Tools are means and ways, according to Kiesler, to sustain and prolong life by increasing human energetics. He defines a state of superhealth that tools help achieve by preserving health. This, at the end of the day, is described as a search for health. Through this process, humans develop technology, leading to a technological environment that adds to the environments humans live in, including natural, animal, and technological environments, accompanied by natural and human environment.[282]

However, there is another way to explain it. In another draft of the first pages of this introduction, Kiesler omits the detail about housing and instead starts with a narrative that suggests humans are born in the evolution of hereditary trends. According to Kiesler, humans become who they are as a result of the forces that act upon them. His explanation for these forces depends on the concept of electromagnetism as endothermic and exothermic. Also calling them energies, Kiesler relies on a contemporary scientific belief that these energies are electromagnetic.

There is an interrelation of organic and inorganic matters, which Kiesler finds to be in constant bombardment of energies with two characteristics of integration and disintegration. For Kiesler, the explanation of generating visible matter is via gravity; electricity generates energy into solids of visible matter. This is integration. The opposite of integration, disintegration, is degenerating energy into tenuous, invisible matter via magnetism and radiation. If these anabolic and catabolic energies laid the foundation of existence, the change would not be explained, and we would have an unchanging world, says Kiesler. But differences, changes, alterations come to being thanks to the physio-chemical reactions that end up creating variations. New nuclear concepts and environments are formed steadily.[283]

Kiesler suggests that designers must acknowledge and address these forces. Rather

282. Frederick Kiesler, ÖLFKS, TXT 6491/0/N1.
283. Frederick Kiesler, ÖLFKS, TXT 6491/0/N2.

than dealing with natural or artificial objects, design, according to Kiesler, involves a slow march of communication of forces. For him, designing isn't about shaping a solid entity. This slow process of design allows for the evolution of design to be visible and tangible, perceivable by the naked eye and touchable.

On the contrary, correlation, as Kiesler describes it, is also a form of design. However, it involves forces that communicate at a high speed. Kiesler asserts that these forces of correlation exist beyond our sensory capabilities. They move too swiftly for us to perceive without special instruments.[284]

Kiesler explores the fundamental forces he sees as foundational to existence, which humans have addressed through the development of systems. Within this framework, science plays a crucial role, categorizing these forces into two main effects:

> 1) Heredity: The transmission of characteristics to offspring, ensuring the continuation of species.
>
> 2) Environment: Continuity is the result of constant adaptation to the environment, which, in the case of species other than humans, typically refers to the natural environment.[285]

However, Kiesler contends that for humans, the concept of environment goes beyond the traditional understanding of geography and the surrounding species. He introduces a third environment, which he terms the "technological environment." This environment, created by humans themselves, serves both as a shirt (a protective covering) and a shelter. The technological environment introduces complexity to the environmental forces. According to Kiesler, any new product design in this environment must consider heredity, the natural environment, the animal environment, and the technological environment.[286]

3.2.2.1 Technological Environment

Kiesler delves into the notion of technological environments, asserting that while they have existed for centuries, they remain largely unexplored, lacking direct or indirect

284. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6491/0/N3.
285. Frederick Kiesler, ÖLFKS, TXT 6491/0/N3.
286. Frederick Kiesler, ÖLFKS, TXT 6491/0/N3.

analysis, measurement, or investigation of their effects on humans. Furthermore, the laws governing technological development have not been charted or systematically studied. Kiesler identifies a historical gap in the study of technology, emphasizing the need for an approach that he originally termed "Vitalbau" in his 1924 essay, which has now evolved into a theoretical formula.[287]

The post-war period's economic breakdown prompts Kiesler to recognize the necessity for a new approach. His work at Columbia University with the Design Correlation Lab aims to systematically study and experiment with building structures to test their validity. Kiesler also criticizes the historical lack of observation and systemization of natural phenomena in the history of the science of biology until the emergence of theories like Lamarck's or Darwin's. He contrasts this with medieval thought, emphasizing that it is not the manufacturer who produces the technological environment but the needs that give rise to it.[288]

Kiesler posits a critical question about whether these needs are natural or artificial, asserting that this question is of prime importance to the designer of the technological environment. Unlike traditional architectural approaches, Kiesler believes the answer should be based on the unfolding threads of the web of life. He explores the mutual biological interdependence of organisms, emphasizing the importance of proper food, habitat, reproduction, defense against enemies, and coping with the forces of nature as essential elements in the web of life. This intricate network involves a dynamic interplay of cooperation, jostling, and strife among individuals.[289]

Kiesler introduces the concept of "activating forces" as the "makers of reality," challenging the conventional notion of reality as a fixed or absolute state.[290] He argues that reality, as traditionally understood, cannot exist due to the constant processes of mutation and continuity. Instead, Kiesler proposes the term "co-reality," emphasizing an ongoing exchange of co-relative forces.

In Kiesler's view, objects or entities that we perceive are not inherently real but are, in fact, "visible trading posts of endothermic and exothermic forces mutating at low

287. Frederick Kiesler, ÖLFKS, TXT 6491/0/N5.
288. Frederick Kiesler, ÖLFKS, TXT 6491/0/N5.
289. Frederick Kiesler, ÖLFKS, TXT 6491/0/N6.
290. Frederick Kiesler, ÖLFKS, TXT 6491/0/N7.

speed".[291] This perspective implies that objects, rather than being static and independent entities, are manifestations of forces in constant flux. According to Kiesler, the condition of reality is found in the "interplay of forces that are innate in nature and which man has in addition re-coordinated in their artificial technological product".[292] This re-coordination suggests that humans play a role in organizing or orchestrating these forces, contributing to the formation of what we perceive as reality.

Kiesler contends that bodies alone cannot constitute realism; rather, it is a body's power of coordination that renders it real. For Kiesler, reality is embedded in correalism — a dynamic of continuity that holds the potential to break down the barriers between various scientific disciplines. He envisions establishing a science of correalism that considers the intricate complexity of life. This scientific approach, in turn, would address the housing of people, leading to what Kiesler terms "biotechnique" — a science of housing. In this way, Kiesler seeks to integrate insights from diverse fields to develop a comprehensive understanding of reality and human habitation.[293]

3.2.2.2 Health

In another existential exploration, Kiesler posits that human limitations give rise to the development of the technological environment and the creation of tools. The limitations of humans drive the need for tool-making, as the failure of a tool could result in the death of the human. Therefore, Kiesler identifies health as the fundamental denominator of any technological environment, emphasizing the absence of fatigue, prostration, illness, or death. Health, according to Kiesler, surpasses considerations of beauty, durability, practicability, and cost when judging architecture.[294]

Health, for Kiesler, represents an equilibrium where life is not only sustained but also able to act. The degree to which this equilibrium can withstand or absorb the

291. Frederick Kiesler, ÖLFKS, TXT 6491/0/N7.
292. Frederick Kiesler, ÖLFKS, TXT 6491/0/N7.
293. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6491/0/N8.
294. Frederick Kiesler, ÖLFKS, TXT 6491/0/N9.

impacts of the environment is termed resistance-capacity. These impacts are categorized into two sets: external and internal. Internal factors encompass elements intrinsic to individuals, both physiological and psychological, requiring organic adaptation to maintain health. It is worth to mention that Kiesler also expands the scope of health to include socio-economic factors such as marriage and the state.[295]

Indeed, Kiesler's introduction of factors like marriage, the state, and socio-economic considerations as means to adapt to a correalistic world suggests a pragmatic approach to understanding the mechanisms of governance. In Kiesler's vision, the design of the technological environment, which includes not only physical structures but also the social and economic frameworks, plays a crucial role in maintaining health and equilibrium. By acknowledging these broader factors, Kiesler highlights the interconnectedness of various aspects of life and emphasizes the need for a comprehensive approach in designing environments that support human well-being.

Kiesler's consideration of fatigue and the process of energy expenditure aligns with a broader understanding of human physiology and the need for optimal efficiency. In his perspective, the physio-chemical process that replaces expended energy represents a state of optimal efficiency. The concept of fatigue, inefficiency, and waste of energy underscores the importance of maintaining a balance in the expenditure and replenishment of energy for sustaining health and well-being. This emphasis on efficiency and the physiological aspects of energy management contributes to Kiesler's overarching vision of designing environments that prioritize human health and vitality.[296]

Kiesler's critique of modern sociology and aesthetics, particularly concerning fatigue, labor, and leisure, reveals his deep concern for individuals' well-being within evolving social structures. He challenges the traditional Newtonian notion of isolated bodies, advocating for a shift towards the "concept of relative being" proposed by Einstein and Planck. This technological perspective underscores Kiesler's commitment to establishing egalitarian standards, introducing the idea of "biotechnical minimum standards" for every human in their living and working

295. Frederick Kiesler, ÖLFKS, TXT 6491/0/N11.
296. Frederick Kiesler, "VIII. Work, Leisure and Fatigue," Excerpt from unpublished book manuscript, ÖFLKS, TXT 865/0/N75–80.

spaces.

His critique extends to the modern service-labor structure, questioning the separation of labor and leisure. Kiesler rejects the notion of leisure as a disconnected reward, arguing that torn from its context, it becomes akin to work as punishment. He criticizes the industrial system's portrayal of a false dichotomy between labor and leisure, resulting in a physiological and psychological loss of energy for individuals.

Kiesler's proposed solution involves overcoming the alienation of workers and consumers by rejecting over-specialization.[297] He envisions a new order where work and leisure are integral components of satisfaction. By advocating for the equalization of values based on social significance and emphasizing the interconnectedness of all activities, Kiesler aims to address both physiological and psychological aspects of well-being, contributing to the preservation and enhancement of human health.

Kiesler delves into the intricate connection between physiological and psychological energy, proposing a comprehensive approach to address fatigue. He contends that merely reducing work hours is insufficient, emphasizing the need to intertwine psychology and environmental design for effective solutions.

According to Kiesler, places like factories, workshops, offices, and farms have the potential to enhance health if the relationship between an individual's total personality and the overall environment is carefully considered. He suggests that conscious participation in social processes can mitigate fatigue. Kiesler introduces the concept of the biotechnical standard, asserting that the technological environment of both home and workplace should meet fundamental human needs.

Highlighting the principle of equality, Kiesler critiques the historical failure to recognize and fulfill basic human requirements in the construction of houses and towns. He provocatively links the foundations of "Empire States", to slavery and slums.[298] He contends that when external concerns overshadow inner needs, "housing dies, and architecture is born".[299] Kiesler sees biotechnique as an

297. Frederick Kiesler, "VIII. Work, Leisure and Fatigue," TXT 865/0/N78.
298. Frederick Kiesler, TXT 865/0/N80.
299. Frederick Kiesler, TXT 865/0/N80.

architectural endeavor to resurrect the essence of "housing" and restore a balance that prioritizes human well-being over external considerations.

3.2.2.3 Tool

Kiesler posits that throughout history, each stage of social development has generated its own set of tools to contend with evolving forces. He argues that biotechnique should be viewed within this framework, characterizing every era as a "machine age" aligned with the prevailing social stratum.[300] Kiesler introduces the concept of health as an indicator of progress toward achieving a better balance between positive and negative life forces.

Emphasizing the incommensurability of tools across ages, Kiesler redefines the distinction between machines and tools. Instead of isolated technological fields, he employs the term "tool" to denote an implement created for human use or service, serving human endeavors. Kiesler asserts that everything essential for human survival in the struggle for existence qualifies as a tool, inherently correal by existing in relation to the flux of human struggle and their total environment.

Kiesler contends that human needs are dynamic, leading to a cyclical progression crucial for understanding inventions. He argues that the evolutionary impossibility for humans to exist in isolation prompts a cycle where deficiencies result in suffering, fostering observations. Observations lead to discoveries, which, in turn, inspire inventions.[301] This cycle initiates a cultural shift where technological environments take center stage, progressing from small-scale applications driven by social needs to large-scale applications defining new standards. As new standards emerge, new deficiencies arise, perpetuating the cycle into a higher level.[302]

Kiesler illustrates this cyclical process through a chart developed in the Laboratory for Design Correlation, highlighting the parallels between design variations and biological variations. Similar to how variations emerge in biology due to specific environmental stimuli, Kiesler contends that demands placed on technology by

300. Frederick Kiesler, “V. The Nature of the Tool,” Excerpt from unpublished book manuscript, TXT 865/0/N54.
301. Frederick Kiesler, TXT 865/0/N60.
302. Frederick Kiesler, TXT 865/0/N61.

unique environmental stimuli lead to variations in technology.[303]

Kiesler introduces what he terms the "new terminology of tool production" and delineates three distinct types prevalent in the industrial era.[304] The first type arises from needs and establishes a standard, which then evolves into variations to cater to auxiliary purposes. The third type, the largest species, is what Kiesler labels as the "simulated." According to Kiesler, each of these groups has different bases for fertilization, with the standard relying on scientific knowledge, variations extending from legal offsprings of the standard, and the simulated being widely distributed but having a short life and rapid replacement. [**Figure 3.18**]

This classification aids Kiesler in explaining the process of industrial regeneration and underpins his biotechnical approach to design as a correalist designer. He emphasizes the importance of group efforts in design, surpassing individual ambitions. Specialization, for Kiesler, should be rooted in general needs rather than personal aspirations. Standard types and their variations are to be developed collectively in what he terms "improvement workshops".[305] This approach echoes early avant-garde calls, such as those of the De Stijl group, for the unification of arts and collective creation to challenge the existing order in response to the demands of modern production and consumption. The incorporation of local diversity based on habituation and transitory needs, according to Kiesler, would need such an collective effort and lead to improvement of standards.[306]

Kiesler contends that rather than contributing to collective efforts and progress, simulated variations drain energy that could have been directed toward collaborative endeavors. To counter the negative influence of simulated variants and their parasitic character, Kiesler proposes legislative means like patent laws.[307] These simulated variants, being a significant factor hindering progress in technological world production, lead to a technological neurosis and negative education. Kiesler's correalist design vision serves as a safeguard against the detrimental effects of simulated types and stands as a countermeasure to technological neurosis, fostering

303. Frederick Kiesler, TXT 865/0/N62.
304. Frederick Kiesler, "IX. New Terminology of Tool-Production," Excerpt from unpublished book manuscript, ÖFLKS, TXT 865/0/N81–89.
305. Frederick Kiesler, "IX. New Terminology of Tool-Production," ÖLFKS, TXT 865/0/N84.
306. Frederick Kiesler, ÖLFKS, TXT 865/0/N84.
307. Frederick Kiesler, ÖLFKS, TXT 865/0/N83.

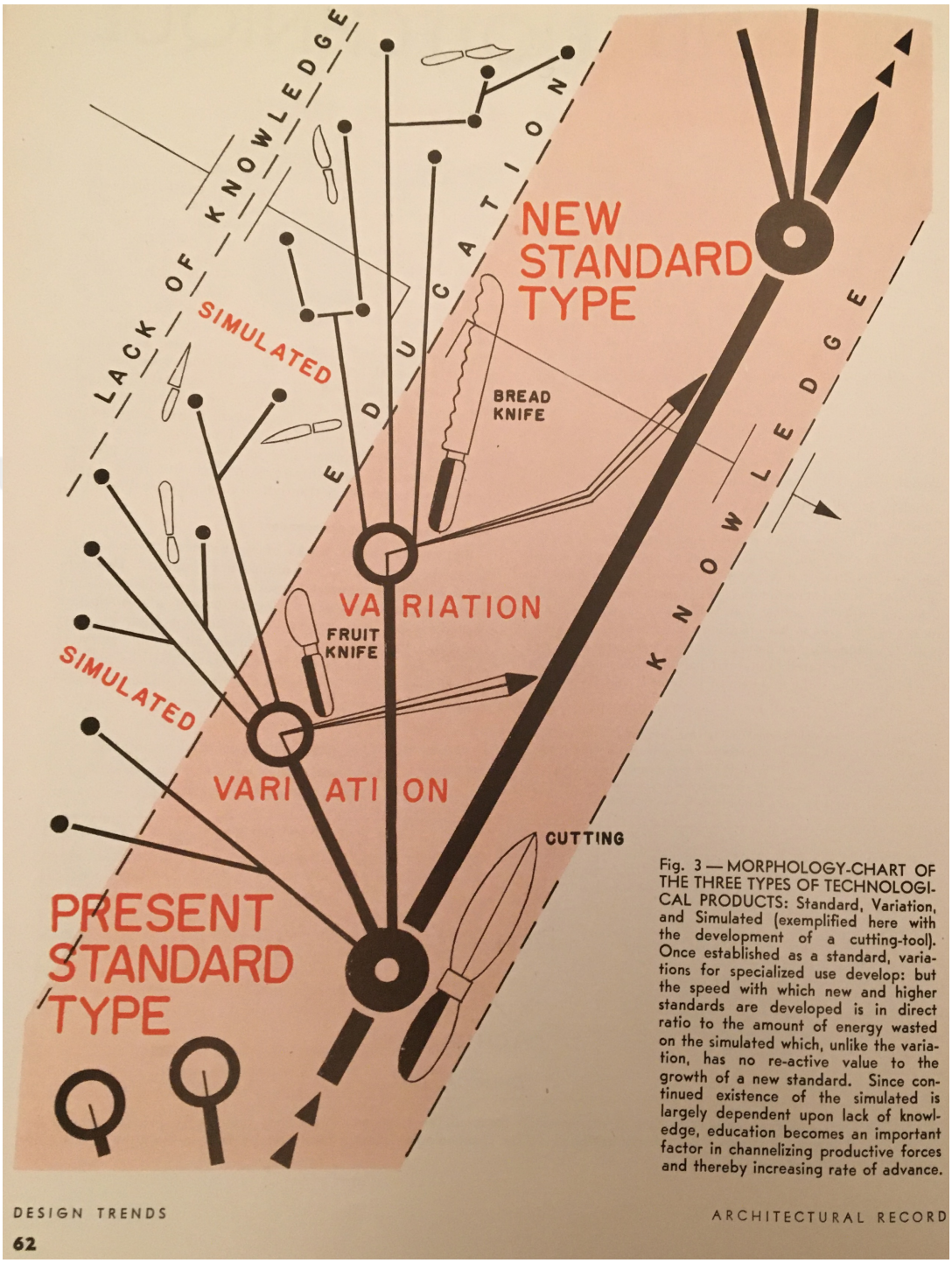


Figure 3.18: Morphology-chart showing three types of tools for the objective of cutting. (Diagram by Frederick Kiesler, *Architectural Record*, September 1939, 62.)

progress.

Kiesler posits that eliminating the simulated group and controlling variations are essential for adjusting to basic human needs. According to him, the current situation represents a form of maladjustment, and to rectify this, simulated needs to be absorbed into the areas of the standard and variation.

The standard type possesses the capacity to fulfill its existing nuclear and auxiliary requirements and gradually mutates into a new standard. Variations, in contrast, alter the standard's auxiliary qualities or functions, and their obsolescence is determined by the ratio between mechanical and economic efficiency. Simulated, according to Kiesler, is associated with fraud, mental hibernation, and force, leading to its parasitic qualities. The cumulative lack of knowledge contributes to simulated needs.

Kiesler, through his correalist approach, proposes a roadmap for what he refers as the "process of industrial regeneration" and lists the steps as follows:

> 1.Emphasize multiple production of the standard instead of the multiplication of the simulated. Improve types through correlation-based research rather than specialization to reduce waste production.
>
> 2.Base specialization on needs, not personal ambitions of manufacturers or inventors.
>
> 3.Address individual ambitions in improvement workshops focused on the standard.
>
> 4.Eliminate simulated needs to make room for variants.
>
> 5.Allow variants to depend on the standard while considering local diversity and needs.
>
> 6.Recognize the standard as a result of selection.
>
> 7.Decide selection based on service obsolescence, artificially maintaining, prolonging, or discarding serviceability.
>
> 8.Prioritize these steps to safeguard human health.[308]

At the end of the list, Kiesler crosses out the statement: "Health is the status of man maintaining him unconscious of his physical materiae, thereby releasing his powers for teleological manifestation."[309]

308. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6191/0/N19-20.
309. Frederick Kiesler, ÖLFKS, TXT 6191/0/N20.

Certainly, the crossed-out section is intriguing as it suggests a dual role for health in Kiesler's perspective. On the one hand, health is presented as a metric for evaluating design elements in terms of their impact on productive and destructive forces. This implies a practical and measurable aspect, aligning with Kiesler's emphasis on a biotechnical approach to design.

Simultaneously, Kiesler introduces a more holistic dimension to health, proposing that an elevated state of health could free individuals from an excessive preoccupation with their material well-being. This holistic view implies a broader understanding of health, encompassing mental well-being and a reduced focus on physical concerns. It positions health not merely as the absence of illness but as a state that allows individuals to transcend mundane worries and connect with higher-level aspects of their existence.

Moreover, the notion that an enhanced state of health could lead to a greater understanding of purpose-driven actions and goals introduces a teleological aspect. It suggests that, by achieving a state of well-being, individuals may become more attuned to their life's purpose and direction, aligning with Kiesler's broader exploration of purpose-driven design and human engagement with the environment.

This dual perspective on health within Kiesler's philosophy underscores the interconnectedness of physical and mental well-being, highlighting the potential transformative impact of a biotechnical approach on individuals' overall quality of life and purposeful engagement with the world around them.

Hence, tools, according to Kiesler, introduce a new paradigm for art and architecture that necessitates a reevaluation within the framework of energies, with a focus on serving human needs. This shift in understanding, according to Kiesler, is pivotal for altering the technological environment to better meet the demands and needs of the contemporary era. Central to this transformation is the dissemination of Kiesler's ideas on architecture as biotechnique and his correalist vision.

Kiesler criticizes the practice of hiring specialists, deeming it as a superficial response to socio-technological ignorance. He contends that the products emerging from specialized lines of production result in mass waste, disorganization, and are

not effectively absorbed by the population. The unchecked "freedom of industry and commerce" is seen as escalating costs, necessitating capital investment, new organizational structures, human resources, and tools. This, instead of being absorbed, leads to waste. Artificial demand is stimulated through publicity and advertising, creating a cycle of inefficiency where resources and power become unsustainable for both private enterprises and communities.

Kiesler challenges the assumption that mass production lowers the cost of goods, making them accessible to all members of society. In contemporary conditions, he argues, mass production has achieved the opposite effect by generating waste and expenses that prevent the average person from acquiring goods. This uncorrelated operation, driven by individual inventors who integrate improvements into production mechanics, lacks a genetic basis and contributes to an unsustainable cycle.

The traditional method of learning how to use tools, which was once a paternal and communal endeavor based on environmental materials and tools, has transformed into an individualized and self-styled approach. Kiesler criticizes this specialization, asserting that it leads to the decay of workmanship due to the absence of genetic education and the misdirection of human endeavors in cultural fields.

Furthermore, Kiesler opposes the notion of design as mere invention. He advocates for slowing down the design process and channeling efforts into biotechnical research laboratories, emphasizing a more deliberate and research-oriented approach to design.

As Kiesler advocates for the significance of his Laboratory for Design Correlation, he highlights its primary responsibilities. The laboratory aims to replace the "principle of static change in the industrial-economic coordination system" with the principle of "continuous adaptation." Moreover, it is tasked with conducting research on what Kiesler terms the "biotechnical procedure of conversions."

Kiesler emphasizes that these laboratories are not solely for design research but play a pivotal role in shaping a better future for the industrialized age. He also recognizes that technological environments are not exclusive products of the industrial era; they already exist, and their impact on our lives is equally crucial, irrespective of the

specific conditions under which they operate.[310]

3.2.2.4 Heredity

Kiesler posits that heredity exists in technology, a concept he believes is often overlooked by many. He draws a parallel between technological heredity and biological heredity, extending the analogy to the evolution of the mind, perception, ideas, and values. Using the metaphor of Pasteur's fertilization bed, Kiesler suggests that, unlike microorganisms in nature that resume active life when they encounter suitable conditions, technological units (such as chairs or houses) rest within their fertilization unit, awaiting fertilization from external sources.

According to Kiesler, each technological unit is a living organism, forming a co-realist configuration. He ascribes immense power of communication to every object, but this potential is realized only when the object is utilized.[311] Kiesler terms this phenomenon as the "latent 'will'," asserting that the life cycles of objects unfold through their utilization. These life cycles involve the exchange of energy, revolving around human energy drainage.[312]

The relationship between humans and objects, according to Kiesler, is characterized by a constant exchange of forces. However, he observes that, unlike the dynamic perpetuation in nature, an everlasting state of comfort and discomfort is never attained in the human-object relationship. Importantly, Kiesler contends that this lack of equilibrium is unrelated to how the technological environment is constructed. Kiesler notes that within the technological environment, humans experience either regenerative effects or discomfort, illness, and fatigue. He likens the technological body to passing through stages of fitness, use, abuse, and obsolescence. Interestingly, Kiesler argues that heredity in technology mirrors the heredity found in life forms emerging from preexisting life through production.

Refuting the notion of artificiality in materials used for technological bodies, Kiesler asserts that "all building material evolves from nature," following an orderly sequence

310. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 865/0/N90-96.
311. Frederick Kiesler, ÖLFKS, TXT 6191/0/N47.
312. Frederick Kiesler, ÖLFKS, TXT 6191/0/N48.

of technological evolution similar to objects evolving from their own species.[313]

In differentiating between animal and biological environments and those created by humans, Kiesler avoids dissociating technology from nature. Instead, he endeavors to cultivate an understanding in which tools and the technological environment are seen as derived from nature itself. Kiesler acknowledges a connection between technology and the natural world. However, he does not explicitly draw a correlation between the ways nature functions and how human design impulses operate within the technological realm. This suggests that while technology may originate from nature, Kiesler does not necessarily equate the processes of natural evolution with the deliberate acts of human design.

He introduces the concept of biotechnical reproduction, emphasizing that each tool has a line of pre-existence.[314] Life forces, according to Kiesler, take patterns and reorganize as they interact with natural life processes, thus attributing biotechnical reproduction to life itself. Unlike biogenesis where reproduction occurs within species, biotechnical reproduction is influenced by humans. Kiesler emphasizes that technology is not contrary to humanity; rather, it's a complex manifestation of the basic electro-chemical relations of which humans are a part.[315]

From Kiesler's point of view, we tend to overlook the fact that technological environments possess their own heredities, often neglecting this as a field of examination and research. Kiesler deems this oversight indispensable to the science of co-realism, asserting that understanding the heredity of technological environments is crucial for the development of biotechnique. Since technological environments impact human development and heredity, and technology itself adheres to the laws of heredity in its development, Kiesler concludes that the principle of heredity in technology operates to create ideologies.[316] These ideologies, lasting longer than materials, play a significant role in shaping cultural norms, resistance to change, and the adoption of new technological developments.

Kiesler identifies yet another a cyclical process where first a new invention

313. Frederick Kiesler, ÖLFKS, TXT 6191/0/N49.
314. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 6191/0/N49.
315. Frederick Kiesler, ÖLFKS, TXT 6191/0/N51.
316. Frederick Kiesler, ÖLFKS, TXT 6191/0/N52.

influences a specific economic setup within a given social order, the the social structure as a whole is influenced, and finally a new ideology is established.[317] The active lifespan of this ideology determines its potential hereditary force for the next generation. Regardless, it becomes the environmental force of contemporaries. Kiesler notes that technological obsolescence occurs more rapidly than ideological obsolescence, impacting industries. The lack of planning during the reproduction of machinery results in the cancerous growth of the world economy Kiesler warns. From his perspective, industries and private enterprises often exploit human needs rather than genuinely satisfying them.[318] Kiesler argues that controlling machine efficiency alone does not prevent exploitation as he suggests that regulatory attempts prove sterile, and competitive enterprises contribute to social corrosion. For industry to be beneficial, he further suggests following pre-designed ideologies, warning that excess industry can be deadly.

Kiesler emphasizes the intricate interplay between technological environments, human development, and the creation of ideologies. He underscores the need for a thorough examination of the hereditary aspects of technological environments, asserting that understanding this is essential for the development of biotechnique — an approach he advocates. By highlighting the cyclical process involving new inventions, economic influence, social impact, and the establishment of ideologies, Kiesler points to the profound and lasting effects of technological changes on culture, social structures, and individual behaviors.

Additionally, Kiesler critiques the rapid pace of technological obsolescence and its impact on industries, cautioning against the uncontrolled reproduction of machinery that leads to detrimental economic growth. He warns against the exploitation of human needs by industries and private enterprises, advocating for a more planned and ideologically driven approach to industry. Kiesler's emphasis lies in encouraging a more thoughtful and ethical integration of technology into society, aligning with pre-designed ideologies rather than allowing unbridled industrial expansion that can lead to negative consequences.

317. Frederick Kiesler, ÖLFKS, TXT 6191/0/N54.
318. Frederick Kiesler, ÖLFKS, TXT 6191/0/N55.

3.3 Strategic Demarcation

In *The Practice of Everyday Life*, Michel de Certeau outlines a strategic demarcation line between scientific and non-scientific realms, which he terms the "cleavage" used to organize modernity.[319] He contrasts modern science, with its clear objectives and defined fields, against the broader, more ambiguous realms of human experience and culture. De Certeau observes that modern science, unlike theology, its predecessor, is characterized by "capable procedures, formal objects, and specified conditions under which they are falsifiable", essentially forming distinct, limited fields.[320]

However, this scientific segmentation does not diminish the ambition to explore and rationalize the "remainder" that lies outside scientific understanding. De Certeau refers to the "practical resistances and symbolizations" that resist reduction to scientific thought.[321] Fields like history, anthropology, and pathology undertake "reconnaissance missions" to probe these areas, striving to link "the light to darkness" and extend scientific understanding into the "frontier regions" of human experience.[322]

Alexander's concept of "kinaesthetic knowledge" is the story of one of these frontiers being explored, for example, where science attempts to conquer the remainder by starting from known areas. These expeditions into the "grey discourses of mixed sciences", termed "human" by de Certeau, create a sense of instability and a strategic distinction between the artificial languages of scientific methodologies and the natural languages of everyday social interactions.[323]

This demarcation signifies ongoing efforts to harmonize or establish the supremacy of scientific methodologies over the complex tapestry of social practices, embodying endeavors to merge the realms of the predictable and measurable with the intricate and multifaceted domain of human culture and experience.

In Kiesler's vision, the central challenge for the future of architecture is to establish a connection between humanity, and the artificial, man-made technological

319. De Certeau, *The Practice of Everyday Life*, 6.
320. De Certeau, *The Practice of Everyday Life*, 6.
321. De Certeau, 6.
322. De Certeau, 6.
323. De Certeau, 6.

environment. He advocates for a thorough examination of the ever-changing concept of function, highlighting its dynamic and evolving nature. Kiesler argues that the interaction between the body and the environment leads to novel possibilities, driven by the development of inherent physiological aspects influenced by the surroundings.

According to Kiesler, the emergence of new properties or specific characteristics is a random process. This randomness enables animals, including humans, to explore and adopt new modes of living in environments where conditions conducive to these qualities already exist. Rather than a passive adaptation, Kiesler sees this as an active process of migration — a proactive search for environments that align with the inherent characteristics and properties developed through the dynamic interplay with the surroundings.

Kiesler's examination of correalist ideas leads him to conclude that buildings, while constructed using artificial techniques like riveting, welding, locking, gluing, and stitching, are essentially composite structures. These techniques, constituting what Kiesler terms as artificial joints, represent how correalism is infused into his architectural philosophy. Despite humans employing these methods for joining, Kiesler underscores that nature ultimately controls these connections. He notes that while humans build through addition, nature constructs through division and multiplication, asserting that the inevitable process of disruption via natural forces begins from the point of joining and progresses onward.[324] Kiesler argues that buildings created by architects are essentially "held together by the magic of artificial techniques," representing a compilation of specialized components and patchwork.[325] Kiesler contends that the process of disruption through natural forces becomes imminent from the point of joining parts. To address this, he suggests that reducing joints can lead to higher resistance, rigidity, easier maintenance, and cost-effectiveness, fostering continuous construction.

This sheds light on the rationale behind Kiesler's rejection of conventional human joints, such as riveting and welding, in the plans for The Endless Theater exhibited in 1926. Instead, he advocated for a continuous structure, an idea that laid the

324. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 865/0/N71.
325. Frederick Kiesler, ÖLFKS, TXT 865/0/N72.

foundation for the concept of the Space House. Although the house itself may not have exemplified continuous construction, Kiesler manipulated its photos to align with the principles outlined in his manuscript. This manipulation served as a visual representation of correalist architects' biotechnical design, which he proclaimed as "proposed," aiming to align with the evolving needs and possibilities of the modern age.

Returning to the theme of the unification of arts and architecture, Kiesler emphasizes the importance of the psycho-functional role that precedes material functionality. Since the early 1920s, Kiesler has expressed dissatisfaction with the conventional notion of architecture, which involves distinct realms for structure, furnishing, painting, and sculpture. Instead, he draws an analogy with alchemy, depicting the architect as the one who orchestrates a blend contributed to by each contractor and eventually consumed by the house-dwellers.[326]

In his critique of this traditional approach, Kiesler advocates for the elimination of the rigid distinction between art and technology. He argues that art itself should be viewed as a technological environment.[327] Furthermore, when art is seamlessly integrated into a biotechnical environment, it undergoes a transformation into technology, and the artist assumes the role of a biotechnician.[328] This conceptual shift aligns with Kiesler's overarching vision of achieving a seamless integration of artistic expression and technological functionality in the realm of architecture.

The call for the disarmament of art in 1924, as articulated by Kiesler in the context of Europe, finds its guiding principles in this unpublished manuscript in North America. Even if not explicitly stated, the essence of this call is discernible in Kiesler's design concepts and architectural endeavors. The manuscript serves as a foundational text for understanding Kiesler's vision and provides insights into his commitment to dismantling the traditional boundaries that separate art and technology. This commitment is reflected not only in his theoretical writings but also in the practical manifestation of his ideas in architectural designs and innovations.

326. Frederick Kiesler, "On Correalism and Biotechnique," ÖLFKS, TXT 865/0/N50.
327. Frederick Kiesler, ÖLFKS, TXT 865/0/N50.
328. Frederick Kiesler, ÖLFKS, TXT 865/0/N52.

CHAPTER 4

PROFANATIONS

In the concluding chapter of my thesis, I focus on demystifying Frederick Kiesler's journey across diverse cultural and intellectual landscapes and its profound impact on the development of correalism. This exploration is not merely about tracing Kiesler's path; it's about understanding how his experiences and insights actively shaped the evolution of correalism. I delve into how Kiesler, far from being a passive observer, emerged as a pivotal figure —an active creator—within these multifaceted realms.

4.1 Constructivist Kiesler vs Surrealist Kiesler

In 2000, Kiesler's Vision Machine garnered the attention of a new generation of artists and architects at an exhibition in Beaux-Arts de Nantes, particularly for its application in the 1942 "Art of This Century" exhibition. Dieter Bogner expands on the development of the Vision Machine between 1938 and 1942. He emphasizes the process that laid the groundwork for Kiesler's foundational ideas, which later materialized in his exhibition designs, including "Art of This Century" and the 1947 Expostion "Blood Flames" in New York. Bogner highlights the importance of Kiesler's earlier projects like "City Space" and "Space House", noting their contribution to the development of the Vision Machine prototypes and models showcased in these exhibitions.[1]

Bogner highlights the laboratory version of Kiesler's Vision Machine as an audiovisual device designed to elucidate the process of vision. He refers to Kiesler's reports to Dean Arnaud, describing the machine as an embodiment of an aesthetic

1. Bogner, "Frederick Kiesler et La Vision Machine," 136.

theory. This theory proposed that visual perception is a product of the correlation of various forces.[2] Bogner points out Kiesler's focus on the complex interactions between the interior and the exterior, where the psyche intersects with the physical world. The Vision Machine aimed to educate its audience that the reality of an object is shaped by the coordination of human experiences. In this view, it is the relationship between the object and its surrounding environment that forms the object's reality. As Phillips highlights, Kiesler's approach to visual perception and dreams was influenced by a range of figures, including E.R. Jaensch's *Eidetic Imagery and Typological Methods of Investigation* (1930), as well as thinkers such as Bergson, Sigmund Freud, and Jose Corti.[3] Bogner also considers Kiesler's arguments to be "well-founded principles", noting Kiesler's regular interactions with scientists from diverse disciplines. However, as my research indicates, such regular interdisciplinary collaborations may not have been as frequent as Bogner suggests.[4]

However in 1943, Kiesler published an article titled "Design-Correlation: As an Approach to Architectural Planning", this time in the magazine *VVV*, with editors David Hare, André Breton, Marcel Duchamp, Max Ernst, where he spoke of the vision machine concept in one big very comprehensive sentence. This article offers essential insights following Kiesler's introduction of his Vision Machine, complemented by the shadow boxes he used in his first major exhibition design in New York which Bogner mentioned in 2000. This exhibition was his first major exibition design, which followed his 1926 International Theater Expose, marked a significant moment where Kiesler was able to finally re-engage with a broader audience, if not the general public, in the United States. He says in one breath:

> I utilized it … to break down the physical and mental barriers which separate people from the art they live with, working, toward a unity of vision and fact as prevailed in primitive times, when seemingly conflicting experiences existed in complete harmony, when the God and the representation of the processes of natural growth, developing the

2. Bogner, "Frederick Kiesler et La Vision Machine," 138.

3. Phillips highlights a particular study from Kiesler's Laboratory for Design Correlation that had a significant impact on the development of devices and the Vision Machine for the Art of This Century Galleries. This influential study involved Kiesler's engagement with E.R. Jaensch's work on Eidetic Imagery.Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 191 Although I did not find this specific piece of writing in the Vision Machine archives during my visit, it is worth noting that access to the complete set of materials was limited. The Vision Machine box was being scanned and curated for an upcoming exhibition in 2024, restricting my ability to review all the available content.

4. Bogner, "Frederick Kiesler et La Vision Machine," 141.

> flow of inherent forces which produce forms while integrating and disintegrating at varying speeds, a continual rebirth of all organic and inorganic life of the plastic arts, technology and architecture, factors which man has gradually learned to detect and measure, the radiation field of the human heart, the energy of a cosmic ray, the electrical emission of solar radiation, captured in the experimental Wilson chamber, whereby a radiant particle leaves a path of heat condensation are thus made to reveal, to the cosmic blindness of the human eye, nature's own design of force, the ultimate significance of the unknown, that eternal matter which builds the poet's, the architect's or the plastic artist's structure on the orbits of energy which simultaneously correlate and design.[5]

This piece of writing is not a departure but rather a continuation of a theme that has been central to Kiesler's work since 1923. The idea of unifying vision and dismantling the "physical and mental barriers that separate people from the art they live with" has been a recurring motif throughout Kiesler's career. This concept is evident in his early writings on theater set designs from the 1920s, his 1923 design for a display structure in Vienna, his 1924 article "The Debacles of Theater", and "Space Stage" and notably in his 1925 manifesto on tensionism. All these works share a common thread: a call to rethink art and space design to foster a new form of dialogue between the audience and artistic works. This period represents beginning of an epoch in Kiesler's career, marked by the closure of his laboratory at Columbia University and the commencement of his new role as an exhibition designer for Peggy Guggenheim's Art of This Century galleries. His prior inquiries and the research on Vision Machine alone can grant him this position that provided Kiesler with a unique opportunity to integrate various interactive devices within the gallery space which were referred as shadow boxes and vision machines. What is more, these innovations were particularly significant as they enhanced the viewing experience of a crucial collection of European artwork, which had been smuggled out of France during the German occupation in World War II.[6] This juncture in Kiesler's career signified not only a shift in his professional focus but also allowed him to apply his correalist principles in a new and dynamic context.

With the long paragraph quoted above from his 1942 article Kiesler presents a

5. Frederick Kiesler, "Design-Correlation as an Approach to Architectural Planning," *VVV*, nos. 2-3 (March 1943): 76ff.

6. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 174.

comprehensive list detailing significant events that influenced the creation of the gallery. This list not only encapsulates the unfolding political context of World War II but also highlights the innovative design elements that Kiesler incorporated. Among these were the shadow box devices and the Vision Machine as mentioned before, both meticulously crafted to "facilitate the co-reality of fact and vision".[7] These elements played a crucial role in shaping the gallery experience, reflecting Kiesler's unique approach to melding architectural design with the pressing realities of the time. This divergence between fact and vision would begin to emerge as a prominent theme in Kiesler's Correalist project during the 1940s, particularly through his anthropological exploration in "Magic Architecture: The Story of Human Housing". In this unpublished manuscript, Kiesler reflects on the nature of truth and acknowledges a "Split in the Unity of Vision and Fact", as Stephen Phillips notes in his analysis.[8] This thematic split not only underscores a new direction in Kiesler's work but also highlights his evolving philosophical inquiries into the interplay between reality and perception. The scope of this thesis concludes at the juncture of Kiesler's musings on the split of vision, and does not delve further into his later explorations. However, it's important to recognize that with his design for the Art of This Century gallery, Kiesler presented a public incarnation of the vision machine concept. In this setting, specifically tailored for displaying surrealist art from Europe to an American audience, Kiesler's design functioned to demonstrate the transformation of images into eidetic visions. This was achieved through his innovative display design, which effectively facilitated the co-reality, the exchange of interacting forces, of fact and vision, a key aspect of his correalist philosophy. The mention of Kiesler's 1942 article, along with his design contributions for the Guggenheim exhibition, is necessary because it signifies a transformative phase in his Correalist project. Post-1942 marks a pivotal period in Frederick Kiesler's career, where his approach to Correalism undergoes a significant evolution. This phase is characterized by a deepening and diversification of his artistic vision, influenced in part by his growing friendship with Marcel Duchamp. For the sake of simplicity, this transition in Kiesler's work can be described as a shift from constructivist principles to a more surrealist orientation.

7. Frederick Kiesler, "Design-Correlation as an Approach to Architectural Planning."
8. Phillips, *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*, 166.

On similar terms, Bogner brings out a sketch by Kiesler where he describes a person as if "strapped into an installation", making it seem more like an interrogation rather than an appreciation of artistic production.[9] This version, as suggested by Bogner, is less about Kiesler's didactic approach to perception prior to 1942 and more about creating optimal conditions for the experience and reception of art. Bogner emphasizes that neither these drawings nor what Kiesler actually experimented with using the devices he developed in the 1940s are exhaustive of Kiesler's preliminary studies on the vision machine, nor are they necessarily the products of them. However, these drawings and experiments represent the two essential factors to understand Kiesler's vision machine, according to Bogner.These two factors constitute a form of transition from one stage to another, which is what I describe in terms of the limits of my reading of correalism. For Bogner, Kiesler's attempt at the level of conception, where he tries to establish the relationship between the physiological conditions of vision and the evolution of plastic art, is described in relation to the "science fair project" with a didactic tone to explain the "new aesthetic model of correalism" with a device that is designed with biotechnical methods applied. This is then translated into a device to model space after the 1940s. This device to shape space is conceived as a pedagogical audiovisual construction aimed at disseminating correalist thinking in the first place. While one might assume that only after such a device and when people become accustomed to Kiesler's thinking, his tool for modeling space would work, it is evident that it is not solely about building devices or machines.

This "constructivist to surrealist" transition, though described in superficial terms, helps illuminate the changes in Kiesler's artistic methodology and conceptual framework. During the constructivist phase, Kiesler's work was largely grounded in principles of functionalism, technological innovation, and a vision of architecture and design that sought to merge art with life in a practical, utilitarian manner. However, his later interaction with Duchamp and immersion in the surrealist movement brought a new dimension to his work, emphasizing the exploration of the subconscious, the irrational, and the imaginative aspects of art and architecture. In this new phase, Kiesler's work began to embrace more abstract, symbolic, and

9. Bogner, "Frederick Kiesler et La Vision Machine," 140.

dream-like elements, reflecting the influence of surrealist thought. This transition signifies a departure from the more rigid and structured approach of constructivism to a freer, more fluid form of expression, where imagination and metaphor play a crucial role. Kiesler's friendship with Duchamp likely played a significant role in this transformation. Duchamp's work, characterized by its challenge to conventional artistic norms and its embrace of chance, ambiguity, and irony, would have provided a rich source of inspiration for Kiesler as he sought to expand the boundaries of his own artistic practice.

In summary, the period following 1942 would mark a significant phase of creative growth and transformation in Frederick Kiesler's career. This era can be characterized by his shift from constructivism to surrealism, a transition influenced by interactions with notable figures such as Duchamp. It signifies Kiesler's broadening exploration in art and architecture, where he moves beyond merely functional aspects to embrace elements of mystery and poetry. The epoch this thesis focusses on does not go beyond the article "Desogn-Correlation as an Approach to Architectural Planning" and his gallery designs, which represent a pivotal moment in Kiesler's professional journey. After which Kiesler starts to effectively communicate his ideas, adopting the language of a "modern" intellectual and engaging his audience with greater impact. Kiesler's correalist vision, embodying a new way of thinking, starts to emerge as a means to challenge prevailing architectural norms in the United States, aligning more closely with the artistic and social dynamics of the 20th century. As a theorist, artist, and architect, Kiesler claims a unique practice, allowing him to "profanate" architecture with a capital "A". This chapter can thus be interpreted as a re-narration of Kiesler's practices up to the year 1942.

4.2 Conscious choices

Kiesler's advocacy for an alternative approach to design thinking and learning, as vividly expressed in his dialogues with Dean Bennett, Laupold, and in various reports and his 1940 Ann Arbor talk, stemmed from a deeply rooted belief in the transformative potential of his laboratory. This conviction was anchored in his Correalist vision, which he believed could bring about significant changes in design

education. Kiesler's laboratory emerged as a direct product of his Correalist project, necessitating a redefinition of the architect's role within this vision. In one of his many articulations of Correalism, Kiesler is noted to describe it as "the perfect cooperation of man with the inanimate object for his own use", encapsulating his innovative approach to the relationship between humans and their built environment.[10] The note follows saying that Kiesler believes that there is a "parallel progressive development in both living organisms and inanimate organisms".[11] Here he differentiates between biology, defined as "the science of living things", and technology, is described as "the science of inanimate things". The note ends with Kiesler's emphasize that the new science of technology, with its aim to "correlate inanimate objects for the use of man", necessitates a deeper understanding of the functional use of each object in direct relation to human needs.[12]

In the archives, this particular typeset document is accompanied by an undated handwritten note discussing a study on "alphabet" focused on "housing".[13] Although the contents of this note echo those found in the typed document, between the undated draft titled "Laboratory for Social Architecture" and the hand written notes, there are notable differences that merit attention.[14] Those almost identical notes on "Laboratory for Social Architecture" can be considered as early precursors to LDC at Columbia University. They possibly represent the laboratory work Kiesler contemplated undertaking at the Workshop for Arts and Crafts (WAC), as suggested by Sturm.[15] These documents collectively highlight the evolution of Kiesler's thinking and the development of his concepts in the realm of social architecture and housing.

The objective of the program mentioned in these notes aligns with Kiesler's critique regarding the inadequate approaches to housing problems in the United States. It focuses on the relationship between humans and their surroundings from the standpoint of progressive contemporary architecture, a concept Kiesler refers to as

10. "Typeset Notes on Biology and Technology," ÖFLKS, TXT 6501/0.
11. "Typeset Notes on Biology and Technology."
12. "Typeset Notes on Biology and Technology."
13. "Laboratory for Social Architecture," Handwritten notes (nd.), ÖFLKS, TXT 6558/0/N1–N6.
14. "Laboratory for Social Architecture," typeset text. n.d, ÖFLKS, TXT 504/0/N1–7 I am using this manuscript's transcription for reference that is found in Helal, "Les Laboratoires de l'architecture: Enquête Épistémologique Sur Un Paradigme Historique," 329–332
15. Strum, *The Ideal of Total Environmental Control*, 143–144 See also Clark, "When Modernism Was Still Radical: The Design Laboratory and the Cultural Politics of Depression-Era America"

biotechnic. A comparison between the handwritten note and the typeset draft reveals similarities, particularly in their advocacy for the laboratory to publish an annual bulletin detailing its findings. Both versions suggest the development of a library containing "modern shelter plans" applicable to "one-family houses", "large-scale housing", and "city and community planning". Notably, the typeset draft emphasizes the need to differentiate between European and American plans, indicating a nuanced understanding of the distinct architectural requirements and cultural contexts of these regions.

Another recurring theme in Kiesler's proposal found in these notes is the concept of an exhibition, specifically "a permanent contemporary housing exhibition" that he envisaged establishing in the second year of the laboratory's operation. Kiesler proposes that this exhibition would eventually transform into a "museum of social architecture", which he considered essential for students interested in progressive shelter and a higher standard of living. The handwritten version of the draft also highlights the absence of such a museum in the existing landscape, emphasizing the uniqueness and necessity of Kiesler's visionary proposal.

A notable distinction between the handwritten notes and the typeset version lies in the treatment of biology. The typeset notes do not reference biology, physics, or other natural sciences. The concept of the "Laboratory for Social Architecture" relies on Kiesler's definition of "biotechnic" as "the time-space environment corresponding to human growth". However, unlike the handwritten notes, the typeset version does not explicitly connect this concept with the study of biology or other sciences to enhance understanding.[16]

Contrastingly, the handwritten note specifies that "the group [is] to take consultation courses on Biology, Physics, and Chemistry", with a particular emphasis on biology. This is noted as essential "to learn to understand…" without saying what.[17] Given the context of other notes, it seems reasonable to infer that this sentence could be completed as "to understand living things" or perhaps even "life" more broadly. This focus on natural sciences and their integral role in the laboratory is conspicuously absent in the more formal, official-looking records of Kiesler's design laboratory

16. Helal, "Les Laboratoires de l'architecture: Enquête Épistémologique Sur Un Paradigme Historique," 329.
17. "Laboratory for Social Architecture," N2.

proposal.

The aforementioned considerations appear to align with the themes presented in Kiesler's 1939 article, "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design".[18] This 17-page article, complete with an "Index of Terms" at the end, represents his first official public introduction of his correalist ideas to public under the term "Correalism" and his choice of what is representative of his laboratory work in this context is significant to go deeper in Kiesler's discourse.

The article, featured in *Architectural Record* – a magazine that, by the mid-1930s, had shifted its focus towards modernism, moving away from its previous emphasis on a "distinct American Style"[19] – represented a condensed version of Kiesler's manuscript from 1937-1939, which he had originally planned as a book. Additionally, the article included a section at the end showcasing the work conducted in his laboratory, thereby integrating his theoretical concepts with practical applications

As indicated in Kiesler's response to Dean Bennett's letter expressing interest in establishing a similar laboratory in Ann Arbor, this article is Kiesler's most significant discussion of his architectural approach since his 1925 City in Space project. However, there is an exception and it is his 1930 publication, the only book Kiesler published, which serves as a handbook on designing shopfronts. This book, titled *Contemporary Art Applied to the Store*, uniquely guides readers through shopfront design only after a comprehensive discussion on Contemporary Art which constitutes of an account for architectural modernity from Kiesler's perspective, and it should be considered as a pivotal step for Kiesler to come to his terms in this 1939 article as I will suggest later in this chapter.

In his 1939 article, Kiesler, consistent with his other publications, revisits the origins of his term "biotechnique". Alongside this, he features an image of his 1933 Space House, which, though not an extreme example of a full-tension-bearing-shell structure, still embodies the concept. Notably, he modifies the image by removing

18. Frederick Kiesler, "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," N2.

19. Phoebus Ilias Panigyrakis, "Architectural Record 1942-1967: Chapters from the History of an Architectural Magazine," *A+BE | Architecture and the Built Environment* 10, no. 11 (August 21, 2020): 63, accessed January 3, 2024, https://doi.org/10.7480/abe.2020.11.5191, https://journals.open.tudelft.nl/abe/article/view/5191.

the column and adds a footnote stating: "The term 'biotechnique' appeared first in my treatise on 'Town Planning' as 'Vitelbau' in Paris, 1925, and in America first in 'Hound and Horn,' May 1934".[20] This annotation highlights the term's developmental journey, as told by Kiesler, from its initial conception to its introduction in the American context.

Kiesler categorizes both his Space House and the Woodstock design as exemplars of biotechnical architecture. He also introduces "continuous construction" as a term synonymous with "endless", tracing its origins back to his Endless Theater design. Although Kiesler claims to have first showcased this design in Paris in 1925, it was likely first made public in New York in 1926. He reinforces this concept by including the aforementioned picture of the Space House, which he describes as "showing the first continuous construction in shelter design and also continuous window framing". This illustration serves to underscore his innovative approach to architectural design, blending structure and function in a seamless and continuous manner.

While this text is the first comprehensive text on his ideas, the initial, hands-on public introduction to correalism and biotechnique is best exemplified through Kiesler's laboratory at Columbia University. This facility functioned as a research center with a primary focus: to develop novel approaches to building design and empirically test the validity of biotechnique.[21] This aspect is not included in the unpublished book manuscript, as the manuscript does not specifically mention LDC. Instead, it broadly highlights the necessity of establishing such laboratories to set biotechnical standards. In this article, the laboratory's work is showcased through the "Mobile-Home-Library" project. This research, forming part of a broader "re-housing biotechnically" initiative, was chosen because it represented (a) a familiar aspect of everyday life and (b) a component widely regarded as satisfactory. Kiesler cautions the reader with a note: "It is impossible to account for all findings of a year and a half of study and laboratory work — an account which the Laboratory hopes to publish in the near future.".[22] Following this warning, he elaborates on the methodology employed in the investigation. The team conducted a

20. Frederick Kiesler, "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," 67.
21. Frederick Kiesler, 70.
22. Frederick Kiesler, 70.

review of the history of book-storing in Western civilization and concluded that there is no standardized terminology. This lack of clarity led them to focus on charting the "physiological relationships between man and bookcase", a direction taken due to the absence of prior attempts to understand the relationship between books and humans. Kiesler then suggests that this line of inquiry, guided by inductive reasoning, led to the identification of “four major classifications” of book-storing, which he enumerates as:

> (1) temporary storing (2) active reference storing (3) inactive reference storing (4) dead storing[23]

“This constituted a discovery, and one which had great bearing on the final evolution of a new biotechnical tool for book-storing” said Kiesler.[24] The laboratory’s standard type was one of the basic designs that were biotechnically resolved in response to six major aspects identified by the team:

> Space Technics: This term referred to the shelf capacity. Flexibility: This aspect focused on the locomotion and modularity of the design. Construction System: This involved assessing available fabrication tools to determine the most efficient production method. Dust Control: This aspect was related to air conditioning control for books. The team found that books enjoy an optimum lifespan under atmospheric conditions similar to those needed by humans. This insight led to a design featuring free air ventilation and dust control using transparent flaps. Content Grouping: This was about the ability to classify and group books according to their content. Fatigue Reduction: This aspect considered the physical limitations of humans.

As McGuire points out, LDC might have been one of the first organizations in the United States to incorporate ergonomic factors into the design of consumer products.[25] She argues that, in today’s world, fields like design anthropology, ergonomics, and behavioral studies have become integral to modern design practices. However, during the 1920s and 1930s, Kiesler’s focused attention on the mechanics of human psychological and bodily needs distinguished him from his contemporaries in the United States.[26]

23. Frederick Kiesler, 71.
24. Frederick Kiesler, 71.
25. McGuire, “Space Within-Frederick Kiesler and the Arrchitecure of an Idea,” 287.
26. McGuire, 8.

In the 1947 article which gave him the nick name "badboy", Kiesler and his unique approach to furniture design was at LDC highlighted as a means to develop a broader method applicable to all architectural construction. Kiesler was quoted saying, "We did not investigate a bookcase. We investigated the relationship of an inhabitant to his house by the way of a test bookcase".[27] This unconventional approach, which involved producing mysterious graphs and charts as part of his lab course, often garnered raucous laughter from uninitiated students. Kiesler's insistence on independence and privacy in his work, as evidenced by his practice of working behind locked doors, reportedly stirred a certain amount of resentment among his colleagues. The article also referenced a remark, previously mentioned in this thesis, about Kiesler's unconventional methods: if he wanted to join two pieces of wood, he acted as if he had never heard of nails and screws".[28] This approach, while unconventional, underscored Kiesler's commitment to rethinking and challenging traditional design and construction methods.

However, in many instances like his work with the LDC, Kiesler faced limitations due to a lack of financial resources and possibly social capital. This restricted his ability to garner interest from faculties beyond architecture departments in the case of his laboratory for instance.

Kiesler himself was not an expert in fields such as biology or physics. Hence his ideas on the science of life could not resonate as much as a scientist's would in the newspapers back in the 1930s. While Kiesler's interest in Correalism was influenced by the works of earlier artists and scientists, he was not inclined to explicitly cite them as references, nor was the public or readership, particularly in the United States, sufficiently familiar with the avant-garde art movement of Europe to appreciate these influences.

In this context I suggest to re-consider Kiesler's Vision Machine. Vision Machine, while embodying his Correalist vision more comprehensively than any shelf design he undertook, it remained largely conceptual due to its mystical and ambitious hypotheses, and the lack of a tangible physical model. Despite its theoretical depth, it was the Mobile Library, not the Vision Machine, that became publicly

27. "Design's Bad Boy," 140.
28. "Design's Bad Boy," 140.

representitive as an example of Kiesler's work at Columbia University. The Mobile Library was revolutionary for its time, being one of the early instances where ergonomics were applied in the design of an industrial product. It effectively demonstrated the application of biotechnical methods in a practical setting, providing the public with a tangible understanding of the work conducted in the laboratory.

Kiesler's innovative projects like the Vision Machine were not immediately publicized as direct outputs of his laboratory research. Instead, these conceptual works were subtly integrated into his future design endeavors. In contrast, his bookshelf design, which was practical, easily understandable, and feasible for prototype production, was publicly showcased. This approach was strategically chosen with the expectation that it would make Kiesler's avant-garde and/or European ideas more accessible and comprehensible to a broader audience. Although the Vision Machine was ultimately regarded as merely a pedagogical, demonstrative apparatus, its underlying ambition was significant. Kiesler aimed to showcase that seeing is not a result of the isolated functioning of light, the eye, or the brain, but rather a holistic process involving the complete coordination of human experience. However, this concept was not fully proven or substantiated beyond the illustrations and sketches that Kiesler created to support his theoretical ideas about vision. It is possible that Kiesler's grasp of physics, biology, and chemistry was insufficient to robustly support his theories on vision. Additionally, beyond his initial enthusiasm about the discovery of X-ray vision and the potential for image transmission using anode and cathode tubes in televisions[29], there was not a solid empirical foundation for his hypotheses. His theoretical ideas, while innovative, may have outpaced the scientific knowledge and technological capabilities of his time, limiting the practical application and validation of his vision-related theories.

But we should scrutinize the reasons behind why Kiesler learns how to successfully manage to encapsulate the enigmatic works and ideas originating from his laboratory, not merely as scientific endeavors but as research integral to his design

29. In 1928, a significant technological milestone was achieved when the General Electric corporation initiated the first regular network television broadcast from Schenectady, New York, marking a pivotal moment in the evolution of broadcast technology.McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 164

process. Kiesler's correalist themes are testaments to the long-term impact and applicability of his visionary ideas in the realm of architecture and design but that are not always readily accessible for everyone, at least not for the *ordinary people*.

Considering the differences between Kiesler's handwritten notes, which emphasize the importance of biology in architectural studies for contemporary housing, and their omission in the typed draft of the laboratory proposal, it is plausible to interpret this also as a strategic decision by Kiesler. This suggests that he viewed the study of biology as an underlying current in his theoretical framework, rather than as an explicit prerequisite. This approach reflects Kiesler's nuanced understanding of the interdisciplinary nature of architecture and his intent to subtly incorporate these complex ideas without making them overtly mandatory in his formal proposals.

This would be a new acquired skill after the relocation to America and the passage of time for Kiesler. It signifies both as an intellectual and as an artist, to appreciate the significance of understanding his American audience. This period also highlighted the importance of adapting his tools and methods to effectively communicate and engage with them.

This approach represents what is "modern" in Kiesler's perspective, reflecting his endeavor to engage with and address the contemporary and preceding movements in what he finds not "modern" in architecture. This perspective encourages a reevaluation of Kiesler, not merely as an "avant-garde" or "surrealist" architect and artist whose work oscillates between the realms of "magic" and "dreams". Importantly, these terms in Kiesler's context do not allude to mystical or fantastical elements. Instead, I propose viewing him as a modern intellectual, comparable in clarity and rationality to the engineers and scientists of the twentieth century. His work, when understood in this light, sheds its enigmatic veil, revealing a methodical and thoughtful approach to art and architecture. Kiesler, from this perspective, presents a compelling case as an intellectual and artist whose work is aimed at being understood and appreciated by the general public, "the ordinary".

4.3 Americanisms

In 1925 El Lissitzky would start his article “Americanism” with what he believes to be a depiction of America in the 1920s:

> In the Old World — in Europe — the words ‘America’ and ‘American’ conjure up ideas of something ultraperfect, rational, utilitarian, universal. All these notions are alien to the old artists of Europe. What has any European ever sought in America in respect of art or culture or anything else — apart from dollars? Only when both victors and vanquished found themselves, as a result of the war, at the American pawnbroker’s did Europe discover America a second time: and once the Americans themselves had swarmed over to Europe, they saw their own country with new eyes. Harold Loeb, the editor of Broom, wrote ’For a nation to create art, it must have its ideal, its god. America’s god is the dollar: so its architecture has produced skyscrapers, its sculpture produces machines, its pictorial art is the cinema.’ Matthew Josephson discovered the great anonymous poetry of America — the verses and advertisements written in lights in the night sky of Chicago and New York.[30]

El Lissitzky’s description of America, particularly North America and the United States, refers to a time when the first emigrants in architecture began to arrive in this new continent. He observed that in post-war Europe, "artists" migrated to America and encountered "engineers" who were focused on meeting the demands of the present time. This interaction led to, according to El Lissitzky, New York becoming a new Athens, with Manhattan akin to the Acropolis. In America, engineers pioneered the creation of fantastic steel skeletons for skyscrapers, while artist-architects, trained at the ancient Paris academy, skillfully adorned these living skeletons with ostentatious embellishments.[31] For El Lissitzky, Europe was initially ahead of America in terms of architectural progress because of the destruction caused by the war and the unprecedented growth of cities in Germany, there was a significant advancement in building development. This progress was particularly notable in neutral countries like Denmark, Holland, and Switzerland, which capitalized on the consequences of the war. While it was in America that the adaptation to new construction methods and materials occurred rapidly European

30. El Lissitzky, “"Americanism" in European Architecture,” in *El Lissitzky : Life, Letters, Texts*, by Sophie Lissitzky-Kupers (London: Thames & Hudson, 1968), 373.
31. Lissitzky, 373.

architects quickly learned and embraced these innovations, becoming, in a sense, "more American than America itself" when it came to utilizing new building materials and accommodating their requirements, particularly concrete and prefabricated construction methods that simplified on-site assembly. El Lissitzky was putting emphasis on America's engineer-oriented mindset played a crucial role in the successful application of these methods and reminding that in contrast, Europe took some time to fully embrace this ideology but eventually recognized the need to openly and transparently showcase the new material and its construction principles, thus becoming even more aligned with American practices.[32]

During a period marked by a shift in architects' focus from ornate wall decorations to the development of structures capable of efficiently supporting superstructures, European architects were influenced by American techniques. This influence steered them towards simplifying architectural designs. The need for large, clear, and unequivocal forms emerged despite prevailing chauvinistic, reactionary, and individualistic tendencies in their native countries.[33] El Lissitzky, recognizing the potential of American practices in transforming construction methods, hinted at the USSR's influence on the future of architecture. He posited that the revolutionary context in the USSR would facilitate a transformation challenging to achieve in Europe with its deep-rooted traditions and styles.

Suzanne Strum characterizes El Lissitzky as "the most vital star in this asterism with its many constellations", in her discussion of international constructivism.[34] Strum describes this movement as "a method of organization for the whole of life and a tool of universal progress".[35] The origins of the constructivist movement's utopian agenda can be traced back to Vladimir Tatlin's proposal for the monument of the Third International (1919-1920). The the manifestation of International Constructivism in Weimar in 1922 further solidified this direction with the "creation of a network of … ephemeral groups and their journals including De Stijl, G: Material zur elementaren…"[36] The formation of the International Faction of Constructivists by Theo van Doesburg, Hans Richter, and El Lissitzky was a pivotal

32. Lissitzky, ""Americanism" in European Architecture," 374.
33. Lissitzky, 374–75.
34. Strum, *The Ideal of Total Environmental Control*, 27.
35. Strum, 28.
36. Strum, 28.

moment. It was grounded on the initial principles of an "art of scientific communism". This concept positioned the proletariat as the "point of departure…the idea of art as the organization of social experience and life."[37]

Constructivism must be considered in tandem with the 1917 Russian Revolution under the Bolsheviks, as it shaped the principles of "remodelling of the arts following the Revolution".[38] Barnaby Haran characterizes Constructivism as a movement that "emerged with the new state institutions", particularly INKhUK (The Institute of Artistic Culture). INKhUK initially declared Constructivism as "the communist expression of material constructions", quoting Aleksei Gan, an early member alongside Vladimir Tatlin, Sergei Eisenstein, El Lissitzky, and others.[39] According to Haran, the machine, a motif common to both the Futurists and Dadaists, symbolizes technological modernity. Gan described the movement as "the slender child of an industrial culture", enabling artists to align with the proletariat by integrating art into everyday life and forging a new society through "the struggle with the past, for the conquest of the future".[40]

Naum Gabo and Antonie Pevsner, in their 1920 "Realistic Manifesto", declared the emergence of new forms of life and culture. They posited, "No new artistic system will withstand the pressure of a growing new culture until the very foundations of Art will be erected on the real laws of life".[41] However, Haran notes a risk of this movement "collapsing into a generic Modernism that catered for an elite".[42] Consequently, the First Working Group of Constructivists proclaimed an "UNCOMPROMISING WAR ON ART!".[43]

International Constructivism represented the migration of these ideas to the West, albeit with alterations. Strum suggests this migration was influenced by figures like Alexander Bogdanov (1837-1928), a "progenitor of systems theory" and advocate of a "dynamic science of complex wholes".[44] This perspective aimed to "clarify processes

37. Strum, 28.
38. Haran, *Watching the Red Dawn*, 11.
39. Haran, 12.
40. Haran, 12.
41. Naum Gabo and Antoine Pevsner, “Realistic Manifesto,” Art History Project, 1920, accessed January 6, 2024, https://www.arthistoryproject.com/artists/naum-gabo/realistic-manifesto/.
42. Haran, *Watching the Red Dawn*, 12.
43. Haran, 12.
44. Strum, *The Ideal of Total Environmental Control*, 28.

that regulate the organization of all systems of natural and social phenomena". The agenda of utilizing 'new industrial materials ... to address the pressing needs of the proletariat' became central in Moscow's VKhUTEMAS, striving to transform artists into technicians engaged in industrial work.[45]

The industrialization of building processes became a central concern, particularly in architectural circles. Kiesler's involvement in Europe with constructivists and De Stijl groups illustrates how these ideas shaped artistic and architectural visions in 1920s Europe. However, introducing the American context necessitates a different perspective on the migration of these ideas, especially in light of Kiesler's work. While his network, transitioning from Europe to the United States, arguably provided the Bauhaus America needed, echoing the sentiments of 1920s European Constructivists, Kiesler's engagement with art and architecture in the 1930s termed Correalism, that would position him as an alternative to modernism in America as he translates his ideas for this new continent.

Strum highlights one of such figures, Lonberg-Holm, an early European emigrant, in the context of Constructivism. He was part of a notable group that included El Lissitzky, van Doesburg, Moholy-Nagy, van Eesteren, Mies van der Rohe, Werner Graeff, and filmmakers Hans Richter and Viking Eggeling. They congregated at the Berlin studio of painter Gert Caden.[46] This "gang", as Strum describes, also intersected with Kiesler, notably after his breakthrough with the stage design for R.U.R in March 1923. Lonberg-Holm's "commitment to the merger of art, science, and technology" was reinforced during these interactions, just before his immigration to America in July 1923.

There was a sustained relationship between Kiesler and Lonberg-Holm in America, where both were involved with Structural Studies Associates (SSA), headed by Richard Buckminister Fuller in the 1930s.[47] Lonberg-Holm's departure from Europe to America, occurring three years before Kiesler's, marked a significant transition for Lonberg-Holm too. Strum quotes Lonberg-Holm, reflecting on this period of his life and his migration to America. This quote from Lonberg-Holm could provide

45. Strum, *The Ideal of Total Environmental Control*, 28.
46. Strum, 27.
47. Zillner, "Biographical Miscellanea and Nodes in the Network," 48n58.

valuable insights into his perspective during this transformative era, not only for himself but for American modernism too:

> Here the architects are dead. The architects I encountered in New York were lacking. One cannot actually find any modern strivings in the architecture. No architecture at all, only classicism without spirit or taste. Young architects here are educated to the principles of the Ecole de Beaux Arts and sent to Paris or Rome. ... Of course, New York is still extremely interesting for the feverish life of the masses in motion, an entirely new rhythm. Will America find its own form? In New York, I have not found the answer.[48]

Lonberg-Holm, outspokenly distasteful for New York, eventually moved to Chicago. There, he took up a role as an architectural designer at Detroit Edison Company. However, he would later express regret about this decision, as the organization did not meet his expectations for embracing functional design, contradicting his initial assumption of their receptivity and would eventually return to New York in the 1930s to work full time for the magazine *Architectural Record*, the magazine where Kiesler developed his correalist vision under the column "Design Correlation" in 1937.[49]

For Kiesler, however America's distinctiveness lay in this lack of established "architecture", as he perceived it. He articulated this view in an undated handwritten note, emphasizing that "America is not what is, but what is in the making. Tradition in the making. Not ready-made tradition. This is Europe, Asia, Africa."[50] This perspective reflects a more positive approach to America, one that Kiesler adopted shortly after his arrival in 1926.

The first half of the 20th century in the Americas can be characterized as being significantly shaped by *emigré* cultures and figures like Lonberg-Holm and Kiesler. The rise of totalitarian regimes in Hungary, Austria, Italy, Nazi Germany, and the Stalinist USSR, along with the World Wars, triggered a significant influx of Europeans to the United States. This migration led to a unique synthesis as the emigrants, carrying their connections to European modernism, integrated into American society.[51] Shapira and Clarke, in their exploration of *emigré* cultures in the

48. Knud Konberg-Holm, "America" ABC Beiträge zum Bauen, vol 1 (1924): 1, cited in Strum, *The Ideal of Total Environmental Control*, 29
49. Strum, 32.
50. "Handwritten Notes on American Art Today," ÖFLKS, TXT 6552/0/N?
51. Clarke and Shapira, *Émigré Cultures in Design and Architecture*, 1.

design domain, quote Czech-German philosopher Vilem Flusser: "The exile is the other of the other...Exile, in whatever form, is the breeding ground for creative action, for the new".[52]

While Kiesler was not an exile, his life was significantly impacted by the political and social upheavals of the time. Drafted into the army in 1914, he managed to avoid active combat by serving in the Military Cartography Division.[53] Regardless, Clarke and Shapira argue that these shifting political conditions and the experience of war influenced Kiesler's questioning of "canonized modernism and the promotion of responsible social design" in his work.[54] Born in Czernowitz in the Austro-Hungarian monarchy in 1890, Kiesler migrated to Vienna in 1909, reflecting the dynamic of migration and living outside one's homeland common in Central Europe.[55] In this framework we can understand Kiesler's capacity to adapt to changing conditions and to transform his ideas and practices in response to new environments and challenges.

In fact, Kiesler's decision to move to New York in 1925 was fueled by optimism following his successful design for the Austrian Pavilion's theater section at the Paris International Expo. Buhmann notes that on July 14, 1925, Kiesler met Jane Heap, the American publisher of The *Little Review*, through an introduction by Tristan Tzara. This meeting led to plans to assemble a version of the Parisian exhibition of theater and scenic designs in New York.[56] Gaining support from the Theatre Guild of New York, Kiesler began to design the New York show, culminating in his and Steffi Kiesler's departure aboard the SS Leviathan from Cherbourg on January 19, 1926.[57]

Kiesler's initial foray into the New York cultural scene involved a collaboration with Princess Norina Matchabelli, an Italian actress and wife of a Georgian prince-perfumer. Their friendship blossomed due to their shared interest in the developments of European theater, eventually leading to plans for an "International Theater Arts Institute".[58] Princess Matchabelli, known for her charisma and social influence, quickly secured financial support for their project from Ralph Jonas, the

52. Clarke and Shapira, *Émigré Cultures in Design and Architecture*, 1.
53. Buhmann, *Frederick Kiesler*, 48.
54. Clarke and Shapira, *Émigré Cultures in Design and Architecture*, 4.
55. Clarke and Shapira, 3.
56. Buhmann, *Frederick Kiesler*, 68.
57. Buhmann, 68–69.
58. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 104.

president of the Chamber of Commerce in Brooklyn.

This partnership with Jonas was pivotal. On December 5, 1926, the school relocated to Brooklyn Heights, marking a significant turn in Kiesler's career and life. This move is often cited as the decision that cemented Kiesler's commitment to America. Buhmann captures Kiesler's sentiment about this decision, quoting him: "I visited the building sites in Brooklyn's most beautiful neighborhood (with a wonderful view of the towers of New York) and I decided on America".[59]

While Kiesler's early initiatives in New York were filled with potential, it is important to note that his initial excitement about being in America was tempered by reality. Many of his initial plans, including the project with Princess Matchabelli and Ralph Jonas, did not materialize, as Jonas eventually withdrew his financial support.

Buhmann offers a poignant depiction of what America initially represented for Kiesler. This is particularly evident in the photograph taken upon Kiesler's arrival in New York City on January 27, 1926. After an eight-day Atlantic crossing, Kiesler arrived at New York Harbor and was photographed by the well-established firm Underwood & Underwood. This photograph, which has become iconic among Kiesler enthusiasts, shows him "looking straight ahead with determination," as if aware of the historic nature of the moment and ready to embrace the challenges of the new world with aplomb.[60] [**Figure 4.1**]

However, as Buhmann accurately depicts, this initial sense of determination was soon met with a series of frustrations and disappointments. Kiesler and his wife, Steffi, faced considerable challenges as they settled into this new landscape.

Found in a typeset note in the archives of ÖFLKS, Kiesler reflects on his first decade in America, describing it as "crushing". He expresses discontent with the cultural landscape of America at the time, noting, "the atmosphere was not ready for any contemporary work of art either painting, sculpture or architecture".[61] This sentiment starkly contrasts his earlier perception of America as "tradition in the making". He retrospectively views his initial optimism as a "fata morgana of the

59. Buhmann, *Frederick Kiesler*, 71.
60. Buhmann, 69.
61. "Typeset Note on America," ÖFLKS, TXT 871/0/N52.



Figure 4.1: Official press photograph of Kiesler arriving in New York Harbor on January 27, 1926. (In *Galaxies* by Stephanie Buhmann, Berlin: The Green Box, 70.)

U.S.A. as the technically most modern country of our globe, which was white-bearded with tradition".[62]

Kiesler attributes his disillusionment to a European infatuation with America, revealing that upon his arrival, "all elevated pedestals of hope collapsed" beneath him.[63] His disappointment was further compounded by the contrast between his successful, attention-grabbing years in Europe and the reception he received in the U.S. His dissatisfaction with the 1926 exhibition, its lack of attention, and his unmet expectations from *The Little Review* and Jean Heap, are well-documented in his correspondence with van Doesburg and Tzara, as recorded by Buhmann.[64]

Kiesler's struggles in America extended beyond cultural reception. Despite his attempts, he failed to engage the company interested in his City in Space project and could not secure the weekly stipend promised by the financiers of the International Theatre Exposition. Buhmann notes that although the show was advertised as the "largest event of the sort held anywhere at any time," Kiesler's "radical stance" did not resonate with the New York audience as it had in Vienna and Paris.[65] Buhmann details the struggles that Kiesler and his wife Stefi faced following the theater show in New York. Their situation was precarious, as they lacked the resources to return to Europe. Compounding their difficulties, "their lack of fluency in the English language paired with a general incomprehension of American customs and mannerisms led to a chain of early professional disappointments".[66] This period also included challenges with the International Theater Arts Institute, which Kiesler also referred to as the Fourth Dimensional Theater. This project was an extension of his innovative concepts developed in the Endless Theater project, which he first introduced with the Space Stage in 1924 in Vienna. In fact, Kiesler's venture into the International Theater Arts Institute represented his first significant effort in America to harmonize his European concepts of performance and audience experience. He aimed at "removing physical and psychological barriers".[67] This philosophy extended to his City of Space concept, which eschewed walls, viewed by Kiesler as

62. "Typeset Note on America."
63. "Typeset Note on America."
64. Buhmann, *Frederick Kiesler*, 69.
65. Buhmann, 71.
66. Buhmann, 71.
67. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 106.

"armories for body and soul", as he explained in a 1926 interview with The New York Times. Kiesler envisioned this project as a "laboratory of the modern stage", a concept that was already taking shape with three distinct faculty chairs identified.[68]

The intended faculty structure for International Theater Arts Institute was both multidisciplinary and innovative. Princess Matchabelli was chosen for one of the chairs, while Bess Mesendieck was slated to fill the psychological and scientific roles, respectively. Kiesler himself was set to direct both the artistic and the scientific aspects of this laboratory. This setup highlights Kiesler's comprehensive approach to integrating various disciplines to redefine the theater experience.[69] Despite Kiesler's intense focus on the International Theater Arts Institute throughout 1926, the project faced a turbulent start. It initially caused confusion among the press and ultimately lost its funding, leading to an unsuccessful outcome for Kiesler. As a result, both he and Steffi Kiesler made significant sacrifices to adapt to their new circumstances. As Buhmann notes, they shifted away from their artistic and creative endeavors to secure professional employment, enabling their survival in New York.

Steffi Kiesler successfully obtained a position at the New York Public Library, starting as an assistant and eventually becoming the head librarian of the French and German literature departments until her retirement in 1959.[70] Kiesler, on the other hand, initially worked as an associate with American architect Harvey Wiley Corbett. Later, he received commissions to design store windows in New York City and Buffalo, New York, in the late 1920s.

Despite these challenges, the dynamic urban landscape of New York City continued to inspire Kiesler's imagination and drive his ambitions. Buhmann suggests that the city's construction boom, particularly the proliferation of skyscrapers, may have influenced Kiesler's evolving focus. This is evidenced in a letter dated June 18, 1926, in which Kiesler expresses his decision "to focus exclusively on architecture".[71]

Kiesler's early engagements with art and architecture were predominantly shaped

68. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 111.
69. Haran, *Watching the Red Dawn*, 69.
70. Buhmann, *Frederick Kiesler*, 72.
71. Buhmann, 72.

by the ideas he developed, significantly contributing to a Constructivist agenda that inspired the avant-garde of the 1920s. His critique of "modern architecture" was primarily articulated through his work in theater and performance art. This critique is best understood in the context of his contemporaries, particularly referencing the works of Mies van der Rohe and Le Corbusier.

Kiesler's approach differed markedly from these figures. While van der Rohe and Le Corbusier were known for their emphasis on form and functionality in architecture, Kiesler's work in theater and performance art allowed him to explore and challenge the conventional boundaries of space and audience interaction. His ideas were not only architectural but also philosophical, offering a unique perspective on how spaces could be used to influence and enhance human experience. This distinction set Kiesler apart in the realm of modern architecture, positioning him as a critical voice in the dialogue about the direction and meaning of architectural development during that era.

In the late 1930s, as he was presenting his Correalism as a necessity because Le Corbusier's 1927 seminal work *Toward an Architecture* was not adequate to respond to the needs of modernity. Kiesler's critique stemmed from his belief that Le Corbusier's approach did not sufficiently root architecture in what he termed a "science of life", or more simply, in life itself. This perspective echoes Kiesler's earlier calls for a disarmament of the arts, as expressed in his 1924 publication in Vienna. His stance resonated with the Constructivist call of 1920, advocating for abandoning traditional art forms to bridge the gap between art and life —a concept Kiesler critically examined throughout the 1920s.

Frederick Kiesler's work was centered on establishing a new form of interaction, or rather, a novel relationship between the audience and the performer in theater and performance art. He recognized the transformative power of advanced technologies, such as the camera, in altering European culture and perceived theater as a medium capable of introducing new ways of living through these technological innovations. However, coninciding with him settling in America, his critique of the separation between art and life reveals itself as not anchored in a collective revolutionary goal aimed at reshaping a nation or its people. Instead, it was focused on the individual

level, aiming to revolutionize the built environment through personal experience and interaction.

Kiesler's approach, while informed by notions of progress and a future-oriented perspective, diverged significantly from that of some of his contemporaries. Unlike others who sought to establish standards for total control over the environment, often overlooking elements beyond their control, Kiesler's perspective was more nuanced. He acknowledged the limitations inherent in attempting to fully control the environment and focused instead on how individual experiences and interactions could reshape and redefine the relationship between people and their surroundings.

This individualistic approach set Kiesler apart in the architectural and artistic landscape of his time. His vision went beyond the mere integration of art and life; it sought to catalyze a deeper, more personal transformation in how individuals engage with and perceive their environment. By leveraging technology not as a tool for overarching control but as a means to enhance individual experience, Kiesler's work opened new possibilities for interaction and engagement within the built environment, offering a unique perspective on the role of art and architecture in shaping modern life.

Kiesler's call for change resonated more closely with the likes of Gabo and Pevsner who did not advocate for a total abandonment of the arts. Instead, Kiesler sought a nuanced approach that recognized the value of art and architecture while calling for their evolution to better reflect and integrate with the dynamism of life by giving up their isms as he referred them to be pedestals.

The Constructivist movement, particularly after the First Exhibition of Russian Art in Berlin in 1922, encountered an international audience that significantly influenced the formation of an international Constructivist agenda. This exhibition marked a pivotal point in the movement's evolution. As Haran cites from Christina Lodder's analysis, "the exhibition witnessed the dilution of Constructivism".[72]

This dilution, as Lodder suggests, may imply that the exposure to a broader, international audience led to a transformation or a softening of the original

72. Haran, *Watching the Red Dawn*, 13.

principles of Constructivism. The international exposure potentially introduced new influences and perspectives, which could have blended with or altered the movement's original ethos. The transformation indicates a shift from the movement's roots in post-revolutionary Russia to a more globally nuanced form, reflecting the diverse interpretations and applications of Constructivist principles by artists and architects worldwide

Despite curator David Shterenberg's emphasis on the revolutionary impact of Constructivism in challenging "dead, official … 'high art'" and opening '"new avenues for Russia's creative forces," a notable divergence within the movement is highlighted by Christina Lodder. Lodder points out the "non-utilitarian position" of the artist Naum Gabo, who, according to her analysis, seemed to overlook the radical differences between his interpretation of Constructivism and that of the First Working Group of Constructivists.[73]

Shterenberg's view portrayed the revolution as a catalyst for artistic innovation, demanding "new forms of creation and construction" that aimed to bridge the gap between artists and the broader populace. On the other hand, Gabo's approach to Constructivism appeared to deviate from this utilitarian and socially-oriented vision. His work, focusing less on practical applications and more on artistic exploration, represented a different strand within the movement, one that did not align closely with the objectives of the First Working Group of Constructivists. This difference underscores the diversity of thought and practice within Constructivism, highlighting the movement's complexity and the varied interpretations of its principles by different artists, including Kiesler.

4.4 Foe of a Friend becomes a Friend: Mondrian

In 1920, Gabo and Pevsner perceived the rebirth of space and time in the context of significant advancements in physics and the natural sciences, as well as the enhanced ability to document the world around them. They articulated this view in their Realistic Manifesto (1920), linking these scientific discoveries to a new

73. Haran, 13.

understanding of the world. However, Gabo's apparent indifference to the First Working Group of Constructivists was more than it seemed. According to Haran, this indifference served as a "camouflage" to mask the substantial differences that existed in Russia between the constructivist artist and the Constructivist.[74] This distinction allowed for the interpretation of Constructivism more as an aesthetic or stylistic development, particularly in America, rather than as a complete "departure of art".[75]

For figures such as El Lissitzky and van Doesburg, and those associated with De Stijl, the perspective was quite different. They insisted on a more radical approach, advocating for the disarmament of art. This stance was so pronounced that in 1925, van Doesburg even declared the death of art, as mentioned in Chapter 2. This context becomes particularly relevant when recalling the dispute with Mondrian in the same year. For Mondrian, there was a genuine questioning of the limits of the political gesture that Constructivism, as disseminated outside the Soviet Union, embodied.

Yve-Alain Bois illuminates the foundational philosophy of De Stijl, noting that it was "founded on the analytical separation of the different genres of plastic art (painting, sculpture, architecture)".[76] This separation, involving space, color, and form, served as a starting point for a deeper analysis. The objective was not merely to transpose pictorial experiences into architecture, but to strive for a complete, unified artistic experience.[77]

This approach, which Bois terms "Neo-Plastic research", encompassed architecture, painting, and sculpture. For Mondrian, like the other members of De Stijl, it was fundamentally oriented towards a future architecture. This direction was characterized by a set of principles transcending any specific artistic practice. While a painting might manifest these principles in the visual arts and a hypothetical building in architecture, these tangible expressions were considered inherently imperfect and continuously perfectible.[78] The underlying principles, however, remained "intangible" and universal, existing beyond the limitations of their physical

74. Haran, *Watching the Red Dawn*, 13.
75. Haran, 13.
76. Bois, "Mondrian and the Theory of Architecture," 105.
77. Bois, 105.
78. Bois, 105.

realizations.

In the same year that Constructivism was introduced to Europe, 1922, Mondrian published an article titled "The Realization of Neo-plasticism in the Distant Future and Architecture Today: Architecture, Conceived as Our Total [Non-Natural] Environment" in *De Stijl*. In this work, Mondrian argued that the realization of neo-plasticism in architecture was not feasible under the then-existing economic and technical conditions.[79] Intriguingly, he began his article by asserting that "Architecture" is progressively becoming "construction".[80] This statement reflected a broader trend where various art forms, including sculpture, theater, and literature, were striving to break away from tradition and undergoing a process of dissolution in their "way to renewal", much like neo-plasticism in painting.[81]

Mondrian identified this evolution as part of the broader destruction of Art in the traditional sense. This transformation was occurring in a world increasingly dominated by rapid transportation, sports, mechanical production, and reproduction —a world where "life commands our attention". However, he also observed that despite these advancements, life remained "predominantly materialistic".[82] This commentary highlighted Mondrian's critical view of contemporary societal trends and their impact on art and architecture.

In this context, Mondrian acknowledges a growing opposition to traditional conceptions of art. He notes that "beauty and harmony are sought in art because they are lacking in our life and our environment", indicating a disconnection between art and everyday life. Yet, despite this disengagement, Mondrian suggests a positive outlook. He observes that "both art and reality around us show . . . the coming of a new life".[83] This new era, according to Mondrian, will be marked by an equilibrium between nature and the non-natural, or as he phrases it, "between what is in us and what is around us".[84]

79. Bois, 104.
80. Piet Mondrian, "The Realization of Neoplasticism in the Distant Future and Architecture Today: Architecture, Conceived as Our Total [Non-Natural] Environment," Modernist Architecture, 1922, 164, accessed January 6, 2024, https://modernistarchitecture.wordpress.com/2010/10/18/piet-mondrian%E2%80%99s-%E2%80%9Cthe-realization-of-neoplasticism-in-the-distant-future-and-in-architecture-today-architecture-conceived-as-our-total-non-natural-environment%E2%80%9D-1922/.
81. Mondrian, 164.
82. Mondrian, 164.
83. Mondrian, 165.
84. Mondrian, 16.

Mondrian envisions this balance as the ultimate liberation, a state where art will fully realize its purpose and harmony will be achieved not only internally but also "in our outward surroundings and in our outward life". In this harmonized world, the distinction between the artist and the human being will dissolve, leading to a condition where "the artist will be fully absorbed by the human being".[85] This conceptualization reflects Mondrian's belief in the transformative power of art to reconcile the internal and external worlds, ultimately leading to a more harmonious existence.

Mondrian's narrative aligns with the Constructivist agenda in certain aspects, especially in proposing action against what he calls "life's tragedy", attributed to the domination of the physical or natural elements in and around us:[86] "Architecture, sculpture, painting, and decorative art will ... merge into architecture-as-our-environment", creating a dynamic, non-static life.[87]

While Mondrian observed that "the material world around us is gradually becoming transformed to this end", he also argued that for "actual harmony, it is not enough for our humanity alone to become mature".[88] Drawing from neo-plasticism's achievements in painting, he advocated for a focus on the material aspect, believing that "the pressure of the material destroys the sentimentality of the ego". This process, according to Mondrian, aids in purifying the ego through which art is expressed, paving the way for an "equivalent relationship, equilibrium – thus pure harmony".[89]

In 1920, Mondrian acknowledged the engineer's advancement over the artist, attributing it to their commitment to utility. This view paralleled Le Corbusier's concept of the "good savage", who finds beauty in simplicity and functionality, as expressed in "L'Esprit Nouveau" as noted by Bois. However, by 1922, Mondrian distanced himself from a purely functionalist vision. He criticized contemporary building and decoration as being compromises between function and aesthetic or plastic ideas. For Mondrian, the interplay of use and beauty in architecture led to the retention of styles and hindered rapid evolution compared to the freer arts. He

85. Mondrian, "The Realization of Neoplasticism in the Distant Future and Architecture Today: Architecture, Conceived as Our Total [Non-Natural] Environment," 165.
86. Mondrian, 165.
87. Mondrian, 166.
88. Mondrian, 166.
89. Mondrian, 166.

proposed a more objective approach to architecture, one that equally prioritizes use and aesthetic value.[90] neo-plasticism in architecture, which inherently demands freedom, was not yet achievable in his time. He observed that "the practice of architecture … is generally not free".[91] He pointed out several obstacles, including the opposition of individual buildings to nature, traditional architectural forms, and heterogeneous structures. These factors, according to Mondrian, hindered the creation of an abstract environment unless it is conceived as a world unto itself, allowing a building to fully express a Neoplastic idea.

And even considering architecture as a singular work of art, Mondrian was skeptical about the actualization of neoplastic architecture. He believed that realizing such a vision would require a "will and the power to realize the Neoplastic idea," akin to the demands neo-plasticism placed on painters, one he practiced. This vision necessitated overcoming conventional methods and traditions, which Mondrian identified as a significant challenge. He lamented the lack of a dedicated school and technical laboratory to foster this architectural approach.[92]

Mondrian considered the architect's aspiration to transform buildings into works of art as an unattainable goal, given the functionalist tendencies in modern architecture. He suggested that architects face a dilemma: either take a prolonged pause and engage in experimental approaches as a prelude to dissolving architecture-as-art into environment-as-life, or make "corrections today" by applying the principles of neo-plasticism within the realm of what is currently achievable.[93] Mondrian's skepticism about the practice of architecture stemmed from his belief that the functionalist approach precluded buildings from being art in their own right. This, he argued, led to a lack of plastic understanding and reiterated the architect's limitations in balancing functionality with perfect plastic expression, as he would express in years to come.[94]

In contrast to Mondrian's detachment from the pursuit of harmony in the built

90. Mondrian, 169.
91. Mondrian, 168.
92. Nevertheless, Mondrian acknowledged in 1925 his unawareness of the agenda being pursued by the Bauhaus at Weimar, which, at the time of his writing, was potentially addressing these very concerns.Mondrian, 168
93. Bois, "Mondrian and the Theory of Architecture," 114.
94. Bois, 116.

environment through architecture, van Doesburg took a more proactive stance. As a leading figure in the International Constructivist movement, van Doesburg posited that art was not the solution but rather something that needed to be transcended or even destroyed for progress. The dichotomy between Mondrian and van Doesburg can be seen as parallel to the divergence between Gabo and the International Constructivists.

It is within this context of dichotomies that Kiesler's work becomes particularly significant. I argue that Kiesler's projects serve as a bridge between these two sets of opposing viewpoints. While his work might seem to align more closely with the latter group, I believe it is fundamentally guided by the former line of thinking. Kiesler's approach synthesizes these diverse perspectives, offering a unique and comprehensive interpretation of the relationship between architecture, art, and their roles in shaping the built environment and human experience.

In 1949, a decade after introducing his ideas on Correalism and Biotechnique in the *Architectural Record*, Kiesler published "Pseudo-Functionalism in Modern Architecture" in *The Partisan Review*. In this work, he further expounded on his Correalist understanding of life, introducing what he termed a "nuclear conception" of creation.[95] This conception, according to Kiesler, is characterized by its pursuit of "coordination" and is inherently dynamic, as it "breathes contact" with all its senses.[96] The "creation" Kiesler refers to here is, in fact, a human-centered approach to design and architecture. Aligning with his Correalist vision, Kiesler postulates that this human-centered approach is not merely about the functional or utilitarian aspects. Instead, it embodies a more holistic understanding of human needs and experiences. Kiesler's emphasis on nuclear conception suggests a focus on the core, essential elements of design that resonate deeply with human interaction and experience. This perspective challenges the then-prevalent notions of functionalism in architecture, which Kiesler perceived as overly simplistic and disconnected from the complexities of human life. Kiesler's critique in "Pseudo-Functionalism in Modern Architecture" highlights his belief in an architecture that is intimately connected with human existence and experience, going beyond the mere

95. Frederick Kiesler, "Pseudo-Functionalism in Modern Architecture," *The Partisan Review* XVI, no. 2 (July 1949): 733.
96. Frederick Kiesler, 733.

functionality of buildings. His ideas propose a more integrated approach, where architecture and design are deeply interwoven with the fabric of human life, reflecting his Correalist principles:

> It cannot live without others. Its life is community. Its reality is co-reality. Its realism of realization is a correalism. Its reality is a realism of coordinated forces which condition, limit, push, pull, support one another: which leap together and leap apart like groups of acrobats in a circus, who transform themselves from one unit of two or more bodies into another unit, without losing their balance. In life this balance can be lost only once. And then there is no net to catch one, as in the arena. There is only death. Correalism expires.[97]

Although Kiesler did not directly address Mondrian's concerns from 1922, his later introduction of the "nuclear conception" and its application to architecture through Correalism and Biotechnique aligns well with what Mondrian might have envisioned as "neo-plastic architecture". Kiesler's approach offers a potential response to Mondrian's apprehensions regarding functionalism's dominance over the artistic essence of architecture.

Kiesler emphasized the importance of addressing "psychic conditions" alongside "physical conditions", proposing a concept of "technical perfection" that is paradoxically never fully realized, being both a dream and a nightmare.[98] This idea echoes Mondrian's belief in the necessity of freedom for the realization of neo-plastic art. Kiesler asserted, "only the free artist can be 'perfect'", contrasting this with the technician, whom he described as a "slave of 'progress'".[99] He argued that since technology is entirely relative, any perfection achieved in a technological sense would be conditional, unlike the potential for unconditional perfection in art.

For Kiesler, this realization meant that technology, in its essence, is correlative. It must be understood and applied in relation to human needs and experiences. This perspective places technology not as an end in itself but as a means to achieve a more holistic and human-centered approach to architecture and design. Kiesler's framework thus provides a nuanced understanding of the role of technology in architecture, one that harmonizes with Mondrian's earlier concepts, particularly in

97. Frederick Kiesler, 733–734.
98. Frederick Kiesler, 735.
99. Frederick Kiesler, 735.

emphasizing the need for artistic freedom and the pursuit of an art form that transcends traditional functionalist limitations.

In his critique of functionalism and its pursuit of standardization, Kiesler argues that this approach essentially absolves architects of responsibility for their architectural concepts. Here he uses the example of abstract painting to critique the works of Le Corbusier and Mies van der Rohe. Kiesler accuses them of conflating geometric forms with abstraction, mistaking simplicity (or planimetry) for functionalism, and mislabeling it as "organic architecture" and he contends that what they described as the "functionalism of living" was actually a fortunate coincidence, where "abstract" simplicity happened to align with principles of hygiene promoted by industry and labor at that time.[100]

Kiesler opposes this "pseudo-functionalism" which, in his view, erroneously accepts standards as final and unchangeable. He suggests that what Mondrian deemed impossible —the realization of a dynamic, living architecture— could indeed be possible through a cycle of forces. This cycle, according to Kiesler, is never in equilibrium but is always in flux, continuously oscillating between the material reality and the realm of imagination or psyche. As new objectives are crystallized, they lead to the creation of new objects, which in turn provide a fresh supply of materiality for further imagination.[101]

Kiesler terms this the "preponderance of life forces", a concept he also mentioned in his 1933 article on the Space House, and mentioned in this thesis. This notion of a "Real" function of those forces emerges not as a static fact or standard but as a process of continuous transmutation. It is an ongoing journey of creation and recreation, aligning with his Correalist vision, where architecture is not merely a physical structure but an ever-evolving entity that responds dynamically to human needs and aspirations as he reiterates:

> Form does not follow function.
> Function follows vision.
> Vision follows reality.[102]

100. Frederick Kiesler, “Pseudo-Functionalism in Modern Architecture,” 737.
101. Frederick Kiesler, 737.
102. Frederick Kiesler, 738.

Kiesler's research into vision, which he perceives as a unification of external and internal realities, as well as of the psyche and the physical, frames his unique definition of functionalism in architecture. For Kiesler, functionalism transcends mere utility and becomes a liberative force in architectural design. This contrasts sharply with the constraints that traditional functionalism imposed according to Mondrian's critique. Kiesler's approach also stands in direct opposition to the architectural theories and practices of Oud, as critiqued by Mondrian, and to those of Le Corbusier and Mies van der Rohe, against whom Kiesler positions his ideas.

Central to Kiesler's argument is the concept of a "world of latent functions".[103] He posits that to evaluate the validity of existing functions in architecture, it is necessary to define and recognize these latent functions. This process involves eliminating obsolete functions as new ones emerge, continually evolving the architectural landscape. Kiesler's vision, therefore, is not static but dynamic, always in flux and responsive to changing human needs and perceptions. His perspective suggests that architecture should not only reflect but also anticipate and adapt to the ever-changing nature of human life and society.

Kiesler, in a manner that echoes Mondrian's views, absolves architects from sole responsibility for the limitations of their field. He attributes the shortcomings in architecture to the lack of institutions that would equip architects with mastery over the sciences essential for comprehending humans as biological, psychological, and socio-political beings.[104] Kiesler contends that, as of 1949, architecture could not be definitively classified as a science, craft, or art. He argues that, when "measured by progress in the social sciences and in technical invention", architects fall short, resembling what he whimsically terms "architectosauruses" — merely draftsmen in the grand scheme of architectural evolution. This view resonates with Mondrian's earlier suggestion that the architectural field might benefit from a pause, an experimental phase, to transition into a practice aligned with neoplastic ideals. Kiesler's and Mondrian's critiques converge on the need for a fundamental reevaluation of architecture —a transformation that extends beyond mere structural design and encompasses a deeper understanding of human needs and societal

103. Frederick Kiesler, 738.
104. Frederick Kiesler, 738.

dynamics. This reevaluation calls for a holistic approach, integrating various fields of knowledge and pushing the boundaries of conventional architectural practice.

Having said all these, Kiesler's perspective on architecture diverges notably from the neo-plastic principles and is distinct from Mondrian's toolkit of the 1920s. Instead of adhering to the neo-plasticity of architecture, Kiesler developed an alternative approach. His critique targets those modern architects who, he argues, engage in pseudo-functionalism, a term he uses to describe their superficial understanding of functionalism. Kiesler perceives these architects as shirking the full moral responsibility that comes with building design.

Unlike Mondrian, Kiesler identifies the root of this flawed understanding of functionalism in the realm of abstract art. He argues that the pursuit of aestheticism in modern architecture has led to a misguided interpretation of functionalism. According to Kiesler, this misinterpretation results in what he deems "pseudo-functionalism" —a superficial application of functionalist principles that neglects the deeper, more holistic considerations essential to architectural design. Kiesler's critique underscores the need for a more profound and responsible approach to architecture, one that transcends mere aesthetic pursuits and engages with the broader moral and social implications of building design.

A critical question arises when considering Kiesler's architectural philosophy: What led him to address almost every point raised in Mondrian's 1922 critique, while his De Stijl colleague Van Doesburg deemed them irrelevant? I argue that the key lies in Kiesler's process of Americanization, which served as a crucible for transforming Constructivist ideas within a context where their political implications were often overlooked in favor of a pragmatic appropriation towards a concept of progress.

Kiesler's Americanization entailed a thorough re-examination of these Constructivist ideas. It was as if he was directly responding to each of Mondrian's concerns from 1922. His ability to do so was facilitated by the way he introduced Constructivist principles into American society. Kiesler adeptly responded to the culture of consumption prevalent in the U.S., reevaluating the division between psyche and physiology. A quintessential and yet strikingly simple example of this approach can be seen in his design of store windows.

These store windows became a microcosm of Kiesler's architectural philosophy. In them, he demonstrated how architecture could go beyond mere physical form and function to engage with the consumer's psyche, blending elements of art and life. This approach stood in stark contrast to the prevalent limitations of modern architecture, which Kiesler and Mondrian critiqued for failing to fully grasp the deeper implications of their designs. Thus, Kiesler's Americanization was not just a geographical or cultural shift but a profound reinterpretation and application of Constructivist ideas, tailored to address the unique dynamics of American society in a future present tense, as Agamben posits in *Theory of Signatures*.

4.5 Shuffling the paradigm

Michel Foucault's examination of the panopticon in his work is a well-known reference point in discussions surrounding notions like the great confinement, the confession, the investigation, the examination, or the care of the self. Foucault delves into archival material from Archives militaires de Vincennes, specifically addressing an order from the late seventeenth century. This historical analysis famously illustrates the role of control during the plague, where magistrates facilitated confinement and surveillance to enforce quarantine measureshe sciences essential for comprehending humans as biological, psychological, and socio-political beings.[105]

This approach contrasts starkly with medieval responses to leprosy, where the confinement of the sick symbolized a desire for a purified and homogeneous community, based on exclusion. The eighteenth-century response to the plague, however, aimed at creating an efficient society composed of various individuals, each fashioned, observed, analyzed, and studied in detail. Foucault identifies this as an era marking the "invention of positive technologies of power".[106]

During this Classical Age, as Foucault names the eighteenth-century European context, there was not only a surge in scientific and industrial techniques, but also

105. Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage Books, 1995), 195–199.
106. Foucault, 41–48.

the development of new forms of government, administrative apparatuses, and political institutions.[107] Bentham's "Panopticon", detailed in "Panopticon; or The Inspection-House" published in 1791, epitomizes the architectural figure of this power technology. It was a model designed for the surveillance of a multitude, ensuring control without the mingling risks inherent in a confined system, allowing for 'real subjection' to emerge "mechanically from a fictitious relation".[108]

Foucault explicates this as the genesis of a new "political anatomy" focused on the relations of discipline rather than sovereignty.[109] Bentham's Panopticon was not just an architectural dream; it was "the diagram of a mechanism of power reduced to its ideal form": its function as an architectural and optical system was a manifestation of political technology, applicable to various uses beyond its original intent.[110]

Through this exploration of the Panopticon, Foucault reveals the intricate interplay between architectural design and power, offering critical insights into the dynamics of control, surveillance, and discipline within societal structures.

Giorgio Agamben, in his endeavor to align his work with Michel Foucault's, refers to Jeremy Bentham's Panopticon as a diagram, seeing it as a "complex act which … presents a canon" that is unique and irreplaceable in its illustrative power.[111] For Agamben, the Panopticon is not merely an architectural model but an example embodying an analogical logic, whereby Foucault elevates an architect's utopian vision from Dublin to a symbol of political and social control in eighteenth-century southern France.

Agamben interprets Foucault's use of the panopticon as a paradigm in its singularity, isolated from its context only to the extent that it elucidates a new, intelligible ensemble, which it itself helps to define.[112] This interpretation posits that Foucault's paradigmatic use of the panopticon is not just an exemplar or model that dictates a "normal science" but an "exemplum", which allows for the formation of new

107. Michel Foucault, *Abnormal: Lectures at the Collége de France 1974-1975*, trans. Graham Burchell (London: Verso Books, 2003), 48.
108. Foucault, *Discipline and Punish: The Birth of the Prison*, 202.
109. Foucault, 208.
110. Foucault, 205.
111. Giorgio Agamben, *The Signature of All Things: On Method*, trans. Luca D'Isanto and Kevin Attell (New York: Zone Books, 2009), 16–18.
112. Agamben, 18.

discursive practices and contexts.[113]

Agamben draws parallels between Foucault's usage of "paradigm" and Thomas Kuhn's concept introduced in *The Structure of Scientific Revolutions* (1962). Responding to Margaret Masterman's essay and Ian Hacking's note on the multiple senses in which Kuhn used "paradigm", Kuhn himself acknowledged the significance of two main interpretations: paradigms as constellations of group commitments, which he later termed "disciplinary matrix", and paradigms as shared examples, for which he suggested the term "exemplars".[114]

Agamben summarizes Kuhn's "disciplinary matrix" as a set of techniques, models, and values adhered to by a scientific community.[115] He also notes that Kuhn's "paradigm as shared example" is central to understanding the novel aspects of his book, despite the evolving use of the term "paradigm" itself.[116]

For Agamben, the key to Foucault's application of the term "paradigm" lies in its shift from an epistemological tool to a political one.[117] This movement signifies a profound recontextualization of the concept, where the paradigm transcends its traditional role in scientific discourse to become a critical instrument in political analysis and critique.

Thomas Kuhn and Michel Foucault, though focusing on different domains, share a proximity in their methods of utilizing the concept of paradigm. Kuhn, particularly in the realm of natural sciences like physics, aimed to portray an image of science through paradigms. Foucault, on the other hand, in his archaeologies of knowledge, locates the paradigm within the human sciences. Despite this methodological proximity, Agamben notes that Foucault challenges this notion by positioning a "discursive regime" against the paradigm.[118]

Foucault's focus is not on epistemological models defined through paradigms as disciplinary matrices, theories, or worldviews imposing common norms on what is knowable. Instead, as Agamben cites from Foucault's *The Archaeology of*

113. Agamben, 18.
114. Thomas Kuhn, *The Structure of Scientific Revolutions*, 50th Anniversary (Chicago: University of Chicago Press, 2012), 181–190.
115. Agamben, *The Signature of All Things: On Method*, 18.
116. Kuhn, *The Structure of Scientific Revolutions*, 187.
117. Agamben, *The Signature of All Things: On Method*, 14.
118. Agamben, 14.

Knowledge, Foucault interrogates the very existence of scientific discourse, not its legitimacy as a science.[119] Foucault describes the "episteme" as a broader concept than the paradigm, encompassing the "total set of relations" that connect discursive practices leading to epistemological figures, extending beyond science to all forms of "formalized systems".[120]

Ian Hacking, in his "Introductory Essay" to the 50th-anniversary edition of Kuhn's *The Structure of Scientific Revolutions*, reflects on the use of the Greek word *paradeigma* in Aristotle's *Rhetoric* to understand Aristotle's theory of argument.[121] He suggests that "exemplar" is a more fitting translation than "example", as it signifies "the very best and most instructive example". Hacking also notes the shift in the usage of "paradigm" among philosophical émigrés to the United States in the 1930s, influenced by traditional grammar and altered by another Austrian emigrant, Wittgenstein's lectures at Cambridget.[122]

For Kuhn, the term "paradigm" was not crucial initially; it was a convenient choice that he later abandoned after conceding that he had "lost control of the word", even though the notion of the paradigm remains central in his thinking.[123] But the evolution of the term "paradigm" illustrates the fluidity and complexity in its application across different intellectual fields, shaping our understanding of scientific theories, power structures, and discursive practices.

Giorgio Agamben's exploration of the Foucauldian paradigm is significantly enriched by the distinction between the Latin terms "exemplar" and "exemplum", as noted by the grammarian Sextus Pompeius Festus from the 2nd century AD. Agamben points out that Romans differentiated between these two terms, a nuance that helps illuminate the subtlety of the Foucauldian use of the paradigm.[124]

Agamben suggests that the distinction lies in the connotation of "exemplar" as being sensible and straightforward, whereas "exemplum" requires a more complex evaluation as it is not immediately sensible like an "exemplar". This understanding

119. Agamben, *The Signature of All Things: On Method*, 15.
120. Agamben, 191.
121. Ian Hacking, "Introductory Essay," in *The Structure of Scientific Revolutions*, 50th Anniversary, by Thomas Kuhn (Chicago: University of Chicago Press, 2012), xix.
122. Hacking, xx.
123. Hacking, xviii.
124. Agamben, *The Signature of All Things: On Method*, 14.

of the paradigm as an example is crucial in Agamben's analysis. He posits that the Foucauldian paradigm functions as both an "exemplar" model, imposing the constitution of a normal science, and, more importantly, as an "exemplum", gathering statements and discursive practices into a new intelligible ensemble within a novel problematic context.[125]

Agamben further elaborates this concept by referring to Aristotle's *Prior Analytics* rather than *Rhetorics*. He argues that an example in the paradigmatic sense should not be treated as part of an inductive or deductive process moving from the particular to the universal or vice versa. Citing Aristotle, Agamben explains that "the paradigm does not function as a part with respect to the whole. . . nor as a whole with respect to the part".[126] This perspective challenges the traditional dichotomy between the universal and the particular. Agamben asserts that the epistemological status of the paradigm becomes clear when this dichotomy is scrutinized. He suggests using the singularity of an analogy, which opposes 'the dichotomous principle dominating Western logic,' to understand an example's paradigmatic character.[127]

Agamben's analysis reveals a deeper layer in understanding the concept of the paradigm, moving beyond the conventional dichotomous frameworks. It underscores the paradigm's capacity to create new contexts and frameworks for understanding, thereby challenging and expanding the traditional epistemological boundaries.

Agamben extends his examination of the paradigmatic relation by analyzing the movement between singularities and, crucially, between singularities and their expositions. He uses the example of the "paradigmatic exhibition" in Latin grammars, which demonstrate the declensions of nouns, to highlight how the etymology of the word "paradigm" ("*para-deiknymi*", meaning 'beside itself') can elucidate both its own intelligibility and that of the class it constitutes. This process involves the suspension of reference and normal use, as seen when linguistic examples are exhibited in the practice of paradigmatics.[128]

Agamben traverses a range of philosophical thought —from Aristotle to Kant, Enzo

125. Agamben, 14.
126. cited in Agamben, 14
127. Agamben, 19–20.
128. Agamben, 24.

Melandri to Victor Goldschmidt, and Plato to Aby Warburg— to identify characteristics that define a "paradigm" as an example aimed at making intelligible series of phenomena whose kinship may have eluded historical observation.[129] In examining archival documents to explain modernity, for instance, one must be adept at recognizing and articulating paradigms. This approach is what both Foucault and Agamben employ in their archaeological and paradigmatological endeavors, which are not just about unearthing historical facts but revising "ontological anchoring".[130]

For Agamben, the paradigmatic character is not merely a question of subjectivity or objectivity but a fundamental matter of being. He introduces the concept of "paradigmatic ontology", which allows for a description of the *arkhē* in terms of "a field of bipolar historical currents" rather than searching for a historical origin or a chronological precursor.[131]

Agamben's exploration thus positions the paradigm as a powerful tool for understanding complex historical and ontological relationships. It transcends traditional objective-subjective dichotomies, proposing a more dynamic and relational understanding of phenomena that challenges conventional historical methodologies.

Derrida's lecture on "The Concept of the Archive: A Freudian Impression" in 1994 would be later circulated as *Archive Fever*. In *Archive Fever*, Jacques Derrida delves into the multifaceted nature of the archive, anchored in the memory of the word *arkhē*. He discusses the "arch-optic" power of the archive, stemming from *arkhē*, which coordinates two fundamental principles in the concept of the archive. These principles embody dual positions: the first, "according to nature or history", signifies the commencement or the "physical, historical, or ontological principle".[132] The second principle, "according to the law", refers to a commandment, representing a space "where men and gods command".[133]

Derrida's interpretation, influenced by Freudian thought, acknowledges the inherent

129. Agamben, *The Signature of All Things: On Method*, 31.
130. Agamben, 110.
131. Agamben, 110.
132. Jacques Derrida, *Archive Fever: A Freudian Impression*, trans. Eric Prenowitz, vol. 1996 (Chicago: University of Chicago Press, 1996), 1.
133. Derrida, 1.

complexity and multiplicity of principles within the meaning of *arkhē*. He notes a dual aspect of sheltering within the archive: it not only shelters the memory of *arkhē* but is also sheltered by this memory.[134] He elaborates on this multiplicity, highlighting that *arkhē* suggests both an origin or commencement and a function of the law. The term archive itself derives from *arkheion*, initially a residence of the *archons*, the superior magistrates who commanded.[135]

Caroline Steedman, in her analysis, points out that the *archons*' authority to protect documents did not originate from their physical location but rather from a form of power inaugurated elsewhere.[136] The *archons*, acting as guardians within their private homes, the *arkheion*, held a "publicly recognized authority".[137] This situation signifies a "domiciliation of authority" where the archives take place.[138] Derrida argues that this "privileged topology", or "topo-nomology", is crucial for the existence and recognition of an archive.[139]

Thus, the commanding power of the archive does not point to a past or an origin but rather to the contemporaneity of the rule with the archon. The archive, in Derrida's vision, is not merely a repository of documents but a complex interplay of power, authority, and memory, deeply entwined with the socio-political structure and the legal framework within which it operates.

The principles denoted by *arkhē* in Jacques Derrida's discussion of the archive find resonance in Giorgio Agamben's distinction between "exemplar" and "exemplum", and in his concept of paradigmatology, particularly as applied to Aby Warburg's *Atlas Mnemosyne*. Agamben observes that Warburg's plates, which juxtapose a seemingly random assortment of images, should not be read as a historical account seeking origins but rather as a collection where each element's significance is derived from its ontological presence alongside others.[140] In this context, every image in the atlas is considered original and archaic, challenging the traditional concept of an *arkhē*, or

134. Derrida, 2.
135. Derrida, 2.
136. Carolyn Steedman, *Dust: The Archive and Cultural History* (New Brunswick: Rutgers University Press, 2002), 40, 44.
137. Derrida, *Archive Fever: A Freudian Impression*, 2.
138. Steedman, *Dust: The Archive and Cultural History*, 44; Derrida, *Archive Fever: A Freudian Impression*, 2
139. Derrida, 2.
140. Agamben, *The Signature of All Things: On Method*, 28.



Figure 4.2: Panel 40 from the Atlas that was set up in Warburg's house in 1928. Image from The Warburg Institute, Bilderatlas Mnemosyne, accessed on February 19, 2024, https://warburg.sas.ac.uk/archive/bilderatlas-mnemosyne

origin.[141] [**Figure 4.2**]

This perspective aligns with Derrida's understanding of the archive's "power of consignation". In Derrida's view, the act of "gathering together signs" in an archive is central to consignation, which is more about the act of collecting and preserving than about assigning a specific residence or entrusting for safekeeping[142] The contents of an archive possess a hypomnesic character, serving as reminders of certain memories rather than experiences themselves. As Derrida explains, these

141. Agamben, *The Signature of All Things: On Method*, 31.
142. Derrida, *Archive Fever: A Freudian Impression*, 3.

inscriptions or documents, whether documentary or monumental, operate with an inherent exteriority.[143]

The notion of consignation in Derrida's theory implies that the archive is not just a repository but also an impression, a pledge, a token of the future.[144] Similarly, Agamben's interpretation of Warburg's plates suggests that each image, by virtue of being part of this paradigmatic collection, becomes an original, transcending the need for chronological authenticity. Agamben recalls Milman Parry's work on oral compositions to reinforce this idea, where creation and performance, original and execution, are indistinguishable, and every image constitutes an *arkhē*.[145]

In synthesizing these perspectives, we see a complex interplay between the archival and the paradigmatic, where the notion of origin is reconfigured. The archive, in this sense, becomes a dynamic entity, not only preserving the past but also shaping impressions and pledges for the future.

This perspective on the archive represents a vision oriented towards the future, inscribing the past of a future yet to manifest. This aligns closely with Agamben's conceptualization of philosophical archaeology. Agamben describes this archaeology as uncovering a past that will have been revealed once the archeologist's gesture — or the power of the imaginary — has dispelled the obstructions of the unconscious and the densely woven fabric of tradition that obscure access to history.[146]

Intriguingly, the words "archive", "archaeology", and "architecture" all contain within them the memory of *arkhē*. However, this memory is not simply about a beginning or origin; rather, it embodies a gesture that connects singularities in a way that reverses the traditional ontological anchoring, as Agamben proposes in his paradigmatic ontology. "Philosophical archaeology", as Kant describes it in his essay "What Real Progress Has Metaphysics Made in Germany Since the Time of Leibniz and Wolff", is a form of inquiry that, appearing as "history", inevitably questions its own origin.[147] In this context, *arkhē*, as incorporated in the concept of

143. Derrida, 3.
144. Derrida, 18.
145. Agamben, *The Signature of All Things: On Method*, 29.
146. Agamben, 107.
147. cited in Agamben, 81

the archive, is active in its role, not just in archaeology but also in shaping our understanding of historical inquiry and the architecture of knowledge itself.

Thus, the archive, in this conceptual framework, is not a static repository of the past but an active, transformative space that shapes our understanding of both history and the future. It is a gesture that links, contextualizes, and gives meaning to singularities, challenging traditional notions of beginnings and origins.

In his exploration of "a philosophizing history of philosophy", Kant confronts a paradox, as Agamben notes: one cannot chronicle the history of something yet to occur. Kant frames this conundrum by stating that all historical knowledge is empirical, implying that a history of philosophy must recount the progression of human reason and philosophizing, yet such a trajectory can not be empirically traced from mere concepts.[148] This leads to a unique challenge: a history of philosophy must inherently comprehend what should have occurred and what could potentially happen.

Agamben contrasts this paradox with the approach of Foucault as a genealogist, who refrains from equating the "beginning" with the "origin" of a historical subject.[149] Thus, Agamben's archaeology, as a form of paradigmatology, does not seek origins or ontological anchors but aims to identify the emergence of phenomena, necessitating a re-engagement with sources and traditions.[150]

This methodology resonates with both Melandri's "Dionysian" regression, inspired by Nietzsche, and Walter Benjamin's vision of the angel of history, as interpreted from Paul Klee's "Angelus Novus". Both figures progress towards an unseen goal, their gaze directed towards the past while moving towards the future, symbolizing a journey towards the present.[151] This concept parallels Derrida's theory of psychoanalysis as a theory of the archive, where the inherent threat of the death drive leads to archive fever, or "*le mal d'archive*".[152] Freud's ideas of trauma and repression underscore the "constitutive inaccessibility" of the present.[153]

148. cited in Agamben, *The Signature of All Things: On Method*, 81
149. Agamben, 83.
150. Agamben, 89.
151. Agamben, 99.
152. Derrida, *Archive Fever: A Freudian Impression*, 19.
153. Agamben, *The Signature of All Things: On Method*, 100.

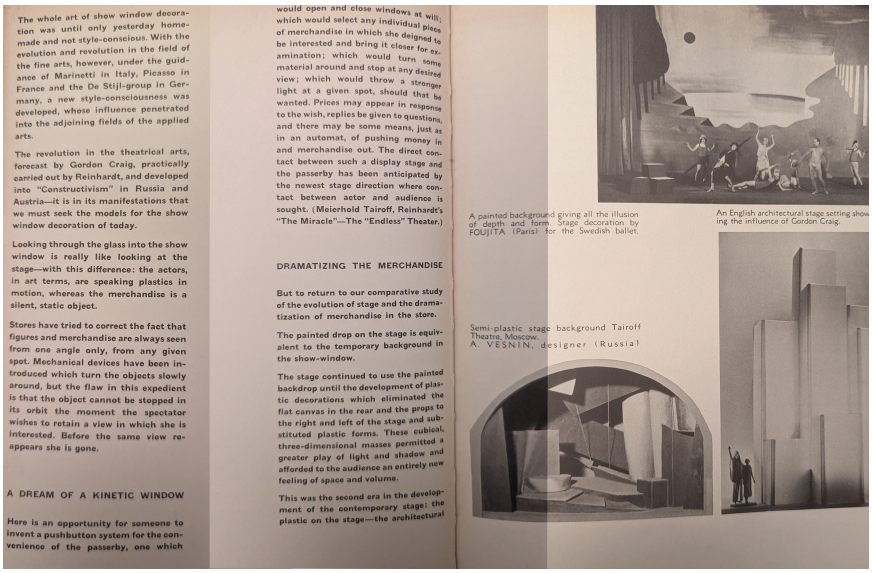
Agamben's paradigmatic archaeology, therefore, seeks to understand modernity not by searching for an ontological anchor, but by regressing towards the *arkhē*'s multiplicity, speaking in a future perfect tense. This approach addresses the limitations of human sciences, which often fluctuate between historical events and biological determinants like the neuronal system or genetic code.[154] Agamben's theory of signatures suggests understanding the modern subject's "present" as not directly accessible, treating *arkhē* not as a static origin but as a dynamic field of bipolar historical currents. This perspective salvages historical phenomena archaeologically in a future anterior, focusing on their finite and untotalizable history rather than an unverifiable origin.[155]

Frederick Kiesler's 1930 foray into store display design can be regarded as an *arkhē* in the future perfect tense, as described by Agamben. This work represents a foundational move that uncovers the latent multiplicity within modern architecture. It functions as an active archive, one that not only links and contextualizes but also imparts meaning to the emerging works of modern art, thus contributing to the formation of a new tradition in America and paving the way for Kiesler's Correalist architecture. [**Figure 4.3**]

Kiesler's emigration to the United States, initially a matter of circumstance due to financial constraints following the exhibition, marked the beginning of a significant phase in his career. As previously mentioned, after the exhibition, a lack of funds prevented Kiesler and his wife from returning to Europe, even if they had desired to do so. It was during this period in the United States that Kiesler began to firmly establish himself within American culture.

This pivotal moment in Kiesler's inquiry into American society came in 1928 when he designed a store window for Saks Fifth Avenue in New York. This project can be seen as a crucial step in securing Kiesler's "settle" into American life, particularly within the context of the American capitalist economy.[156] The design for Saks Fifth Avenue, a quintessential American brand, symbolized not just a professional achievement for Kiesler but also his integration into the fabric of American identity.

154. Agamben, 99.
155. Agamben, 110.
156. Clarke and Shapira, *Émigré Cultures in Design and Architecture*, 4.



The whole art of show window decoration was until only yesterday home-made and not style-conscious. With the evolution and revolution in the field of the fine arts, however, under the guidance of Marinetti in Italy, Picasso in France and the De Stijl-group in Germany, a new style-consciousness was developed, whose influence penetrated into the adjoining fields of the applied arts.

The revolution in the theatrical arts, forecast by Gordon Craig, practically carried out by Reinhardt, and developed into "Constructivism" in Russia and Austria—it is in its manifestations that we must seek the models for the show window decoration of today.

Looking through the glass into the show window is really like looking at the stage—with this difference: the actors, in art terms, are speaking plastics in motion, whereas the merchandise is a silent, static object.

Stores have tried to correct the fact that figures and merchandise are always seen from one angle only, from any given spot. Mechanical devices have been introduced which turn the objects slowly around, but the flaw in this expedient is that the object cannot be stopped in its orbit the moment the spectator wishes to retain a view in which she is interested. Before the same view reappears she is gone.

A DREAM OF A KINETIC WINDOW

Here is an opportunity for someone to invent a pushbutton system for the convenience of the passerby, one which would open and close windows at will; which would select any individual piece of merchandise in which she deigned to be interested and bring it closer for examination; which would turn some material around and stop at any desired view; which would throw a stronger light at a given spot, should that be wanted. Prices may appear in response to the wish, replies be given to questions, and there may be some means, just as in an automat, of pushing money in and merchandise out. The direct contact between such a display stage and the passerby has been anticipated by the newest stage direction where contact between actor and audience is sought. (Meierhold Tairoff, Reinhardt's "The Miracle"—The "Endless" Theater.)

DRAMATIZING THE MERCHANDISE

But to return to our comparative study of the evolution of stage and the dramatization of merchandise in the store.

The painted drop on the stage is equivalent to the temporary background in the show-window.

The stage continued to use the painted backdrop until the development of plastic decorations which eliminated the flat canvas in the rear and the props to the right and left of the stage and substituted plastic forms. These cubical, three-dimensional masses permitted a greater play of light and shadow and afforded to the audience an entirely new feeling of space and volume.

This was the second era in the development of the contemporary stage: the plastic on the stage—the architectural

A painted background giving all the illusion of depth and form. Stage decoration by FOUJITA (Paris) for the Swedish ballet.

An English architectural stage setting showing the influence of Gordon Craig.

Semi-plastic stage background Tairoff Theatre, Moscow. A. VESNIN, designer (Russia)

Figure 4.3: A spread from Kiesler's *Contemporary Art Applied to the Store and Its Displays*, where his text is accompanied by clusters of art and architecture related images are brought together by Kiesler, akin to an atlas for guiding the store display designers (1930, London: Pitman&Sons, 110-111.)

This project, situated in the heart of the nation's capitalist system, allowed Kiesler to demonstrate his innovative approach to design and architecture in a context that was quintessentially American.

After establishing his reputation as an avant-garde artist in European cities like Vienna, Berlin, and Paris, Kiesler found himself in a dramatically different role upon his arrival in New York in 1926. According to Haran, he became "a jobbing designer", a significant shift from his earlier artistic endeavors.[157] However, by 1928, Kiesler seized his first opportunity to merge the International Constructivist polemics of his De Stijl "Tensionist Manifesto" with the practical acumen of a New York advertising professional. This fusion of ideas and skills was first applied in a project to design department store displays in 1928 and later evolved into a proposal for a "giant laboratory serving entire retaildom" in 1930, which aimed to revolutionize modern window display trends.[158]

These endeavors were seen as a "pragmatic 'capitulation' of an impoverished

157. Haran, *Watching the Red Dawn*, 63.
158. Haran, 63.

avant-garde visionary to commercialism", but they also presented Kiesler with an opportunity to broaden his understanding of spatial interactions between humans and objects, and to explore the social relations of design.[159] His shop window display designs for Saks Fifth Avenue, in particular, marked his first major commercial successes in New York. [**Figure 4.4**]

Through these projects, Kiesler was able to apply his avant-garde ideas in a commercial context, blending his artistic vision with a more pragmatic approach to design. This period in Kiesler's career highlights his adaptability and his ability to navigate the complex interplay between avant-garde art and commercial success in a new cultural and economic landscape.

Thus, Kiesler's journey from a European avant-garde artist to a figure who could engage with and contribute to the American cultural and economic landscape was marked by this significant undertaking. It represents not only his professional adaptation to a new environment but also his personal journey in embracing and being embraced by American society.

4.6 Confrontations

Reflecting on his experiences in America, Kiesler acknowledges three individuals who stood "amicably" by his side during his initial years in the country. One of these key figures was Maria Carmi, previously mentioned as Princess Matchabelli, who was not only a friend but also a devoted supporter of Kiesler's vision. Carmi played a significant role in Kiesler's early American journey, particularly in her efforts to secure funding for his proposed institute of theater, although these efforts eventually did not succeed.

The other two names Kiesler notes with gratitude are Harry Wiley Corbett and Katherine Drier. Drier, notably the founder of the *Societe Anonyme*, had been acquainted with Kiesler since the theater exhibition. Kiesler, in turn, introduced Drier to a network of artists, architects, and critics from Europe, as McGuire documents. This introduction was not just a social exchange but a significant

159. Haran, 65–66.



Figure 4.4: One of Kiesler's shop window designs for Saks Fifth Avenue, 1928-29, New York. ÖFLKS, PHO 419/0.

professional interaction, fostering connections and collaborations that were instrumental in Kiesler's acclimation and success in the American cultural landscape.[160] Kiesler's introduction to Harry Wiley Corbett, the other significant figure in his American journey, came through Katherine Drier. Recognizing the challenging situation Kiesler and his wife were facing in New York, especially after their plans failed to materialize, Drier took a proactive step to assist them. She reached out to Corbett, seeking employment opportunities for Kiesler. Drier was acutely aware of Kiesler's difficulty in navigating the professional landscape in New York, expressing concern that he was unable to "gauge and differentiate between the people who will use him and leave him high and dry and the people whom he can trust and whose agreements are the agreements of gentlemen".[161] Kiesler's employment by Harry Wiley Corbett holds particular significance, especially considering the difficult circumstances he faced in 1920s America. As McGuire points out, Kiesler was at a disadvantage in several ways. He was not a licensed architect in the United States, and he lacked the means to provide official proof of his educational background from Europe. Compounding these professional hurdles was his limited proficiency in English and his status as a Jewish emigrant at a time when anti-Semitic sentiments were prevalent. McGuire notes that this period in American history was marked by "strong American nativism and anti-Semitism", with Jewish immigrants becoming targets of immigration restrictions passed in 1921 and 1924.[162]

These socio-political conditions made Kiesler's professional and personal integration into American society particularly challenging. His Jewish heritage and immigrant status, coupled with linguistic and credential barriers, placed him in a precarious position. Corbett's decision to employ Kiesler marked a crucial step in Kiesler's journey, helping him navigate and eventually overcome the numerous obstacles he faced as he sought to establish himself in his new country.

A crucial turning point in Kiesler's journey of adaptation in America occurred in 1927, involving a misunderstanding with Katherine Dreier. What Kiesler perceived as a professional engagement, and Dreier as a favor, led to a pivotal dispute that would reshape Kiesler's approach in his new environment. Dreier asked Kiesler to design a

160. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 118.
161. McGuire, 120.
162. McGuire, 119–120.

building for the Societe Anonyme, with the intent to use the design to "garner interest in the construction of a new museum".[163] However, a series of letter exchanges, as narrated by McGuire, revealed a significant misunderstanding: Kiesler expected to be paid for his work, while Dreier had no intention of commissioning him for a paid project.

The situation became more complex when Dreier, upon seeing Kiesler's designs, advised him that his plan "might work in Europe where quite a different form of psychology exists".[164] She emphasized the need for a distinctly American approach, stating: "You see this is an American proposition for New York and we must use American psychology".[165] This interaction highlighted not only the cultural and professional differences Kiesler faced but also the necessity of adjusting his European Constructivist/avant-garde sensibilities to align with American tastes and expectations.

I consider this incident with Dreier served as a wake-up call for Kiesler, the internal paradigm shift, prompting him to reassess his tactics and begin a more deliberate process of adaptation to the American cultural and architectural landscape for the big change. It marked a significant shift in his career, as he began to navigate the complexities of working in a new and different environment, gradually reshaping his approach to better suit the American context.

As McGuire astutely observes, Dreier's critique had a lasting impact on Kiesler, as it would find him at a moment when he was pivoting away from his efforts in "reforming theatrical architecture and scenography".[166] As he was about to find his first significant success in the United States within "the much more prosaic medium of American commercial design".[167] This shift was particularly notable considering Kiesler's previous achievements in stage design in Europe, which had facilitated his move to Paris and subsequently to New York. Although Kiesler did not completely abandon his interest in the mechanics of collective experience in the theater — as evidenced by his design of the Film Arts Guild Cinema in 1928 — McGuire points

163. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 121.
164. McGuire, 121.
165. McGuire, 121–122.
166. McGuire, 123.
167. McGuire, 123.

out that his focus began to shift. Kiesler became increasingly intrigued by exploring the role of the individual within the context of "fashion commerce" rather than the "arena around the stage".[168] This reorientation marked a significant change in Kiesler's career, as he transitioned from the theatrical to the commercial realm with his first American commission in this new avenue not only brought him notoriety as a designer but also represented a turning point in his understanding of American cultural dynamics. In this new role, Kiesler began to engage more deeply with the individual consumer experience, applying his avant-garde sensibilities to the commercial sphere and thereby redefining his professional identity in the American context.

By his fourteen interconnected window displays at the corner of 49th Street and 5th Avenue for Saks Fifth Avenue, Kiesler ingeniously adapted his design principles from the stage to practical commercial display.[169] He described his approach in a quote, recalling, "I simply took out all the walls which separated the fourteen windows and created a free rhythmic background throughout the entire window space. Each window seemed to continue into the next. Expansion was the basis of the rhythmic effect and continuity".[170]

These window displays, as Haran notes, were retained by Saks for an impressive nine years, a testament to the commercial success and enduring appeal of Kiesler's design.[171] Women's Wear Daily highlighted the modernity of Kiesler's work, describing the displays as: "Here a suggestion of a cylinder, there a glint of brass or the spectacle of a mirror, and again the dull reflection of iron are expressive of the industrial age".[172] This commentary not only praises the windows' modernity but also reflects Kiesler's ability to encapsulate the essence of the industrial age in his design, blending artistic creativity with commercial appeal.

Kiesler's work for Saks Fifth Avenue thus represents a significant milestone in his career, showcasing his successful transition to and mastery of American commercial design. His innovative approach to window display design not only captured the

168. McGuire, 128.
169. Haran, *Watching the Red Dawn*, 130.
170. Haran, 66.
171. Haran, 67.
172. Haran, 67.

public's imagination but also demonstrated his unique ability to merge avant-garde principles with practical commercial applications. Haran describes Kiesler's Saks Fifth Avenue window displays as a "sophisticated introduction of modernist ... forms into an American commercial environment".[173] This project was not just a success in terms of design innovation, but it also paved the way for Kiesler's first book publication. In 1930, he was commissioned to write *Contemporary Art Applied to the Store and its Display* with a publicity pamphlet for the book: "The Modern Show Window and Store Front", published a year before the actual manuscript he worked on between 1928-1929.[174] Kiesler himself acknowledged the department store's role in popularizing modernism, calling it "the true introducer of modernism to the public at large".[175]

McGuire notes that Kiesler originally conceived this project as a "practical guide to window display installation and storefront design", with a particular emphasis on utilizing modernism as a sales strategy.[176] His approach was not merely about aesthetics; it was a strategic implementation of modernist design principles in a way that was appealing and accessible to the wider American public.

Kiesler's work, therefore, represented a crucial intersection between avant-garde art and commercial viability. His designs for Saks Fifth Avenue and the subsequent publication of his book illustrate how modernist principles could be effectively applied in a commercial context, thereby broadening their appeal and influence beyond the confines of traditional art and architecture circles.

Despite his success Kiesler was nevertheless navigating his professional challenges in the late 1920s, as he was also contending with the broader economic turmoil engulfing America. While managing to pay their rent, Kiesler and his wife were living in a country on the brink of economic crisis, culminating in the stock market crash of October 1929. However, prior to this crash, as McGuire cites from historian Walter Lauchtenberg, the first two decades of the 20th century were often referred to as a "second industrial revolution". Lauchtenberg notes, "...the nation was captivated by electricity, by the new world of radioactivity, even more mundane matters like

173. Haran, *Watching the Red Dawn*, 67.
174. Haran, 67.
175. Haran, 67.
176. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 159.

calories and vitamins; science, many people believed, was a universal balm that would answer every human need".[177] This period was marked by significant advancements in industrialization and manufacturing, partly due to the widespread application of Frederick Winslow Taylor's "principles of scientific management". As a result, manufacturing output "climbed 264 percent and industrial production as a whole nearly doubled from 1921 to 1929".[178] This context is essential in understanding the challenges and opportunities that European Constructivists, like El Lissitzky and Kiesler, were addressing in terms of the developments in industrialization.

In the wake of the market crash, McGuire suggests that the increasing centrality of mechanization to Americans cultural understanding of themselves also played a crucial role. It represented "the possibility of a path out of the mire", as the nation grappled with the economic fallout.[179] For Kiesler and other artists and architects, this period of industrial and scientific enthusiasm, followed by economic hardship, provided a complex backdrop against which they had to adapt their work and philosophies to resonate with the changing American context.

For Frederick Kiesler, designing shop windows became a means to forge a "path out of the mire" in America, allowing him to integrate his "European" techniques, which Katherine Dreier had deemed irrelevant to American culture, into a context that resonated with "American psychology". McGuire highlights that Kiesler's educational background in Vienna, where "theories of empathy and aesthetic experience" were prominent in the Germanic world, greatly influenced his approach to architecture and design. This background could also elucidate Kiesler's focus on the "sensory apprehension of seen and unseen phenomena in architectural space".[180] McGuire points to the writings of Adolf Hildebrand and August Schmarsow as influential in shaping Kiesler's ideas about the interconnectedness between humans and their environments. Initially, in the early 1920s, these ideas were manifested in design proposals aimed at enhancing the connection between "audience and actor" in theatrical settings. However, upon moving to America, Kiesler discovered that it was

177. McGuire, 157.
178. McGuire, 157.
179. McGuire, 157.
180. McGuire, 108.

not the conventional theater but rather the show windows that were more pertinent to modern life. In this new context, the theater audience was replaced by shoppers, and the stage transformed into the commercial spectacle of the store window.

This shift in focus allowed Kiesler to transpose his European avant-garde sensibilities into a uniquely American milieu. By redesigning shop windows, he was able to explore the relationship between viewers and their environment in a way that was both commercially viable and artistically fulfilling. This transition from European theater to American commercial design illustrates Kiesler's adaptability and his ability to find creative expression within the constraints of a new cultural and economic landscape.

With his reflection on his work in commercial design, Kiesler's innovative approach to introducing modern art and architecture to department stores would mark the paradigmatic shift I refer. This shift is not just a mere transformation but an ongoing, continuous process, akin to Paul Klee's "Angelus Novus". Like Klee's angel, which is depicted as being caught in a wind from paradise and fixed on the past while being propelled into the future, Kiesler's work in store display design epitomizes a perpetual striving. His endless attempts embody a process of confronting and integrating the past with an evolving present, actively shaping and redefining the discourse and practice of architecture and design.

In his 1930 text "Some Notes on Show Windows", Frederick Kiesler engages the reader with a provocative question: "Which is the most provocative: the curiosity to look into a neighbor's window, or the window which lures us to look in?"[181] This question sets the stage for Kiesler to share his insights and directives on successful window shop design, emphasizing that the key lies not in what is being done, but in how it is executed. The editors who published his notes in 2002 describe his tone as "witty", capturing the engaging and speculative nature of his writing.

Kiesler does not just ponder on existing concepts; he speculates about inventing "something to supersede show windows". He imagines a scenario where traditional merchandise displays are abolished in favor of a more interactive and engaging approach: "Let the windows harbor a merchant's commission which will regard each

181. Frederick Kiesler, "Some Notes on Show Windows," *Tank* 3, no. 6 (2002): 164.

passerby. Let this jury comprise an inescapable network".[182] This was Kiesler's vision of modern as he continued: "Truly modern, not modernistic. Speed. Co-operation. Efficiency".[183] This vision of his remarkably presages the essence of targeted commercials in the internet era of the twenty-first century.

Indeed, Kiesler's 1930 text hints at interfaces that would allow customers to engage with products through a machine, akin to teleshopping. This concept involves advertising and informing the customer, and eventually selling the product, all without the need for direct interaction with a salesperson. Kiesler's forward-thinking ideas on show windows and consumer engagement exhibit a visionary understanding of the evolution of commerce and advertising, one that resonates strongly with the practices that have become standard in today's digital age.

Kiesler's vision regarding consumer culture and the introduction of modernism to American society through department stores is indeed intriguing. Particularly noteworthy in the context of this thesis is how Kiesler delineates two distinct realms: the psyche of the consumer, representing the typical American individual of his time, and the physical environment they interact with, exemplified by the department store. Kiesler proposed a blueprint for merging these two domains into a harmonious whole, taking into account the prevailing economic and social conditions and the increasing integration of technology and science into everyday life.

In this context, Kiesler's store displays become more than mere commercial designs; they emerge as pivotal intersections where art, commerce, and architectural theory converge, signalling a new direction in the understanding and experience of space and aesthetics. This aligns with Agamben's concept of the paradigm, where each instance or design by Kiesler serves not merely as an example but as a significant, transformative event, reshaping the landscape of modern architecture and contributing to the continuous evolution of the field.

His book on *Contemporary Art* serves the dual purpose in *arkhē*'s multiplicity: both an origin or commencement and a function of the law. I say this simply because this book can be read as a guideline for designing successful storefronts, drawing on

182. Frederick Kiesler, 164.
183. Frederick Kiesler, 165.

his achievements with Saks and Buffalo between 1928-1930, it also functions as an educational tool as initially, it serves as an encyclopedia of European avant-garde art from the early twentieth century, targeted at readers unfamiliar with major European artworks. This introduction and "lesson" in avant-garde art sets the stage for Kiesler's own perspective on what he considered the "appropriate approach" to art and design in the twentieth century.

Only after laying this foundation does Kiesler guide the reader toward understanding the potential of a new approach to art and design. This approach not only addresses the subtleties and complexities of modern society with the right tools but also suggests "answers" or "blueprints" for broader issues. This encompasses not just show window design but also architecture, particularly highlighting the shortcomings of "modern architecture" as understood by contemporary architects. Kiesler's work, thus, transcends mere design principles, offering a holistic vision for integrating modern art and architecture into the fabric of American society.

Kiesler's book, though officially organized into four parts, can be effectively studied in three distinct sections. The first part serves as an introduction to European art of the twentieth century, familiarizing the reader with the Constructivist questions and themes addressed by this art movement. Kiesler uses this section to set the stage for understanding the broader context and significance of the questions posed by Constructivist art, as well as the appropriate ways to approach them.

In his introductory note titled "The Book Was Written", Kiesler outlines the reasons for composing this book.[184] He expresses concern that "the country has been flooded with examples of poor and distorted modernism", highlighting the need for a critical assessment of contemporary art's influence and its true value. Kiesler emphasizes that the appreciation of "new beauty" should be based on "EFFICIENCY and not on cosmetics".[185] This statement reflects his belief in a utilitarian yet aesthetically pleasing approach to modern art and design, aligning with his broader vision of integrating art into the fabric of everyday life and societal progress.

Through this part of the book, Kiesler aims not just to educate the reader about

184. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*.
185. Frederick Kiesler, 1.

European avant-garde art but also to provide a framework for understanding and evaluating modernism in a way that transcends superficial appearances. His approach underscores the importance of a deeper appreciation and comprehension of modern art's principles, particularly in an American context that was grappling with the influx and interpretation of modernist ideas.

In his discourse, Kiesler explores painting, sculpture, and architecture, considering them as "applied arts" and echoing De Stijl's approach, which seeks harmony by establishing a link between everyday life and art. He addresses an early dichotomy: the notion of art as something "outside of life". Kiesler contends, "It may seem a profanation to those to whom 'Art' is something outside life, a balloon filled with sentimentality; but careful consideration will show that the 'applied' arts are the link between daily life and fine art".[186] He proposes that nature has a "desire to propagate herself through Man by means of art", and presents examples in painting, sculpture, and architecture that demonstrate mastery in "harmony of lines, illusion of space and form, and colors".[187]

Kiesler adopts the role of a teacher or an authority figure, guiding the American audience on how to appreciate modern art from artists like Picasso, Leger, van Tongerloo, and himself. He strategically positions examples of his work at the end of each instructional chapter, ensuring the reader is first familiar with the context and other works that inform his approach. When discussing architecture, Kiesler offers one of his most structured views on the subject and modernism. He cites figures like Otto Wagner, Louis Sullivan, H.P. Berlage, and Tony Garnier as pioneers who laid the foundation for a style that can be seen in the work of Le Corbusier, Frank Lloyd Wright, Perret, and Oud. Kiesler observes, "Happily for contemporary architecture, today it is no longer a conglomeration of all sorts of materials and styles, but a living expression of the spirit of a community, or of personality".[188] He hints at the necessity for modern architecture to eliminate not just decoration or ornamentation, but also to rethink building materials.

However, Kiesler emphasizes that these pioneers laid "only the foundation". He

186. Frederick Kiesler, 14.
187. Frederick Kiesler, 14.
188. Frederick Kiesler, 39.

argues that it was not Le Corbusier or Frank Lloyd Wright who developed the "style of today", but rather it was *De Stijl* and their colleagues who evolved "Functional Horizontalism".[189] This style, according to Kiesler, emerged from changes in structural systems and the diminishing role of walls as load-bearing elements. It was crystallized not by the "pupils of the 'big four' but by the third generation of artists", including van Eesteren, Theo van Doesburg, Mies van der Rohe, El Lissitzky, Moholi Nagy, and Hans Richter.[190] While these architects, along with Le Corbusier and Frank Lloyd Wright, were disseminating this new style, Kiesler posits that it was merely a prelude to what he envisioned as the future: Tensionism.

The second part of Kiesler's book marks the first transition, where he introduces his architectural concept to the American audience, a concept he has been developing and circulating since 1925. This concept, first showcased at the Paris Exhibition and then in the magazine *De Stijl*, is now presented to a new demographic. Kiesler describes it as embodying the "ideals of an architectural system of the future".[191] He envisions an architecture where traditional walls are no longer necessary, where the elasticity of living is embraced, and where architectural solutions are not defined by style but by the invention of new ways of living, akin to the discovery of electricity.

This approach is reminiscent of Kiesler's 1924 exhibition design in Vienna, where he presented new techniques and repertoires in theater and stage art, focusing on the audience's experience in the context of a modern world characterized by speed and movement. His designs aimed to create a stage that met the needs of the time and addressed the dynamics of contemporary life. Similarly, in this book, Kiesler applies these principles to the context of show windows, using them as a means to explore and respond to the requirements of modern life.

However, Kiesler's focus extends beyond just the design of the theater stage or show window. He uses these as exemplary tools to address broader questions of life in a constantly evolving context. His goal is to understand and respond to human needs in a specific historical moment and location, challenging conventional questions and offering solutions that are relevant to the time and space in which they exist. This part

189. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*, 40.
190. Frederick Kiesler, 40.
191. Frederick Kiesler, 48.

of the book, therefore, is not just about the technicalities of design but about a larger vision for adapting to and shaping the modern world.

In his work, Kiesler embarks on what can be likened to an anthropological study of the market place and the evolving paradigm of the "store window". He provides a detailed account of the evolution of exchange cultures and commercial spaces, tracing the changing parameters that are relevant to contemporary activities. This exploration includes a critical assessment of research and scientific approaches as tools to address the problems of the day, a pattern that can be traced back to his earlier endeavors in New York, particularly in the domain of performance art and his efforts to establish a school for the Fourth Dimension of Theater.

In this context, Kiesler almost defines a new dimension, that depend on the psyche of the consumer and the development of new methods in merchandising. His approach to store front design stems from the need to unify the exterior and interior of the store. He envisions the store window as a critical interface that not only allures consumers but also establishes a reciprocal relationship between the consumer and the store. Kiesler prophetically anticipates a time when the marketplace transcends the physical confines of the department store, with commercial activity permeating the entire built environment: "Everyone may now buy and sell when and where he chooses".[192]

While Kiesler delves into the specifics of window design, often referencing his successful designs at Saks Fifth Avenue, he also provides a broader depiction of America to contextualize his projects. This perspective is especially evident in the section titled "1928", where he also cements his position as both a successful designer and an architect. Through this, Kiesler offers a framework for understanding his projects within the American cultural and commercial landscape, reflecting his ability to adapt and innovate in response to the changing dynamics of consumerism and architectural design.

Kiesler's reflection on the cultural exchange between Europe and America is poignantly captured in his words: "Europe discovered America in 1492, through Christopher Columbus. America discovered Europe in 1918, through the World War. The conflict established indissoluble contacts. First, political, then commercial,

192. Frederick Kiesler, 69.

finally in the arts. War bridged the two continents".[193] He identifies the year 1928 as the beginning of a new era, stating, "The modern art of the Old World started to take possession of the New World".[194] While he notes other instances like the Newark Museum's small exhibitions and the first "representative exposition in modern interior decoration in America", Kiesler emphasizes that his 1928 designs for store windows were significant in bringing "contemporary industrial art of Europe to the knowledge of the general public".[195]

Kiesler's transition from theater art to shop display in America represents a strategic shift in his approach to reaching a wider audience. He declares, "If ever a country has had the chance to create an art for its people, through its people, not through individuals and handicraft, but through machine mass production, that country is America today. It will be adaptation and a rebirth. It will be American".[196] This statement contrasts with El Lissitzky's 1925 conclusion that the Soviets would lead the way in art and architecture. Instead, Kiesler posits that America will be the focal point for this cultural evolution.

In America, Kiesler utilizes storefront design, rather than traditional architectural methods, to introduce and promote modern art. His approach does not aim to change society but rather to acquaint society with art, enabling art that blurs the lines between "Art" and "life" to permeate their everyday experiences. Thus, Kiesler responds to the constructivist agenda through De Stijl in his new American context, dismantling the barriers that have historically separated art from life and integrating modern artistic principles into the fabric of American culture. As Haran also notes: "To look into a store window was not sheepish subsumation to the group code or relinquishing agency, but an opportunity for a harmonization of elements in a pleasurable encounter".[197]

In the years that followed, as Kiesler shaped his Correalist vision, he moved away from the "consumerist and fashion-driven" ideas that characterized his earlier American work.[198] This shift earlier represented a response to the American context,

193. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*, 66.
194. Frederick Kiesler, 67.
195. Frederick Kiesler, 67.
196. Frederick Kiesler, 67.
197. Haran, *Watching the Red Dawn*, 74.
198. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 192.

where he had previously engaged with the constructivist agenda through a predominantly European approach, especially influenced by *De Stijl*. However, Kiesler's focus evolved to concentrate more on addressing corporeal and psychic needs through architecture. He proposed unifying these domains as an alternative to the modern architecture of the 1930s.

This strategic move was Kiesler's way of responding to the limitations of architecture in rapidly changing scientific and technological landscapes. It also reflected his need to adapt and sustain himself as an architect and designer in the twentieth-century context. Kiesler's approach went beyond the aesthetic and functional aspects of design; he sought to bridge the gap between the human experience and the built environment.

The concept of Correalism, as elaborated by Kiesler, stemmed from this period of exploration and adaptation. In his Correalist framework, elements like the window display and the individual passerby were already focal points for understanding the interaction between humans and their environment. Haran notes that these elements are essential in defining Correalism, as they represent the crucial points of human and environmental interchange..[199] Kiesler's Correalism, therefore, emerged as a comprehensive philosophical approach, integrating his architectural and design philosophies with a deeper understanding of the human condition within the ever-evolving societal and technological milieu.

4.7 Modernism is the age of ordinary

McGuire highlights Kiesler's keen interest in acquainting Americans with European modernism did not stop with their experience as consumers. Between 1931 and 1933, Kiesler delivered a number of lectures and talks at various prestigious institutions, as detailed in Stefi Kiesler's calendars. These venues included the Teachers College at Columbia University, the Women's City Club, Downtown Gallery, German American Conference, New School for Social Research, and Whitney Museum.[200]

199. Haran, *Watching the Red Dawn*, 74.
200. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 197n42.

According to McGuire, one of Kiesler's first seminars on this topic took place at the Brooklyn Museum. Intriguingly, this seminar reportedly featured several direct quotes from Adolf Loos' texts, including "Ornament und Verbrechen" ("Ornament and Crime"), which had been published in Loos' collection *Trotzdem* in 1931.[201] McGuire posits that this seminar may have been the first time an American audience was exposed to Loos' controversial essay. She raises the question of whether Kiesler publicly credited Loos during the seminar or presented the ideas as his own. This query is significant, considering the impact of Loos' essay on modern architectural thought.

Although a complete manuscript of this particular talk is not available in the archives, there are some notes titled "Ornament and Crime" in Kiesler's collection, dating from the early 1930s. These notes could provide insight into Kiesler's interpretation and use of Loos' concepts in his lectures, underscoring the transatlantic exchange of ideas in the field of modern architecture and design during this period.

Kiesler's notes, titled identical to Adolf Loos' essay "Ornament and Crime", indicate a parallel exploration of themes first publicized by Loos in a lecture at the Akademischer Verband für Literatur und Musik in Vienna in 1910 without mentioning his name though. Loos' primary argument was a call for the aristocracy to reconsider their taste for ornamentation, contextualized within the art of the twentieth century, with references to figures like Beethoven and Tristan.[202]

Loos employed an analogy of human development, likening it to the evolutionary stages of the human in the animal kingdom, to articulate his perspective on cultural hierarchy: "When man is born, his sensory impressions are like those of a newborn puppy. His childhood takes him through all the metamorphoses of human history. ... When he is 8 he becomes aware of violet, the color discovered by the eighteenth century, because before that the violet was blue and the purple-snail red".[203] In this framework, he associates ornamentation with the early developmental stages of a child, comparing it to the tattoos of Papuans who are not granted subjectivity by Loos. While not condemning tattoos on Papuans, which he refers to as "the baby

201. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 197.
202. Adolf Loos, "Ornament and Crime," in *Crime and Ornament: The Arts and Popular Culture in the Shadow of Adolf Loos*, ed. Bernie Miller and Melony Ward (Lisboa: XYZ Books, 2002), 36.
203. Loos, 29.

talk of painting", he controversially connects this practice with a primitive stage of human development.[204] Loos' essay, beyond its problematic and racist overtones, lacks direct correlations between art and architecture, offering more in the way of moral judgments than architectural critique. He deems ornamentation as a "straggler" in cultural evolution, advocating for a war against such remnants of the past to facilitate cultural progress. This stance finds its echoes in Kiesler's frustration with the persistence of simulated variants of a standard, which he views as hindering technological and scientific advancements and the emergence of new standards. The comparison between Kiesler's and Loos' viewpoints reveals a shared discontent with the outdated elements in design and architecture, though their methods of articulation and the implications of their arguments differ significantly, especially given the problematic nature of Loos' analogies.

In his notes, Kiesler reframes the issue of ornamentation raised by Loos, not as a sign of cultural inferiority, but rather as a relic of an older system of signatures in the *oikos* – a symbol meant to delineate personal space and belongings, now made obsolete by more effective tools. Kiesler discusses the ornament as a form of signature that historically indicated protection from various harms, stating its purpose was "to protect...from damages; before the god of fire, the god of theft, the god of death".[205] He does this without explicitly crediting Loos, thereby subtly rearticulating Loos' ideas in a more pragmatic light.

For Kiesler, the obsolescence of ornamentation is a logical outcome of advancements in tools and technology. He cites examples like monetary contracts, life insurance, and marriage, which no longer require divine appeasement for protection but are instead grounded in contractual and financial agreements. "As long as you can pay, you could get any protection you want", Kiesler suggests.[206]

Furthermore, Kiesler argues that ornamentation should be viewed through an economic lens, adding value only in terms of "beautification" rather than quality. His five-and-a-half-page long notes illustrate an appropriation of Loos' critique of ornamentation that parallels yet diverges from Loos' perspective. Kiesler suggests

204. Loos, 29.
205. "Ornament and Crime," Handwritten notes, N1.
206. "Ornament and Crime," N2.

that true crystallization of modern architectural thought does not stem from the direct pupils of the "Big Four" — including Loos, who was influenced by Sullivan and Wagner — but from the third generation of artists, among whom he counts himself. This perspective, highlighted in his 1930s book *Contemporary Art*, positions Kiesler not just as a critic of traditional ornamentation but as a proponent of a new architectural understanding, one that aligns with the practical and economic realities of the modern world.

Michel de Certeau, in *The Practice of Everyday Life*, draws connections between Adolf Loos' essay "Ornament and Crime" and the intellectual milieu of Vienna in the early 1900s. He references Loos' critique of the "decorative degeneracy of Vienna" and his advocacy for "functionalist austerity", using these ideas to frame the historical backdrop against which, Ludwig Wittgenstein developed his model of ordinary language.[207] While the term "ordinary" may not fully encapsulate Loos' intentions behind "Ornament and Crime", Kiesler's interpretation of Loos' work aligns with de Certeau's exploration of the intersection between Wittgenstein's and Loos' projects.

De Certeau's analysis also includes references to another Austrian, Robert Musil, and his observations in *The Man Without Qualities*. Musil's work ironizes the "fallacious charm" and "journalistic brilliance" of a "rotting culture" in Vienna at the time, which de Certeau likens to an "execration" of the superficiality prevalent in Viennese society.[208] Kiesler, however, does not depict early 1900s Vienna in the same critical light as Musil or Loos. Instead, Kiesler emphasizes the importance of focusing on "life", if not the "ordinary", as a means to engage meaningfully with contemporary history.

This discussion highlights a shared preoccupation among these Viennese intellectuals with the superficiality and decadence of their cultural context. Each, in their own way, seeks to redirect focus toward more substantive, functional, and authentic expressions in art, language, and architecture. Kiesler's approach, while resonating with certain aspects of Loos' and Wittgenstein's ideas, uniquely underscores the significance of life and lived experience as central to understanding and responding to the challenges

207. De Certeau, *The Practice of Everyday Life*, 12.
208. De Certeau, 12.

of modernity.

Michel de Certeau's exploration of the concept of "purity" in both Wittgenstein's and Loos' work is crucial for establishing a historical context for Wittgenstein's philosophy. De Certeau views Wittgenstein's efforts as laying down a "philosophical blueprint for a science of the ordinary", which, in his view, formed in the cleavage in modernism.[209] This perspective is reinforced by Wittgenstein's own words: "When we do philosophy … we are like savages, primitive people, who hear the expressions of civilized men, put a false interpretation on them, and then draw the queerest conclusions from it".[210] De Certeau interprets this as an unattainable ideal, as there no longer exists a clear distinction between "civilized men among savages", but rather a condition of being a "foreigner at home" or a "savage" amidst ordinary culture.[211]

Kiesler's architectural trajectory, particularly his challenges to the limitations of modern architecture, can be read in light of de Certeau's description of modernity and the tools available in the cleavage of modernity that organizes the societal framework. In this cleavage, De Certeau's observation about the diminishing recognition of individual traits in the modern history aligns with Loos' declaration of ornament as a crime. For Loos, the aristocrat's move away from ornamentation – symbolizing inferiority – towards a modern aesthetic marked by the "absence of ornament" was a sign of cultural advancement. However, de Certeau provides a framework for understanding how the "ordinary man" in Loos' context transitions to the "modern man", who freely uses ornaments of earlier or alien cultures as he sees fit.[212]

This modern subject, according to Loos, is distracted from their own inventiveness by resorting to elements from other cultures. De Certeau's concept of the "ordinary man" and the way literature has appropriated this figure since the sixteenth century offers an explanation for the demarcation that defines modernism. The shift from celebrating individual achievements to valuing collective efforts reflects a broader change in societal values and perceptions, which both Loos and Kiesler address in

209. De Certeau, 14.
210. De Certeau, 13.
211. De Certeau, 13.
212. Loos, "Ornament and Crime," 33.

their architectural philosophies.

De Certeau identifies the sixteenth century as the "dawn of the modern age", where literature began to feature the ordinary man as a symbol of universal misfortune.[213] This portrayal was a commentary on the human condition, depicting a character who could represent Everyone yet, due to a lack of distinct character traits, also symbolized "Nemo" or "nobody". This figure reflected the commonality of human experiences, particularly in the face of death, which obliterates all differences.[214] De Certeau observes that this vulgar use of the ordinary man, as seen in Loos' essay, served as "a disguise for a metalanguage about itself".[215] It also highlighted the shift from a divine or muse-driven Other to an anonymous entity, a change that signifies a departure from traditional elitist perspectives.

This transition from elitism is evident in the works of Freud and, in a similar vein, in the way Loos' elitist stance was reinterpreted and made more accessible by Kiesler in the 1930s. In Freud's work, the exploration of the psyche and human behavior moved beyond the realm of the exceptional to encompass the ordinary, everyday experiences of individuals. Similarly, Kiesler's adaptation of Loos' ideas in his architectural practice and theory during the 1930s brought a more inclusive and mass-oriented perspective to modern architecture. Kiesler's approach democratized the elitist views of Loos, integrating them into a broader societal context and making them relevant to the lives and experiences of the general public.

In essence, the evolution of the concept of the ordinary man, from a literary symbol to a central figure in modern architectural and psychological thought, reflects a significant shift in the understanding and portrayal of the human experience. It marks a move away from exclusive elitism towards a more inclusive and universal approach that acknowledges the commonalities and shared experiences of all individuals.

De Certeau emphasizes the significance of Freud's focus on the ordinary man (*der gemeine Mann*) as part of an effort to bridge the gap between scientific inquiry and broader cultural understanding. De Certeau views Freud's use of psychoanalysis,

213. De Certeau, *The Practice of Everyday Life*, 1.
214. De Certeau, 2.
215. De Certeau, 2.

likening it to a scientific tool such as calculus, as a means to link religious beliefs and social norms — which he terms "illusions" — with the challenges faced by common people in their everyday struggles.[216] Freud's work, particularly in *Civilization and Its Discontents*, observes the disparity between a "small number" of "thinkers" and "artists" who find pleasure in work through sublimation and the masses who are subject to labor, deceit, and mortality. Freud aligns his theories with the common experiences of these masses, thus making his psychoanalytic insights universally applicable and grounded in the realities of human history. However, de Certeau critiques Freud for utilizing the concept of the "ordinary man" to generalize his psychoanalytic theories across the entire span of human history. He suggests that Freud, much like the ordinary man who clings to religious illusions in Loos' framework, derives a similar benefit from this universal human experience. In de Certeau's view, Freud "authorizes" his psychoanalytic theories "to transcend its limits", extending beyond the confines of specific psychoanalytic cases and the limitations of language itself, which is typically "deprived of the reality which, as referential, it posits".[217]

This analysis by de Certeau draws attention to the way modern thinkers like Freud and Loos have employed the concept of the ordinary man. While Freud uses it to extend the applicability of his theories to a broad human context, Loos employs it to critique and redefine aesthetic values. Both approaches reflect a shift in modern thought that seeks to reconcile the scientific and the cultural, the individual and the collective, and the extraordinary and the ordinary in the tapestry of human experience.

De Certeau finds particular appeal in Freud's portrayal of the ordinary man in *Civilization and Its Discontents*. De Certeau notes that Freud reveals the ordinary man as the speaker, representing the intersection of the scientist and the common man — "the return of the other (everyone and no one) into the place which had been so carefully set apart from him".[218] This positioning defines an endpoint of a trajectory, not as a given state or initial grace, but as a product of deviation from rule-governed practices — an "overflowing...of the common in a particular

216. De Certeau, 3.
217. De Certeau, 3.
218. De Certeau, 4.

position".[219]

Freud's generalization of psychoanalytic knowledge to a wider audience, previously accessible only to those with specialized psychoanalytic competence, is portrayed by de Certeau as a move that elevates the ordinary man to a central role in discourse. This shift is akin to the service rendered by the "God of former times", allowing Freud to assert a principle of totalization and plausibility. De Certeau points out that Freud himself would later critique this approach, recognizing his own limitations and the universality of human experience. Freud mocks his earlier works as a "pathology of civilized societies" and acknowledges his identity as the ordinary man he speaks of, stating, "The complaint that I offer no consolation is justified".[220]

De Certeau interprets this evolution in Freud's work as a crucial moment, signifying the need to bring "scientific practices and languages back toward their native land, everyday life". This shift from a focus on specialized methods to a broader exploration of human culture and society reflects Freud's acceptance of the commonalities of human experience and his own role within it. De Certeau's analysis thus situates Freud's work within the larger context of modernity, highlighting the convergence of scientific and everyday discourse and the repositioning of the ordinary man at the heart of this intersection.

For Michel de Certeau in *The Practice of Everyday Life*, the concept of "the ordinary" is a critical outcome of modernity, rather than an inherent or pre-existing condition. This perspective is illustrated through Sigmund Freud's interrogation and eventual acknowledgment of the limitations and subjectivities in his psychoanalytic work. Freud's inclusion of the ordinary in his scientific discourse is not arbitrary; it represents an endpoint where the overflow of commonality intersects with specialized, rule-governed practices.

De Certeau views this integration of the ordinary into scientific fields as a tactical maneuver against the strategies of modernity, which seeks to establish rule-governed practices. The ordinary, in this context, infiltrates and influences scientific techniques and understanding, reshaping the discourse produced within these fields. De Certeau

219. De Certeau, *The Practice of Everyday Life*, 4.
220. Freud, in a letter to Lou Andreas Salomé, July 28, 1929, quoted in de Certeau, 4

writes:

> Even if it is drawn into the oceanic rumble of the ordinary, the task consists not in substituting a representation for the ordinary or covering it up with mere words, but in showing how it introduces itself into our techniques — in the way in which the sea flows back into pockets and crevices in beaches — and how it can reorganize the place from which discourse is produced.[221]

This metaphor of the sea flowing into pockets and crevices on the beach illustrates how the ordinary permeates and reorganizes scientific and analytical discourse. It highlights the transformative power of the ordinary in restructuring the frameworks from which we produce knowledge. In this light, Freud's work becomes a pivotal example of how the incorporation of the ordinary can challenge and reshape the established norms of scientific inquiry, suggesting a reorganization of the epistemological landscape in response to the realities of everyday life.

4.8 Becoming Felix the Cat and keep going

This interpretation of modernity, as presented by de Certeau, could be insightful for understanding Kiesler's maneuvers in the 1930s. Kiesler, in this light, appears to be translating a constructivist agenda, appropriating tools from De Stijl thinking in a new context where he finds himself as a "foreigner" in a world of creation without "the tradition of making", but rather in the process of forming a "tradition". This approach aligns with Kiesler's attempts to navigate and respond to a modernity he sometimes describes in terms of "functionality" or a modern architecture that is in crisis.

De Certeau's description of modernity via a cleavage thus offers a valuable lens through which to view Kiesler's work. It underscores how Kiesler, like Wittgenstein, navigates the complexities of the modern world, attempting to reconcile the ordinary with the avant-garde and the foreign with the familiar. In this way, Kiesler's architectural and artistic endeavors can be seen as efforts to bridge these divides, creating a new understanding and practice of modernism that is both innovative and

221. De Certeau, 5.

grounded in the realities of his contemporary world.

In this context, Kiesler's work represents a response to the challenge of maintaining individual creativity and inventiveness within the constraints of modern architectural practice. His critique of modern architecture and his own design proposals can be seen as efforts to reconcile the individual with the collective, the traditional with the modern, and the personal with the universal in the built environment whic has been demarcated as a result of the modernity.

Before delving into Frederick Kiesler's architectural projects and critiques through the framework of modernity as outlined by de Certeau, it is instructive to consider one final aspect of de Certeau's study. This aspect involves the roles of experts and philosophers, specifically how they exchange hats, a dynamic analogous to the shift Kiesler himself undergoes in his correalistic studies.

De Certeau's analysis sheds light on the dichotomy between the positions of the expert — typically grounded in specific, rule-governed knowledge — and the philosopher, who engages in broader, more abstract contemplation. For understanding Kiesler's work, a fluidity between exchange of roles is significant. Kiesler, who claims to be trained as an architect and versed in the practicalities of design and construction, also embraces a philosophical approach in his correalistic studies. He moves beyond the technical aspects of architecture to interrogate its deeper meanings and implications within the context of modern life only to come back to a new set of technical aspects of architecture.

In Kiesler's work, the confluence of expert knowledge and philosophical inquiry becomes a powerful tool for critiquing and re-envisioning modern architecture. His correalistic approach exemplifies this blend, as he not only addresses the structural and functional aspects of design but also delves into the experiential, perceptual, and communal dimensions of architectural spaces. By adopting both the precise focus of the expert and the expansive vision of the philosopher, Kiesler's work transcends conventional architectural practice, offering insights that are both technically astute and deeply reflective of the human condition in the modern era. Thus, through the perspective offered by de Certeau, we can appreciate the depth and complexity of Kiesler's architectural philosophy as well as its limits. His desire to intertwine expert

and philosophical perspectives enables a more nuanced understanding of architecture's role and potential in shaping modernity.

In de Certeau's exploration of modernity within *The Practice of Everyday Life*, the demarcation between science and culture, or between "rational" methods with defined procedures and the more amorphous realm of culture, brings forth two pivotal figures: the expert and the philosopher. The expert, specialized in a specific field, often assumes a role in socio-political decision-making, becoming a technocrat who leverages expertise as currency for power and influence. On the other hand, the philosopher mediates between society and a body of knowledge, challenging the foundations and implications of specialized knowledge. De Certeau describes these roles as "mediating between society and a body of knowledge, the first insofar as he introduces his specialty into the wider and more complex arena of socio-political decisions, the second insofar as he re-establishes the relevance of general questions to a particular technique (mathematics, logic, psychiatry, history, etc.)"[222]

In this dynamic, the philosopher not only questions but sometimes becomes fascinated by the practical applications and societal influences of the Expert's domain. This can be seen in the Constructivist artists, who were intrigued by the practical implications of their artistic expertise. Conversely, at other times, as in the case of Kiesler, the philosopher rejects the Expert's focus on practicality and specificity, advocating instead for a broader, more integrative approach. Kiesler, for instance, called for a "science of life", transcending mere expert knowledge.

This tension between the Expert and the Philosopher is vividly illustrated in Kiesler's 1929 narrative about Michelangelo and "the business manager of St. Peter's".[223] In this mini-story, Kiesler portrays a scene that encapsulates the conflict between practical, expert-driven approaches and a more holistic, philosophical perspective on art and architecture. The narrative serves as a metaphor for Kiesler's own approach, which straddles the line between expert knowledge and philosophical inquiry, seeking to integrate these perspectives in his architectural and artistic endeavors.

222. De Certeau, *The Practice of Everyday Life*, 6–7.
223. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*, 75.

As mentioned before, Frederick Kiesler's *Contemporary Art*, organized into four parts, can be effectively understood through a three-part reading. I portrayed the first part, comprising five chapters, serving as an introduction to contemporary European art. Here, Kiesler equiped the reader with relevant discussions and theoretical backgrounds, culminating in the presentation of his manifesto on tensionism in the fifth chapter. This section set the stage for the reader to understand the broader context of Kiesler's architectural and artistic philosophy.

The second part, also consisting of five chapters, shifted the focus to the American context, particularly examining the concept of display windows. Kiesler explored how these practical elements significantly impact architectural considerations in relation to the entire city. He draws parallels between the separation of actor and audience in a theater stage and the relationship between a potential consumer and the displayed product. In this section, Kiesler introduced psychological themes, discussing how architectural and industrial design, such as shop window displays, can influence not only the physical arrangement but also the psychological disposition of passersby, creating curiosity and engagement with the products.

The third part of the book, I have not introduced yet. This part, which is constituted of the remaining two parts of the book, follows the tenth chapter, and takes on a more instructional tone. Kiesler, now wearing the hat of an expert, shares insights from his successful designs for Saks Fifth Avenue and Buffalo, offering practical advice on creating effective storefronts. He provides guidelines such as "Make the window look like an entrance and the entrance like a window" and "Make the store interior a showroom instead of a stock room"[224] This shift marks Kiesler's transition from a theoretical and historical discourse to a more hands-on, practical approach to design. In the last chapter of the second part, Kiesler delves into the phenomenon of selling, particularly through the medium of glass. He emphasizes the growing importance of "selling through glass" and questions, "What are we doing to probe the rich, untapped potentialities of this medium?" under the title "Luck vs. Scientific Research".[225] Kiesler advocates for relying on scientific research rather than luck, suggesting that the influence of art and science on manufacturers is significant. He

224. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*, 79.
225. De Certeau, *The Practice of Everyday Life*, 74.

calls for merchandisers to embrace scientific research in the business world, marking a departure from traditional methods and underlining the potential for innovation in the field of merchandising. Kiesler says:

> Times have changed. The store's role is expanding. It is no longer a limited factor in the life of the community. It is beginning ro exercise a social and cultural influence. Department stores are rapidly becoming social centers; and there are signs that their cultural force will become stronger.

Frederick Kiesler, in positioning architects, painters, artists, and writers within the cleavage described by de Certeau, notes a significant shift in their societal roles. No longer are these creatives the vassals of ruling powers, the church, or the monarchy. Instead, they have transitioned to serving the ordinary person, contributing to the fabric of everyday life: "Their works are displayed in the stores. From the stores they pass into the home. Into your home".[226]

This perspective underscores Kiesler's view of the role of the architect, designer, or artist as integral to the daily experiences of ordinary individuals. Their creations, once the exclusive domain of elites and power structures, now find their place in the homes and lives of the general populace, reflecting a democratization of art and design.

However, as Kiesler continues his book, he adopts the role of an expert, aligning with the responsibilities he articulates for creatives in modern society. Yet, he also introduces a narrative that resonates more deeply when considered in relation to de Certeau's concept of modernity, which underscores the tension between the expert and the philosopher. This story, situated within Kiesler's broader discourse, reveals the complexity of his position. He navigates the intersection of practical expertise and philosophical inquiry, embodying the dual roles that de Certeau identifies as pivotal in the modern landscape.

Kiesler's narrative, therefore, is not just a reflection of his expertise in design and architecture but also an exploration of the deeper philosophical implications of these fields in modern society. It illustrates the dynamic interplay between creating for the ordinary and engaging with the broader, more abstract questions that drive artistic and architectural innovation.

226. De Certeau, 75.

Kiesler then starts narrating the story about Michelangelo, set in 1929, which is accompanied by a design depicting the scene. The story unfolds as a conversation between Michelangelo, renowned as a painter and sculptor, and the business manager of St. Peter's church. The manager, inquiring about Michelangelo's experience in building cupolas, is met with a response that highlights Michelangelo's expertise in painting and sculpture. When Michelangelo admits to having no experience in cupola-building, the business manager dismisses him, stating that they are seeking "an expert cupola-builder".[227] [**Figure 4.5**] This story, as told by Kiesler, illustrates de Certeau's alignment of the philosopher with an ancient ideal of connecting specific knowledge to broader questions. Kiesler's Michelangelo symbolizes the potential pitfalls of an over-reliance on expertise, warning of how specialized knowledge might eclipse the more profound forces of life. This narrative mirrors de Certeau's philosopher's about how science and technocratic approaches can dominate knowledge, leading to the alienation of philosophers who seek to connect specialized knowledge with broader, more existential questions.

In Kiesler's portrayal, philosophers (or creative thinkers like Michelangelo) are aligned with what de Certeau refers to as the "exiled subject". This subject, once central to knowledge and understanding, has been marginalized in a technocratic society. Kiesler's story of Michelangelo, therefore, is not just an anecdote about a historical figure; it serves as a metaphor for the tension between expertise and philosophical inquiry in modern times. It underscores the importance of not allowing the depth and richness of human creativity and thought to be overshadowed by narrow definitions of expertise, advocating for a balance between specialized skills and a broader, more holistic understanding of knowledge and life.

Kiesler does not embody the role of the philosopher as described by de Certeau, who mentions that despite being "defeated by history but still rebellious", the philosopher turns their back on what science has usurped, instead accompanying the exiled Subject, once a king, now marginalized in a technocratic society.[228] Kiesler is invested in science and its potentials. However, Kiesler, akin to de Certeau's philosopher, engages with ideas and concepts that have been pushed to the periphery

227. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*, 75.
228. De Certeau, *The Practice of Everyday Life*, 7.

by the dominance of technical and scientific expertise for sure. Before transitioning to the role of an expert, Kiesler reflects on his story about Michelangelo with a poignant observation:

> This conversation would have happened if Michelangelo were alive today; but he was wise enough to have lived in the sixteenth century. And so he built the cupola, without ever having studied architecture; because the confidence of Pope Julius II in an artist's versatility showed real understanding of a creative mind.[229]

In this narrative, Kiesler emphasizes the versatility and creative freedom of the artist, a quality he finds lacking in the modern technocratic world. And the core argument of this thesis is that Kiesler, through Correalism, attempts to reconcile the roles of both the philosopher and the expert, as defined by de Certeau, similar to what Freud attempts but then acknowledges the limits and reconciles with the ordinary. Kiesler's relationship with modern architecture, constructivism, and De Stijl, and his translation of these ideas into the American context, positions Kiesler as an avant-garde figure — a label he himself resists. However, Kiesler's approach is pragmatic, establishing a new standard in architecture that becomes accessible in a manner similar to Freud's transition from a specialized psychoanalyst to a universal figure addressing broader human conditions.

In an enigmatic note, devoid of context or date, Kiesler muses, "I mean the fear when the doorbell rings, not the fear in the dark. That is poetry".[**Figure 4.6**] This cryptic remark encapsulates the essence of Kiesler's Correalist vision. It reflects his pursuit not of the familiar and predictable but of the unknown and unforeseeable. For Kiesler, the fear elicited by a ringing doorbell represents an anticipation rooted in the rational, where expectations are shaped by known possibilities. This form of fear is concrete, tangible, and somewhat within the realm of prediction.

In stark contrast, Kiesler sees "the fear in the dark" as akin to poetry. This fear stems from a confrontation with the unknown, the unseen, and the unanticipated. It is a poetic journey into the depths of the unforeseen and the impenetrable darkness of the unknown. This metaphorical darkness is not just an absence of light but a space teeming with potential, with possibilities that lie beyond the reach of our immediate

229. Frederick Kiesler, *Contemporary Art Applied to the Store and Its Display*, 75.

perception.

Kiesler's Correalist project thus thrives in this poetic realm of uncertainty and mystery. He chooses to operate in a domain where the known and the seen are left behind, embracing instead the darkness and its uncharted territories. This approach signifies a bold departure from conventional artistic and architectural norms, venturing into areas filled with ambiguity and potential, much like a poet reveling in the unspoken and the undefined.

In essence, Kiesler's philosophy, as hinted at in this brief note, is about embracing the enigmatic, the uncertain, and the ineffable. It is about finding beauty and meaning not in the clarity of the known but in the obscurity of the unknown, where fear transforms into a poetic experience, opening up new avenues for creative exploration and expression.

The Expert, as defined in de Certeau's account, because of their specialized knowledge and the status it grants them, often speaks on topics beyond their technical expertise. Their authority in a specific field allows them to voice opinions on broader issues, even when these issues fall outside their direct area of competence. By mastering a specialized field, the Expert gains a certain status and authority within the socio-economic order. Essentially trading their knowledge for authority, expert is referred as a figure who "receives a paycheck in exchange of work".[230] The economy that governs this exchange is proportional to the number of people who govern this technocratic authority. As more people gain this type of authority, it leads to its devaluation and authority is given out too freely or disproportionately to the level of competence, reducing its overall value.

Kiesler, almost aware of this danger, with his critique of the strategies governing architectural access, oscillates between the philosopher and the expert. He momentarily "walks in the air", akin to "Felix the Cat" in old movies, as described by de Certeau.[231] This metaphorical walk in the air represents Kiesler's early dissapointments in the United States. But he bridges the cleavage between culture and science, engineering and architecture, art and life — any symbol of navigating

230. De Certeau, *The Practice of Everyday Life*, 8.
231. De Certeau, 8.

the divide between two realms that seem irreconcilable. Thus, Kiesler's work in Correalism not only addresses specific architectural and design issues but also engages with broader philosophical questions, embodying the dual roles of expert and philosopher in a modern context.

4.9 Tactical Shuffles

De Certeau further suggests that consumers are described as "unrecognized producers, poets of their own affairs, trailblazers in the jungles of functionalist rationality" implying they creatively use and interact with the products and systems around them.[232] They're not just passively consuming but actively shaping their use of these products in innovative ways. Similar to what Kiesler postulates in the 1930s, consumers move through the structured world in ways that are unpredictable and do not necessarily align with the intended design or purpose of these spaces. As creative agents, for de Certeau their movements and choices are like "indeterminate trajectories" that do not adhere to the expected paths. They are creative and have tactical ways they select from the vast array of available products to create new, personal stories.[233] Kiesler is not interested in a strategic rationalization and secure a position within this world that is constitutetd of flux of external forces.

In de Certeau's "The Practice of Everyday Life", the concept of "strategies" is defined as actions emanating from a "proper" — an established, controlled space or institution. These strategies are characterized by their systematic and totalizing nature, often manifesting in elaborate systems and overarching discourses. They represent calculated approaches adopted by entities in positions of power or authority, aiming to maintain control and order within their defined domains..[234] This implies that strategies, as conceptualized by de Certeau, hinge on the creation of a locus of power. Such a place of power organizes and articulates an array of physical locations where power is actively exerted. The ultimate goal of these strategies is to dominate spatial relationships. Fundamentally, they are rooted in militaristic models

232. De Certeau, 34.
233. De Certeau, 35.
234. De Certeau, 66.

that have been adapted and evolved into “scientific” approaches.[235]

Tactics, in contrast to strategies, operate within the space of “the other”. Lacking a proprietary space, tactics are inherently unable to formulate a comprehensive strategy or perceive the adversary as a whole entity. Instead, tactics are opportunistic, capitalizing on fleeting moments and chances. They are dependent on these transient opportunities, as they have “no base where it could stockpile its winnings”. In this sense, tactical maneuvers are about gradually building a position and planning “raids” or actions that are executed in response to immediate circumstances. Unlike strategies that rely on overarching control and pre-planned systems, tactics are more about improvisation and making the most of the present situation.[236]

Kiesler, just like any subject of modernity, could be studied in relation to his tactical manevours, and his architectural practice as tactical architecture. From his foundations in the 1920s set the stage for the development of his ideas related to Correalism in the 1930s, he has his own personal temporal journey that is a sequence of actions and decisions- his own "trajectory" as de Certeau would put it. This trajectory led Kiesler affirming his reputation as a successful designer, particularly through his innovative approach to window shop designs in America in the 1930s. He began to flirt with technocracy, a movement gaining traction during this era, especially in the context of the Works Progress Administration (WPA) and his involvement with publications like *Architectural Record* and *Shelter*.

Architectural Record, a magazine promoting modern architecture in America, was developing a cohesive ideology for design methodologies grounded in productive engagement with industrialization.[237] *Shelter*, initially titled *Shelter: A Correlating Medium for the Forces of Architecture*, served as a mouthpiece for the Structural Study Associates (SSA), reflecting a technocratic approach to design. This approach, characterized by a government or social system led by technicians and guided by the imperatives of the common good, became more pronounced during the Great Depression.[238]

235. De Certeau, *The Practice of Everyday Life*, 66.
236. De Certeau, 66.
237. Strum, *The Ideal of Total Environmental Control*, 76.
238. Strum, 111.

Kiesler's work, including his emphasis on "time-space temporality, tensile structures, the incorporation of advanced technologies into architecture, and design principles that celebrate the sensorial realm", aligned with the technocrats of the SSA in exploring marginalized areas of architecture.[239] Unlike his colleagues like Fuller, Larson, and Lonberg-Holm, however, Kiesler stood out as the "enigmatic sojourner" due to his dedication to unifying art by blurring disciplinary boundaries.[240] Strum notes that Kiesler's "Design-Correlation" series in *Architectural Record* extrapolated the graphics, functionalist writing style, and applied scientific research methodology of Lonberg-Holm's and Larson's work, but with a surrealistic twist.[241] This work, coupled with his design laboratory research, allowed Kiesler to expand on Correalism. This expansion should be understood as a bridge between his philosophical inclinations and his role as an expert in the field.

In essence, Kiesler's journey through the 1930s highlights his unique position in responding to modernity as a strategic move from within the domain of architecture. He simultaneously acts as a philosopher, questioning and expanding the boundaries of architecture and art, and as an expert, applying these philosophical insights into practical, technocratic frameworks but does so in a tactical way that he seizes the oppurtunities each time, despite getting a proper "paycheck" as an expert. His work in Correalism, therefore, represents a synthesis of these dual roles, contributing a distinctive voice to the architectural discourse of the time.

Kiesler's introduction to the American scene marked a tactical interchange between his role as both a philosopher and an expert, particularly in the face of the cleavage created by modernity's demarcation. This transition is exemplified by an event described by McGuire, where Kiesler, during the International Theater Exhibition in 1926, encountered challenges in conveying his Constructivist ideas on theater art to an American audience.

McGuire paints a dramatic scene: "On a cold and clear Sunday afternoon... Kiesler invited the public press to attend a special lecture".[242] Joined by Dutch-American physician Bess Mensendieck and Princess Norina Matchabelli, with Charles Recht

239. Strum, 142.
240. Strum, 143.
241. Strum, 144.
242. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 105.

as his interpreter, Kiesler organized this meeting to announce the foundation of a dramatic school and theatrical research laboratory. Here, he introduced the notion of "fourth dimensional theater", which created a buzz among the press but was later subject to misinterpretation and parody.

The concept of the fourth dimension, while resonating with the European avant-garde, failed to translate effectively to the American audience. Despite its rich historicity in early twentieth-century artistic thought and its embodiment in the ideas of Einstein and van Doesburg, Kiesler and his colleagues struggled to convey its theoretical significance in this new context.[243] The press's response, which resorted to parody and skepticism about Kiesler's political intentions, highlighted the disconnect between Kiesler's avant-garde language and the American public's understanding.

Faced with these challenges, Kiesler retreated from using the term "Fourth Dimension". He clarified in a letter to the *New York Telegram* that his school would not teach politics or abstract concepts like the fourth or fifth dimensions.[244] This experience led Kiesler to adapt his approach, favoring more commonly comprehensible terms to articulate his ideas — essentially, adopting an "ordinary language" to bridge the gap between his Contructivist concepts and the American audience.

This pivot in Kiesler's communication strategy underscores his adaptation to the American cultural landscape and the necessity of aligning his philosophical and expert roles with the prevailing socio-cultural context. His shift from the complex language of European avant-garde to a more accessible discourse and then to a grammar and vocabulary he registers as trade mark under the term Correalism reflects his response to the challenges of modernity and his ongoing quest to integrate his innovative architectural ideas into the American milieu.

In analyzing Frederick Kiesler's experience in America and his research on Correalism, it becomes evident that his transformation and adaptation of ideas to the American audience and context are not merely a progression or evolution of his

243. McGuire, "Space Within-Frederick Kiesler and the Arrchitecure of an Idea," 106–107.
244. McGuire, 111.

project, but rather a result of conscious choices. These choices include his use of language, selection of words, and the examples he employs to address the questions that interest him. These decisions, in turn, influence the very questions he poses. A key theme in Kiesler's work is the problem of the separation between life and art, a theme that remains consistent throughout his career. This theme is particularly resonant when viewed through De Certeau's depiction of modernity. In Kiesler's efforts to reconcile this dichotomy, he demonstrates a strategic flexibility in the roles he assumes. At times, he positions himself as an expert, claiming authority and seeking societal validation in exchange for his specialized knowledge. At other times, he adopts the role of a philosopher, aligning himself with the subjects of the expert's inquiry. This philosophical approach enables Kiesler to ensure that creativity and innovation remain accessible and relevant in his work. Kiesler's shifting between the roles of expert and philosopher is indicative of his response to the challenges of modernity. He navigates these roles with a keen awareness of their impact on how his ideas are received and understood. By modulating his language and approach, Kiesler not only addresses the separation between life and art but also actively engages with the broader cultural and intellectual currents of his time. His work in Correalism, therefore, can be seen as a manifestation of these dynamic shifts, embodying a conscious effort to make his ideas resonate within the American cultural landscape.

4.10 Profanations

These shuffles bring along different fields in which Kiesler can operate, before losing their significance. Giorgio Agamben's exploration of the concepts of "*religio*", "profanation", and "secularization" in *Profanations* can guide the final thread that this chapter aims to disclose. Agamben provides a profound insight into the dynamics of the sacred and the profane, especially in the context of Roman religious practices. His interpretation offers a nuanced understanding of these terms, which is significantly different from conventional perceptions.[245] Firstly, Agamben clarifies the etymology of "*religio*", noting that it derives from "*relegere*" rather than

245. Agamben, *Profanations*, 74.

"*religare*". This distinction is crucial as it shifts the focus from the notion of binding or uniting (as "*religare*" suggests) to an attitude of meticulousness and attentiveness in the dealings with the divine ("*relegere*").[246] In this view, "*religio*" is not about uniting humans and gods but about maintaining their distinctiveness through acts of consecration and designation of certain elements as sacred.

Agamben's concept of "profanation" is particularly intriguing. Unlike secularization, which simply transfers something from a religious to a secular context without altering its inherent nature, profanation goes much deeper. It involves a radical transformation or "naturalization" of the sacred, effectively disempowering it and reclaiming it for common use.[247] Profanation is not just a shift in context but a fundamental change in essence. This act of profanation is inherently political, as it deactivates established power structures and liberates spaces and concepts previously controlled by those structures. In this way, profanation serves as a means of challenging and potentially overturning the *status quo*.

The inherent contradiction in Roman conceptions of the sacred and profane is further highlighted in Agamben's discussion of the Latin verb "*profanare*" and the adjective "*sacer*".[248] These terms encapsulate the duality and tension between the sacred realm and the ordinary, human world. This duality reflects a complex interplay of reverence, separation, and potential reintegration or transformation.

The word "sacer" in Latin, as highlighted by both Freud and Agamben, encapsulates this duality by meaning both "consecrated to the gods" and "cursed, excluded from the community".[249] This paradoxical nature suggests that objects or beings deemed sacred are simultaneously set apart for divine purposes and marginalized or ostracized from ordinary societal life. The sacred, therefore, is imbued with a sense of otherness and transcendence, yet also carries a potential for danger or impurity.

Similarly, "profanare" primarily means to desacralize or render something profane, effectively transferring it from the sacred to the secular realm. However, its rarer usage as "to sacrifice" introduces an intriguing counterpoint, suggesting that the act of

246. Agamben, *Profanations*, 74–75.
247. Agamben, 73.
248. Agamben, 75.
249. Agamben, 77.

making something profane could also involve a form of offering or relinquishment to the divine. This dual meaning reinforces the notion that the processes of transitioning between sacred and profane states are complex and imbued with residual elements of both realms.

4.11 Constructing diagrams

Diken, referencing Durkheim, notes that religion is founded on the concept of the "sacred" – things that are set apart and encircled by prohibitions.[250] In contrast, profanation, according to Diken, serves to disregard and thereby neutralize this separation. This idea aligns with Agamben's focus on "play" as a mechanism that liberates humanity from the sacred domain without outright abolishing it.[251] It is this dynamic interplay between the sacred and the profane, forming the core paradigm of religion,[252] that I find particularly pertinent in examining the design epistemology of modern architecture, especially in the context of experience and science. De Certeau's strategic demarcation line between scientific and non-scientific realms, along with the centralization of the body in epistemological discussions through kinaesthetic knowing, creates a field of interaction. [**Figure 4.7**] This framework facilitates an exploration of the paradigmatic structure of twentieth-century architecture. Profanation, as an operation, acknowledges and maintains separations, demarcations, or cleavages, while also embracing what lies beyond these boundaries. Thus, in this diagrammatic representation of profanation within demarcated spheres, I investigate Kiesler and his historical context, examining how these boundaries shape and inform epistemological endeavors in architecture. [**Figure 4.8**]

In "Profanation in Spinoza and Badiou: Religion and Truth", Diken employs the concept of a diagram as a "hermeneutical fiction", facilitating the interpretation of the dynamics and relations evident in Spinoza and Badiou's works.[253] He identifies a "shared desire for profanation" in their philosophies, highlighting a convergence

250. Durkheim cited in Bulent Diken, "Profanation in Spinoza and Badiou: Religion and Truth," *Theory, Culture & Society* 33, no. 3 (2016): 28
251. Agamben, *Profanations*, 79.
252. Diken, "Profanation in Spinoza and Badiou: Religion and Truth," 28.
253. Diken, 34.

amidst divergence.[254] This approach reveals a complex interplay between philosophy, politics, and religion, particularly in the context of redefining religious concepts through non-theological lenses.

Applying Diken's framework, I adapt this concept of profanation to examine modern architecture, using it to investigate the relational dynamics between architecture, philosophy, politics, and culture. In this context, Agamben's definition of religion as the act of removing things from common use and transferring them to a separate sphere becomes pivotal. This definition emphasizes that separations, inherent in religious practices, inherently contain "genuinely religious" cores. By analogy, modern architecture, in its separation from traditional forms and functions, may be seen as creating its own "religious core" – a set of principles and practices that are distinct and separate from the common or everyday architectural practices. Thus, in my exploration of Kiesler's work within the broader scope of modern architecture, I propose to view his contributions as part of this "separate sphere". Kiesler's innovations and ideas can be interpreted as efforts to "profane" or recontextualize architectural norms, thereby challenging and expanding the religious core of modern architecture. This perspective offers a novel lens through which to understand Kiesler's place in the architectural landscape, particularly in terms of how his work intersects with and diverges from mainstream architectural thought.

In Diken's interpretation of Spinoza's work, he identifies a nuanced distinction between superstition and universal faith, two forms of religion that Spinoza analyzes. This analysis is crucial in understanding the intricate relationships between belief, imagination, and rationality.[255] Superstition, as described by Diken drawing on Spinoza, is founded on the realm of imagination. It operates through emotions rather than reason, attempting to conceptualize the inconceivable. This form of religion is characterized by its mystification of both the world and the religious experience itself. It represents an endeavor to explain or rationalize phenomena that elude logical understanding, often leading to misconceptions or exaggerated interpretations of reality. On the other hand, Spinoza's concept of "universal faith" contrasts with superstition. Universal faith allows individuals to

254. Diken, "Profanation in Spinoza and Badiou: Religion and Truth," 28.
255. Diken, 29.

assimilate religious dogmas into their own belief systems and opinions. This process enables acceptance without the necessity for rigorous reasoning or justification. In essence, universal faith is more accommodating and inclusive, allowing personal interpretation and integration of religious principles into one's worldview. It does not demand strict adherence to dogmatic reasoning but rather encourages individual adaptation and understanding.[256] Superstition and universal faith represent two poles on a spectrum of religious experience – one rooted in emotional and imaginative interpretation, and the other in a more flexible, personal integration of faith.

Diken's analysis of Spinoza's philosophy reveals a nuanced understanding of the relationship between superstition and universal faith, and their interplay with knowledge domains such as imagination and reason. This exploration is significant in mapping the intersections and boundaries between different forms of belief and knowledge. In Spinoza's framework, superstition and universal faith represent different approaches to religion, distinguished by their accessibility and nature. Superstition is more aligned with personal, emotional experiences and is private in nature. Universal faith, on the other hand, is grounded in dogmas and opinions that are more publicly accessible and common. This distinction marks the first demarcation line between private and common realms in the context of religious belief.[257] The second demarcation line, according to Diken's interpretation of Spinoza, lies in the domain of knowledge, particularly in the differentiation between imagination and reason. While these two might seem to be fundamentally different, with revelation (imagination) and philosophy (reason) appearing to stand on different footings, as he quotes from Spinoza: "Revelation, or theology, is 'in accordance with reason' for they share the idea of God".[258]This indicates that the boundary between imagination and reason is not as rigid as it might appear: "there is a porssibility of correspondence, a sense of continuity between the first and second kinds of knowledge".[259] [**Figure 4.9**] The continuity and transition ability between two fields of knowledge lays the groundwork for the third kind of religion in Spinoza, where "[t]he idea of God is related to common notions but is not a common

256. Spinoza cited in Diken, 29
257. Diken, 31.
258. Spinoza cited in Diken, 31
259. Diken, 31.

notion itself".[260] Since common notions pertain to things that can be imagined, but God cannot be imagined, we can only reach the idea of God through these common notions. Therefore, the idea of God, as per Spinoza's "true religion," is based on reason and not imagination. "It is the 'knowledge of the second and third kinds, and not the first kind, [that] teaches us to distinguish the true from the false"[261], facilitating a progressive move to the third region. This progression from superstition and universal faith, as the separation of knowledge and imagination permits, transitions from the second kind of knowledge (common notions) to a third kind (understanding). This leads to a knowledge of God that is "free from passions, nor is he affected with any emotion of pleasure or pain"[262], unlike in pagan religions. Here, the operation shifts from distinguishing between the first and second kinds of knowledge [**Figure 4.10**] to being expressed in the domain of common notions. [**Figure 4.11**] In this field of common notions, God remains within the domain of the second kind of knowledge. However, this "sovereign being, previously without love or joy, receives a new characterization" as it is now "accompanied by the joys grounded in (the power of) understanding".[263] Diken explains that in Spinoza's framework, the operation of profanation in these realms of knowledge and religion is enacted through the figure of Christ. Christ symbolizes the "singular name of the transition from imagination to reason," as he communicated "mind to mind" with God. This interaction between Christ and God thus profanes the divine, transforming universal faith into "an intellectual and moral relationship, stripped of its mystery and supernatural elements".[264]

Diken interestingly introduces capitalism as a form of religion in his Spinozist diagram, diverging from the traditional understandings of religion as outlined by Spinoza. In contrast to Weber's famous depiction of capitalism as a secularization of Protestant faith, Benjamin argues that capitalism is fundamentally a religious phenomenon, evolving "parasitically from Christianity".[265] This cultic aspect of capitalism is significant in that it is not based on dogma or common notions but is defined by the fulfillment of a cult, emphasizing its all-encompassing and totalizing

260. Diken, "Profanation in Spinoza and Badiou: Religion and Truth," 31.
261. Spinoza cited in Diken, 32
262. Spinoza cited in Diken, 32
263. Diken, 32.
264. Diken, 32.
265. Agamben, *Profanations*, 80.

nature. Furthermore, its focus on guilt, as described by Benjamin, contrasts with traditional religions' aim at redemption, implicating even the concept of God in this universalized sense of guilt.[266] The mechanism of debt (credit) forms an abstract law governing the relations of equivalence among commodities, akin to a god's genesis "out of something that is not".[267]

This results in a paradox where abstract value becomes devoid of intrinsic value, even as capital relentlessly seeks further accumulation.[268] In a money economy that reduces all qualities to mere quantities, obliterating the distinctions between different values, the cult of capitalism creates the illusion that all production in capitalist society emanates from the notion of "God-capital".[269] This system perpetuates an infinite debt to capital, which becomes the fetishized object, the "body without organs" of capitalist society, seemingly the origin and destination of all value.[270]

In this context, capitalism is introduced into the Spinozist diagram as a form of religion. It perverts reason into mere instrumental reason and, through its relentless and multifaceted process of separation, profanes everything indiscriminately. This process expands to such an extent that there remains nothing left to separate, extending commodification beyond mere objects to encompass all forms of human activity. In this system, commodities are bifurcated into use-value and exchange-value, becoming elusive fetishes that transform the nature of objects, experiences, and even human relationships.[271] [**Figure 4.12**]

Therefore, in this conceptualization, capitalism emerges as the ultimate profaning operation, effectively transforming into a form of religion. Utilizing a diagram to schematize various religious constructs within a Spinozist universe, Diken delineates four distinct religions. This framework operates through functions associated with God/Jesus and is characterized by two main trajectories. The first trajectory involves processes of "appropriation/sacralization" and "re-appropriation/profanation". The second trajectory contrasts "appropriation/accumulation" with the concept of "God

266. Agamben, 80.
267. Diken, "Profanation in Spinoza and Badiou: Religion and Truth," 33.
268. Diken, 33.
269. Deleuze and Guattari cited in Diken, 34
270. Diken, 34.
271. Agamben, *Profanations*, 81–82.

withdrawn". This model presents a complex interplay of religious and economic dynamics, positioning capitalism as a pervasive and transformative force in the realm of religion and belief. [**Figure 4.13**]

The apriori understanding of religion as separation and mediation between property and commons defines the first axis of appropriation and re-appropriation (profanation), and the same logic applies to the second axis as the continuous relationship between imagination and reason in Spinoza's terms is 'perfection,' which is not predetermined but only accessible through processual terms that differentiate between superstition, universal faith, and true religion (understanding) on one hand, and reason and instrumental reason on the other: 'faith is not identical to religion as superstition, just as reason is not reducible to instrumental reason'.[272] The first three fields are, consecutively, religion as superstition, religion as universal faith, and true religion in Spinoza, that is 'God of Nature'.[273] With the emergence of the fourth field in the form of a revised Spinozism — in the framework of which perversion of democracy leads to liberal democracy, and universalism to the logic of God-capital— "profane" and "common" do not coincide, but everything that is profane (capitalism) is "elevated to the level of sacred."[274] [**Figure 4.14**]

This diagram, illustrating the operations of God/Jesus within fields demarcated between private and common, and imagination and reason, forms the foundational structure of the diagram used by Çelik Alexander in her study of kinaesthetic knowing. Within this framework, I position Frederick Kiesler as an "all-profaning" figure in the realm of twentieth-century architectural epistemology.

Çelik Alexander frames kinaesthetic knowing within a historical context, spanning from Helmholtz's enthusiastic endorsement in the mid-nineteenth century to Musil's resigned acknowledgment of its limitations in the early twentieth century. This brief period of ascendance, marked by the exploration of "another way of knowing", was embraced by educational reformers aiming to build a new pedagogy at all levels.[275] According to Çelik Alexander, this era led to the invention of innovative techniques in observation, sensation, drawing, and design. She posits that these developments

272. Diken, "Profanation in Spinoza and Badiou: Religion and Truth," 34.
273. Diken, 37.
274. Diken, 37.
275. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 61.

laid the precarious groundwork for the epistemological project of twentieth-century aesthetic modernism.

Experience, as the key operative agent, is exemplified in Çelik Alexander's listing of Wölfflin's comparative vision, Endell's mathematics of living feelings, The Debschitz School, and the Bauhaus. These are identified as four distinct fields or regions, each defined by the type of experience they facilitate. This organization of experiences is based on their relationship to the dual poles of private and common, as well as imagination and reason, thereby defining experiences of different kinds.

In Wölfflin's comparative vision, the act of "looking" delves into the "inner voice," aiming to modulate it without entirely silencing it. This method acknowledges the eye's saccadic movements but seeks to stabilize them.[276] Such "looking" represents a form of knowledge acquisition that relies solely on phenomenal familiarity with the world, independent of higher cognitive reasoning. Therefore, this approach to experience is a private act, devoid of prior reasoning or scientific basis, akin to the realm of superstition when religion is the operative factor. [**Figure 4.15**]

For the second instance of a kinesthetic project, Çelik Alexander discusses Endell's table, which was published in *Dekorative Kunst* in 1898 and is referred to as the "Mathematics of Living Feeling." Endell described this table as a means through which "each word corresponding to a feeling" is "produced as a result of forms exerting their immediate effects on the physiology of the beholder."[277] He posited that architects could utilize this table to evoke in observers feelings ranging from "simple, intimate, warm," to "serious, deep, sublime," or even "proud, strict, violent, and fierce".[278] In this context, affect, as a source of knowledge derived from experience, finds its place in a complex interplay between the subject and external or internal factors. As a verb, affect refers to the act of influencing or impacting something or someone. Conversely, as a noun, it is synonymous with emotions or feelings. This linguistic duality captures the essence of affect: while it can be an active force that influences, it also represents the passive emotional state resulting from such influence. Consequently, affect is situated within the realm of common

276. Çelik Alexander, 61.
277. Çelik Alexander, 97.
278. Çelik Alexander, 97.

experiences, similar to vision. However, unlike the act of looking, which is an individual endeavor, affect involves multiple entities. Moreover, since the noun form of affect is rooted in emotions, this operation aligns with the second field of experience as a source of knowledge, where knowledge is derived from the collective and emotional aspects of human experience. [**Figure 4.16**]

The third example I draw from Çelik Alexander is the Bauhaus and Moholy-Nagy's studios, modeled after psychology "which had turned to experimentation", with the elusive "experience" as their object.[279] Employing psychophysical techniques, they did not abandon the assumption of a direct relationship between form and affect. This third domain, as Alexander describes, signifies both the end of a chapter in the history of modernism and the beginning typically associated with it. In this context, Bauhaus and "design" occupy a philosophical space similar to religion's role in Spinoza's framework. [**Figure 4.17**] This thesis then is endeavoring to position Kiesler's Correalism as an instrumentalization of modern architecture by profanating every aspect of Architecture with a capital A, as conceptualized within the framework of kinaesthetic knowledge. [**Figure 4.18**]

Kiesler's methodology can be interpreted as an endeavor to recover spaces and concepts that were previously sanctified by the dominant norms of modernism, reintegrating them into the sphere of everyday life. Consequently, his work transcends mere architectural form, venturing into the territories of philosophy and social critique. This approach not only challenges but also broadens the traditional perceptions of modernism. Kiesler's contributions, thus, are not merely architectural feats but serve as critical reflections on the essence of modernity. In this context, the Kiesler emerges as an "ordinary" individual, neither solely an expert nor a philosopher. This perspective might initially seem to diminish the stature of architecture, a discipline Kiesler has consistently critiqued. Yet, akin to capitalism — with which Correalism shares its conceptual space in the matrix — Kiesler's impact on architecture could be seen as establishing a persistent "cult" of architecture. This cult potentially magnifies itself as an ultimately capitalist enterprise within the architectural discourse of the twentieth century.

279. Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design*, 171.

4.12 Re-Enter: Architectural Profanations

Diken describes the diagram of profanation in Spinoza in Figure 4.14 as a representation of "turning his back to religion.".[280] According to Diken, Spinoza's philosophy displays an antagonistic stance towards religion, primarily because profanation in Spinoza's context signifies the obliteration of theology. This obliteration is accomplished by "obliterating the distinction between theology and philosophy".[281]

Diken's exploration of Badiou's approach to profanation involves a nuanced reinterpretation of religious concepts. Instead of outright rejecting these concepts, Badiou integrates them into his philosophical framework. This integration is not a mere adoption of religious ideas but a transformation that "perfects" the truths found within religious imagination. By "accommodating" these religious concepts, Badiou opens up religious imagination to the realm of reason. This process allows for a kind of dialogue between faith and rationality, where religious ideas are not dismissed but rather recontextualized and reinterpreted through a philosophical lens. By re-entering the Spinozist diagram in the third field of itself, Badiou's four truth procedures' structural resemblance with Spinoza's four religions are demonstrated in Diken's attempt to show "the relation between Spinoza's and Badiou's anti-theologies"suggesting a kind of disjunctive synthesis — a relationship where the two perspectives are not in direct opposition, but rather exist as agonistic adversaries on a shared common ground.[282] [**Figure 4.19**] What is inserted into the third region of the diagram "is not a different diagram that merely bears some structural analogy with the first" Diken underlines: "What is at issue is rather the reinsertion of the whole (the relation between the four religions in Spinoza) into a part of itself (the third religion, that is, philosophy)."[283] Through this process of re-entry and self-referentiality, the formal similarities between Spinoza's religions and Badiou's concept of truth procedures become visible. Badiou's truth procedures, which are methods for arriving at universal truths, can be seen as analogous to the way Spinoza conceptualizes religions, particularly when viewed through this

280. Diken, "Profanation in Spinoza and Badiou: Religion and Truth," 42.
281. Diken, 39.
282. Diken, 44.
283. Diken, 45.

self-referential framework. While this approach raises several logical questions and paradoxes, particularly around recursion, self-reference, and the potential for infinite regress, the diagram – as a conceptual tool – holds validity insofar as it helps to visualize and potentially resolve a "virtual problem".

To tackle with this "virtual problem" centered on Frederick Kiesler's position within modern architecture, I employed the concept of kinaesthetic knowing as the basis for developing a new diagram. This diagram is a reflection of the one found in Spinozist theory, which notably positions capitalism in its fourth field. In my reinterpretation, I replaced this with Kiesler's concept of Correalism — his distinctive approach to the science of life, as illustrated in Figure 4.13. This diagram stood on the foundational structure of kinaesthetic knowing and experience as its operative function. Postulating Kiesler as an "all-profaning" figure served as a foundational tool in my thesis, allowing for a deeper exploration of Kiesler's contribution to the field of architecture and his redefinition of its traditional boundaries.

While profanation as embodied by Kiesler was illustrated through his engagement with Alexander's kinaesthetic-epistemological chart, Kiesler can re-enter this chart with his own understanding of architecture as defined in his chart of architecture, what Kiesler refered as "Progression Chart of Architecture"; "Time Space - Architecture" in a number of drafts and finally publishes as the "Morphology Chart of Architecture" in his 1934 article[284] operates with a similar logic of profanation where architecture is defined in relation to humans' understanding of their environment which in turn shaped what kind of architecture they "constructed". [**Figure 4.20**] In Kiesler's chart, he begins with the initial nomadic stage of human development, identifying the predominant architectural activity as "Craft". In this phase, "shelter" is the primary architectural manifestation, reflecting a private nature of architecture where intuition plays a key role over rational, structured knowledge. This "Craft-shelter-tribalism" concept, grounded in a social context of "Tribalism", occupies the first field of the architectural diagram.

As he moves to the religious state, Kiesler characterizes architecture as "Art", with "Temple" being the architectural manifestation and "Deism" shaping the societal

284. Frederick Kiesler, "The Space House," 297.

context. Here, architecture transitions from private to common, with knowledge rooted in "styles" and "tradition" driven by creativity and imagination. The "Art-Temple-deism" combination thus fills the second field of the diagram.

In another significant stage, Kiesler defines architecture as "Technique" or "Mechanical Art", manifested in structures like "Power Plants" or factories within a "Capitalism" societal framework. Intriguingly, he initially labels this stage as "democracy". This represents the era Kiesler believed he was part of, marking a period where architecture becomes a product of structured knowledge aimed at industrializing society. This stage, dominated by the experts of CIAM, SSA, and technocrats, is an era of modern architecture as understood in the early twentieth century. "Mechanical Art-Power Plant-capitalism" occupies the third field, reflecting a move towards environmental control.

Contrasting this, Kiesler anticipates a future stage of "Science", envisioned through his concept of Correalist Architecture. By 1934, he refers to the architectural manifestation as "Communalion", articulating Correalism as a Science of Life. This stage is about relationships, representing a shift from the given to the domain of individual experiences and subjectivities. These form the foundational character of the relations, science of life, and its architecture. The fourth field is reserved for this "future science", where architecture transcends traditional boundaries to embrace a more experiential, subjective approach.

I utilize Kiesler's chart of architecture as a diagram to make a "re-entry" into the kinaesthetic-epistemological chart. [**Figure 4.21**] By juxtaposing Kiesler's ideas against this backdrop, I aim to explore new dimensions and perspectives within the realm of architectural epistemology. This process allows for a nuanced understanding of the relationship between physical space, human perception, and architectural theory, as seen through the lens of kinaesthetic knowing and profanation.

This re-entry into the kinaesthetic-epistemological chart demonstrates a structural analogy with kinaesthetic knowledge, with experience acting as the operative agent in demarcating various fields of architectural epistemologies. It's important to note that the progression from one field to another in the kinaesthetic-epistemological

diagram does not imply a linear advancement toward a more developed epistemological state. Rather, it provides a nuanced understanding of the variances within the field of experience, framing it as a valuable epistemological currency.

In Kiesler's perspective, despite the chart of architectural morphosis suggesting a progression toward a technologically and scientifically advanced state, he contends in his Correalism theory that technological environments of varying standards are not inherently comparable. The key epistemological currency for the diagram that re-enters the broader framework is architecture that is defined through how its "knowledge" is acquired. Correalism, rooted in the fourth field of the kinaesthetic-epistemological chart, draws its essence from the relations of individuals to their physical and psychological environments. This positioning occurs despite its assignment to a context labeled as "communal". This juxtaposition highlights a key aspect of Correalism: it transcends the mere communal aspect by delving into the intricate interplay between individual experiences and their surroundings.

The fourth field in both the kinaesthetic-epistemological and architectural-epistemology charts presents a challenge. In both instances, it is Kiesler's concept of correalism that consistently occupies this space. When considering the combined power of these two diagrams, Kiesler's correalism begins to carve out its own distinct position. This is a notable departure from the field traditionally dominated by capitalism, assuming the operative logic of profanation had supplanted religion. This transition represents a tactical move within the realm of experience as a source of knowledge. As this process of re-entry unfolds, what starts as a tactical maneuver gradually takes on the semblance of a strategic, self-reinforcing approach. This evolution is what I describe when I discuss how profanation, initially a tactical tool, eventually acquires a strategic character.

In this broader context, Kiesler's 1925 declaration of the end of architecture marks a significant turning point: a conception of architecture that asserts itself in all capital letters.

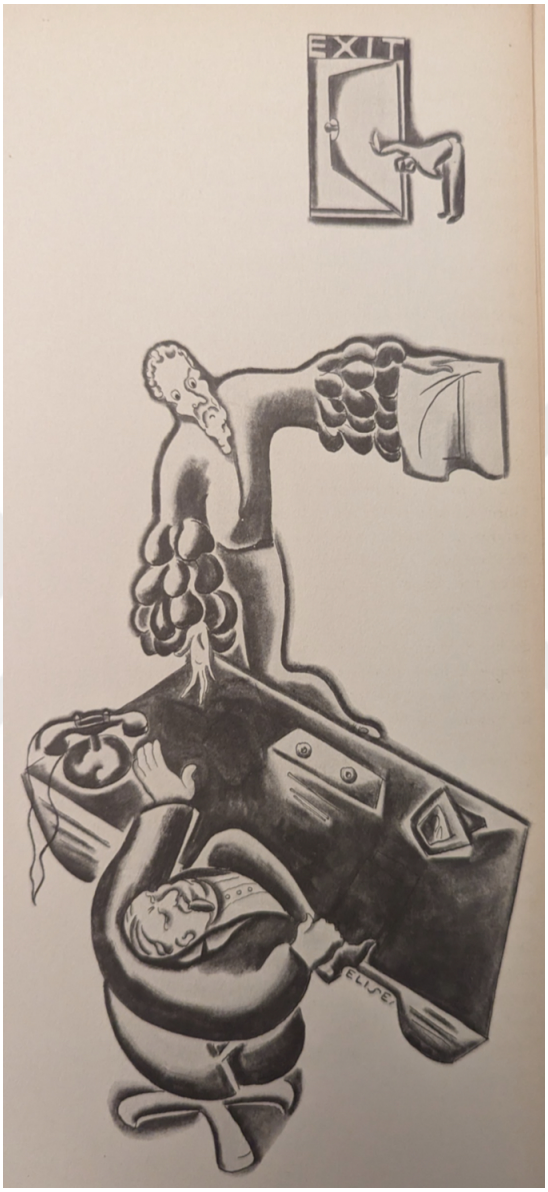


Figure 4.5: A drawing, accompanying Kiesler's story "Michalengelo 1929" in *Contemporary Art* with the caption "Design by ELISE". 1930, 75.

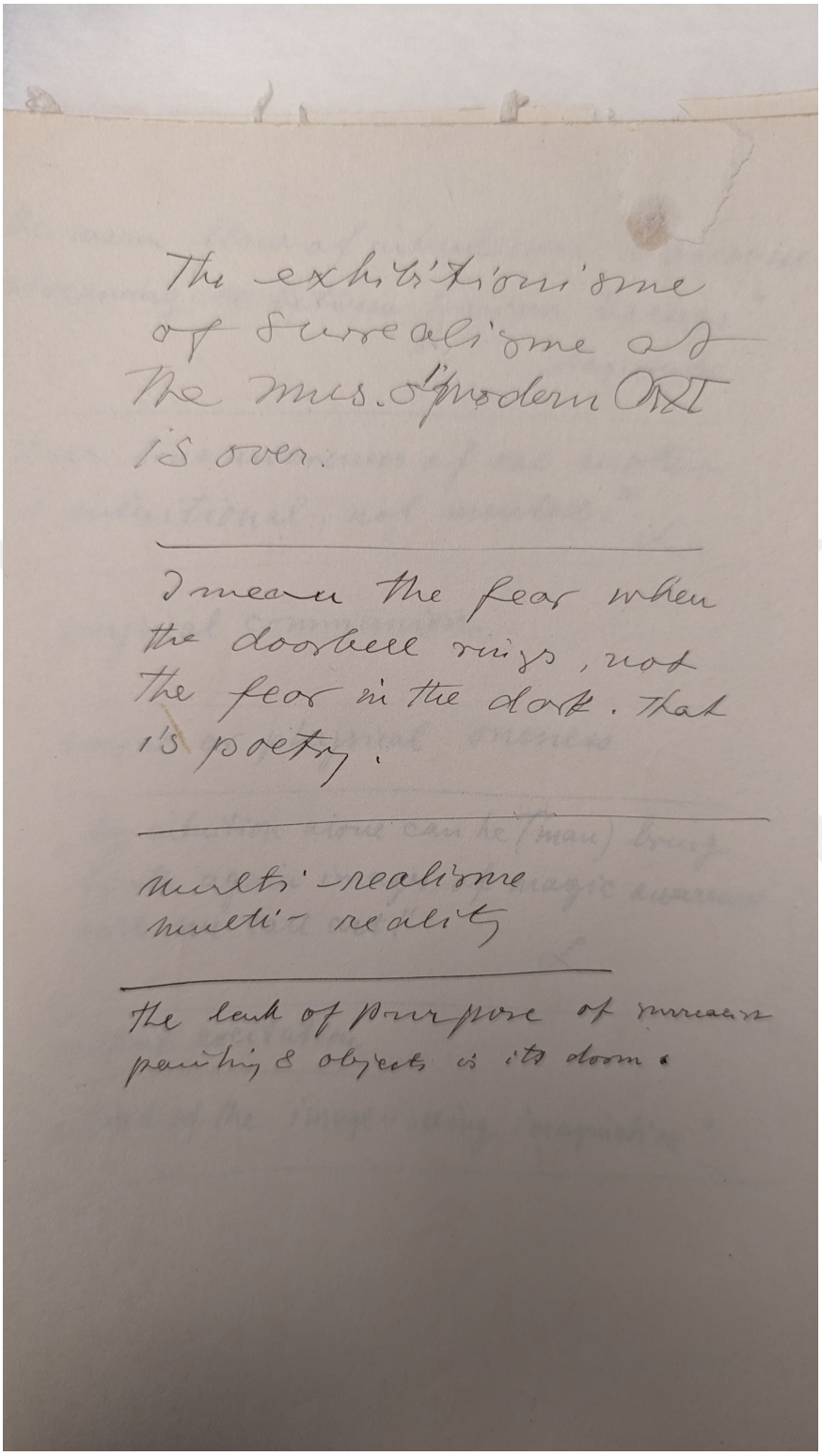


Figure 4.6: A hand-written note by Kiesler, found in the research material on Space House. ÖFLKS, Box Space House.

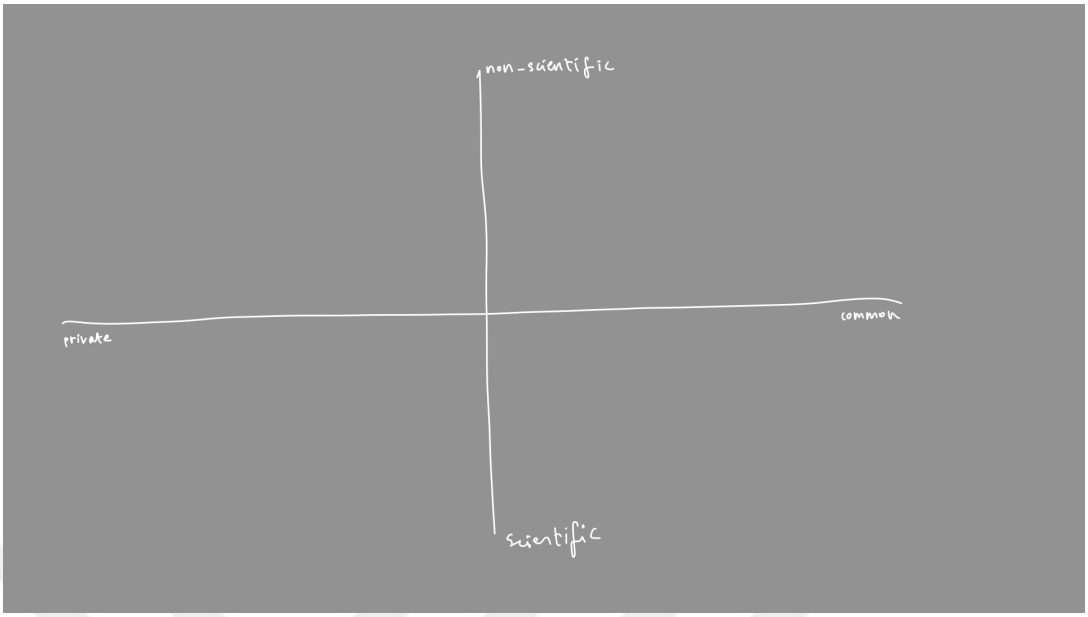


Figure 4.7: Base for a diagram of the shared fields of modernity and kinaesthetic knowing.

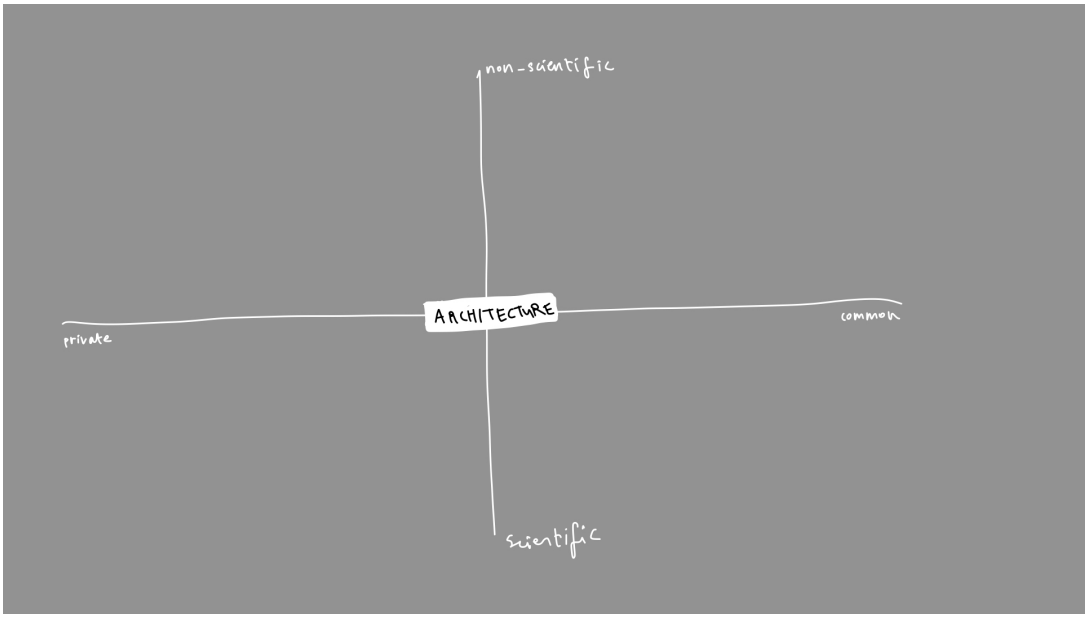


Figure 4.8: Base for a diagram for a possible profanation in architecture.

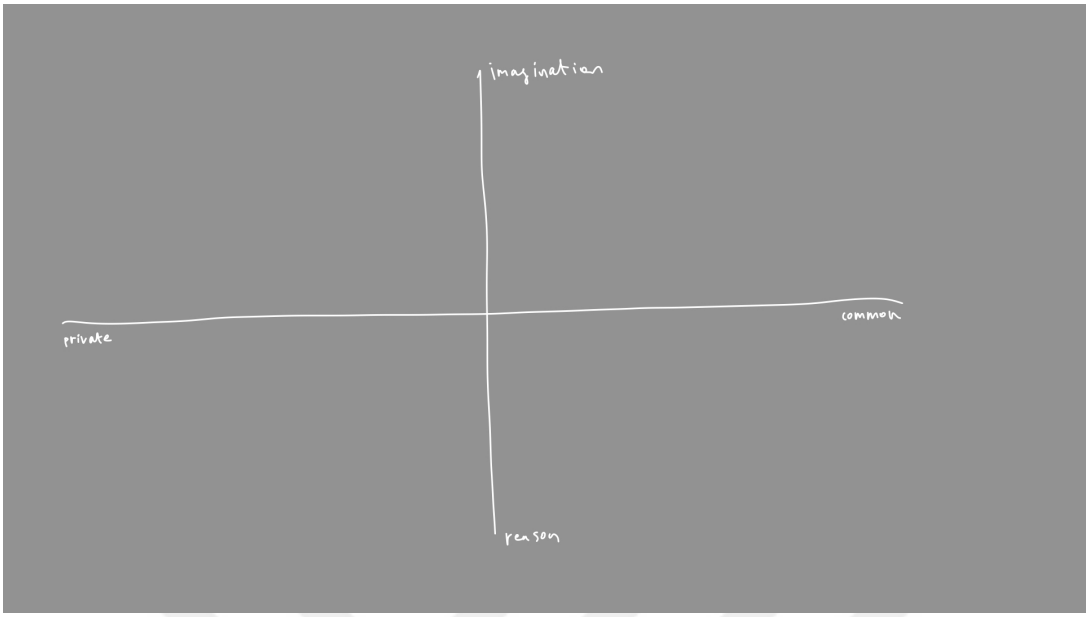


Figure 4.9: Base for Diken's "Spinozist Diagram".

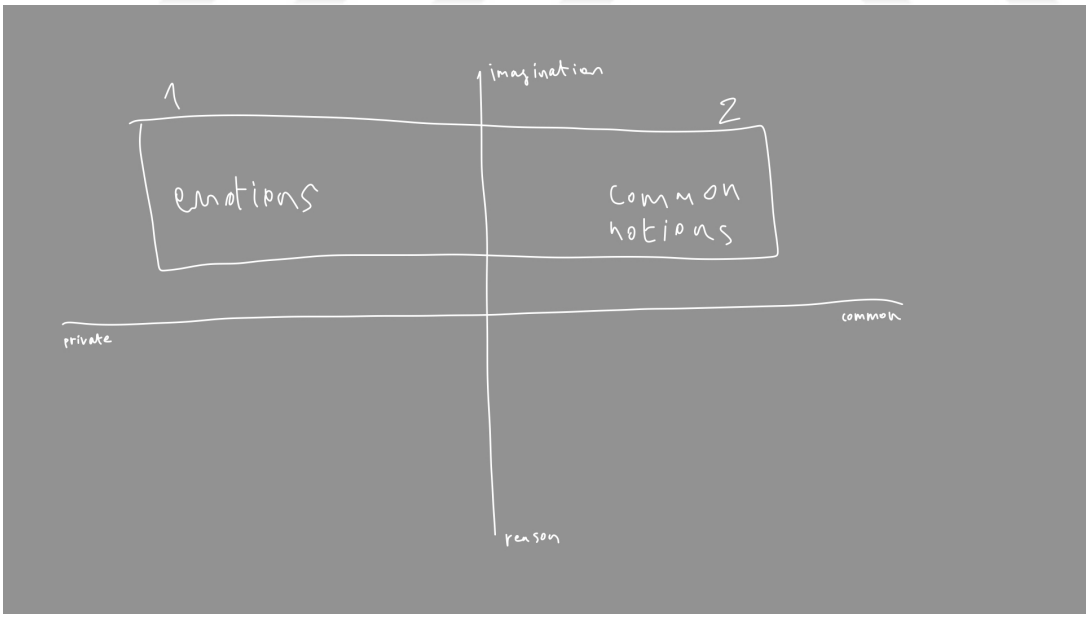


Figure 4.10: Two fields of religion in Spinoza.

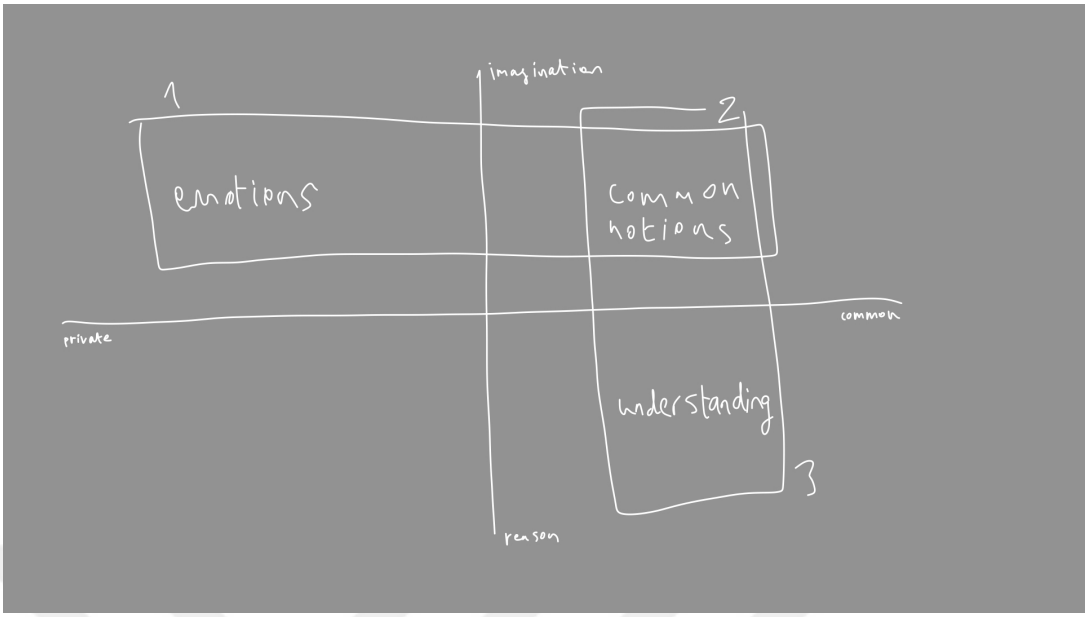


Figure 4.11: Shift to a new domain of knowledge in Spinoza.

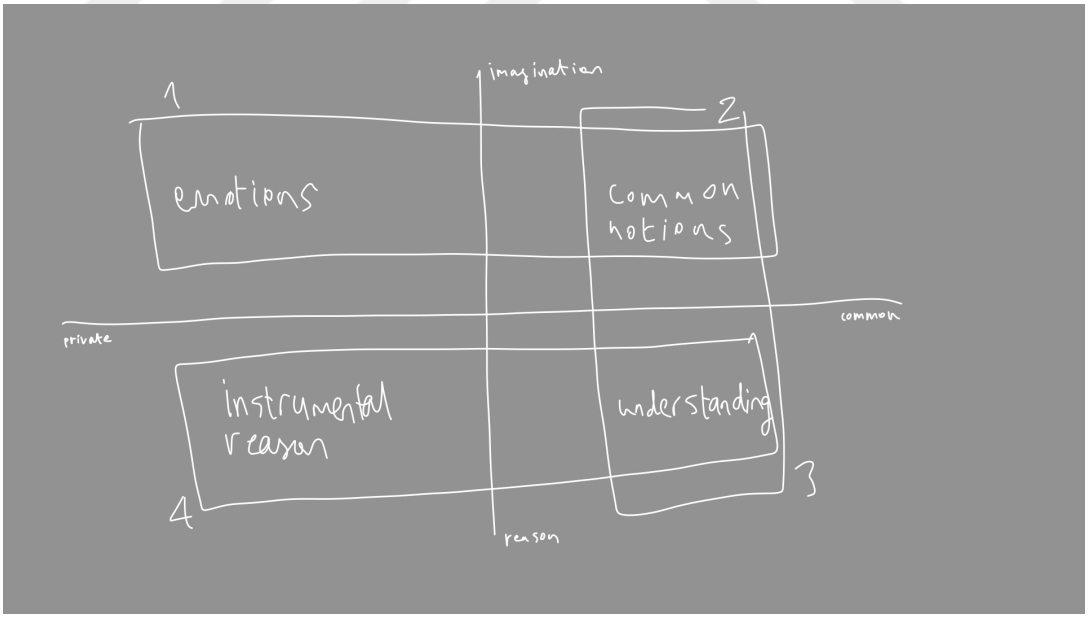


Figure 4.12: A complete Spinozist diagram of profanations with instrumental reason representing capitalism .

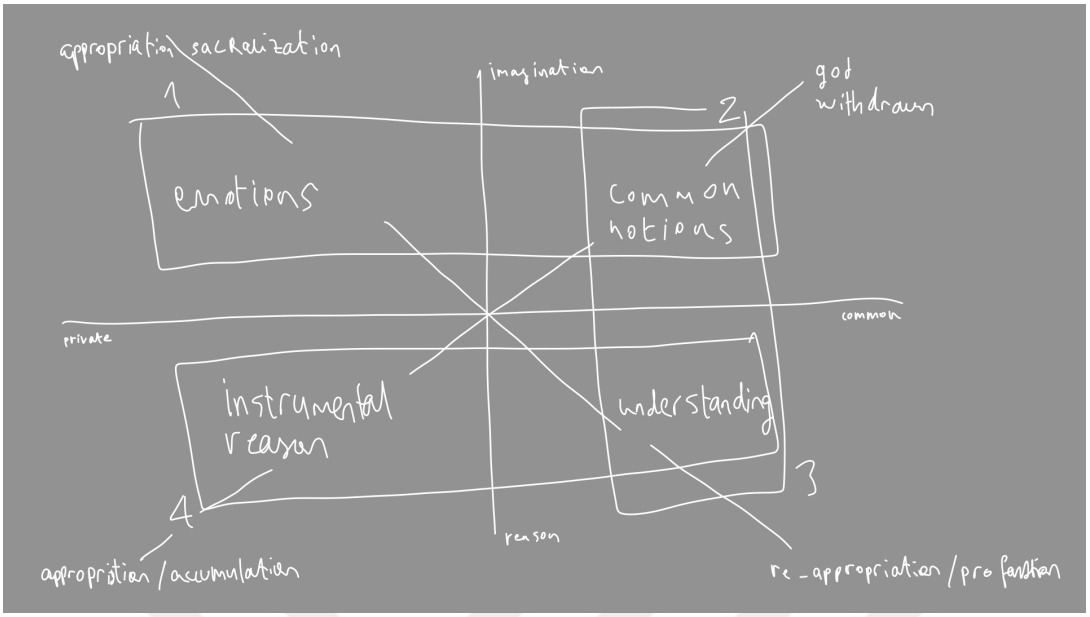


Figure 4.13: Trajectories identified in the Spinozist diagram of profanations.

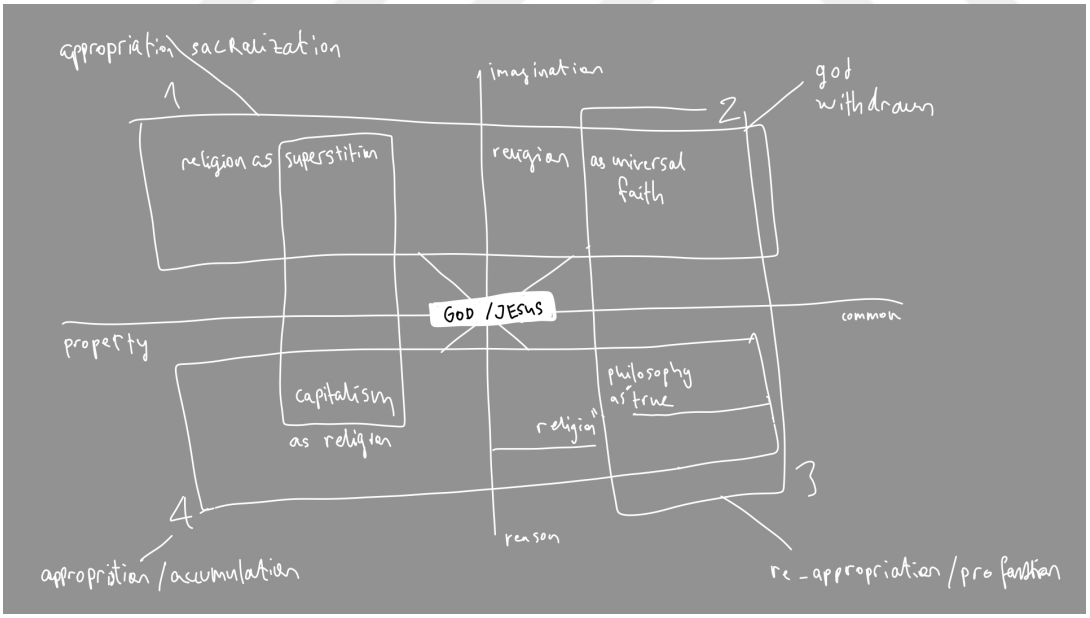


Figure 4.14: A re-production of what Diken presents in his diagram as “Four religions in Spinoza”.

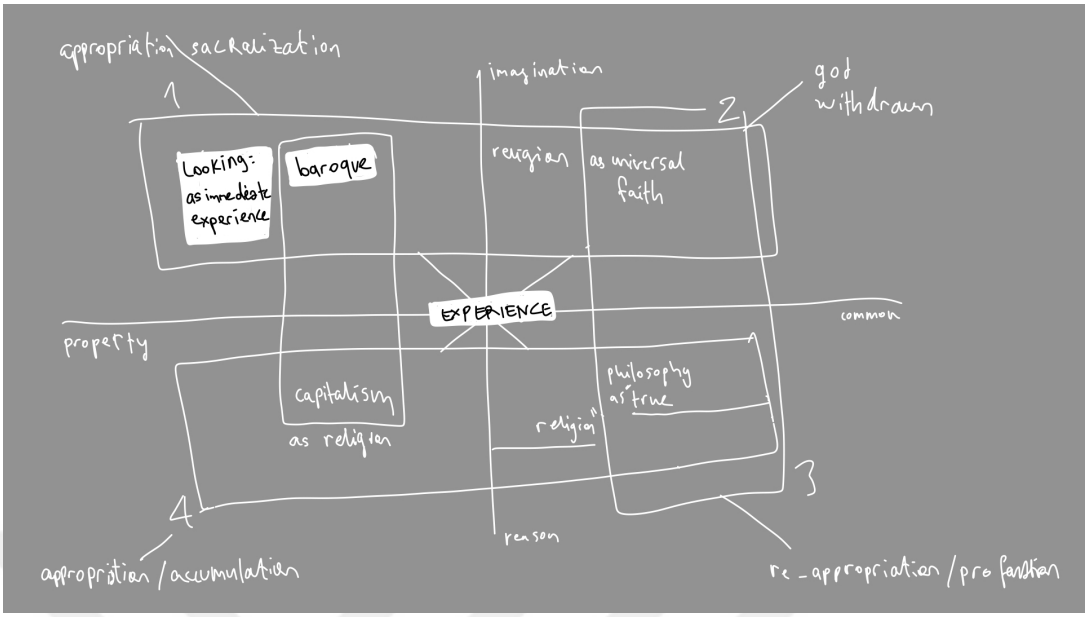


Figure 4.15: Reworking the Spinozist diagram into a kinaesthetic diagram.

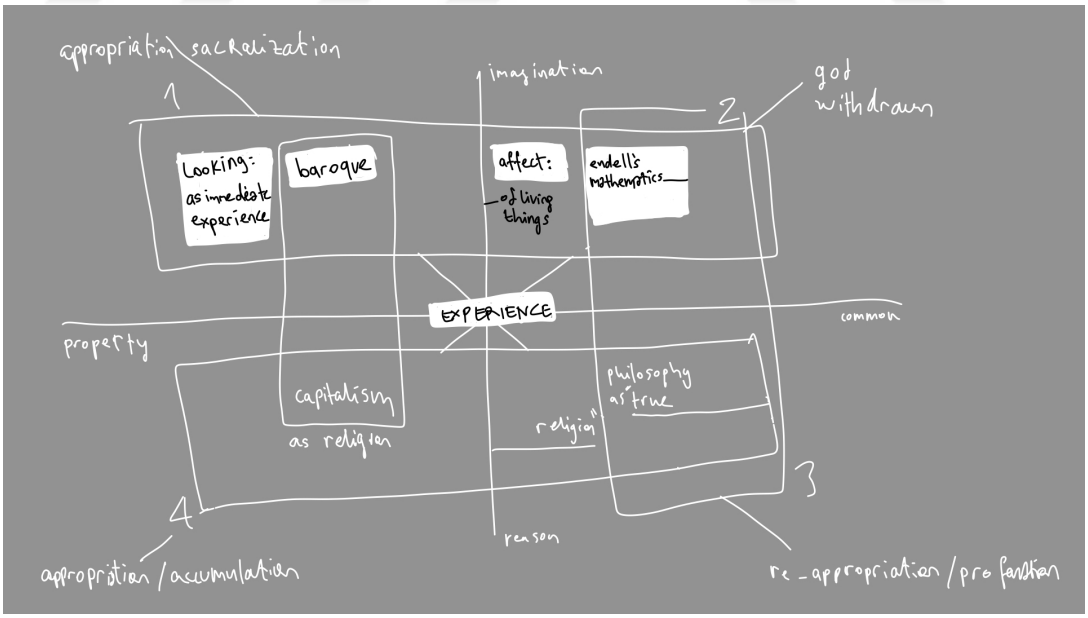


Figure 4.16: Reworking the Spinozist diagram into a kinaesthetic diagram.

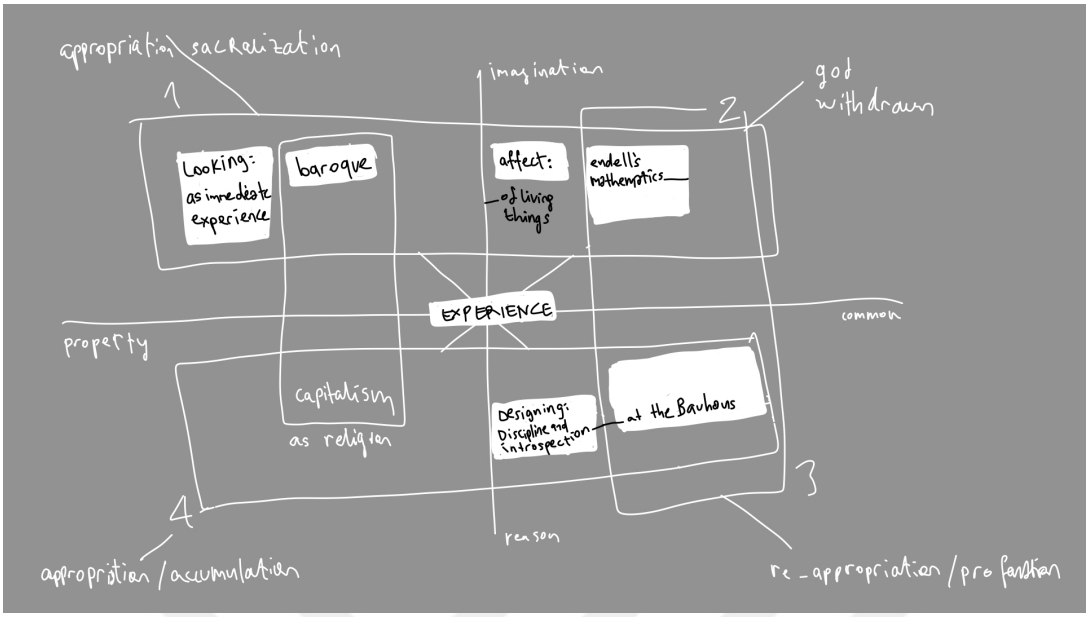


Figure 4.17: Reworking the Spinozist diagram into a kinaesthetic diagram.

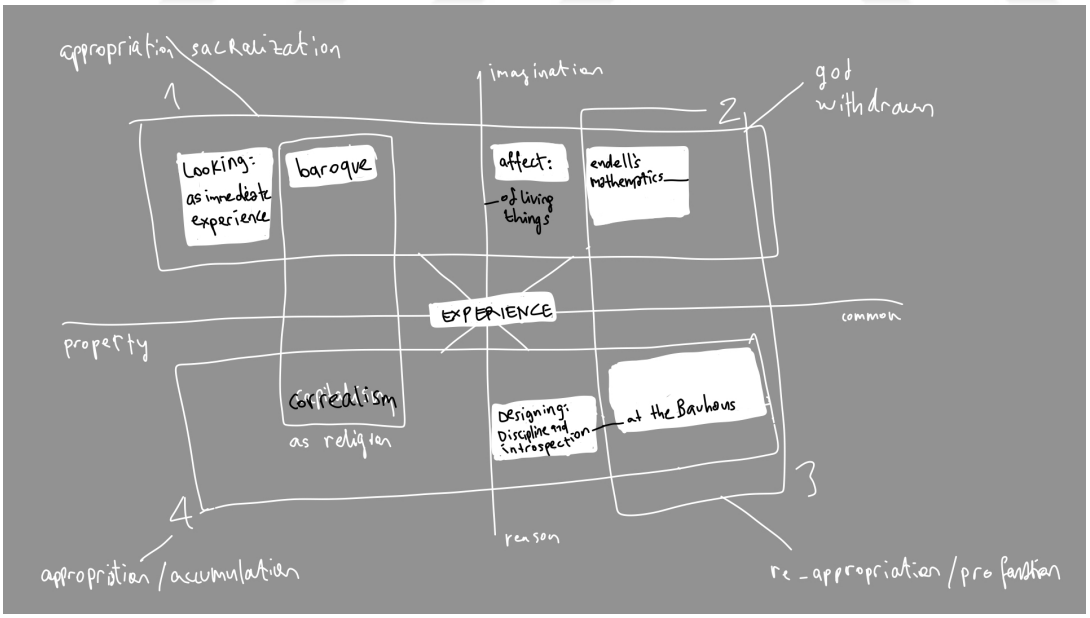


Figure 4.18: Reworking the Spinozist diagram into a kinaesthetic diagram.

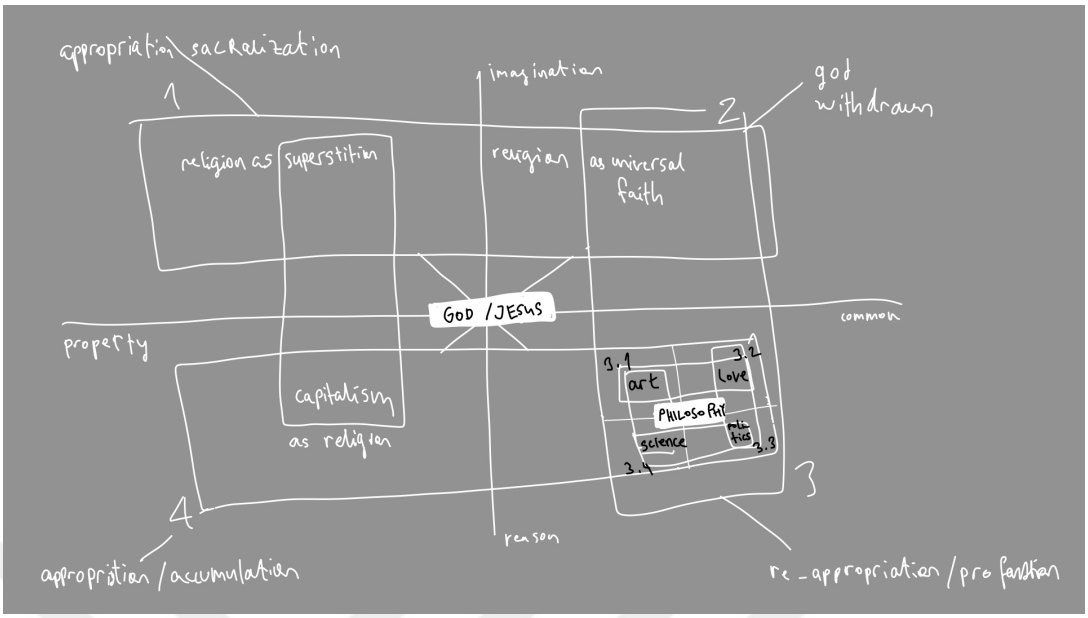


Figure 4.19: Re-entry into four religions of Spinoza with Badiou's truth procedures.

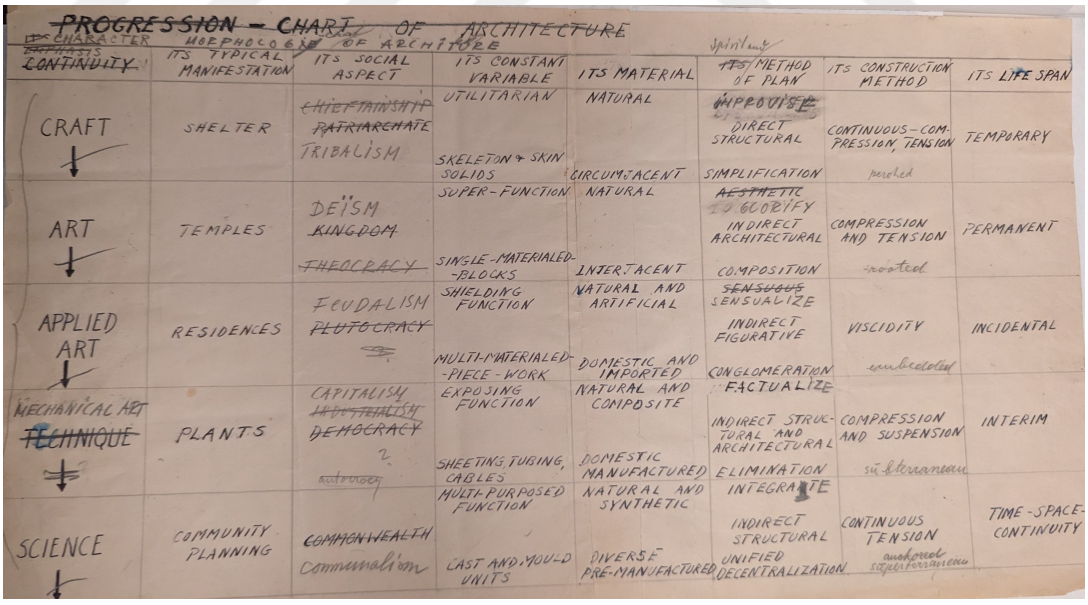


Figure 4.20: A draft of Kiesler's "Morphology Chart of Architecture". Source: ÖLFKS TXT/3587/0

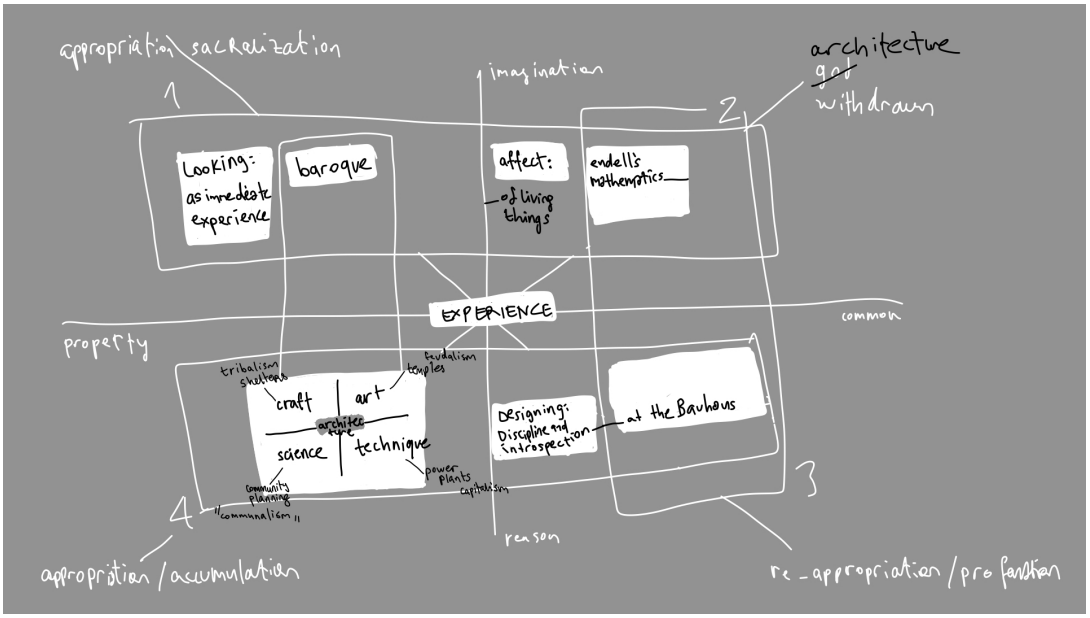


Figure 4.21: Re-entry of "architecture" into the kinaesthetic-epistemological chart.

CHAPTER 5

CONCLUSION

Frederick Kiesler's Correalism, often misconstrued as merely an architectural innovation, engages with the intricate interplay of art, technology, and life. This approach extends beyond traditional architectural confines, provoking deeper contemplation about the essence and objectives of design. Kiesler's work doesn't merely celebrate or critique modernist architecture; it fundamentally challenges its long-standing principles by redirecting the focus or arkhē to the experiences of the "ordinary" – the everyday practices of a consumer, rather than architectural form or style. In this schema, akin to Christ in Spinoza's True Religion who navigates between imagination and reason, the shopper becomes an agent traversing through built and technological environments. Correalism thus evolves from a continuous flux of profanation, with life forces dynamically flowing from one object to another.

Prophetically anticipating an era where capitalism would increasingly govern cultural and aesthetic values, Kiesler's Correalism emerged with a promise to a radical break from established norms and introduced a fresh design lexicon, but was not concerned with the ensnaring modern art and architecture in the capitalist framework. Consequently, Kiesler's Correalism presents a multifaceted and somewhat paradoxical narrative. It stands as a critique, yet simultaneously reveals potential complicity within the very systems it seeks to navigate and transform. This duality underscores the nuanced and complex nature of Kiesler's contributions, highlighting his unique position in the discourse on modern architecture and art.

I began to unravel Kiesler's correalist vision in my thesis with the second chapter, where I introduced the "vision machine", a hypothetical device conceived by Kiesler. This device, designed to record dreams, served as a schematic tool in my analysis,

demonstrating Kiesler's theory of vision. The guiding principle for this chapter was the introduction of experience as an epistemological currency. The chapter culminated with a discussion that navigated the complex interplay among knowledge, perception, and experience, tracing the evolution of epistemological paradigms from the 19th century to the present. Central to this exploration was the emergence of psychophysics in the 19th century, a discipline that revolutionized the study of perception and sensation. By quantifying the relationship between external stimuli and subjective experiences, psychophysics offered a new lens to view human cognition. This was the basis for an examination of Frederick Kiesler's work on the Vision Machine, positioning it as an extension of the kinaesthetic knowing tradition. This analysis studied a rather intricate nature of perception and vision by Kiesler, emphasizing the interplay among various sensory experiences and mediums. Kiesler's contemplations for a potential of technology to bridge the divide between subjective experience and objective representation were limited to encapsulate his version of human vision, regardless the Vision Machine stood out as a kinaesthetic effort that challenged conventional boundaries of separation between physical and psychological affects in human perception.

In the third chapter, Kiesler's definition of correalism as a science of life, along with its precursors, were studied while paying particular attention to their geographical contexts. In Europe, the precursors of correalism were predominantly rooted in theater art and performance, whereas in North America, they were more closely associated with housing and shelter. This geographical differentiation is crucial in understanding the development of correalism as a tactical maneuver in which he practiced as an architect and an artist. Kiesler's acquisition of the trademark for correalism to bridge these two domains was a significant move that leads to his book manuscript on Correalism.

Correalism stood at the forefront of my discussion, epitomizing Kiesler's vision of the dynamic interplay between humans and their environment. This concept highlighted the perpetual exchange and adaptation among individuals, society, and technology, thereby challenging a static views of architecture and space. Through the lens of correalism, Kiesler perceived the world as an interconnected web, where all life aspects were interwoven, urging design disciplines to adopt this holistic

approach. The guiding principle for this chapter was the strategic demarcation of modernity, as articulated by De Certeau. This framework facilitated an understanding of the cleavage within modernism, a necessary context for analyzing how Correalism functioned.

Moreover, correalism, alongside Biotechnique, signified a radical shift in architectural and design philosophy. This shift is not a mere deviation from the path set by Bauhaus; rather, it ventures in a contrasting direction, towards the unexplored, the concealed, the sacred. Kiesler envisioned correalism as a science dedicated to individual experiences, unique and incommunicable. While acknowledging the unified nature of these singular experiences, he maintained that his "science of life" employed a systematic and scientific methods. The guiding principle for this chapter was the strategic demarcation of modernity, as articulated by De Certeau. This framework facilitated an understanding of the cleavage within modernism, a necessary context for analyzing how Correalism functioned. In this realm, defined by the separation of entities, Correalism operated by examining the relations between these distinct parts. Kiesler's depiction of Correalism focused on the dynamic field of forces of life, characterized by their continuous flux and movement. It is within this framework that the project is conceptualized in terms of profanations. This concept of profanation, I argue, is integral to Correalism, and requires a fundamental separation as its core. It is through this separation that Correalism defines its role in the production of fields such as religion, knowledge, and particularly in the context of Kiesler's work: architecture.

In the fourth chapter, I delved into Kiesler's strategies during a period marked by the transformation of his ideas from the European context to a new realm. This transition coincided with —if not it was not a result of him navigating through what De Certeau describes as a "jungle of functionalist rationality". In this environment, De Certeau described "consumers produce" by forging indeterminate paths as they wander.[1] My aim in this chapter was to position Kiesler as one of these consumers. As with my narration, Kiesler's trajectory was unique and exploratory, leading to the conception of an ambitious project named correalism. This chapter seeked to unravel how Kiesler's journey through various cultural and intellectual landscapes

1. De Certeau, *The Practice of Everyday Life*, 17.

influenced the development of correalism, highlighting his role not just as a passive observer but as an active creator within this dynamic setting.

In my multiplicities of narrations of Kiesler's journey, I depicted his shifting positions between an expert and philosopher and a transition to an ordinary person. This transformation mirrors the path of Freud in his development of psychoanalysis, where Freud positioned the ordinary man as the central speaker, thereby bridging the gap between the scientist and the common person. To reiterate, this represented "the return of the other (everyone and no one) into the place which had been so carefully set apart from him" .[2]

With the conclusion of this chapter, appropriating diagram as a "hermeneutical fiction" was an attempt to demonstrate Kiesler appropriating profanation as a tactical tool, which paradoxically acquires a strategic character. This interplay between tactical and strategic elements in Kiesler's work underlines the multifaceted nature of profanation, showcasing its potential to reshape and redefine established epistemological boundaries. A key aspect of this demonstration involved the concept of "re-entry", where a distinction folds back into itself, thereby altering the original distinction.

2. De Certeau, *The Practice of Everyday Life*, 4.

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PUBLICATIONS

Book Chapter

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