

The changing of the avant-garde : visionary architectural drawings from the Howard Gilman collection

Contributions by Terence Riley ... [et al.]

Date

2002

Publisher

The Museum of Modern Art;
D.A.P./Distributed Art Publishers

ISBN

0870700049, 0870700030

Exhibition URL

www.moma.org/calendar/exhibitions/148

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from our founding in 1929 to the present—is
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primary documents, installation views, and an
index of participating artists.

THE CHANGING OF THE AVANT-GARDE

Visionary Architectural Drawings from the Howard Gilman Collection



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Contributions by Terence Riley, Sarah Deyong, Marco De Michelis, Pierre Apraxine, Paola Antonelli, Tina di Carlo, and Bevin Cline

The Howard Gilman Collection of Visionary Architectural Drawings includes some of the most famous utopian drawings of the twentieth century. Renowned among aficionados and scholars of radical architecture of the 1960s and 1970s for the quality and breadth of its content, the collection was generously donated to The Museum of Modern Art by The Howard Gilman Foundation in 2000. This volume celebrates the extraordinary bequest of the 205 spectacular artworks that comprise the gift, including renderings by some of the most respected architects of our time.

Taken together, the works represent a unique and fertile period in architecture and the world at large, especially during the radical political and social upheavals of the late 1960s. They provide a rare cross section of that era's rapidly changing currents, when a young generation of architects, involved in what came to be called the megastructure movement, sought to make a better world by ridding it of the exhausted modernist aesthetic of the prewar years. In its search for new paradigms and a fresh dynamic appropriate to post-war life and culture, this diverse group ultimately became the movement's most pointed critics. However, the brilliant visions they had along the way remain in their drawings.

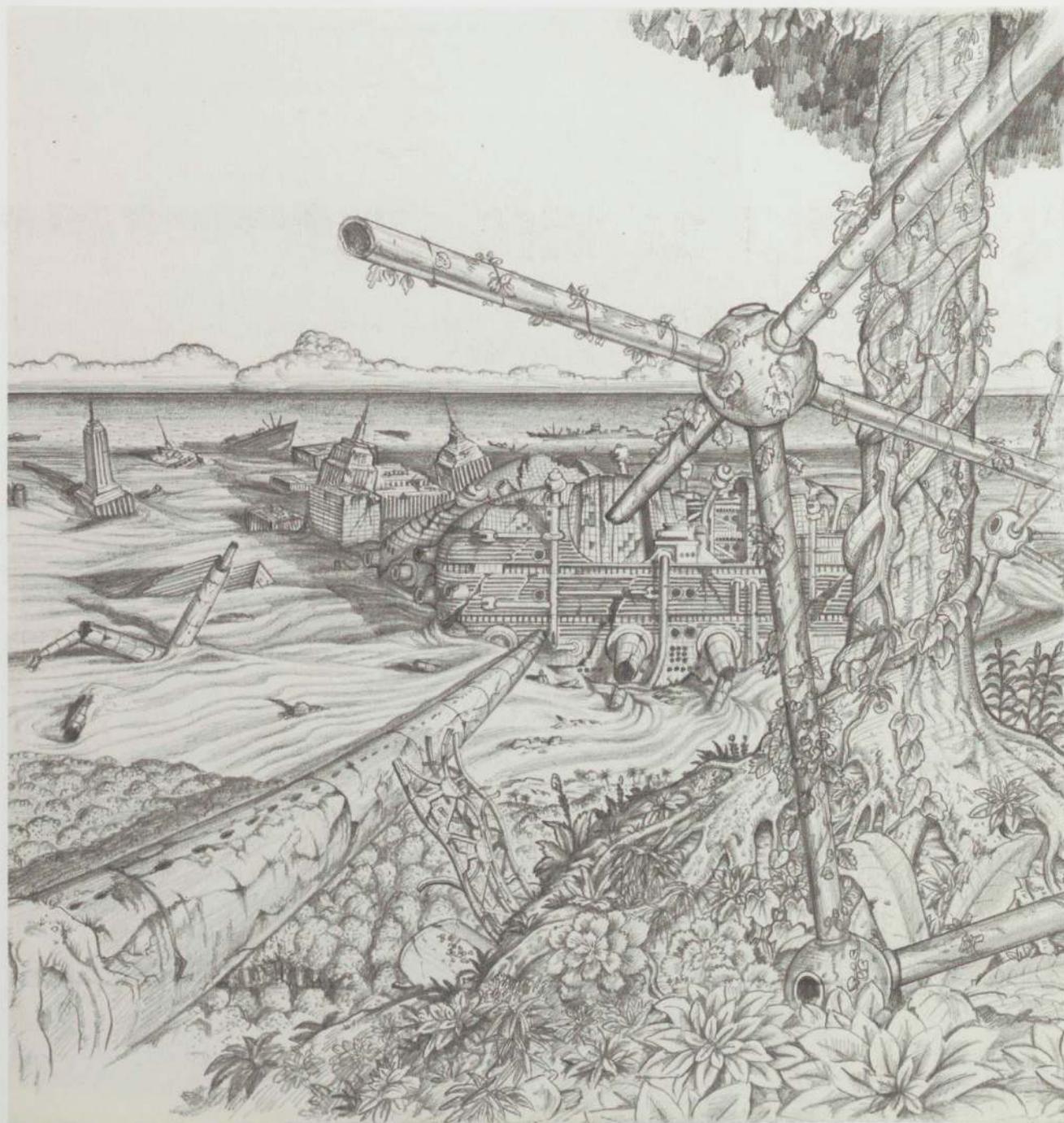
The megastructuralists' objective emphasis on technology, flexibility, and comprehensive size gave way to an individualistic architecture of poetry, memory, and psychology expressed in smaller monuments, ruins, and postmodernist dreams of the future incorporating icons of the past. The Gilman collection's center of gravity is precisely at the moment of this transition, and includes key examples of the megastructure and early postmodernism, and also work by major figures who straddle both camps.

The forces unleashed by the demise of the megastructure and the advent of postmodernism remain vital creative forces in the world of architecture today. This volume's comprehensive view of a significant moment in history provides a unique window onto the root sources of present-day architectural practice.

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THE MUSEUM OF MODERN ART, NEW YORK

Published on the occasion of the exhibition *The Changing of the Avant-Garde: Visionary Architectural Drawings from the Howard Gilman Collection*, organized by Terence Riley, Chief Curator, Department of Architecture and Design, The Museum of Modern Art, New York, shown at MoMA QNS, 33rd Street and Queens Boulevard, Queens, New York, October 24, 2002–January 6, 2003.

The accompanying educational programs are made possible by BNP Paribas.

Produced by the Department of Publications
The Museum of Modern Art, New York
Edited by Harriet Schoenholz Bee
Designed and typeset by Gina Rossi
Production by Chris Zichello
Printed and bound by Dr. Cantz'sche Druckerei, Osfildern, Germany
Printed in Trump Mediaeval and Berthold City on 170 gsm LuxoOkay

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Library of Congress Control Number: 2002110984
ISBN 0-87070-004-9 (clothbound)
ISBN 0-87070-003-0 (paperbound)

Published by The Museum of Modern Art, 11 West 53 Street,
New York, New York 10019. www.moma.org

Distributed in the United States and Canada by D.A.P. / Distributed Art Publishers, Inc., New York
Distributed outside the United States and Canada by Thames & Hudson, Ltd., London

Printed in Germany

Front cover: Superstudio (Cristiano Toraldo di Francia, Gian Piero Frassinelli, Alessandro Magris, Roberto Magris, Adolfo Natalini). The Continuous Monument: St. Moritz Revisited. Project, 1969. Perspective: cut-and-pasted printed paper, color pencil, and oil stick on board.
Back cover: Cedric Price. Generator, White Oak, Florida. Project, 1978–80. Untitled: cut-and-pasted printed papers with ink stamp on self-adhesive label, on paper with ink stamp.
Frontispiece: Ettore Sottsass. The Planet as Festival: Design of a Roof to Discuss Under. Project, 1972–73. Perspective: graphite on paper.

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1950

DATE	DESCRIPTION	AMOUNT	BALANCE
1950-01-01	Balance forward		100.00
1950-01-15	Deposit	50.00	150.00
1950-02-01	Withdrawal	25.00	125.00
1950-02-15	Deposit	75.00	200.00
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1950-03-15	Deposit	60.00	230.00
1950-04-01	Withdrawal	40.00	190.00
1950-04-15	Deposit	80.00	270.00
1950-05-01	Withdrawal	50.00	220.00
1950-05-15	Deposit	90.00	310.00
1950-06-01	Withdrawal	60.00	250.00
1950-06-15	Deposit	100.00	350.00
1950-07-01	Withdrawal	70.00	280.00
1950-07-15	Deposit	110.00	390.00
1950-08-01	Withdrawal	80.00	310.00
1950-08-15	Deposit	120.00	430.00
1950-09-01	Withdrawal	90.00	340.00
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1950-10-01	Withdrawal	100.00	370.00
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1950-11-01	Withdrawal	110.00	400.00
1950-11-15	Deposit	150.00	550.00
1950-12-01	Withdrawal	120.00	430.00
1950-12-15	Deposit	160.00	590.00
1951-01-01	Balance forward		590.00

FOREWORD

On November 1, 2000, The Howard Gilman Foundation generously donated to The Museum of Modern Art one of the foremost collections of visionary architectural drawings in the world. The Howard Gilman Collection is renowned among scholars of the genre for the quality of the work and for the depth and breadth of its content. Focusing on radical projects from the 1960s and 1970s and comprising 205 artworks, the gift greatly enhances MoMA's existing holdings of visionary architectural drawings.

Included in the Gilman collection are some of the most famous utopian drawings of the twentieth century, such as R. Buckminster Fuller's Dymaxion House of 1927-29 and Ron Herron's spectacular Cities : Moving of 1964. Among the many architects whose work is featured in the collection are Raimund Abraham, Archigram, Arata Isozaki, Rem Koolhaas, and Ettore Sottsass. The acquisition of this collection led to the creation of the Howard Gilman Archive of Visionary Architectural Drawings, within the Museum's Department of Architecture and Design. The new

archive now comprises the Gilman collection plus the Museum's existing holdings of visionary architectural drawings as well as future like-minded acquisitions.

On behalf of the Trustees and staff of the Museum, I wish to acknowledge a sincere debt of gratitude to the late Howard Gilman, The Howard Gilman Foundation, its officers and director, and to the curator of the Gilman collection, Pierre Apraxine, and his staff. To celebrate this extraordinary gift, Terence Riley, Chief Curator, Department of Architecture and Design has organized the exhibition, *The Changing of The Avant Garde: Visionary Architectural Drawings from the Howard Gilman Collection*, with the assistance of Tina di Carlo, Curatorial Assistant, Research and Collections, and Bevin Cline, Assistant Curator, Research and Collections. This publication documents the gift and the exhibition and also presents new scholarship on the period by Sarah Deyong and Marco De Michelis. The timeliness of this generous gift and the interest it has generated provide a unique moment to reflect on the generational shift that has so greatly affected the architectural culture of today.

Glenn D. Lowry
Director, The Museum of Modern Art

ACKNOWLEDGMENTS

First and foremost, I would like to extend heartfelt thanks to The Howard Gilman Foundation for its unprecedented gift to the Museum of 205 visionary architectural drawings, and to the architects who created them for their generous cooperation in assisting with the documentation of the works themselves. I would also like to thank Sarah Deyong and Marco De Michelis for their thoughtful essays. Their research into the theoretical and cultural shifts that characterized the period in which these works were made has enriched this publication enormously. Likewise, Paola Antonelli's interview with Pierre Apraxine has elicited the unique perspective that he brought to the formation of the Gilman collection as its curator.

The quality of this publication is a testament to the professionalism of the Museum's Department of Publications. Harriet Schoenholz Bee, Editorial Director, edited the texts as well as provided her usual keen insight in shaping the overall structure of the book. I would also like to thank Gina Rossi, Senior Book Designer, for the catalogue's excellent design, and

Christopher Zichello, Production Manager, who oversaw its production with a fine eye and characteristic attention to detail.

The production of the exhibition documented by this publication was directed by Jerome Neuner, Director of Exhibition Design and Production. We are grateful for his customary fine work and that of David Hollely, Project Manager; their efforts in realizing our visions for this project enhanced the presentation of the drawings to the public, as did the work of Peter Perez, Framing Conservator, and his staff, who thoughtfully and creatively framed the many disparate works. Many thanks are also owed Maria de Marco Beardsley, Coordinator of Exhibitions, and Randolph Black, Associate Coordinator of Exhibitions, for keeping an eye on our finances and organizing the exhibition's national tour. I also thank Seth Fogelman, Assistant Registrar, for the assistance he provided to assure the safe transporting of the artworks to their various venues. It has been a pleasure to work with Karl Buchberg, Senior Conservator, Erika Mosier, Associate Conservator, and Scott Gerson, Mellon Fellow, and to watch as they

carefully conserved and revitalized almost every work in the exhibition.

The superb design of this publication is equaled by that of the exhibition's identity, created by Kate Johnson, Senior Graphic Designer. I have enjoyed working with Deborah Schwartz, Deputy Director for Education, and Laura Beiles, Family and Public Programs Assistant, on the organization and development of the exhibition's accompanying educational programs, and am grateful for all their hard work and clever ideas. We are grateful for the assistance of Allegra Burnette, Manager of Creative Services, K. Mita, Associate Director, Digital Media, Maggie Lederer D'Errico, Senior Producer Creative Services, and Tanya Beeharrilall, Technology Manager, for their work on the accompanying website, and for Ahn Tuan Pham and Benjamin Aranda for their dynamic design. Kathy Krupp, Books and Paper Products Manager, created beautiful products related to the exhibition, and Maile Rodriguez, Publicity Coordinator, and Peter Foley, Director of Marketing, worked hard to assure that the media and general public were well aware of this exhibition.

In the Department of Architecture and Design, I would like to thank Christian Larsen, Senior Cataloguer, for his extremely helpful assistance with tracking and maneuvering of the artworks. Rachel Judlowe, Department Coordinator, followed through on a tremendous number of issues related to the exhibition and publication with thoroughness and creativity. Her spirited efforts have kept us all focused. Above all, without the efforts of Tina di Carlo, Curatorial Assistant, and Bevin Cline, Assistant Curator, this exhibition and publication would not have been possible. Not the least of their contributions to this effort were the brief explanatory texts that they wrote for the plate sections. Their scrupulous research, attention to detail, and logistical skills have made the whole process enjoyable and rewarding.

Many thanks are also owed Glenn D. Lowry, Director, and all the Museum's senior staff members for their support of this project. Each in his or her own way contributes uniquely to making every exhibition project at The Museum of Modern Art a great success.

*Terence Riley, Chief Curator
Department of Architecture and Design*

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be clearly documented, including the date, amount, and purpose of the transaction. This ensures transparency and allows for easy reconciliation of accounts.

In the second section, the author outlines the various methods used to collect and analyze data. This includes direct observation, interviews, and the use of specialized software tools. The goal is to gather comprehensive information that can be used to identify trends and make informed decisions.

The third part of the document focuses on the implementation of the findings. It provides a detailed plan of action, including specific steps to be taken, the responsible parties, and the timeline for completion. This section is crucial for ensuring that the research results are effectively translated into practical applications.

Finally, the document concludes with a summary of the key findings and a call to action. It encourages ongoing monitoring and evaluation to ensure that the implemented changes continue to yield positive results. The author expresses confidence in the effectiveness of the proposed measures and looks forward to future research in this area.

The following table provides a detailed breakdown of the data collected during the study. Each row represents a different category, and the columns show the corresponding values for each variable. This data is essential for understanding the overall performance and identifying areas for improvement.

Category	Variable 1	Variable 2	Variable 3
Group A	12.5	8.7	15.3
Group B	9.8	11.2	10.6
Group C	14.1	7.9	13.8
Group D	10.3	9.5	11.7
Group E	11.6	10.1	12.4
Group F	8.9	12.8	9.5
Group G	13.2	8.4	14.6
Group H	9.7	11.5	10.9
Group I	14.5	7.6	13.9
Group J	10.8	9.3	11.4

The data indicates that Group A shows the highest performance in Variable 1, while Group C has the lowest. These findings suggest that further investigation is needed to understand the factors influencing these results and to develop targeted interventions.

INTRODUCTION

Terence Riley

The visionary architectural drawings acquired by the New York art patron and collector Howard Gilman were assembled in just a few years, between 1976 and 1980, under the guidance of Pierre Apraxine, the collection's curator. Fortunately, their mutual interest in this field coincided with one of the great bursts of creative energy ever recorded on paper by architects, comprising nothing less than the last rally of the heroic visions of prewar modernism and the very first lights of what would broadly be known as *postmodernism*.

As a whole, the collection is not only unique, but is also a remarkably complete cross section of that period's rapidly changing currents in the world of architecture. But the prescience of Gilman and Apraxine is more than a matter of mere timing. As Apraxine says

in an interview published in this volume, his having a certain distance from the profession of architecture may have benefited the selection: "I am actually a bit, not astonished, but intrigued by what this collection now represents. . . . I think I had the kind of innocence that is needed to take a plunge into a field in which one is barely conversant. . . . For me, everything is filtered through the senses, and the mind is there only to help."

In fact, it would have taken more than a little innocence of the architectural politics and personalities of the 1960s and 1970s to understand the fundamental unity that may occur when opposite poles are drawn together. In other words, from a certain perspective, the *vision* in visionary drawings can be seen as a continuous

element of architectural expression, even when conflicting goals are at play.

"Make no small plans. They have no magic to stir men's blood," urged the architect and city planner Daniel Burnham in 1909, when he went before a committee evaluating his visionary proposal for replanning the city of Chicago. Burnham was speaking to a limited audience, but he might as well have been addressing the entire profession of architects who, from the outset of the twentieth century, would aspire to a scale of planning and building that would, indeed, stir men's blood—for good and for bad—for the next seventy-five years.

Of course, engineers preceded architects in grasping the potential scale of the Industrial Age, as can be seen in such grand nineteenth-century structures and public works as the Eiffel Tower and the Suez Canal. Inspired by these accomplishments, the quintessential avant-garde architect Le Corbusier peppered his pamphlets promoting modern architecture with pictures of ocean liners, grain elevators, and airplanes flying in formation. His Plan Voisin of 1925, which proposed leveling six hundred acres of the historic Marais district in Paris for his master plan of eighteen cruciform concrete towers, remains emblematic of the first marriage of visionary architecture and twentieth-century engineering.

If Le Corbusier is still referred to as a member of modernism's avant-garde, it is useful to remember the origins of that term in the military lexicon. The *avant-garde* was the expeditionary force, the leading edge amid the massed battalions. The effectiveness of such a force would depend on how thoroughly its individual members could focus their coordinated energies on a common objective. Indeed, Le Corbusier referred to a *connexion des élites* to describe his own disciplined vision of engineers, industrialists, politicians, and other professionals working together, not surprisingly, under the direction of the master architect, to achieve the twentieth century's goals.

From mid-century onward, there were plenty of examples to prove that thinking big was not in itself a guarantee of a big success. Many a comprehensive plan—New Towns in Great Britain, France, and elsewhere, urban renewal in America, and other grand schemes—produced not magic but big mistakes that seemed to defy remedy. In response, the 1960s saw a generation of

architects—the Metabolists in Japan, Archigram in London, and loosely affiliated radicals in Italy and Austria—in open revolt against the values held dear by the modern establishment. Tellingly, their stinging critiques of postwar architecture and urbanism, and the visionary prewar foundations that preceded them, did not extend to modernism's embrace of the heroic scale of modern engineering. If anything, Archigram's *Walking City* by Ron Herron of 1966 (page 55) and Superstudio's *The Continuous Monument* project of 1969 (pages 73–77) trumped the scale of prewar architectural visions, and ushered in the megastructure movement, so well described in this volume by Sarah Deyong.

In megastructures a new generation saw potential for the transformation of culture and for making the post-1968 world a better one. Whereas Le Corbusier had looked to the ocean liner, younger voices were more influenced by the Beatles' *Yellow Submarine*, as the *connexion des élites* gave way to the values of the Woodstock Nation. Like Mao's Cultural Revolution, the megastructure movement sought to revive the dissipating energy of a once dynamic force. Although the megastructure movement shared none of the Cultural Revolution's fanatical methods, it did share the seeds of self-defeat in Marxism's dialectic of self-criticism. As Deyong clearly points out, the most ardent proponents of the megastructure ultimately became the movement's most pointed critics.

The implosion of the Cultural Revolution, as with the megastructure movement, opened the door for what Mao had described as the blossoming of a thousand flowers—the end of ideological orthodoxy and the validation of a broad search for new paradigms. Interestingly, a thousand blossoms of postmodern architecture would still be seen as an avant-garde force, if not a unified one, despite the collapse of the idea that its practitioners might share a common goal. In his interview, Apraxine says: "The only thing I knew at that time was that the modernist aesthetic was being questioned. But how it would change, really, nobody knew. I could feel a general disaffection with the exhausted idiom of conventional modernism. I knew there were reactions occurring; they were uncoordinated, but all were related by what they were trying to tear down."

In 1980, just as Gilman was winding down his acquisition of architectural drawings, the architectural historian Paolo Portoghesi organized the first exhibition of architecture under the auspices of the Venice Biennale, the biannual international survey of contemporary art.¹ Many of the architects represented in the Gilman collection were shown there. The title of Portoghesi's catalogue text, "The End of Prohibitionism," might be seen as reflecting the same antipathy to orthodox modernism as fueled the rise of the megastructure movement, although his essay actually emphasizes the nascent movement that succeeded megastructures. Portoghesi wrote: "The return of architecture to the womb of history and its recycling in new syntactic contexts of traditional forms is one of the characteristics that has produced a profound 'difference' in a series of works and projects in the past few years, understood by some critics to be in the ambiguous but efficacious category of Postmodernism."²

While the term *postmodern* has come to be associated with the revival of traditional architectural styles and means of construction, in 1980 the term embraced diverse individuals who were, as Apraxine states, "related by what they were trying to tear down." The heterogeneity of the "ambiguous but efficacious" new movement is evident both in the Gilman collection as well as well as Portoghesi's curatorial selections. For example, the work of Aldo Rossi played a prominent role in the Gilman collection and in the Biennale, as did that of Rem Koolhaas, Léon Krier, and Arata Isozaki. Frank Gehry and Hans Hollein were the *artistes manquées* of the former but central to the latter. If Portoghesi saw postmodernism as a return to the "womb of history," the architects and the works selected for his Venice exhibition reflect a more promiscuous sense of history than the archeologically correct form of postmodernism we know today.

Despite the postmodernists' divergent trajectories over time, it was Aldo Rossi, discussed in depth in this volume by Marco De Michelis, who played the role of the pivotal figure to this diverse group. His ideas of urban rationalism, archaic historical forms, deep emotion, and cultural, rather than global, expression defined architecture for his generation. If, in the 1980s and later,

Rossi's having opened the Pandora's box of modernism—history—helped usher in the architectural traditionalism now known as postmodernism, he himself was no historicist but, rather, an architect who deeply understood the role of memory in the built environment.

Indeed, works such as Rossi's Cemetery of San Cataldo at Modena of 1971–84 (pages 110–115) looked to the past as a source of rich architectural and cultural memory more than for specific historical forms to be purloined. Gaetano Pesce's Church of Solitude of 1974–77 (pages 131–133) appears as a literal excavation of urban archeology, revealing the layers of historical meaning in Manhattan's undercroft. In the same way, Rem Koolhaas produced a project for the Roosevelt Island Redevelopment of 1975 (page 144), although in this instance the history was closer to hand, that of Manhattan's own modern formation in the early twentieth century. Employing modern myths, much as Gothic sculptors wrought embellishments from the lives of the saints, Koolhaas's project builds the city as it captures its stirring metropolitan magic.

The principal distinction that separates the megastructuralists from the emerging postmodernists is the disappearance of the purportedly objective common ground upon which Le Corbusier's *connexion des élites* was presumed to operate. Into that vacuum streamed a deluge of poetry, psychology, and memory with a full complement of architectural manifestations: ruins, dreams, and monuments. The scale of the projects was altered radically as well; the megastructuralists' overarching desire to embody society itself in their structures gave way a new kind of visionary expression—that of the individual artist seeking cultural transformation through self-revelation. Not surprisingly, many postmodernists of this period returned to what Sigmund Freud might have called the autobiographical mode of architecture—the house. Orthodoxy had given way to gnosis; the avant-garde had turned inward.

The Gilman collection's center of gravity is to be seen precisely at the moment of this transformation. It not only includes key examples of the megastructure as well as early postmodernism, but work by a number of key figures who straddle both movements—Aldo Rossi, Friedrich St. Florian, and Raimund Abraham. As a

whole, the collection not only reflects the innocence of its curator but the innocence inherent in Portoghesi's definition of postmodernism, whose big tent could accommodate such disparate figures as Frank Gehry and Robert Venturi in the quest to find a way out of late modernism. Ironically, just as the Biennale was opening, the common cause of many of its participants was shaken when Philip Johnson—also featured in the Venice exhibition—appeared on the cover of *Time* magazine with a model of his AT&T Building in New York, with its neo-Chippendale crown. Effectively endorsing a less ambiguous and more explicit reading of Portoghesi's "womb of history," Johnson's imprimatur gave traditional postmodernism a firm boost toward becoming the official architectural style of the Reagan era. Moreover, the tilt toward a conventional view of history set the stage

for the ensuing architectural polemics between so-called traditional postmodernists, such as Robert Stern and Robert Venturi, and those who might be called cultural or philosophical postmodernists, such as Rem Koolhaas and Peter Eisenman.

The forces unleashed by the demise of the mega-structure movement and the advent of postmodernism remain vital creative forces in the world of architecture today. In view of this, The Museum of Modern Art's Howard Gilman Archive of Visionary Architectural Drawings is a unique and invaluable resource for understanding the genesis of these forces and the vectors of invention they launched. It provides us with a rare and comprehensive view of a significant moment in history and also with fundamental documentation of the root sources of our architecture today.

Notes

1. Despite its relationship to the Venice Biennale, the Architecture Section has never followed a biannual schedule. Its origins are also somewhat disputed. In 1976, an exhibition of the work of European and American architects was organized by Vittorio Gregotti, which many people consider to be the first Venice architecture exhibition.
2. Paolo Portoghesi, "La fine del proibizionismo" in *La Presenza del Passato* (Milan: Electa, 1980): 9: "La restituzione dell'architettura nel grembo della storia e il riciclaggio in nuovi contesti sintattici di forme tradizionali è uno dei sintomi che hanno prodotto una 'differenza' profonda in una serie di opere e progetti di questi anni compresi da alcuni critici nell'ambigua ma efficace categoria del Postmoderno."

PROLOGUE

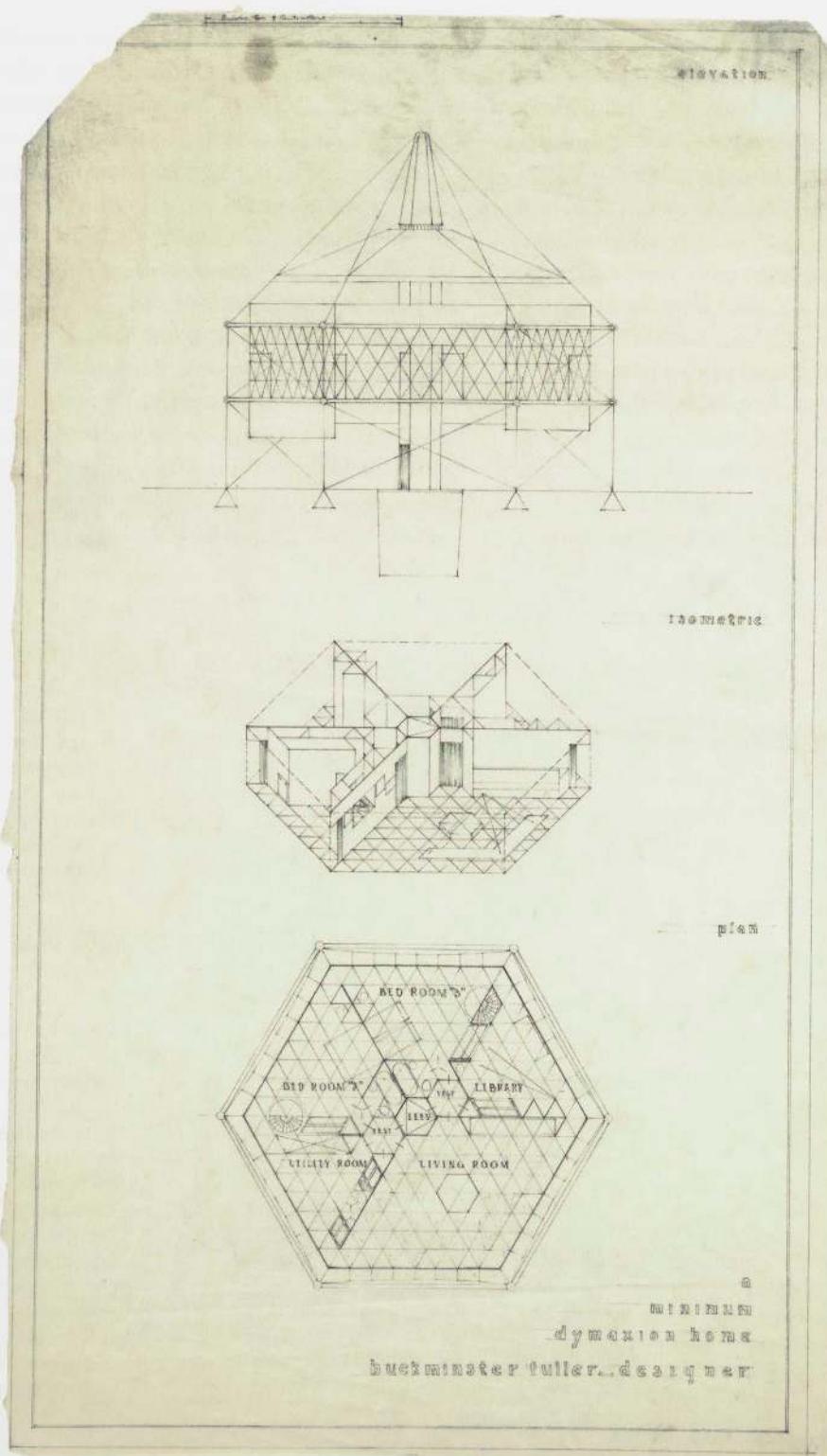
R. BUCKMINSTER FULLER

American, 1895–1983

R. Buckminster Fuller's Dymaxion House, designed over thirty years before most of the works in the Gilman collection were created, was inspired by a desire to create widely available low-cost housing. Fuller believed that by adopting the efficient and cost-effective assembly-line production methods used for the automobile he could produce a home at the same price as a car. The unusual hexagonal-shaped house was clad with double-panel vacuum-glazed walls and was fully air-conditioned. Its central aluminum core housed all mechanical equipment and provided the support structure for the roof and floor. Fuller's goal, "maximum gain of advantage from minimal energy input," was never realized, but his concept introduced a radical new way of living to the general public. Despite numerous early orders, only one modified postwar version of the house was ever built.

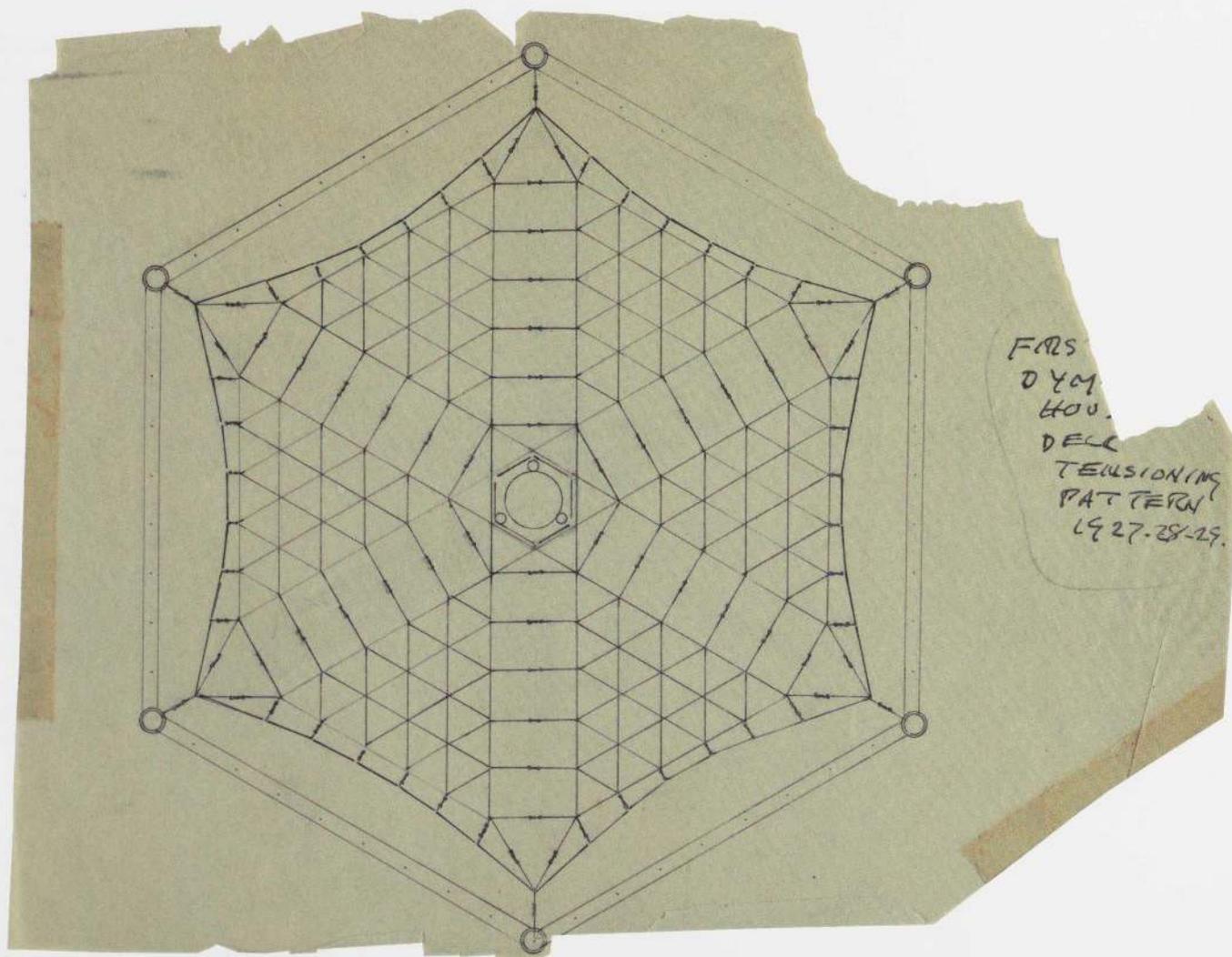
16

A Minimum Dymaxion Home. Project, 1927–29. Elevation, axonometric, and plan (1927): graphite on paper, 32 $\frac{7}{8}$ x 19" (83.5 x 48.3 cm)

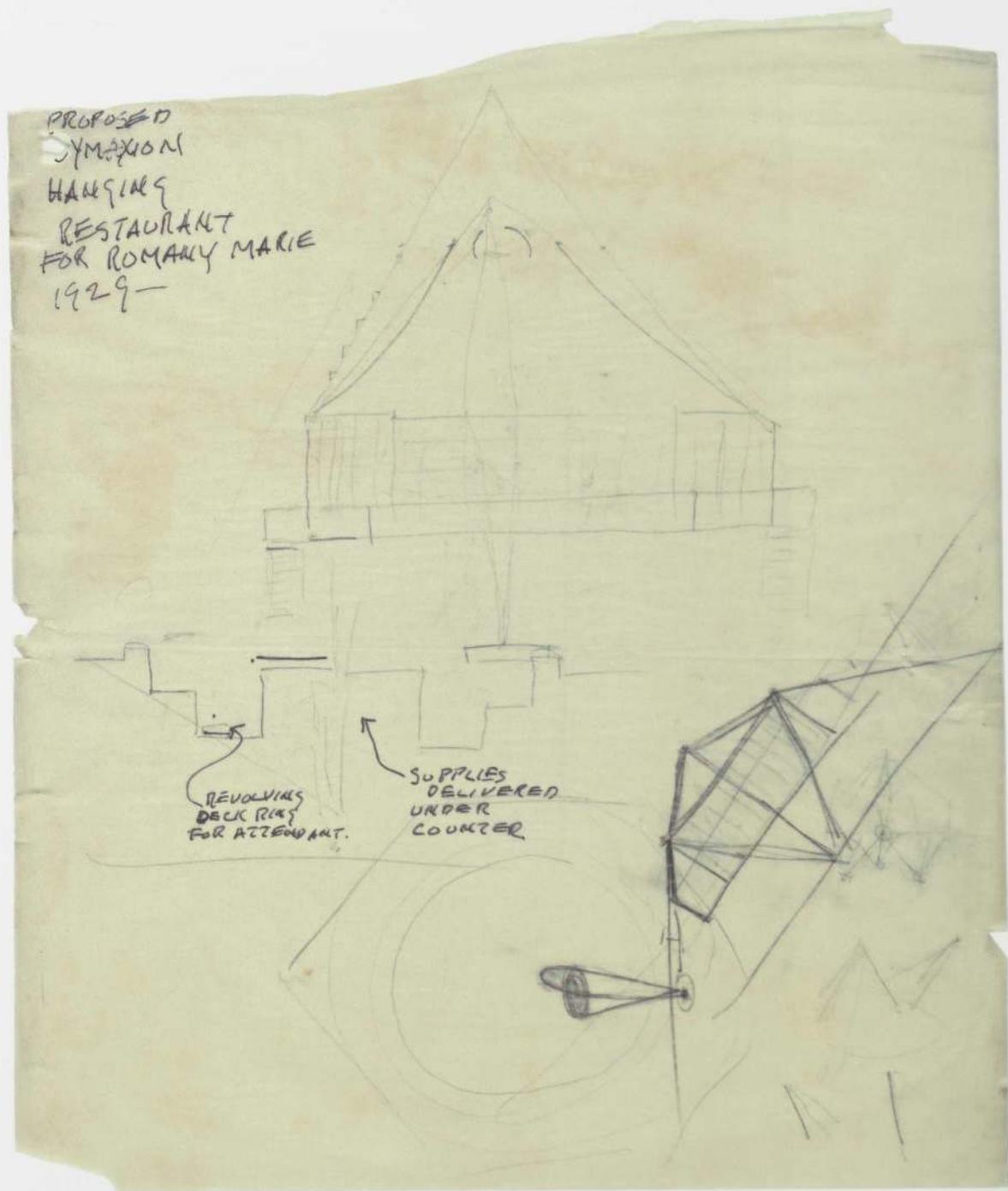




Dymaxion House. Project, 1927-29. Plan:
graphite, watercolor, and metallic ink on
tracing paper, 10³/₄ x 10" (27.3 x 25.4 cm)
(irreg.)



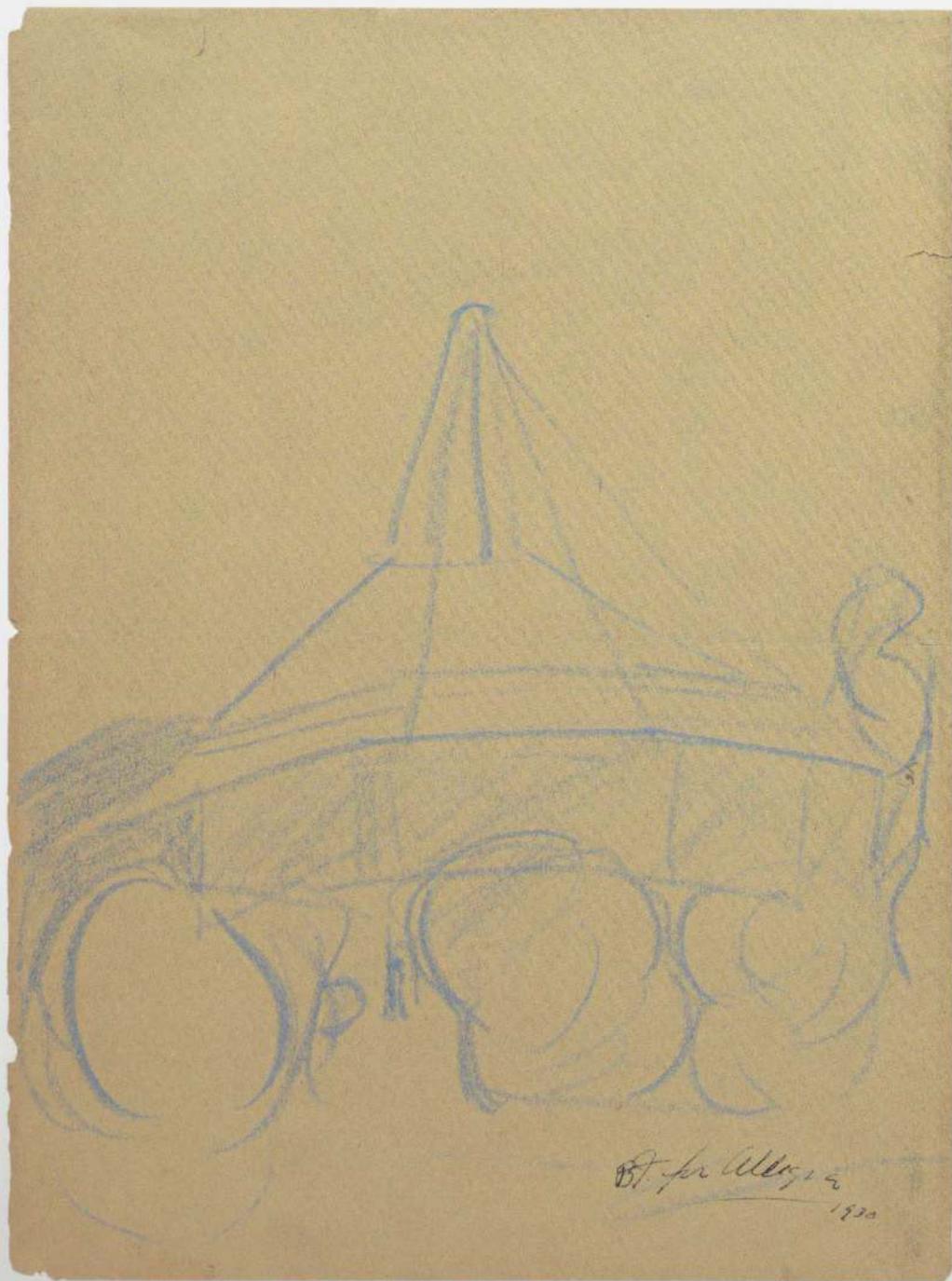
First Dymaxion House, Deck-Tensioning Pattern. Project, 1927-29. Plan: graphite and ink on paper with tape, 10 x 13 1/2" (25.4 x 34.3 cm) (irreg.)



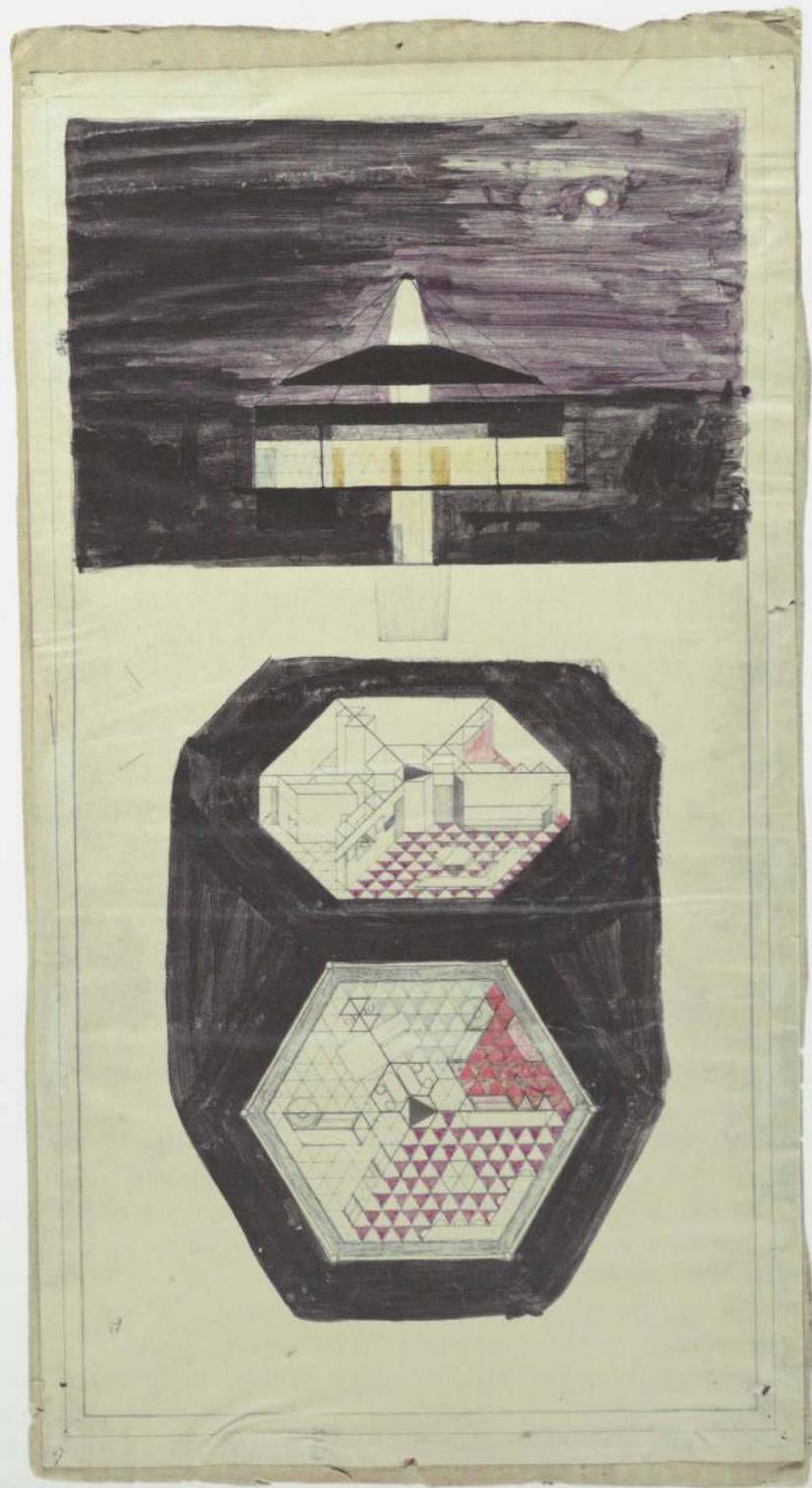
Proposed Dymaxion Hanging Restaurant
for Romany Marie. Project, 1929. Sketch:
graphite and ink on tracing paper, 16 $\frac{1}{8}$ x
13 $\frac{7}{8}$ " (42.2 x 35.2 cm) (irreg.)

R. BUCKMINSTER FULLER

20



Dymaxion House. Project, 1930.
Perspective: crayon on paper, 16 x 11 1/4"
(40.6 x 29.8 cm)



A Dymaxion Home. Project, c. 1930.
Elevation, axonometric, and plan: graphite
and watercolor on Photostat, 22½ x
12¼" (57.2 x 31.1 cm)



MEMORIES OF THE URBAN FUTURE: THE RISE AND FALL OF THE MEGASTRUCTURE

Sarah Deyong

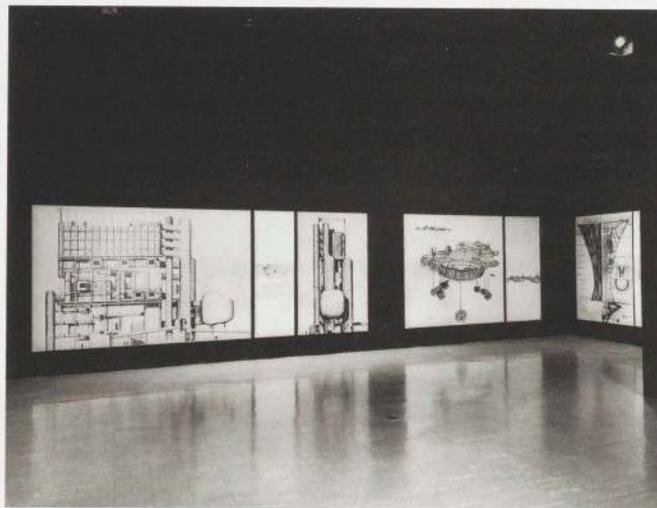
When the imagination surpasses the limits permitted by the institution of culture, one speaks of *poésie*, *utopia*. When critical thought attains and surpasses its limits (which are much more severe than those of the imagination), one speaks of *deviance*, *folly*, *a critical error*, *an overly theoretical system*, *a free-floating vision*, etc. When the event attains and surpasses the limits permitted by the law, one speaks of *revolution*. Or of *histories for daydreaming*.

—René Lourau¹

In 1960, The Museum of Modern Art inaugurated what might well be called a decade of metaphoric transformation in modern architecture with an exhibition titled *Visionary Architecture* (figure 1). The exhibition, orga-

nized by Arthur Drexler, showed a dazzling collection of urban proposals, including such projects as the Metabolist Kiyonori Kikutake's *Floating City* (1959), R. Buckminster Fuller's *Dome over Manhattan* (1950), and Paolo Soleri's *Arcology* (1959). The show was widely considered a landmark event, because it was the first major exhibition to herald a new development in modern architecture, more commonly known as the megastructure, which had been brewing since the mid-1950s, and flowered in the early to mid-1960s with the advent of such groups and individuals as Kenzo Tange and the Metabolists (pages 49, 101) in Japan; Archigram and Cedric Price (pages 38–39, 44–48, 50–67) in Britain; the *Groupe d'Espace et d'Architecture Mobile* (GEAM), *Architecture Principe*, and *Utopie* in France; Hans Hollein, Friedrich

Figure 1. *Visionary Architecture*, The Museum of Modern Art, New York, September 29–December 4, 1960. Installation view



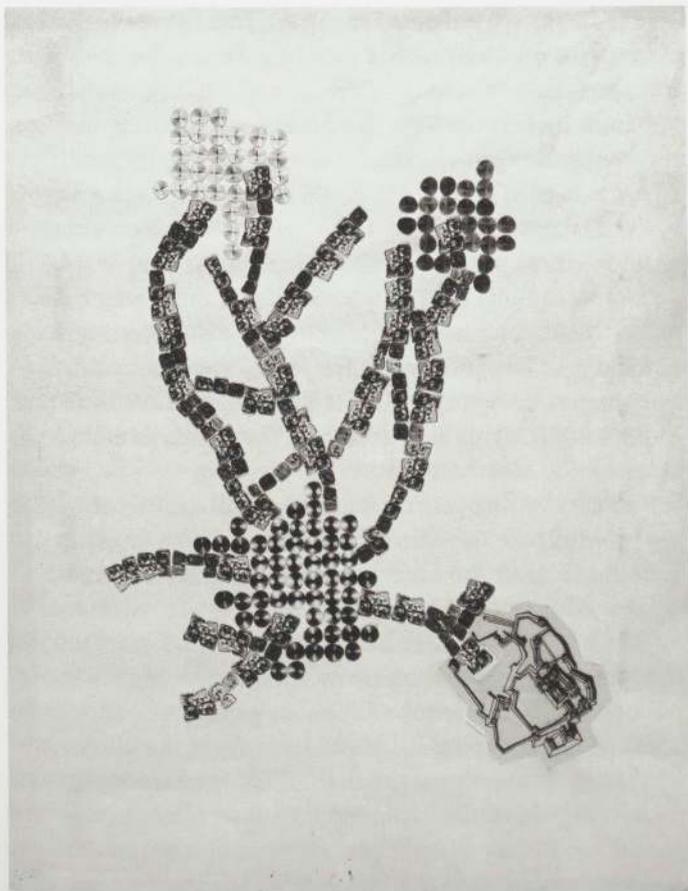
St. Florian (page 68–70), Haus Rucker Co., and Coop Himmelblau in Austria; and Archizoom, Ettore Sottsass, and Superstudio (pages 73–87, 102) in Italy. For these young architects, the megastructure represented a new vision of modernity unhindered by the social and technical constraints of the past. Like the pioneers of modern architecture of the early twentieth century, their aim was to bring about a utopian transformation of the built environment at a scale and speed as yet unseen. But in little more than a decade, this architecture came to an end. As the GEAM member Manfredi Nicoletti summarized the phenomenon upon its demise: “Never—perhaps—in the history of architecture [has] such a large availability of ideas and practical means corresponded [to] such a tremendous chance of creating. It is appalling to witness, in this moment, how problematic the encounter between the possible and the concrete has become. We are actually facing a sort of paradoxical reality that has all the features of a utopia.”²

Among the most provocative and influential projects of the early 1960s were Yona Friedman’s mobile architecture and spatial cities (pages 40–43); Metabolist Kisho Kurokawa’s Helix City project (figure 2), a vertical city in the shape of a DNA molecule of 1961; Archigram’s monumental urban machines: Peter Cook’s Plug-In City of 1962–65 (pages 50–53), Ron Herron’s Walking City of 1966 (page 55); and Dennis Crompton’s Computer City (1964). Such projects were testimony to the postwar

optimism for the new technology in communications, molecular biology, and the space program; but it was an optimism that quickly dissipated with the escalation of the Vietnam War and the increasing radicalization of politics, culminating in the student demonstrations of May 1968. By the late 1960s, the megastructure had lost much, if not all, of its avant-garde appeal; and visionary architects found themselves under attack for their love affair with technology, mass communications, and consumer goods, on the one hand, and for their failure to create anything more than just images of the future, on the other. Contrary to expectations, the transformation of vision into reality never came to pass; and the utopian aspirations of the modern movement were as remote as they had ever been. What had once seemed like an opportunity to transform the whole configuration of society became a memorial to “an ideal and unreachable destiny,” or as the architectural historian Reyner Banham put it, “a whitening skeleton on the dark horizons of our recent past.”³ Such criticism came not only from disenchanted observers, like Banham, but from key figures from within the megastructure movement itself. Ettore Sottsass and Superstudio, for example, acknowledged the demise of the movement in drawings featuring their own megastructures in mythical, ruinous, or apocalyptic scenarios: Sottsass’s *The Planet as Festival of 1972–73* (pages 80–87) and Superstudio’s *The Continuous Monument of 1969* (pages 73–77). Although the megastructure was originally intended as a corrective to the modern project, in the end it led to another and final impasse. This impasse was not the result of technological, social, or political constraints, but grew out of the logic of the modern discourse itself.

The French sociologist and cultural critic, Jean Baudrillard, has explored this impasse in an exemplary way: his concept of the simulacrum, formulated in the mid-1970s, helps to explain some of the internal contradictions and paradoxes of the megastructure movement. Baudrillard himself was a member of *Utopie*, an avant-garde collective of Marxist sociologists, architects, and urban theorists who mounted a devastating critique of visionary architecture at a 1969 conference in Turin, titled “*Utopia e/o Rivoluzione*,” in which they denounced the megastructures of Archigram,

Paolo Soleri, Yona Friedman, and others as "chimera of utopia." Baudrillard later extended this critique (in part, by turning it against itself) to an analysis of the mass media, popular culture, and modern science in what many consider his most important work, his essays on the simulacrum during the second half of the 1970s: "The Orders of Simulacra" (1976); "The Beaubourg Effect" (1977); and "The Precession of Simulacra" (1978). These essays on the vicissitudes of modern culture offer considerable insight into the rise and fall of the megastructure. In exploring visionary architecture in terms of Baudrillard's theory, I propose to focus on two key points in the life of the movement: its beginnings in the late 1950s and early 1960s, with Team X, Yona Friedman, and the Metabolists, and its end after the political events of May 1968, with Utopie and Superstudio.



THE LIVING CITY

In the postwar period, the International Congress of Modern Architects (CIAM), founded in 1928, had grown into the largest and most important organization to promote the ideas of modern architecture. Among other activities, it created a set of guidelines on urban planning, called the Athens Charter, which was widely implemented in the reconstruction of postwar Europe. And yet, at the height of its success in the 1950s, the organization came to be discredited from within its ranks by a younger generation of CIAM architects, soon-to-be-named Team X for the meeting they organized collectively: the tenth CIAM congress in Dubrovnik, Yugoslavia, in 1956. In the mid-1950s, this group of architects, which included Alison and Peter Smithson, Jacob Bakema, and Aldo van Eyck, criticized the charter for fragmenting the city artificially into four functional zones (work, living, recreation, and transportation). In its place, they established a new urban agenda, emphasizing the need for reintegrating the various functions of the city into a hierarchical "cluster" of "associational elements" (house, street, district, and city).⁴ Although CIAM itself dissolved just a few years later, in 1959, it was this new agenda that laid the groundwork for the first megastructures by Yona Friedman and the Metabolists.⁵

The aim of the new agenda was to revisit what the Athens Charter had inadequately addressed, as Team X declared: "Life falls through the net of the four functions."⁶ This critique had less to do with the functionalist precepts of modernism than with the technological model on which those precepts were based. "We are still functionalists," wrote Team X member Peter Smithson, "but today the word functional does not merely mean mechanical, as it did thirty years ago."⁷ If the old Athens Charter addressed certain problems of mass urbanization, such as pollution, congestion, and disease, for Team X it also reduced the city to a bureaucratic machine, a huge factory bereft of the ingredients that made the city a vital and complex organism. In its prescriptions to fellow practitioners at Dubrovnik, Team X wrote: "Today we each recognize the existence of a new spirit. It is manifest in our revolt from the mechanical concepts of order and in our passionate interest in the complex relationships

Figure 2. Kisho Kurakawa. Helix City, Tokyo, Japan. Project, 1961. Plan: cut-and-pasted gelatin silver photographs and ink on cut-and-pasted tracing paper on paper, 21½ × 17½" (54.6 × 44.5 cm). The Museum of Modern Art, New York. Gift of the architect, 1992

of life and the realities of our world."⁸ The megastructure was an attempt to enact, through built form, "the complex relationships of life," conceived along the lines of a new technological model. But rather than exemplify an architecture and town planning that restored the "realities of the world," it played out, *avant la lettre*, the logic of what Jean Baudrillard has called the *simulacrum*.

When Team X declared its "revolt against the mechanical concepts of order" and its "passionate interest in the complex relationships of life," the group broached the age-old metaphysical question: What is life? In rejecting the mechanical concepts of order on which the Athens Charter was based, they displaced the Cartesian model of life, which explains living phenomena in terms of clockwork mechanisms and automatons, with what is called in biology the *holistic* or *organismic* model. Beginning with the supposition that cities are complex organisms, Team X rehearsed the speculations of organismic biologists, such as Ludwig von Bertalanffy, arguing that the city is more than the "sum of its parts," that it forms a "synthetic whole" possessing the characteristics of an "organized complexity." "The problem," Team X wrote, "is one of developing a distinct total structure for each community, and not one of subdividing a community into parts. . . . We must find ways of weaving new units into the whole cluster so that they extend and renew the existing patterns."⁹ This understanding of the living process was rooted in a philosophy that was regarded as elusive and inestimable until the mid-twentieth century. With the rise of cybernetics after World War II, life was no longer seen as a transcendental ideal, an unsolvable mystery, but as something that could be mapped, and ultimately reproduced.

Visionary architects, as Arthur Drexler was to point out, were in the business of creation, of transforming vision into reality or, rather, models of life into reality itself.¹⁰ In the early to mid-1960s, the Archigram group and other young architects heralded the potential of new technology to bring about a utopian transformation of society, but it was not just an advance in technology that made possible this equation between vision and reality, but a shift in the conceptualization of life from an undecipherable unity to an organized complexity regulated by a cybernetic feedback system.¹¹ In the 1950s, the organismic

model, which extends back to the nineteenth century, was recast in terms of cybernetics, the science of communication and control, and as such, the unity of life came to be associated with self-regulating systems of communication, akin to the guidance and control mechanism of a ballistic missile. In James Watson's and Francis Crick's 1953 description of the double-helix structure of DNA, for example, life consisted of a program tape comprising the four "letters" of the genetic code (A, C, T and G) that regulated "the assembly of twenty amino acids into myriads of proteins."¹² While the concept of an organism in terms of a cybernetic system empowered scientific discourse with a newfound rigor and precision, its application was more rhetorical than practical and was limited in scope: although cybernetics could explain chemical processes at the molecular level, for example, it could not explain cell differentiation, that is, how new qualities emerge in the biological world at each successive level of organization. And yet, despite this limitation, the notion of life as a cybernetic machine managed to frame and influence research in vast areas of the behavioral and social sciences, and in modern architecture and urban planning as well.¹³ Soon after attending the tenth CIAM congress in Dubrovnik, Friedman proposed a mobile system of town planning, equipped with its own cybernetic feedback mechanism.¹⁴ Although the proposal went largely unnoticed by Team X, it caught the attention of other CIAM members, such as Eckhard Schulze-Fielitz and David Georges Emmerich, who, together with Friedman, founded the Groupe d'Espace et d'Architecture Mobile (GEAM), as well as Kenzo Tange, the so-called father of the Metabolists.¹⁵

Since the nineteenth century, the discourse of modern architecture has intersected with a series of scientific paradigms: after the mechanical model advanced by the CIAM old guard came the organismic model promoted by Team X, followed by the cybernetic, or neomechanical, model adopted by Friedman and the Metabolists. This passage from one model to the next parallels Baudrillard's account of the "orders of simulacra" from the classical world of clockwork mechanisms and automatons to the modern age of the genetic code: "It is in effect in the genetic code that the 'genesis of simulacra' today finds its most accomplished form."¹⁶ Baudrillard's account is

by no means a simple history of scientific models; rather, it is an analytical chronicle of power and knowledge, much like Michel Foucault's *The Order of Things*. The first stage of simulacra identified by Baudrillard corresponds with the classical system of representation, in which the sovereign difference between the original and the model, the living and the nonliving, remains intact, "as in the case of that perfect automaton that the impersonator's jerky movements on stage imitate; so that at least, even if the roles were reversed, no confusion would be possible."¹⁷ The second stage corresponds with the modern age of serial, or assembly-line, production; and the third, with the postmodern age of the simulacrum, in which the original and the copy "resemble each other so closely that they no longer resemble each other at all."¹⁸ According to this scheme, the Athens Charter, as "the counterfeit of life," would belong to the first order of simulacra. The megastructure, however, aspires to a phantasmatic equivalence,¹⁹ and thus plays out the paradoxical logic of the third order. While it is one thing to compare life to the functioning of a cybernetic mechanism (of which the unity of life remains a transcendental and unattainable ideal), it is another to then equate the two, as if the terms of the analogy were reversible.

As we have noted, the first megastructures by Friedman and the Metabolists emerged out of discussions with Team X on how a city might grow and adapt itself to future change *as if* it were a living organism. Unlike Team X, however, it was not enough for Friedman and the Metabolists to develop clusters of spatial arrangements, "akin to patterns of crystal formations or biological divisions."²⁰ The units within "the total cluster" also had to be mobile in order to allow for variability, similar to "the constant metabolism of cells." "When it comes to method," Tange wrote in 1960, "I believe we can take a hint from the various approaches in the modern sciences. One science is the study of life; the other, that of physics or mathematics. The principle of life has not yet been discovered, but organisms can be viewed macroscopically as stable structures composed of orderly arrangements of cells. The organism lives, however, because of the constant metabolism of the cells, and this must be examined microscopically."²¹ This descrip-

tion of the organism as a "stable structure composed of orderly arrangements" forms the basis of Metabolist Fumihiko Maki's famous definition of the megastructure as a large framework containing mobile parts.²²

Maki's definition forms just one half of the living-city problematic. What is missing from this definition is the megastructure's DNA. For Friedman and his GEAM colleagues, the megastructure was analogous to cellular growth, as defined by molecular biologists, not only in terms of form, pattern, and structure but also in terms of the ordering of a finite number of elements. As the GEAM member Eckhard Schulze-Fielitz wrote in 1960: "The space structure [or megastructure] is a macro-material capable of modulation, analogous to an intellectual model in physics, according to which the wealth of phenomena can be reduced to a few elementary particles."²³ Throughout the 1960s, Friedman devised computerlike programs for generating complex spatial patterns out of a taxonomy of elements and simple "rules of composition."²⁴ In his Flatwriter project, presented at Expo 1970 in Osaka, for example, hypothetical inhabitants could generate the design of their individual living arrangements by selecting options from a keyboard of fifty-three architectural elements (floors, walls, plug-in components, and so on), combined according to the elementary rules of a computer program.²⁵

We might easily criticize Friedman's project for taking literally what is ultimately a metaphor for life, but it is also the very literalness of the project that highlights the paradox of representation that Baudrillard raised in relation to a model approximating life so closely that it no longer resembles it at all. In the attempt to create the living city out of an *a priori* perception, the megastructure became what Baudrillard called "the new operational configuration" of algorithms, binary oppositions, and combinatory theories.²⁶ Such was Baudrillard's own assessment of a late, yet celebrated, megastructure built in the 1970s: the Centre Georges Pompidou in Paris, also known as the Beaubourg, by the architects Renzo Piano and Richard Rogers. In his 1977 essay, "The Beaubourg Effect," Baudrillard aptly referred to this remarkable building as an enigmatic "carcass [of] networks and circuits—the final impulse to translate a structure that no longer has a name."²⁷ For Baudrillard, the discourse

of science was predicated on a phantasmatic perception of life that treats the metaphor as substantively the same as reality. The paradox lay in the fact that all of objective reality is predicated on an operational image that does not represent anything in and of itself.²⁸

UTOPIA AS FETISH

From 1966 to 1973, Baudrillard belonged to Utopie, an interdisciplinary group committed to the revolutionary transformation of everyday life.²⁹ Inspired by the urban theories of the French Marxist philosopher Henri Lefebvre and by the avant-garde practices of the Situationist International (SI), Utopie sought to define architecture as a radical form of social practice.³⁰ Since the architects of Utopie—Jean Aubert, Jean-Paul Jungmann and Antoine Stinco—were graduates of the École des Beaux-Arts, where they trained under Friedman's GEAM colleague, David Georges Emmerich, Utopie's experiments in architecture recalled the mobile structures of Friedman and the Metabolists. They proposed mobile environments and inflatable structures as a means of enacting Lefebvre's celebration of the festival of everyday life. As Stinco explained: "The inflatable represented . . . a festive symbol of the new energy. It did so through its fragility, its will to express the ideas of lightness, mobility, and obsolescence, through a joyous critique of gravity, boredom with the world, and of the contemporary form of urbanism that had been realized."³¹

This portrait of the megastructure as a freewheeling utopia typifies visionary architecture in the 1960s.³² Megastructural themes borrowed from Friedman, the Metabolists, and other first-generation megastructuralists inspired everything from Archigram's playful designs for plug-in, clip-on, and moving cities to Archizoom's variable and multifunctional furniture interiors. It was also a vision that differed from Team X's agenda to ameliorate, rather than overturn, the existing social condition. For Utopie, the unity of life was not so much an aesthetic and technological problem, as it was a social and political strategy. But if, for the architects of Utopie, "mobility and the interconnectedness between space and function it allows" were the ingredients of a new leisure society

liberated from work habits and constraints, for Baudrillard, these qualities did not necessarily amount to a revolutionary position, nor did they even challenge the status quo.³³ In the first issue of Utopie's eponymous magazine, Baudrillard observed: "Ephemera might one day be the collective solution, but for now it is the monopoly of a privileged few. . . . This is not to disqualify the formal research of the architect, but there is bitter derision in the fact that this research for a social rationale ends up reinforcing the irrational logic and strategy of the class cultural system."³⁴ From the beginning, then, Utopie's attempt to reconcile visionary architecture with radical criticism was a difficult, if not impossible, proposition, as if the very thing to which Utopie aspired had been foreclosed in advance.

In its statement, "La Logique de l'urbanisme" (1967), Utopie argued that as long as the science of urbanism participated in the capitalist logic of production, it could never attain what it had set out to realize: "the totality of the urban."³⁵ "In synthesizing," Utopie argued, "the urbanist thinks he is making the unity of the city legible, when in fact he is doing nothing but projecting his own representation of the city, inherited from the cultural and advertising ideology of contemporary society, onto the urban reality."³⁶ In other words, for Utopie, modern planning projected an image of the urban not as it really was, but as the urban scientist imagined it "through the rationale of his own creations (development plans, schemas of structure, rules, and so on)."³⁷ Initially, this critique was aimed at the bleak new housing estates of the urban peripheries, thus concurring with Team X's own misgivings about the functionalist precepts of CIAM. But if the megastructure had once seemed like a promising alternative, it would not take long for Utopie to turn its Marxist position against its own projects. In May 1968, student radicals satirized visionary architecture with slogans such as: "Are we fighting for inflatables?"³⁸ And in the following year, Utopie, in turn, denounced the very architecture it originally embraced at a 1969 conference in Turin called "Utopia e/o Rivoluzione."³⁹ There, Utopie effectively announced the end of the megastructure movement: "Mobile cities, cities on the move, sweet 'software,' the end of misery, the technology of everything, the lucid 'gadget,' the city of lights,

the technology of the Concorde, the Gemini program, the soft revolution . . . and during all this time, nothing of this in everyday life. . . . In a subtle dialectic between the possible, which will never be, and the false utopian conscience, overwhelmed with marvels, the vicious circle completes itself in an attempt to conceal radical criticism from the world of production. . . . Utopia is a luxury good, blinding us with its splendor."⁴⁰

"La Logique de l'urbanisme," Utopie's pre-1968 manifesto, had extended Marx's analysis of the commodity-fetish to the problem of urbanism. Following Marx, who defined the commodity-fetish as the imaginary equivalent of an object whose value is but the reflection of a network of market relations (supply and demand), Utopie argued that the science of urbanism enacted the "diabolical substitution" of the territory with the commodity-sign.⁴¹ After May 1968, however, things became more complicated, and "the totality of the urban" was not just a false representation masking the actual state of things, but rather, a "tactical illusion," an alibi, masking a constitutive impossibility. "An important contradiction in the [capitalist] system," Utopie wrote, "consists in the fact that technological progress is supposed to liberate the working class, thanks to the reduction or elimination of work. This liberation in technology inspires most of the current formalizations of utopia, but the realization of automation is impossible in a bourgeois world, since only the fulfillment of human labor can generate the reproduction of surplus value. The spectacle . . . makes possible the illusion that the end of misery is near."⁴² Paradoxically, then, the surplus value required to bring about the end of work is also the very impediment that undermines the potential of technology to liberate human beings from the drudgery of work.

This paradoxical logic of the commodity-fetish also underlies Baudrillard's concept of the simulacrum as a paradoxical element that incarnates the ideal only insofar as it does not represent anything in and of itself (it is the mirror-image of a network of social relations), and from which it follows that the logical culmination of a given system is also its internal limit. In Baudrillard's post-1968 essays, this paradox applied not only to capitalism but to all systems of rationality. In "The Precession of Simulacra," for example, Baudrillard wrote: "The cartog-

rapher's mad project of an ideal coextensivity between the map and the territory, disappears with simulation—whose operation is nuclear and genetic, and no longer specular and discursive. . . . No more imaginary coextensivity: rather, genetic miniaturization is the dimension of simulation."⁴³ For Baudrillard, molecular biology constituted a discourse that was predicated on the "tactical" substitution of a metaphor of life for the real thing itself. In quoting Jacques Monod, the Nobel laureate who once speculated that "the human organism had a cybernetic feedback system controlling its chemical processes,"⁴⁴ Baudrillard noted, "Monod very well expresses the arbitrary nature of this phenomenon: 'We might wonder if all the invariance, conservations and symmetries that constitute the scheme of scientific discourse are only fictions substituted for reality so as to offer an operational image . . . a logic founded on a purely abstract principle of identity possibly conventional. Convention, however, that human reason seems incapable of doing without.'"⁴⁵

By extending Marx's analysis of the commodity-fetish to a theoretical understanding of phenomena outside the field of political economy, Baudrillard put into question the ideals of freedom, rationality, and human progress that had formerly guided revolutionary practice, including the Marxist ideology of scientific socialism.⁴⁶ While, throughout its writings, Utopie held on to the prospect of utopia, even though this could not be positively defined, Baudrillard's essays from the mid-1970s abandoned this perspective altogether. The turning point, as Baudrillard himself pointed out in "The Beaubourg Effect," was the failure of the May 1968 revolution. Far from representing a capitulation to the status quo, however, Baudrillard's concept of the simulacrum was an attempt to highlight the paradox that makes social reality both possible and impossible.⁴⁷ "Certainly, since 1968," he wrote, "the social, like the desert grows—participation, management, generalized self-management, etc.—but at the same time it comes close in multiple places, more numerous than in 1968, to its disaffection and to its total reversion."⁴⁸ Ironically, the inflatable structure bore witness to such a gesture, since its very form expressed the paradoxical fullness/emptiness of the bourgeois ideology Utopie critiqued.

URBAN FICTION

In 1972, the British architectural historian, Reyner Banham, announced the fate of modern architecture's latest incarnation at a talk he gave in Naples: "The megastructure is dead, and thus the time has come to write its history."⁴⁹ The outcome of this pronouncement was Banham's 1976 survey, *Megastructure: Urban Futures of the Recent Past*. Although Banham had been a champion of the megastructure since its beginnings in the late 1950s and actively promoted architects, such as the Smithsons and Archigram, in the early 1970s, he began to question the megastructure's continuing viability as a new model of urbanism. As Banham stated in a 1974 lecture at the Artnet in London, an architectural forum organized by Peter Cook: "At a remove of ten years, to design in that way appears to have become inconceivable. Is it simply because our own view of what is permissible has changed? It is already difficult to reconstruct the mood of 1964, the mood which made the megastructure parts of the Buchanan Report [on traffic] conceivable and perfectly acceptable to the average British Town Councillor and Deputy Planning Officer. What were we all up to in 1964? Because I do not think any of us found this kind of project very shocking as we do now."⁵⁰

For Banham, what had begun as a critique and promising alternative to the academic phase of CIAM modernism had devolved, in its turn, into another "academicism of the avant-garde." As the ideas of Team X and the Metabolists gained widespread acceptance from the architectural establishment, mainstream megastructures, such as the multilevel roadway system proposed by the architect Colin Buchanan for the British Ministry of Transportation and Paul Rudolph's Lower

Manhattan Expressway project of 1967–72 (page 71), which graced the cover of Banham's book, were increasingly associated with the dubious "science" of futurology and, as Banham put it, with the prognostications of "the Hudson Institute and RAND Corporation on a sunny day."⁵¹ According to Banham, the tide of acceptance among megastructuralists themselves began to change in 1968 "when the Left finally began to mount cogent criticism of [the] mega-structure . . . with arguments that . . . derive[d] from the neo-Marxism of Herbert Marcuse, maintaining that the permissive freedoms offered by [the] megastructure's adaptability and internal transiencies were illusory, since all they involved were choices between fixed alternatives prescribed by the designers of the megasystem, and were thus as meaningless as the consumers' supposed choices between different products offered by the capitalist system's supermarkets."⁵² "This critique," Banham noted, "did not come, to the best of my knowledge, from anywhere in the established and organized Left, but was put to me, appropriately enough, by dissident students on the second night of the *événements de Mai*."⁵³

Banham, of course, was not the only architectural historian to toll the death knell of the megastructure. Among others, the Italian historian and critic, Manfredo Tafuri also denounced the megastructure in his *Theories and History of Architecture* (1969), thereby retracting his previous statements of the early 1960s in support of the movement.⁵⁴ His remarks in 1969 were as grave as those of Utopie, since, for him, radical criticism meant that architecture, like the mass media, was always already implicated in the production of power: "If, today, architecture is not able to call anyone to freedom, if its own freedom is illusory, if all its petitions sink in a

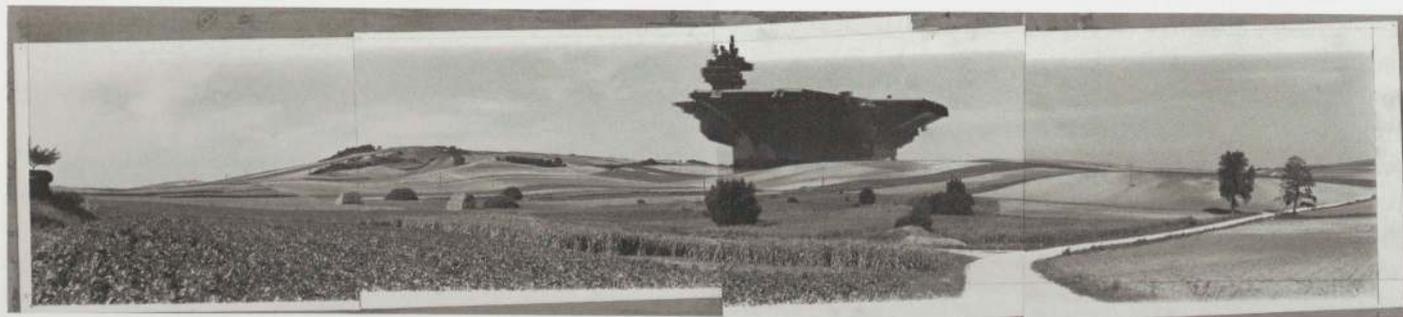


Figure 3. Hans Hollein. Aircraft Carrier City in Landscape. Project, 1964. Perspective: cut-and-pasted reproduction on four-part gelatin silver photograph mounted on board, 8½ × 39 ⅞" (21.6 × 100 cm). The Museum of Modern Art, New York. Philip Johnson Fund

quagmire of 'images' at best amusing, there is no reason why one should not take up a position of determined contestation towards architecture itself, as well as towards the general context that conditions existence."⁵⁵

In response to such criticisms, visionary architects began to reposition themselves against the megastructure and monumental image making. Archigram opted for small-scale urban interventions and "invisible" networks in projects such as David Greene's electric garden of delights: Logplug, Rokplug, and L.A.W.U.N. (Locally Available World Unseen Networks, 1969); Paul Virilio of Architecture Principe abandoned his experiments with space and architecture and devoted himself entirely to theory, writing brilliant and provocative essays on the impact of military technologies on everyday life.⁵⁶ Austrian visionaries, such as Walter Pichler (pages 136–139), Raimund Abraham (pages 116, 117), and Friedrich St. Florian (page 127), turned inward, producing poetic dreamscapes at the more personal scale of the house. Hans Hollein (figure 3), Léon Krier (pages 103–105, 118, 129), and other onetime megastructuralists joined the burgeoning postmodern movement, in which the entire history of architecture was treated as a vast repertory of symbols to be endlessly mined, manipulated, and collaged. Among other things, postmodernism replaced the utopian narratives of the modern movement with a pluralist approach that equated architectural production with the syntax and grammar of a free-floating language.⁵⁷ In so doing, however, it also rendered architecture socially and politically mute. As Tafuri (an ambivalent critic of postmodernism) put it: "In place of an anxious effort to restructure the urban system, there is a disenchanting acceptance of reality [and its takeover by the sign], bordering on extreme cynicism."⁵⁸

An important exception to this postmodern turn in the aftermath of May 1968 was Superstudio, a group of young Florentine architects whose use of metaphors and rhetorical devices was a means to expose the internal limitations of a modern world colonized by the sign, rather than a postmodern surrender to it.⁵⁹ Founded in 1966 by Adolfo Natalini and Cristiano Toraldo di Francia, Superstudio was one of several groups that originated out of megastructuralist Leonardo Savioli's course at the University of Florence in the 1966–67 academic year, a

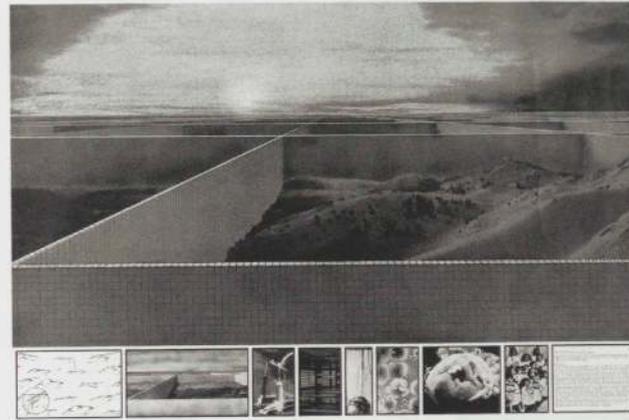
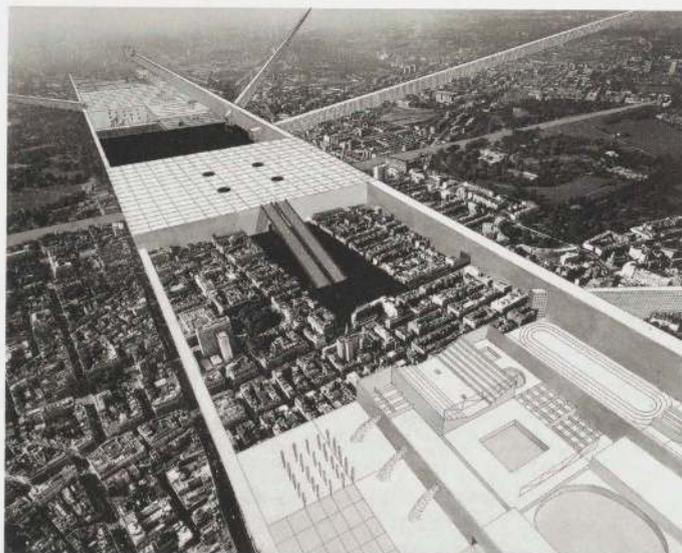


Figure 4. Superstudio (Cristiano Toraldo di Francia, Gian Piero Frassinelli, Alessandro Magris, Roberto Magris, Adolfo Natalini). Twelve Ideal Cities: The First City. Project, 1971. Aerial perspective: photolithograph, 27 1/4 x 39 1/8" (70.2 x 100.6 cm). The Museum of Modern Art, New York. Given anonymously

course on the utopian transformation of life through the use of mobile, flexible, and inflatable structures, following the work of Archigram, Utopie, and others.⁶⁰ Soon after the Turin conference in April 1969 (attended by the group), Superstudio left behind its utopian convictions, producing a series of critical projects on the limits of utopia—projects that some commentators mistook as a final attempt to rehabilitate the megastructure.⁶¹ Superstudio's method was not to supersede the limits of modernism by replacing it with another fiction, but to pursue the logic of this discourse to its paradoxical conclusion. As Natalini explained in a 1983 interview with Monica Pidgeon, the editor of *Architectural Design*: "Many of the first projects, which are now labeled utopian and are considered part of the Italian avant-garde movement called 'Architettura Radicale,' were not meant to be utopian at all. On the contrary, they used rhetorical devices to make negative utopias, *demonstratio per absurdum*."⁶²

One such *demonstratio per absurdum* is Superstudio's Twelve Ideal Cities (1971), an allegory on modern utopias of the twentieth century (figure 4). The twelve cities are supposed to represent "the supreme achievement of twenty thousand years of civilization," but are in fact hallucinatory provocations, tactical illusions, as Baudrillard would have put it.⁶³ In the 2000-Ton City, for example, we are told that the inhabitants live in cells equipped with electronic devices that can satisfy all needs and desires, but we are also told that if anyone indulges in thoughts of rebellion, the ceiling will collapse

Figure 5. Rem Koolhaas and Elia Zenghelis, with Madelon Vriesendorp and Zoe Zenghelis. Exodus, or The Voluntary Prisoners of Architecture: The Strip. Project, 1972. Cut-and-pasted paper with watercolor, ink, gouache, and color pencil on gelatin silver print, 16 x 19 1/2" (40.6 x 50.5 cm). The Museum of Modern Art, New York



with a force of two thousand tons. In another city, a spaceship in the shape of a giant wheel on an intergenerational voyage, the crew members lie peacefully asleep in their cabins dreaming a common dream, but are periodically killed and ejected as they reach the end of a predetermined life-cycle to make way for the newly born. Each of the twelve cities promises eternal happiness and perfection, but is also flawed in some unthinkable and horrifying way. For Superstudio, the modernist utopia is not only unattainable, its pursuit is a contradiction in terms. As a 1972 text by Superstudio inquired: "Where do you think you'll end up by taking the Utopian Road? Do you really believe that this is the way out of the mistakes and the misery that surrounds us? Have you forgotten that this road is as long as the existence of man and that no one has ever found a resting-place along it? Can't you see that it is illumined by a false light; that the footsteps you can hear advancing

are the sounds of dreams; that the lakes you can see from it are a mirage, a shimmering *fata morgana* provoked by the blinding sun?"⁶⁴

The Twelve Ideal Cities is part of a series of projects, or "didactic essays," as Natalini called them, that includes The Continuous Monument of 1969 (pages 73–77), Reflected Architecture (1971–72), and Utopia, Antiutopia, Topia (1972). Together they make a seductive proposition that draws attention to the fiction that simultaneously frames the discourse of modern architecture and prevents that discourse from forming a totalizing whole. For this reason, the most striking feature of The Continuous Monument is its hard mirrored surface, which reflects its surroundings, revealing *nothing* of itself.

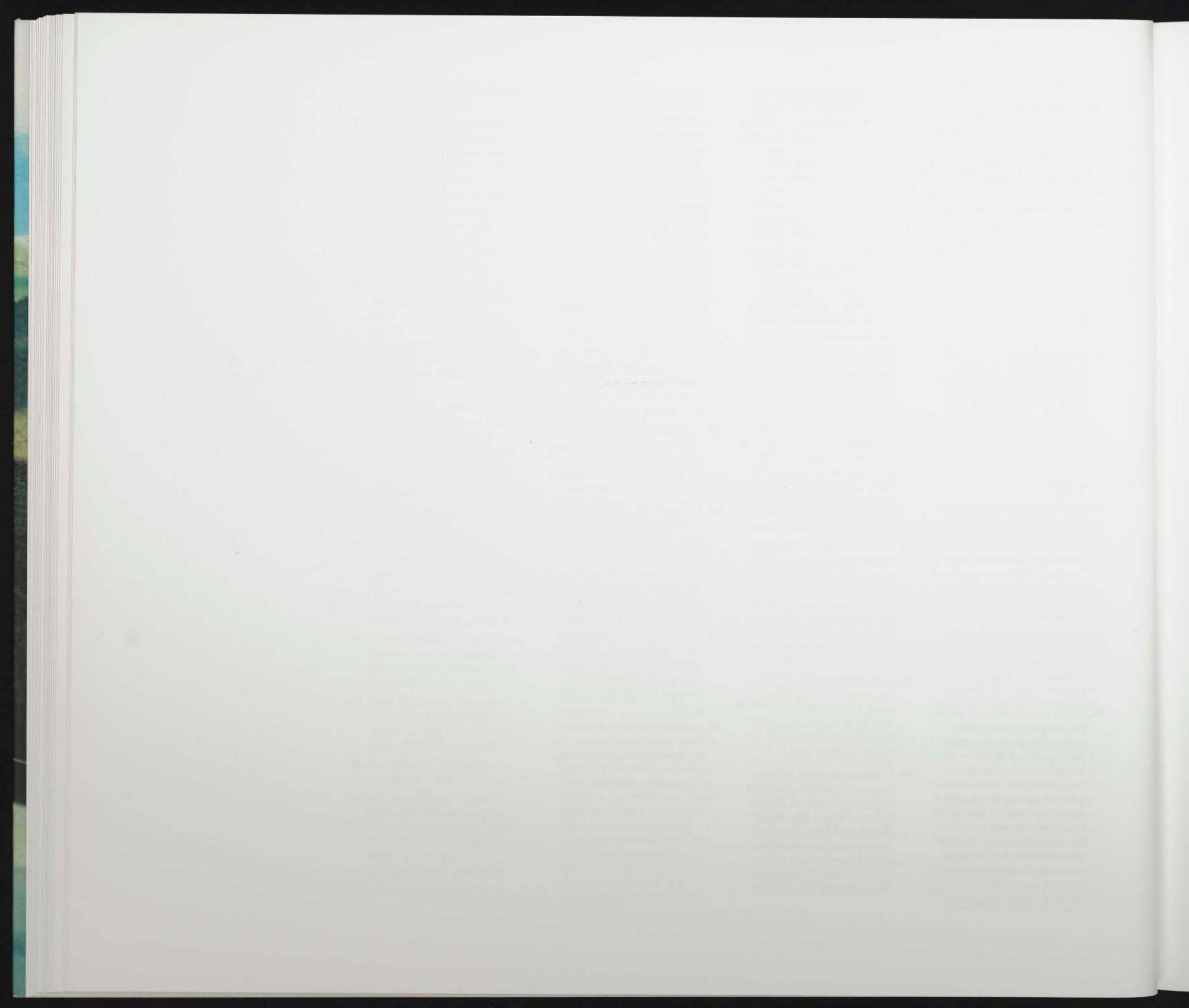
If there is a proper coda to Superstudio's critical turn, then perhaps it would be Rem Koolhaas's *Delirious New York* (1978). Koolhaas's earlier (1972) project for a linear city, titled Exodus, or The Voluntary Prisoners of Architecture (figure 5) pays tribute to Superstudio's Continuous Monument.⁶⁵ *Delirious New York*, a retroactive manifesto for a modern "culture of congestion" is an attempt at defining a blueprint for architecture with a certain self-consciousness of the fictions involved. As Koolhaas noted, Le Corbusier's favorite method of translating vision into reality was reinforced concrete, an infinitely malleable substance that could harden into any shape or form. For Koolhaas, this construction method was strictly analogous to the technique Salvador Dalí proposed for realizing Mary's Ascension, which was to take a photograph of an inverted image of the Holy Virgin projected onto falling peas. "By recording [the fiction] in a medium that cannot lie," Koolhaas wrote, "that postulate is made *critical*—objectified . . . put into the real world where it . . . can become active."⁶⁶

Notes

1. René Lourau, "Contours d'une pensée critique nommé urbanisme," *Utopie* 1 (May 1967): 11-12: "Quand l'imagination atteint et dépasse les limites permises par l'institution de la culture, on parle de poésie, d'utopie. Quand la pensée critique atteint et dépasse ses limites (beaucoup plus sévères que celles de l'imagination), on parle de déviance, de folie, d'erreurs graves, de système trop théorique, de vision gratuite, etc. Quand l'événement atteint et dépasse les limites permises par la loi juridique et par les règles anomiques, on parle de révolution. Ou d'histoires à dormir debout."
2. Manfredo Nicoletti, "The End of Utopia," *Perspecta* 13/14 (1971): 276.
3. Ibid.: 270; see also Reyner Banham, *Megastructure: Urban Futures of the Recent Past* (New York: Harper & Row, 1976): 11.
4. Alison and Peter Smithson, "Town Structure," in Jürgen Joedicke, ed., *Documents of Modern Architecture: CIAM '59 in Otterlo* (New York: Universe Books, 1961): 68.
5. The Metabolists included Kiyonori Kikutake, Kisho Kurokawa, and Fumihiko Maki. Kenzo Tange and Arata Isozaki were closely affiliated with the group.
6. Alison Smithson, ed., *Team 10 Meetings* (New York: Rizzoli, 1991): 9.
7. Peter Smithson, "Cluster City," *Architectural Review* (November 1957): 333.
8. Team X, "Instruction to Groups, Dubrovnik 1956," in Joedicke, *Documents of Modern Architecture: CIAM '59 in Otterlo*: 14.
9. Team X, "The Tenth Congress of CIAM, Dubrovnik, August 1956," in Alison Smithson, *Team 10 Out of CIAM* (1982): 73.
10. As Arthur Drexler wrote in a statement on the *Visionary Architecture* exhibition: "Today virtually nothing an architect can think of is technically impossible to realize. Social usage . . . determines what is visionary and what is not. . . . Visionary projects, like Plato's ideal forms, cast their shadows over into the real world of experience, expense and frustration. If we could learn what they have to teach, we might exchange irrelevant rationalizations for more useful critical standards. Vision and reality might then coincide." See "Visionary Architecture," The Museum of Modern Art, New York, Press Release No. 108, September 29, 1960.
11. For an excellent discussion on the rhetoric of molecular biological discourse, see Richard M. Doyle, "Emergent Power: Vitality and Theology in Artificial Life," in Timothy Lenoir, ed., *Inscribing Science* (Stanford: Stanford University Press, 1988): 304-433.
12. Lily Kay, "How a Genetic Code Became an Information System," in Agatha C. Hughes and Thomas P. Hughes, eds., *Systems, Experts, and Computers* (Cambridge, Mass.: MIT Press, 2000): 463.
13. Ibid.: 465: "The representation of phenomena in terms of information systems was not confined to molecular biology. Nearly every discipline in the social sciences (sociology, psychology, anthropology, political science, and economics), as well as in the life sciences (immunology, endocrinology, embryology, physiology, neuroscience, evolutionary biology, ecology, and molecular genetics) flirted with the seductive ideals of cybernetics and information theory in the 1950s, with different degrees of productivity and commitment."
14. Yona Friedman, "L'Architecture mobile," December 12, 1958, typescript in the Yona Friedman Files, Centre Georges Pompidou, Paris.
15. The Metabolists first came together as the Theme Committee for the 1960 World Design Conference in Tokyo. For this event, they published a manifesto, titled *Metabolism 1960: Proposals for the New Urbanism*. The group's spiritual father was Kenzo Tange, who had been a CIAM member since 1949. Kurokawa, Maki, and Isozaki all worked in Tange's office, known as ARTEC.
16. Jean Baudrillard, "The Orders of Simulacra," in idem, *Simulations*, trans. P. Foss, P. Patton, and P. Beitchman (New York: Semiotext, 1983): 104; orig. pub. in *L'Echange symbolique et la mort* (Paris: Gallimard, 1976).
17. Ibid.: 94.
18. Rex Butler, *Jean Baudrillard: The Defence of the Real* (London: Sage Publications, 1999): 35; see also Sara Schoonmaker, "Capitalism and the Code," in Douglas Kellner, ed., *Baudrillard: A Critical Reader* (Oxford: Basil Blackwell, 1994): 170: "[The epitome of the simulacrum is the digital code] that translates all questions and answers, all of reality, into a binary opposition between zero and one. In the stage of simulation, objects are not merely reproduced through mechanical techniques. They are originally conceived in

- terms of their reproducibility, using a binary code."
19. The Metabolists declared: "We are not going to accept the [city] as a natural historical process, but we are trying to encourage active metabolic development of our society through our proposals." *Metabolism 1960: Proposals for the New Urbanism* (Tokyo: Bijutu Syuppan Sha, 1960): 1.
 20. James Stirling, "Regionalism and Modern Architecture," *Architect's Year Book 8* (1957); quoted in Fumihiko Maki, *Investigations in Collective Form* (St. Louis: Washington University, 1964): 21.
 21. Kenzo Tange, "Technology and Humanity: From the Stenographic Record of a Speech at the World Design Conference in Tokyo, May 1960," *Japan Architect* (October 1960): 12.
 22. Maki, *Investigations in Collective Form*: 8.
 23. Eckhard Schulze-Fielitz, "The Space City," in Ulrich Conrads, ed., *Programs and Manifestoes on 20th-Century Architecture* (Cambridge, Mass.: MIT Press, 1997): 175.
 24. Yona Friedman, "L'Urbanisme comme système compréhensible," *Revue Technique du Bâtiment* (1964): 7-18.
 25. Yona Friedman, *Toward a Scientific Architecture*, trans. C. Lang (Cambridge, Mass.: MIT Press, 1970).
 26. Baudrillard, "Orders of Simulacra": 103.
 27. Jean Baudrillard, "The Beaubourg Effect," in idem, *Simulacra and Simulation*, trans. Sheila Glaser (Ann Arbor: University of Michigan Press, 1994): 61.
 28. Here, Baudrillard's theory comes close to that of psychoanalyst Jacques Lacan. As Lacanian theorist Slavoj Zizek has written: "Reality is never directly 'itself,' it presents itself only via its incomplete-failed symbolization." See Slavoj Zizek, ed., "Introduction," in *Mapping Ideology* (New York: Verso Books, 1994): 2.
 29. Utopie included the urbanist Hubert Tonka, the landscape architect and feminist Isabelle Auricoste, architects Jean Aubert, Jean-Paul Jungmann, and Antoine Stinco; and sociologists Jean Baudrillard and René Lourau. See Jean-Louis Violeau, "Utopie: In Acts," in Marc Dessauce, ed., *The Inflatable Moment* (New York: Princeton Architectural Press, 1999): 37.
 30. For an account of the Situationist International group and its involvement with architecture, see Mark Wigley, *Constant's New Babylon: The Hyper-Architecture of Desire* (Rotterdam: 010 Publishers, 1998).
 31. Antoine Stinco, "Boredom, School, Utopie," in Dessauce, *Inflatable Moment*: 70.
 32. Jean-Paul Jungmann described the scene: "The 1960's produced a lot of theoretical works, and numerous groups emerged, including the Metabolists in Japan, Superstudio in Italy, Archigram in England, Haus-Rückler in Austria, and others. New concepts—ephemerality, mobility, the 'total city,' composition through accumulation—had a strong appeal, and were associated with the invention of new designs inspired by the industrial object, the machine, space and submarine capsules, the connivance with pop art, cartoons, etc." Dessauce, *Inflatable Moment*: 66-67.
 33. Butler, *Jean Baudrillard*: 32.
 34. Jean Baudrillard, in *Utopie 1* (May 1967): 96-97: "L'éphémère sera peut-être un jour la solution collective, mais pour l'instant il est le monopole d'une fraction privilégiée. . . . Ceci n'est pas du tout pour disqualifier la recherche formelle de l'architecte: mais il y a une amère dérision dans le fait que cette recherche d'une rationalité sociale aboutisse précisément à renforcer la Logique irrationnelle et la stratégie du système culturel de classe."
 35. Utopie, "La Logique de l'urbanisme," *Utopie 1* (1967): 4.
 36. Ibid.: 5: "En synthétisant, l'urbaniste pense rendre lisible l'unité de la ville, et la lire. Il ne fait rien d'autre que projeter sa propre représentation de la ville, héritière de l'idéologie culturelle et publicitaire de la société contemporaine, sur la réalité urbaine."
 37. Ibid.: "par la rationalité de ses créations (plans d'aménagement, schémas de structure, règlements . . .)."
 38. Quoted in Jean-Louis Violeau, "Interview," *Utopie 2* (May 1968): 50.
 39. The conference was organized by junior faculty members in the department of architecture at the Turin Polytechnic: Giorgio Ceretti, Graziella Derossi, Pietro Derossi, Adriana Ferroni, Aimaro Oreglia d'Isola, Riccardo Rosso, and Elena Tamagno. The invited participants were Romaldo Giurgola, Paolo Soleri, Architecture Principe, Archigram, Yona Friedman, Utopie, and Archizoom.
 40. Utopie, *Utopia e/o Rivoluzione* (Turin: Editrice Magma, 1969): 34: "Le città mobili, le città che si spostano, la dolce 'software', la fine della miseria, la tecnica-che-può-tutto, il ludico nei 'gadget', le luci della città, la tecnica dal Concorde, la tecnica del Gemini, la rivoluzione in dolcezza . . . e per tutto questo tempo nella vita quotidiana, niente di tutto questo. . . . In una sottile dialettica tra il possibile che non sarà e la falsa coscienza utopica che si circonda di meraviglioso, si compie il circolo vizioso che tenta di far sparire dal mondo della produzione la critica radicale. . . . L'utopia è una merce di lusso, dallo splendore accecante."
 41. Lourau, "Contours d'une pensée critique nommé urbanisme": 10.
 42. Utopie, *Utopia e/o Rivoluzione*: 33-34: "Una importante contraddizione del sistema sta nel fatto che lo sviluppo delle forze produttive legato al progresso tecnologico, conduce normalmente a una liberazione sempre maggiore dei lavoratori dovuta alla diminuzione o all'annullamento dei tempi di lavoro. Questa liberazione tecnologica ispira la maggior parte della formazione utopiche contemporanee, ma la realizzazione dell'automazione è impossibile in un mondo borghese, poiché solo l'espletamento del lavoro umano permette la riproduzione del plus-valore, fondamento del sistema. Solamente lo spettacolo, offerto dai settori tecnologicamente avanzati, che suffragano l'immaginario della nostra società, permette di dare l'illusione che la fine della miseria sia prossima."
 43. Jean Baudrillard, "The Precession of Simulacra," in

- idem, *Simulations*: 3; orig. pub. in *Traverses* 10 (1978).
44. Hughes and Hughes, "Introduction," in idem, *Systems, Experts, and Computers*: 21.
45. Baudrillard, "Orders of Simulacra": 113.
46. Butler, *Jean Baudrillard*: 7.
47. Baudrillard, "Beaubourg Effect": 73.
48. Ibid.
49. Reyner Banham, quoted in "Banham: La Megastruttura é Morta," *Casabella*, no. 375 (1972): 2.
50. Reyner Banham, Recorded lecture, Artnet, London, October 15, 1974, videotape, Architectural Association, London.
51. Reyner Banham, Recorded lecture, Artnet, London, October 2, 1974, videotape, Architectural Association, London.
52. Banham, *Megastructure*: 206.
53. Ibid.
54. Giorgio Piccinato, Vieri Quilci, and Manfredo Tafuri, "La città territorio: verso una nuova dimensione," *Casabella*, no. 270 (December 1962): 16-19.
55. Manfredo Tafuri, *Theories and History of Architecture*, trans. Giorgio Verrecchia (London: Granada, 1980): 236.
56. When Paul Virilio was asked by Enrique Limon what impact the political events of May 1968 had on his work, he replied: "During the sixties I was working on geopolitics, on geometry, on actual space, on topology etc. In '68 I realised that one could not interfere with space without taking power. So I dropped the issue of space completely to focus on topics like time, speed, dromometry, which have been the center of my work for the last thirty years. Groupe Architecture Principe was about space and politics whereas the issue of speed is about time and politics, which opens a whole new vista of research. All the relevant documents will be republished next year for the thirtieth anniversary of Groupe Architecture Principe. But for me, that was a kid's game. It's over. I was 35. Today I am 64. It's a long time, thirty years." See Paul Virilio, quoted in Stan Allen and Kyong Park, eds., "Paul Virilio and the Oblique," in *Sites & Stations: Provisional Utopias*, [New York: Lusitania Press, 1996]: 184.
57. Krier's work might be considered modern in content and postmodern in form. In rejecting the utopian aims of modern architecture, he seems to have erected another utopian fantasy in its place—this time, a nostalgic utopia set in the pre-industrial past.
58. Manfredo Tafuri, "L'Architecture dans le boudoir," in idem, *The Sphere in the Labyrinth: Avant-gardes and Architecture from Piranesi to the 1970s*, trans. Pellegrino d'Acierno and Robert Connolly (Cambridge, Mass.: MIT Press, 1990): 286.
59. This discussion of Superstudio is based on a paper I presented at the Society of Architectural Historians in Houston, Texas, in April 1999.
60. The core members of the group were Aldo Natalini, Cristiano Toraldo di Francia, Roberto Magris, Alessandro Magris, and Piero Frassinelli. Alessandro Poli joined the group between 1970 and 1972. In 1966, Natalini was Savioli's teaching assistant and Poli and Roberto Magris were students in Savioli's course. Many of the students from this course formed various groups: Archizoom, Gruppo 9999, UFO, and Ziggurat. See Paola Navone and Bruno Orlandoni, *Architettura "Radical"* (Milan: Documenti di Casabella, 1974): 25. On Savioli's course, see: Leonardo Ricci, ed., *Ipotesi di Spazio* (Florence: Giglio & Garisenda, 1972); and Leonardo Savioli and Adolfo Natalini, "Spazio di Coinvolgimento," *Casabella* 32, no. 326 (July 1968): 32-45.
61. Adolfo Natalini, ed., *Superstudio: Storie con Figure 1966-73* (Florence: Galleria Vera Biondi, 1979): 6, 8.
62. Adolfo Natalini, interview with Monica Pidgeon, March 1983, audiocassette, Royal Institute of British Architects, London.
63. Superstudio, "Twelve Cautionary Tales for Christmas," *Architectural Design* (December 1971): 735.
64. Superstudio, "Utopia, Antiutopia, Topia," *In*, no. 7 (September-October 1972): 93.
65. See Dominique Rouillard, in Alain Guiheux, ed., *Tschumi, une architecture en projet: Le Fresnoy*. (Paris: Centre Georges Pompidou, 1993): 90-91.
66. Rem Koolhaas, *Delirious New York* (New York: Monacelli Press, 1994): 249.



THE MEGASTRUCTURE

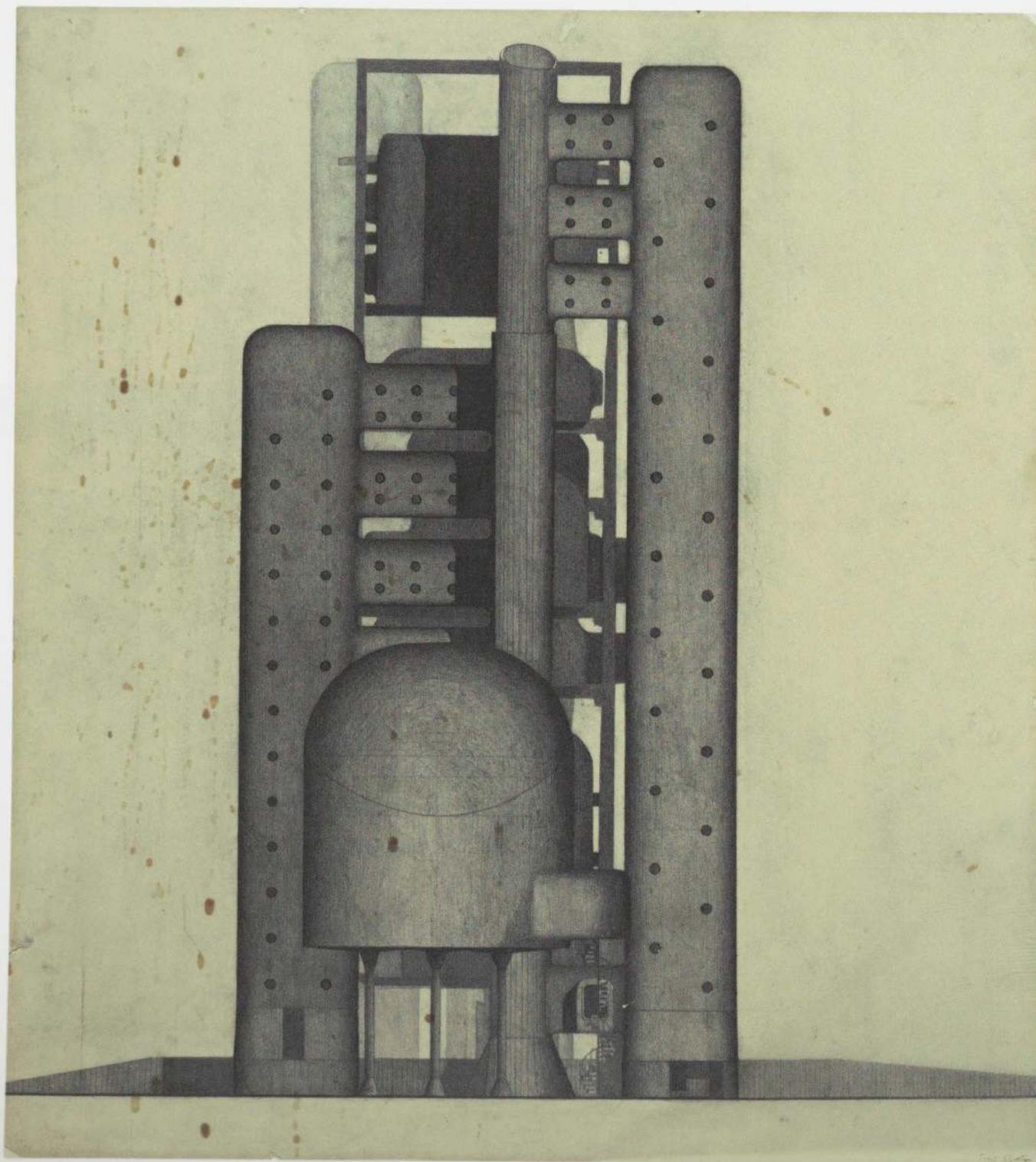
MICHAEL WEBB (Archigram)

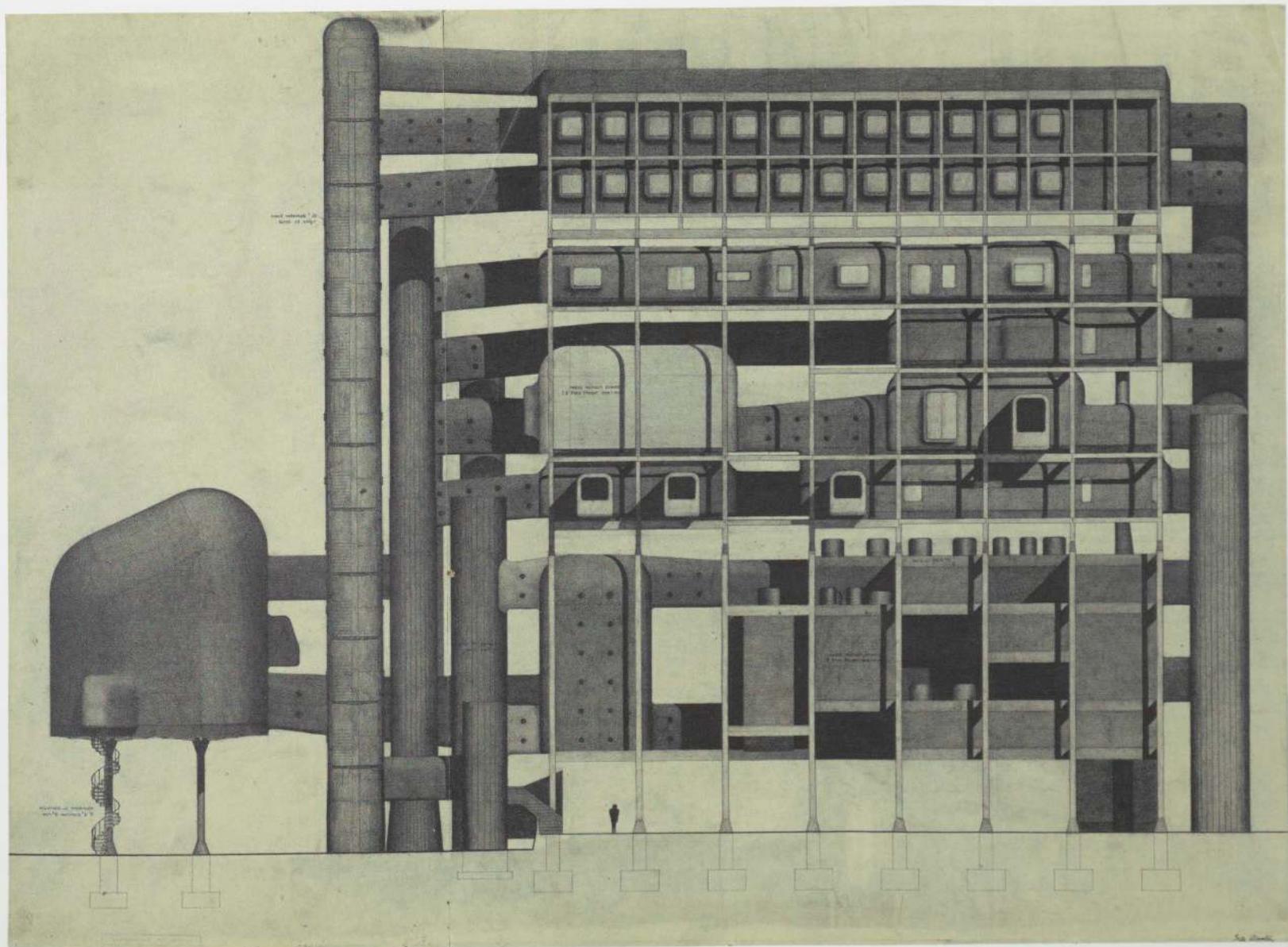
British, born 1937

Michael Webb, a founding member of Archigram, the radical British architectural collaborative, designed the Furniture Manufacturers Association Headquarters as a fourth-year studio project at the Regent Street Polytechnic School of Architecture in London. He was influenced by the organic forms of Frederick Kiesler and John Johansen, and by the atmosphere of nonconformity prevalent among his fellow students. The unrealized biomorphic structure is divided horizontally into three different programmatic zones: the lower, a furniture showroom; the middle, administrative offices; and the top, rental office space. The bulbous form visible to the left in the side elevation was to be a freestanding lecture theater. The eminent architectural historian Nikolaus Pevsner described the project for a BBC radio audience as, "A lot of stomachs sitting together on a plate, connected by bits of gristle."

38

Furniture Manufacturers Association
Headquarters, High Wycombe, England.
Project, 1957–58. Elevation: graphite and
ink on tracing paper, mounted on board,
24 x 21 1/4" (61 x 54 cm)





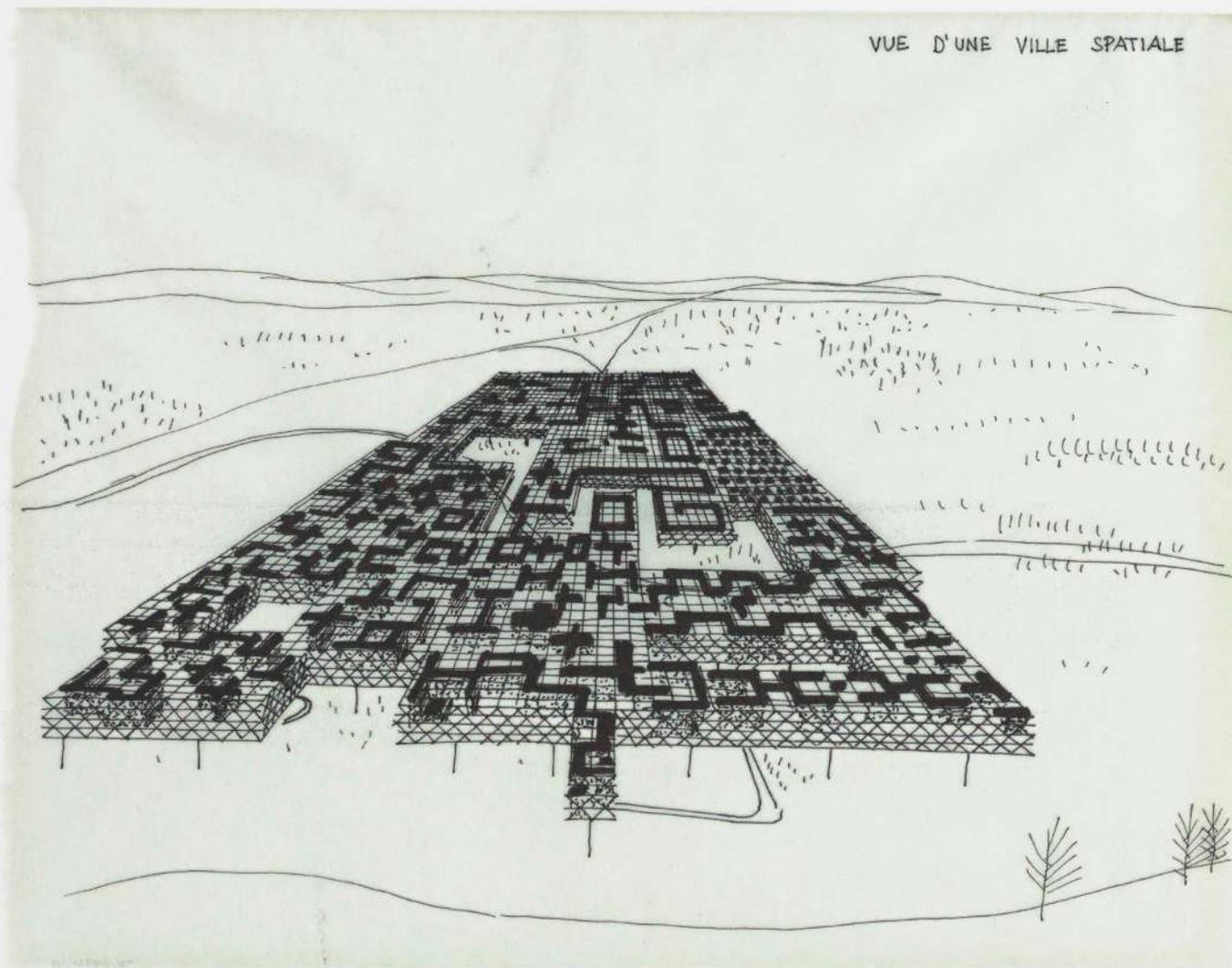
Furniture Manufacturers Association
Headquarters, High Wycombe, England.
Project, 1957-58. Side elevation: graphite
and ink on tracing paper, mounted on
board, 23 1/2 x 32" (59.7 x 81.3 cm)

YONA FRIEDMAN

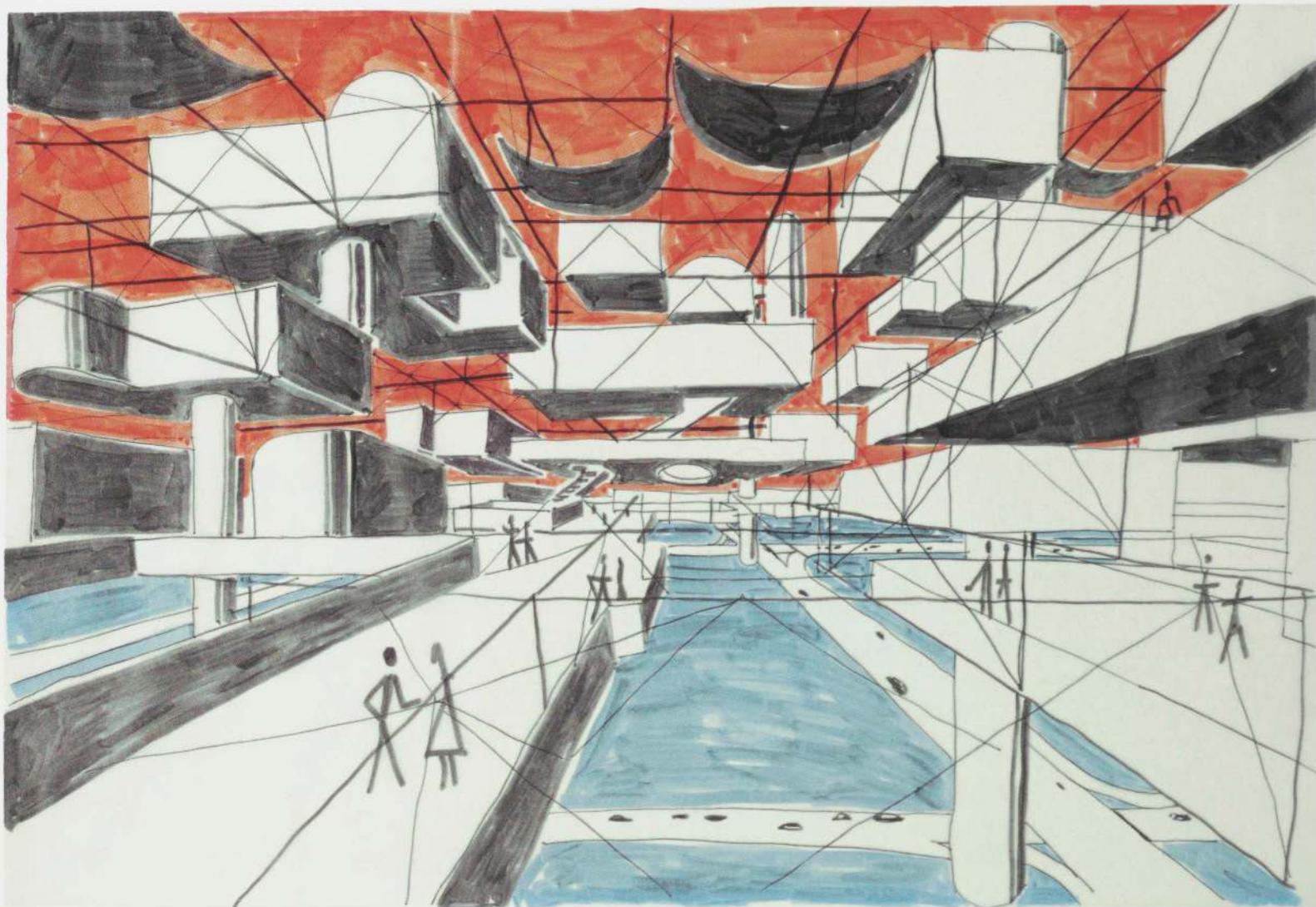
French, born Hungary, 1923

The Spatial City (*Ville spatiale*) is an unrealized theoretical construct inspired by the housing shortage in France during the late 1950s and by Yona Friedman's deep belief that housing plans and structures should allow for the free will of the individual inhabitants. Not wanting to displace the city below, Friedman raised a second city fifteen to twenty meters above the existing one. The framework was to be erected first, and the residences, conceived and built by the inhabitants, inserted into the voids of the structure. The layout of each level would occupy no more than fifty percent of the overall structure in order to provide air and light to each residence as well as to the city below. The project was designed for construction anywhere and meant to be adapted to any climate.

40



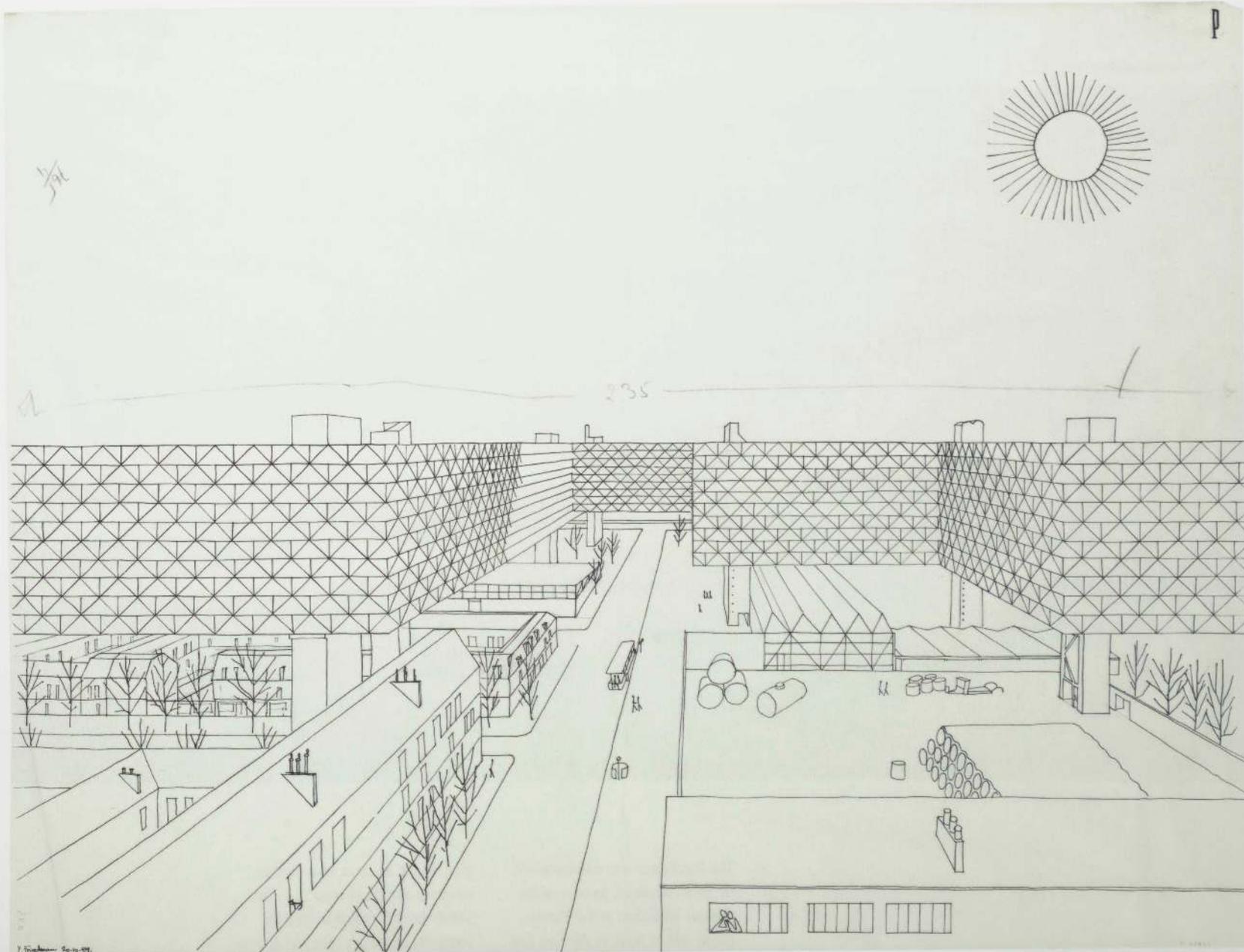
Spatial City. Project, 1958. Aerial perspective: ink on tracing paper, 8 3/8 x 10 3/4" (21.3 x 27.3 cm)



Spatial City. Project, 1958-59
Perspective: felt-tipped pen on tracing
paper, 13 1/2 x 19 1/2" (34.3 x 49.5 cm)



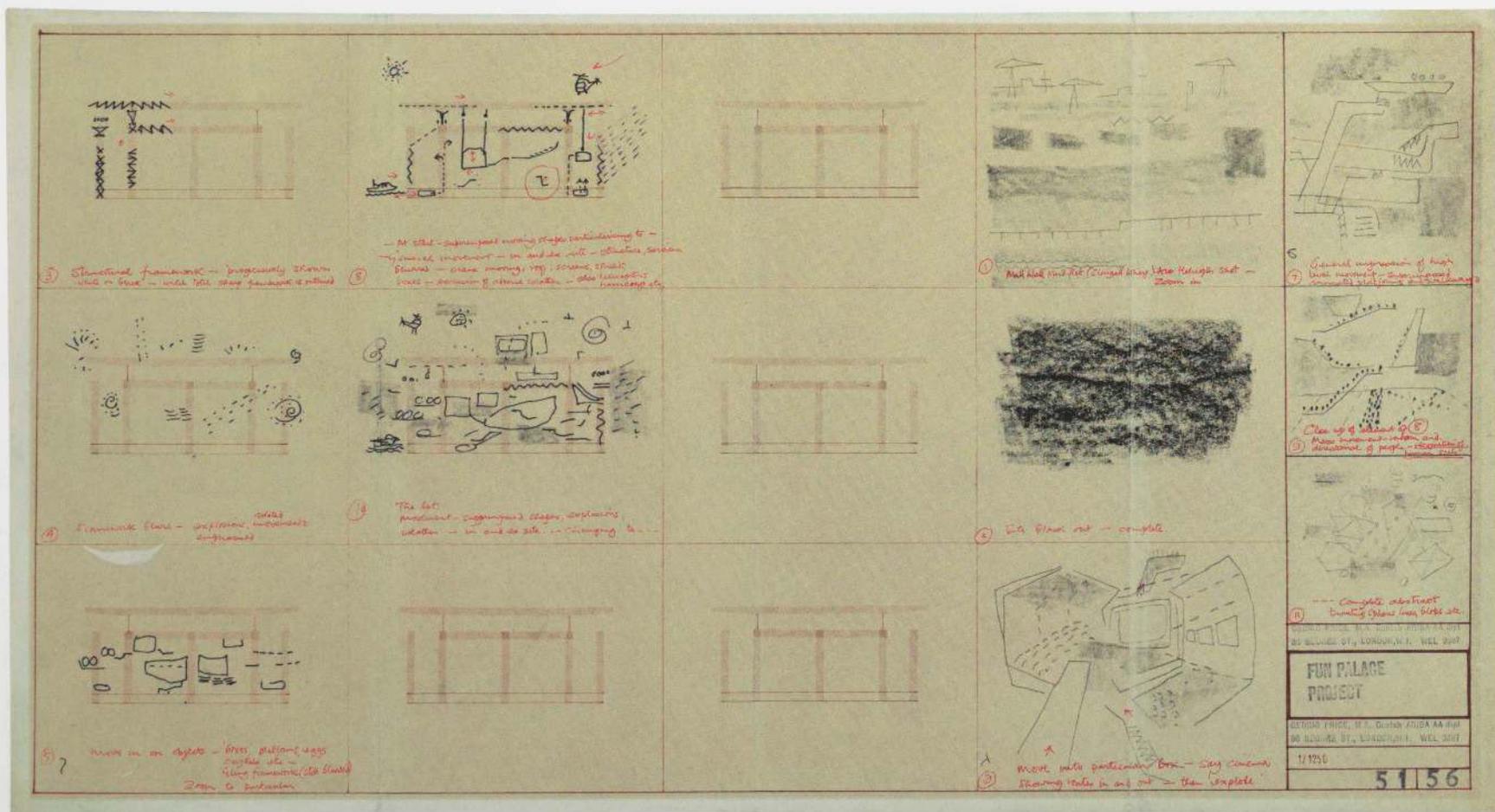
African Proposals. Project, 1959.
Perspective: ink and watercolor on tracing
paper, 19 x 25³/₄" (48.3 x 64.5 cm)



Spatial City, Elevated Blocks, Paris.
Project 1959. Perspective: ink and graphite
on tracing paper, 19 3/4 x 25 1/2" (50.2 x
64.8 cm)

CEDRIC PRICE

British, born 1934



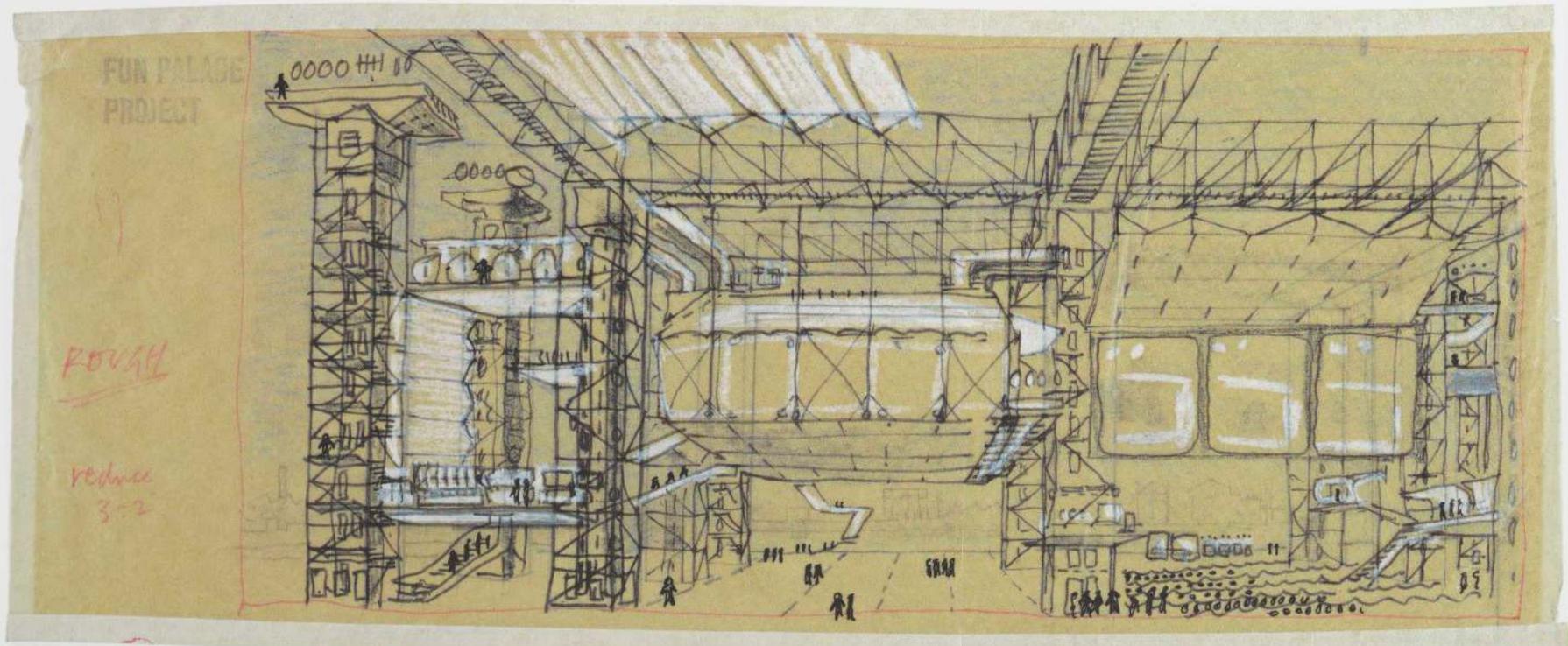
Fun Palace for Joan Littlewood, Stratford East, London. Project, 1959-61. Storyboard for film and sketches: felt-tipped pen, graphite, crayon, and ink stamps on diazotype, 15 x 27 1/2" (38.1 x 69.9 cm)

The Fun Palace was commissioned by Joan Littlewood, founder of the Theater Workshop at the Theater Royal, Isle of Dogs, in the East End of London. Price's first large-scale project was to be a "laboratory of fun" and "a university of the streets," as its patron described it. Inspired by a fascination with technology, Price

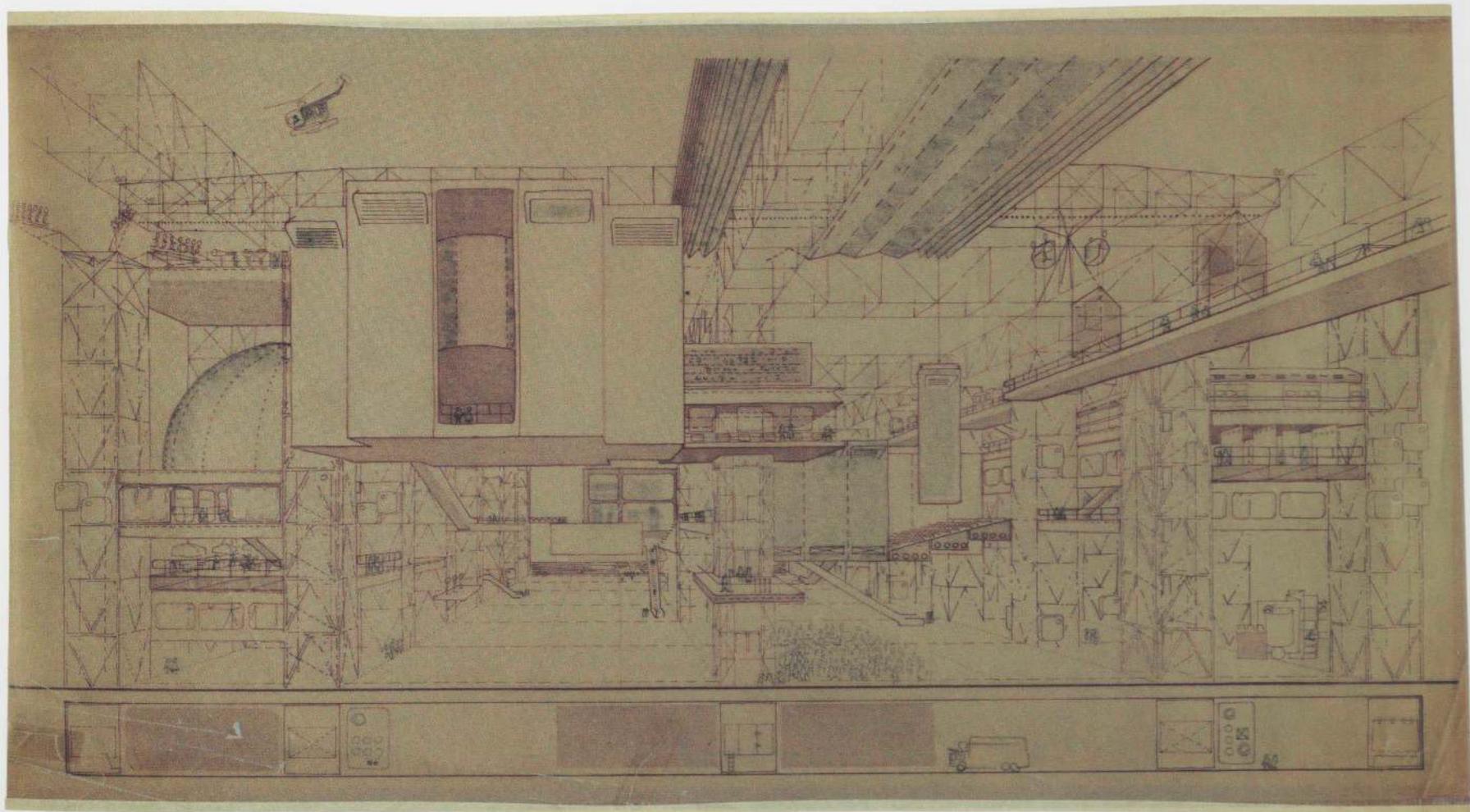
planned for an open steel-gridded structure that could support a completely flexible program. Hanging rooms for dancing, music, and drama; mobile floors, walls, ceilings, and walkways; and advanced temperature systems that could disperse and control fog, warm air, and moisture were all intended to promote active fun.



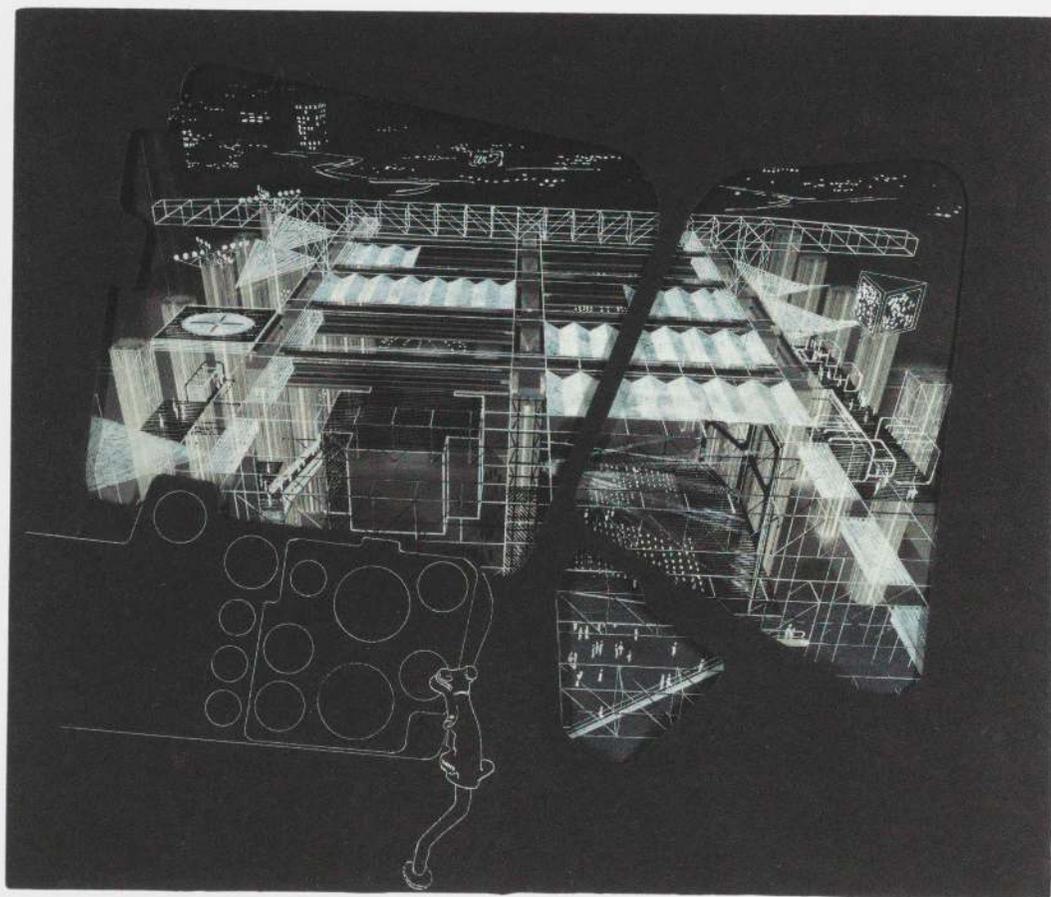
Fun Palace for Joan Littlewood,
Stratford East, London. Project,
1959-61. Perspective: gouache, ink,
crayon, and graphite on gelatin silver
print, with self-adhesive paper dot,
13 1/2 x 26 1/2" (34.3 x 67.3 cm)



Fun Palace for Joan Littlewood,
Stratford East, London. Project,
1959-61. Perspective: felt-tipped pen,
ink, graphite, crayon and ink stamp on
tracing paper with tape, 6 1/8 x 15 7/8"
(16.5 x 40.3 cm)



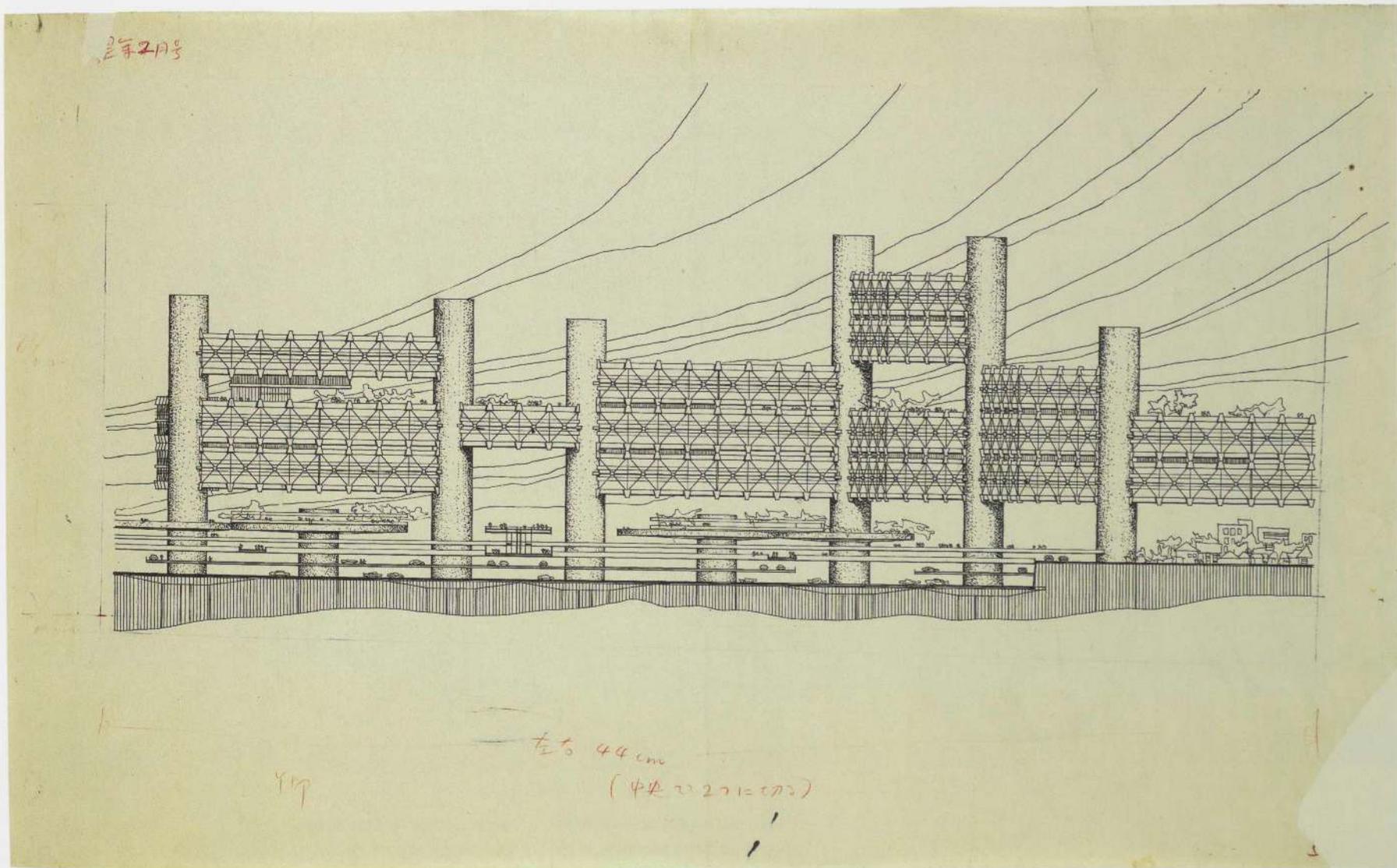
Fun Palace for Joan Littlewood,
Stratford East, London. Project,
1959-61. Perspective: graphite on
diazotype, 17 1/2 x 33" (44.5 x 83.8 cm)



Fun Palace for Joan Littlewood,
Stratford East, London. Project,
1959-61. Aerial perspective from cockpit:
cut-and-pasted painted paper on gelatin
silver print with gouache, 8 3/4 x 10 1/2"
(22.2 x 26.7 cm)

ARATA ISOZAKI

Japanese, born 1931



In Arata Isozaki's unbuilt design for the Joint Core System spatial construction, massive pylons support elevated transportation, housing, and office systems as well as parks and walkways, suspended above the existing city. This scheme was under-

taken at a time when Kenzo Tange and a group of five young architects working in his office, known as the Metabolists, were creating radical solutions for restructuring Tokyo's rapid and uncontrolled postwar growth. As a member of Tange's

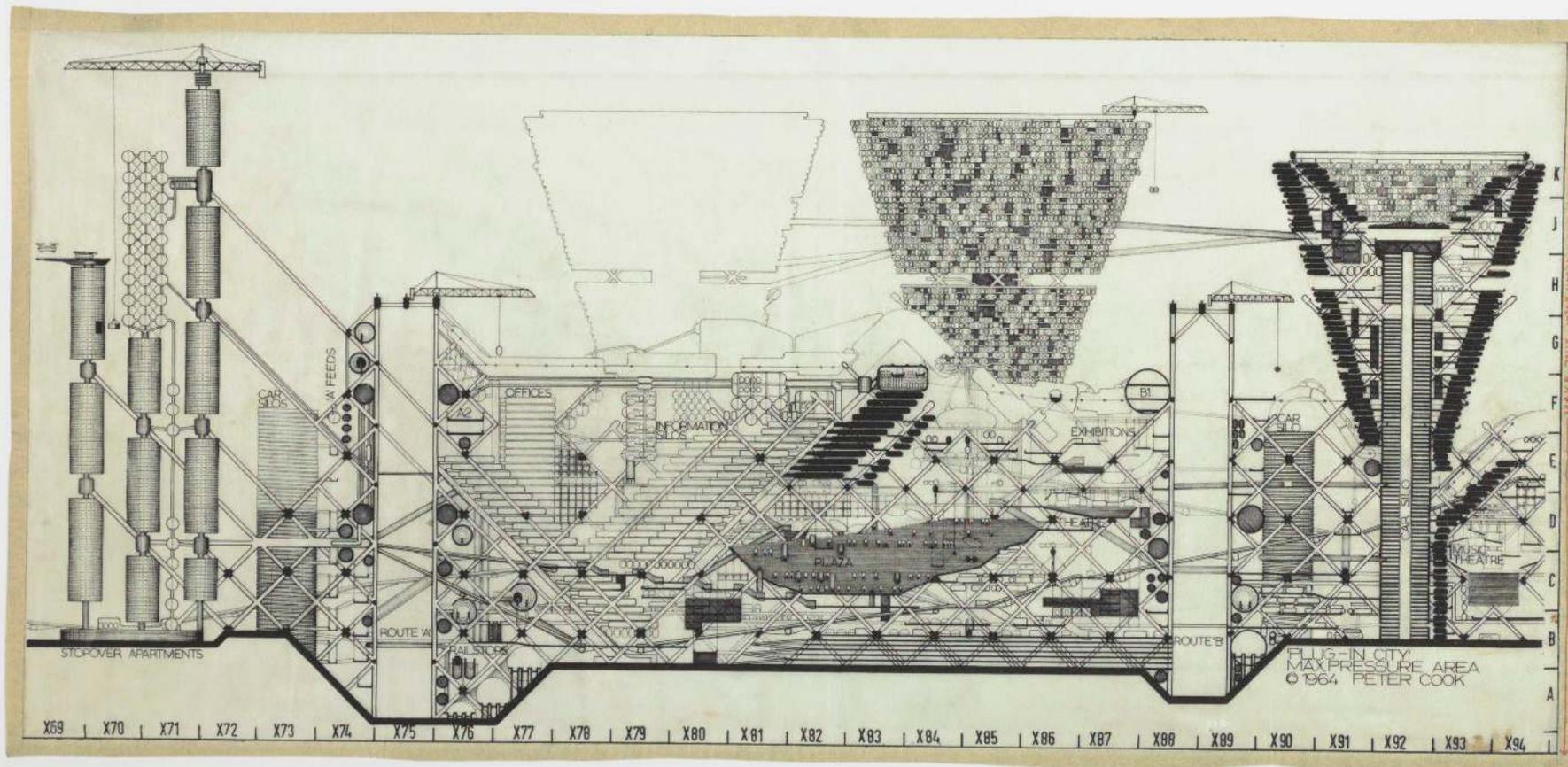
office, Isozaki was inspired by Tange's proposal for a multilevel urban construction above the city. But, unlike Tange's plan, in which a square support system limits expansion to four directions, Isozaki's round columns permit growth in any direction.

Joint Core System, Shinjuku, Tokyo, Japan. Project, 1960. Elevation: ink and color pencil on paper, 20⁷/₈ x 33¹/₄" (53 x 85 cm)

PETER COOK (Archigram)

British, born 1936

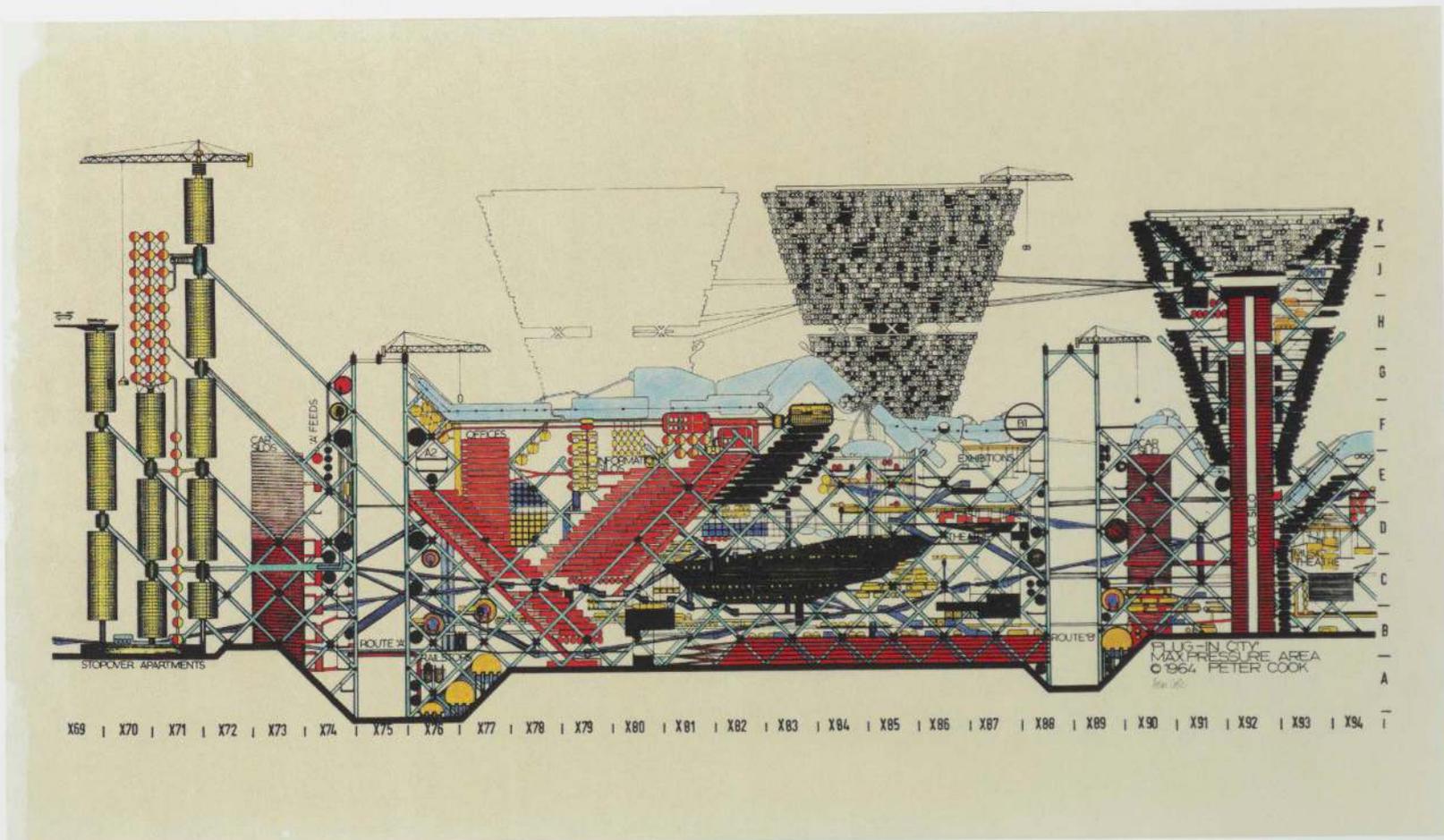
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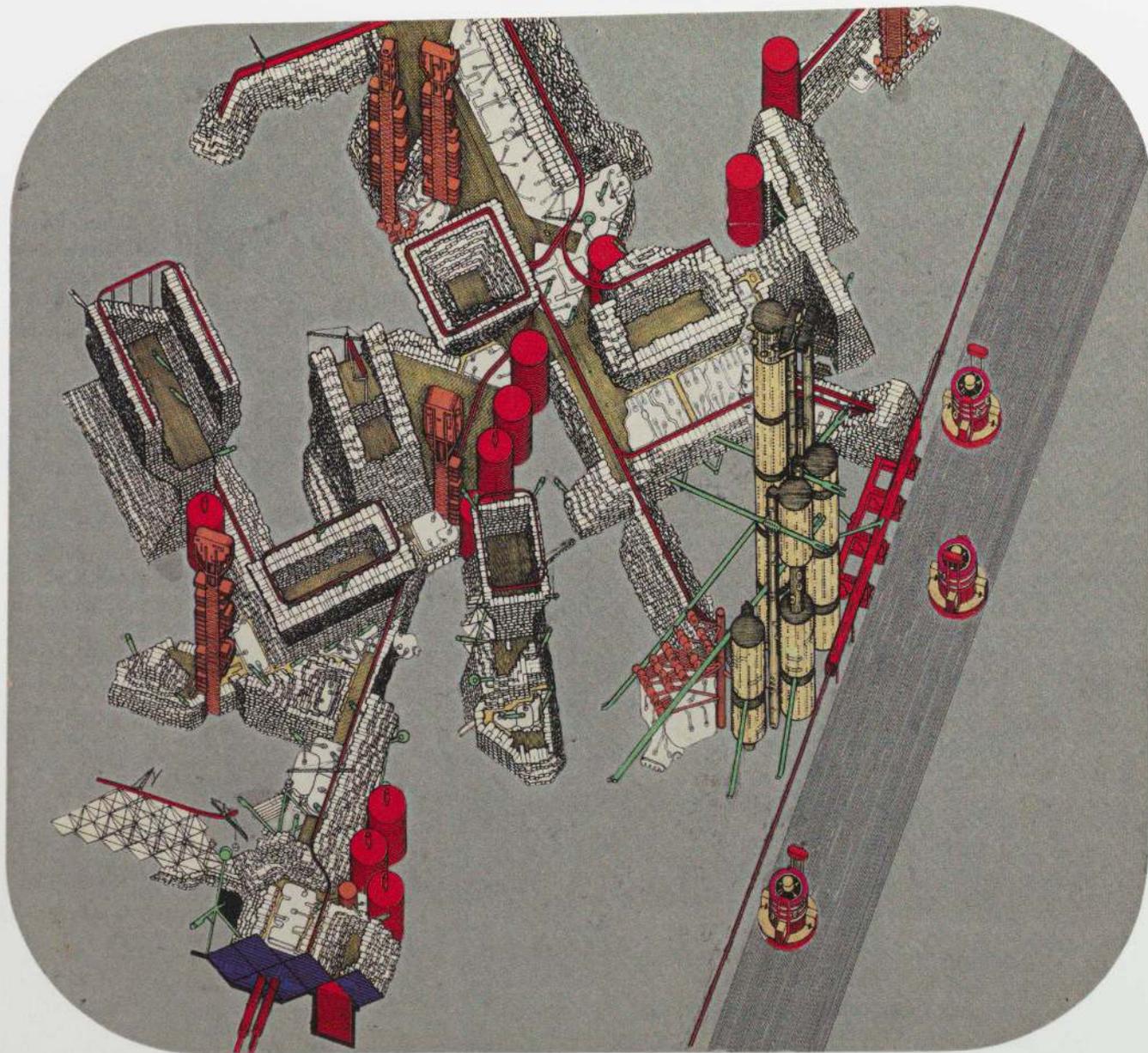
Plug-In City: Maximum Pressure Area.
Project, 1962-64. Section (1964): Ink and
graphite on tracing paper, with masking
tape, 21 1/4 x 45 1/8" (55.2 x 115.9 cm)

Peter Cook, a founding member of Archigram, was instrumental in fostering the British counterculture in the 1960s. He promoted the view that the preceding modernist period's functionalist architecture was worn out. His proposed remedy, the Plug-In City, was a visionary urban megastructure incorporating residences, access routes, and essential services for its inhabitants. Intended to accom-

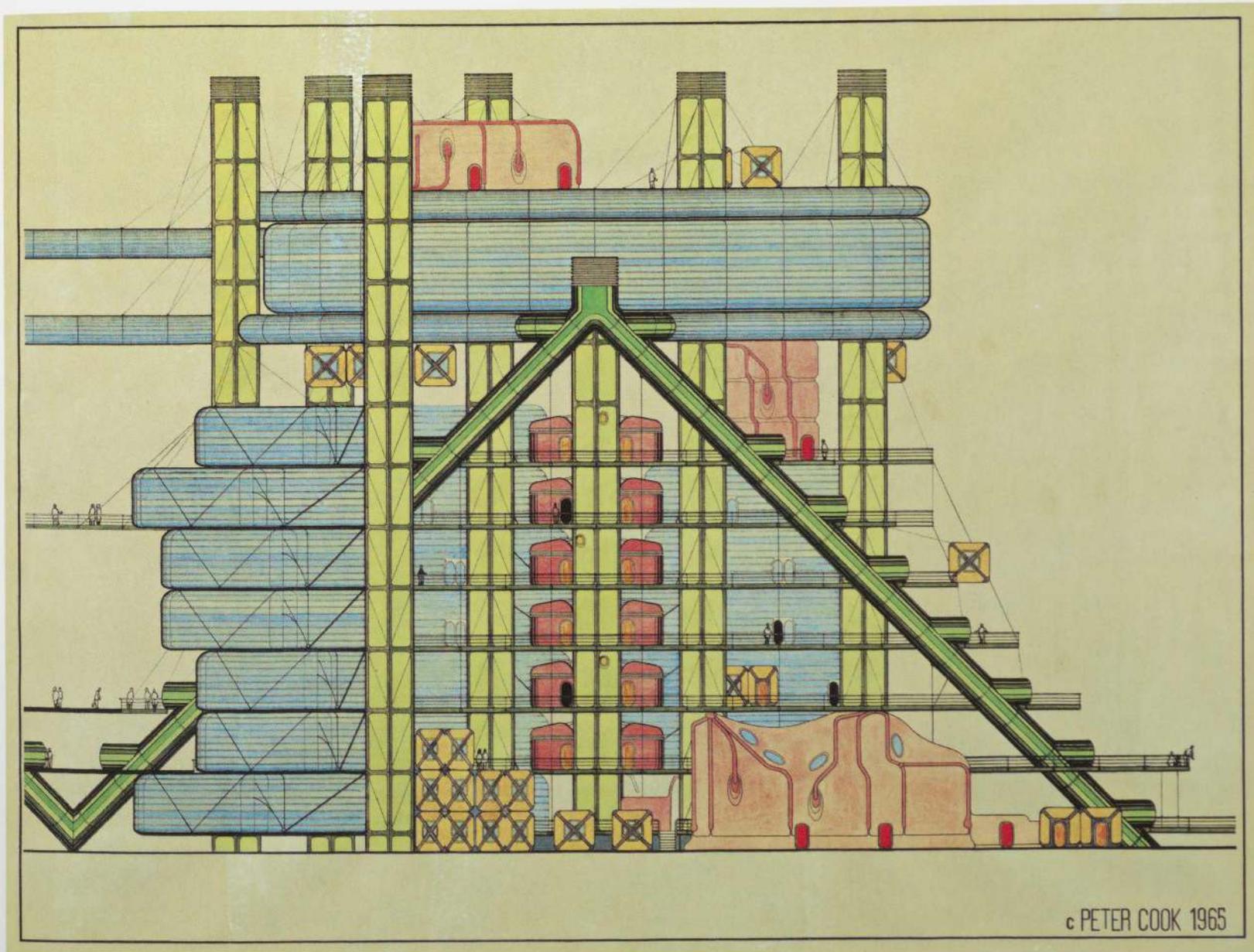
modate changes necessitated by obsolescence, on an as-needed basis, the building nodes (houses, offices, supermarkets, universities), each with a different lifespan, would plug into a main "craneway," itself designed to last only forty years. The overall flexible and impermanent form would thus reflect the needs and collective will of the inhabitants.



Plug-In City: Maximum Pressure Area.
Project, 1962-64. Section (1964): ink
and gouache on photomechanical print,
32⁷/₈ x 57¹¹/₁₆" (83.5 x 146.5 cm)



Plug-In City. Project, 1962-64. Axonometric (1964): cut-and-pasted printed papers with graphite and clear and colored self-adhesive polymer sheets on gray paper-covered board with ink, 27³/₈ x 29⁷/₈" (69.5 x 75.9 cm)

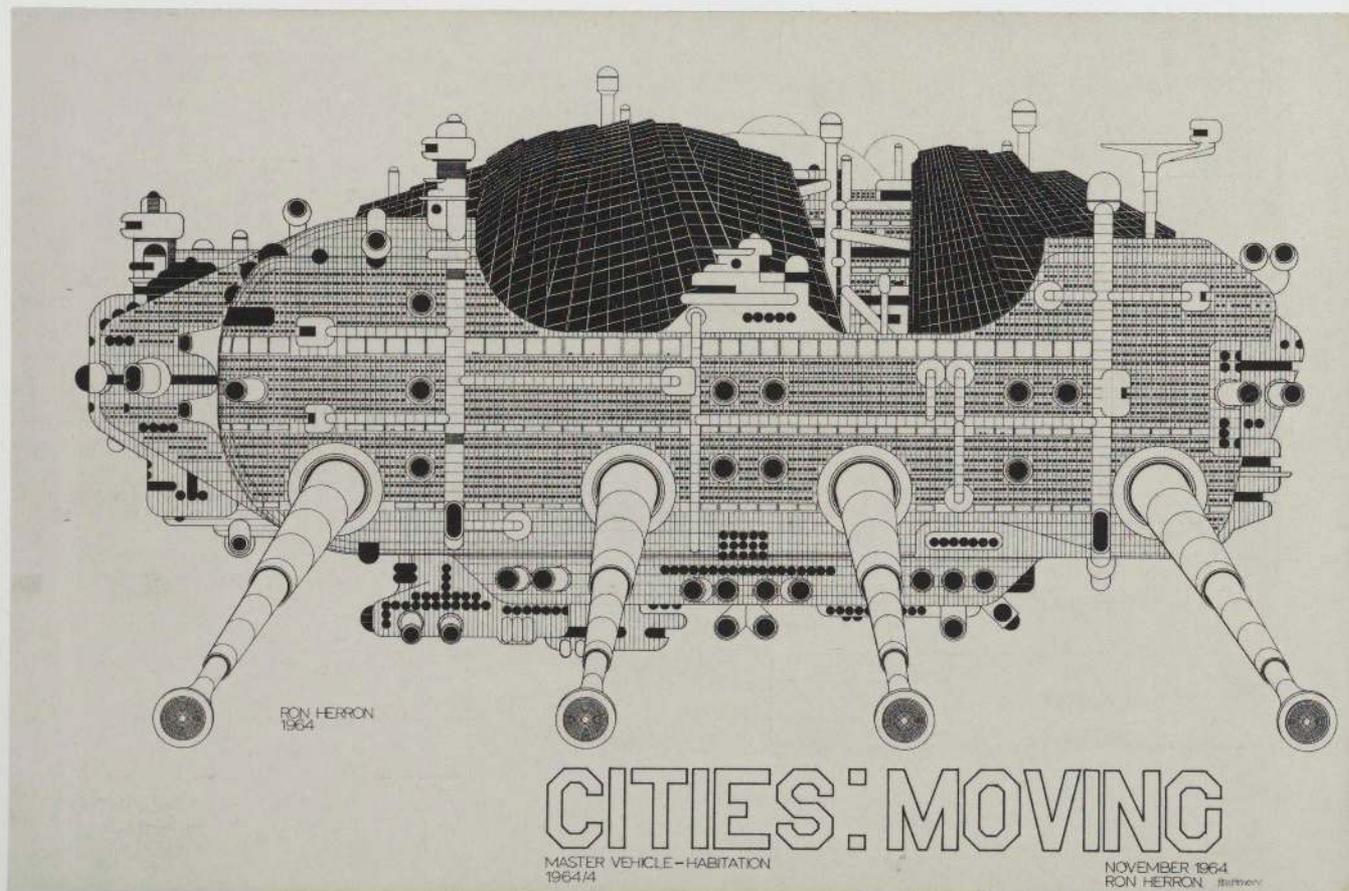


Plug-In University Node. Project, 1965.
Elevation: watercolor on photolithograph,
26 1/8 x 34 1/2" (66.4 x 87.6 cm)

RON HERRON (Archigram)

British, 1930–1994

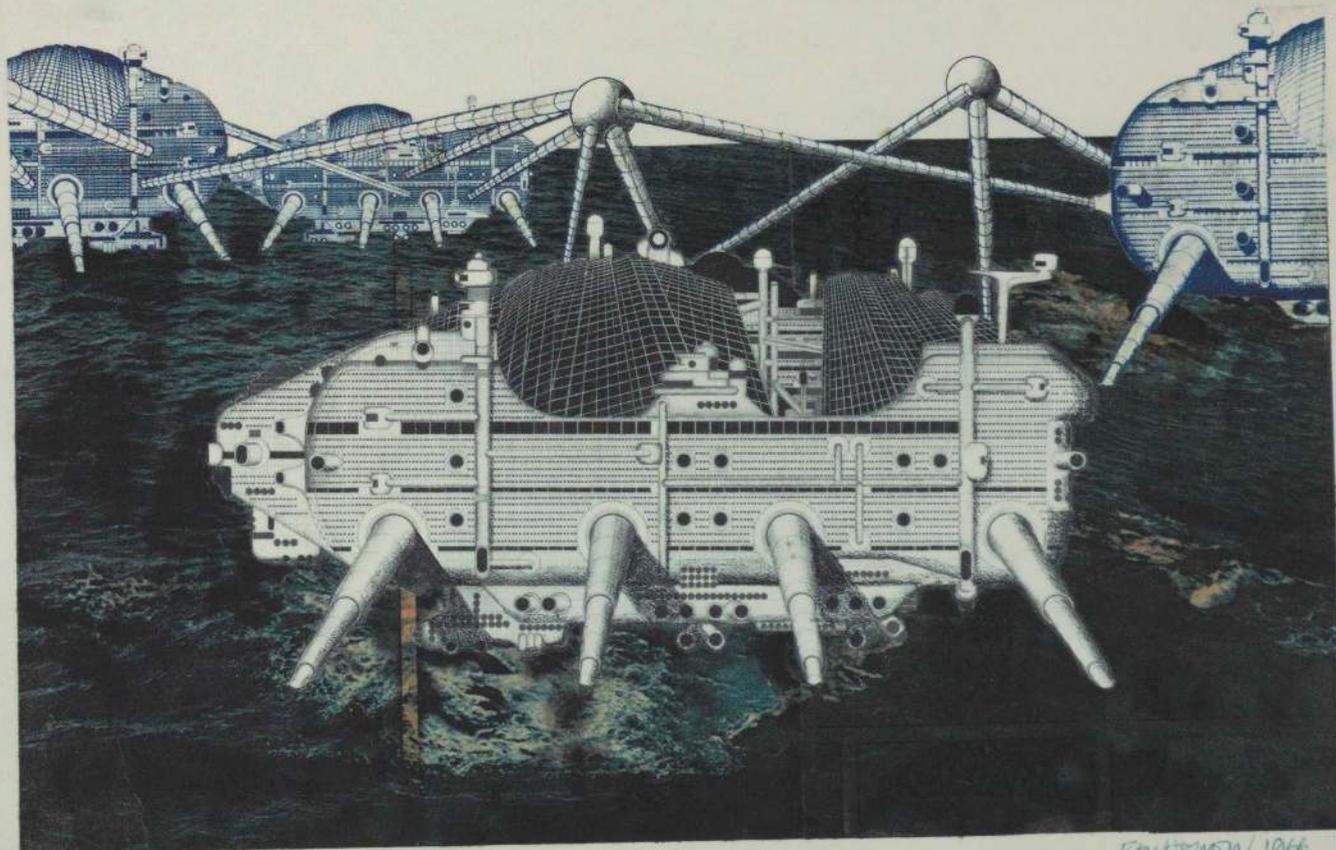
Ron Herron, a founding member of Archigram, the influential British group known for its admixture of science-fiction and pop culture, created his Walking City out of an indefinite number of giant roaming pods containing different urban and residential areas. The pods could be connected by retractable corridors and, together, form a conglomerate metropolis. This literally mobile and indeterminate architecture was not so much a serious proposition for a structure as a commentary on the way in which change dominates every aspect of the modern city.



Cities : Moving, Master Vehicle-Habitation.
Project, 1964. Aerial perspective: ink and
graphite on tracing paper, 21 3/4 x 32 1/4"
(55.2 x 83.2 cm)

Page 88 →

← Page 89



KANTROW 1966

→
↑
WALKING CITY.
Pages 88 and 89
Bleed all edges.

Ⓐ

Walking City on the Ocean. Project, 1966.
Exterior perspective: cut-and-pasted printed
and photographic papers and graphite
covered with polymer sheet, 11 1/2 x 17"
(29.2 x 43.2 cm)

CEDRIC PRICE

British, born 1934

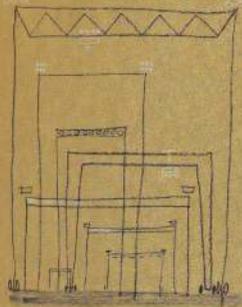


City of the Future. Project, c. 1965.
Perspectives: crayon, ink, and graphite on
paper, 36" x 15' 9³/₄" (91.6 x 481.9 cm)

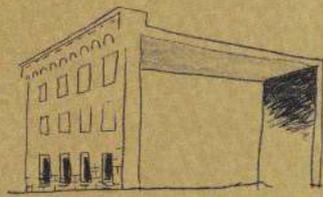
Cedric Price came onto the British architectural scene in the late 1950s, a time in which housing complexes, schools, industrial parks, and new towns were springing up all over Britain. There was an overriding belief in a socially responsible architecture and general feeling of optimism about the future and architecture's capacity to improve the environment. Price, however, was determined that his work would not impose physical

or psychological constraints upon its occupants nor reduce them to standards, as did modernist architecture. Through the pairing of humor and playfulness with complete conviction, Price's projects all attest to his belief in an architecture that provides inhabitants as well as viewers individual freedoms. Technology, based on the paradigm of a flexible network rather than a static structure, played an essential role in Price's work.

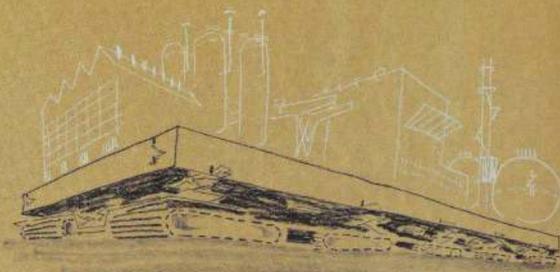
The picture of great masses of great masses are suggested by means of
 vertical & angular masses.



Study building in one view
 - the solid mass, architectural style



see to emphasize the structure for the rest

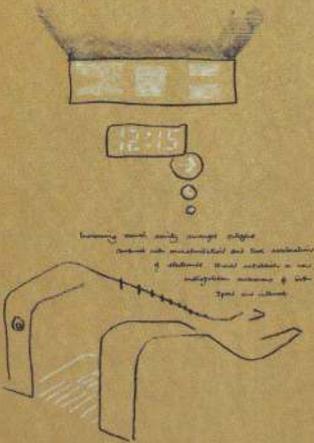


The picture of building using a vertical mass, primary, secondary, third

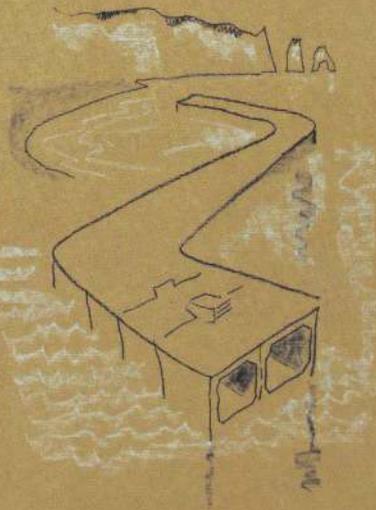


The building is not a solid mass
 - it is a mass of solid and open
 spaces and masses of primary & secondary

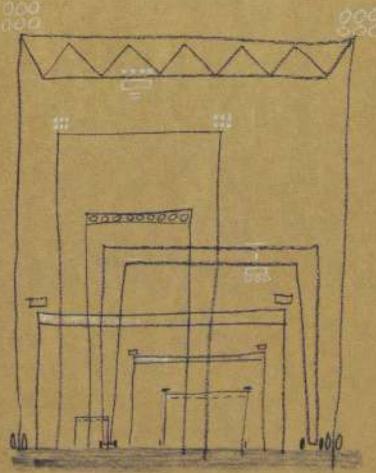
The picture of great masses of great masses are suggested by means of
 vertical & angular masses.



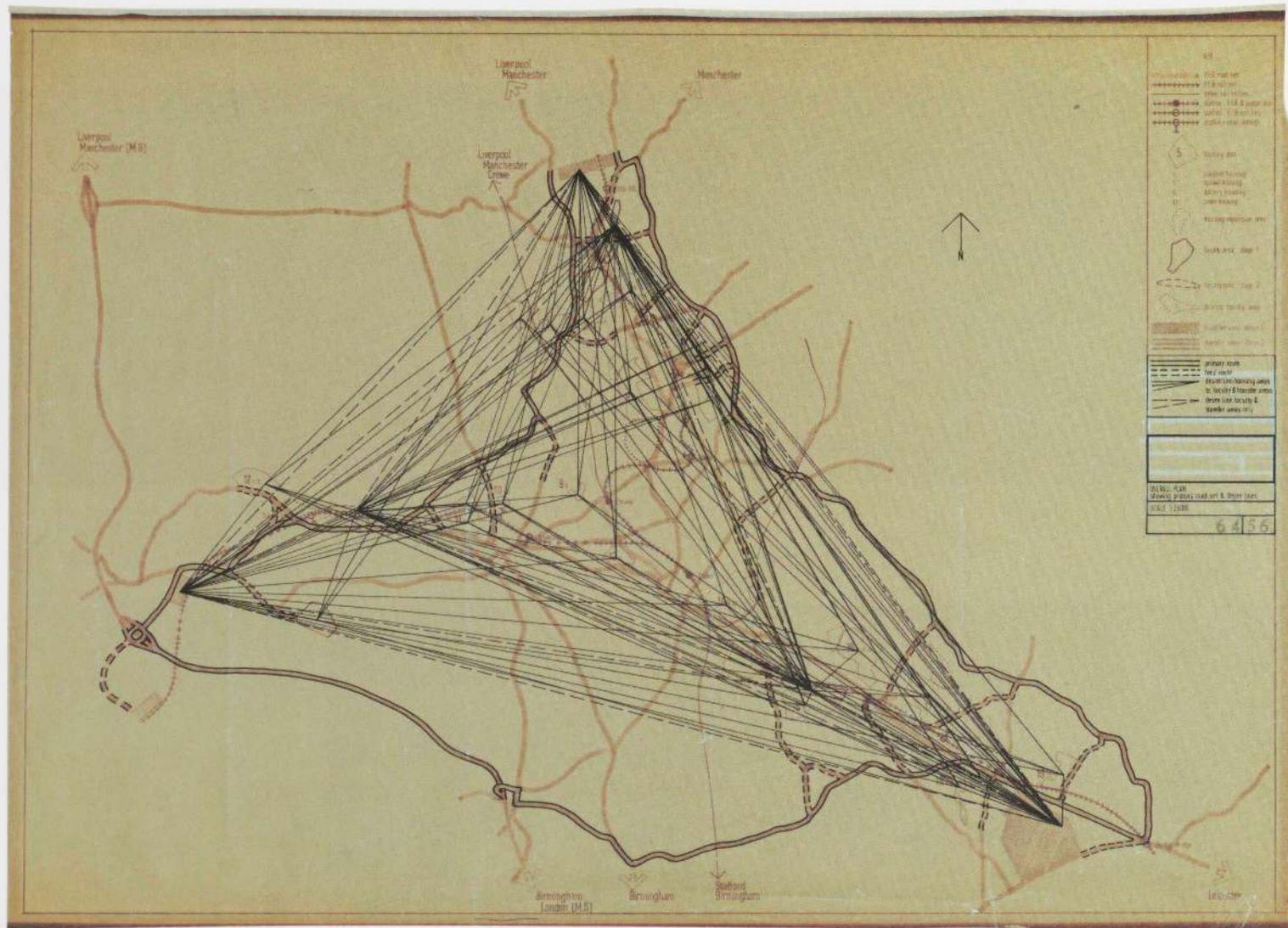
Learning about primary masses, angles
 - vertical and horizontal lines, the combination
 of different lines, vertical & horizontal
 integration, masses of different
 types and colors.



The architectural and practical advantages of the building - the vertical and horizontal
 - a study to arrange forms when designed in a certain way.



Detail

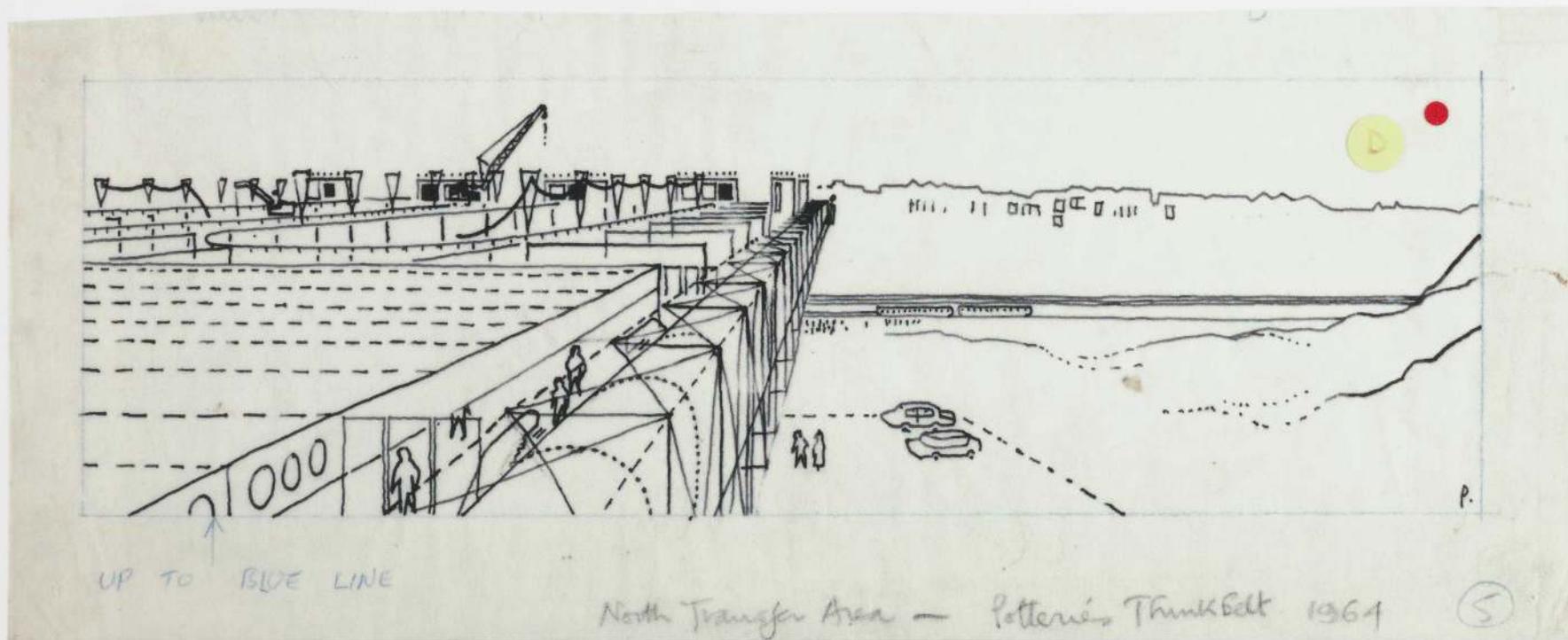


Potteries Thinkbelt, Staffordshire, England. Project, 1964–66. Plan of Desire Lines—Physical and Mental Exchange: ink and ink stamp on diazotype, 23³/₄ x 33¹/₈" (60.3 x 84.1 cm)

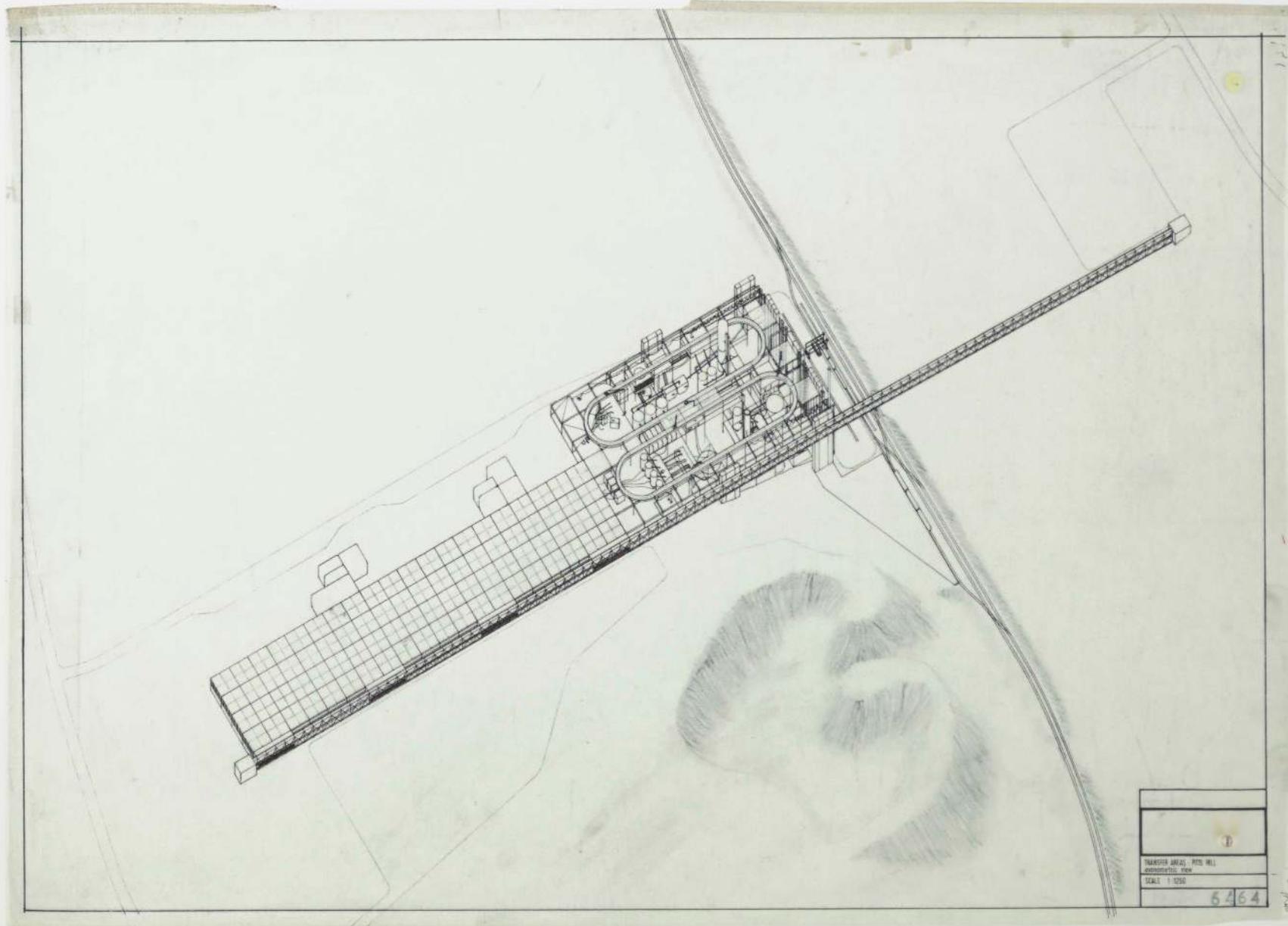
Potteries Thinkbelt was Cedric Price's critique of the traditional university system. Situated in a decaying industrial landscape, rather than in the usual urban or rural site, the Thinkbelt occupied one hundred square meters of the once-vital Staffordshire Potteries. It was designed

to be an infinitely extendable network, as opposed to a centralized campus, and to create a widespread community of learning while also promoting economic growth. The framework for the network was a hundred-year-old railway system no longer in use. Not only would it transport people

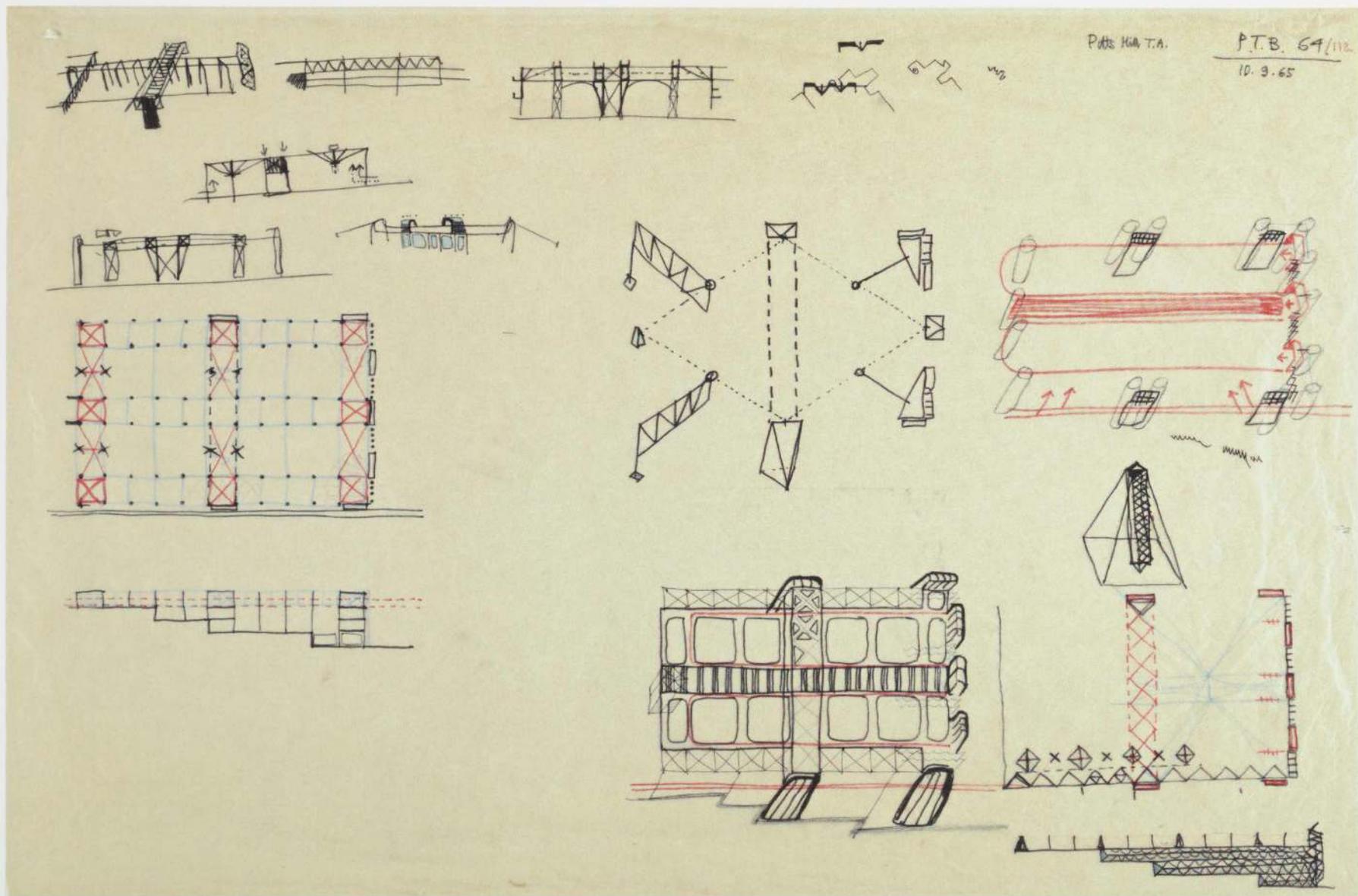
between housing and learning areas, but the cars themselves would become mobile teaching units. Complete with inflatable lecture theaters, foldout desks, and information carrels, the units could be combined and transferred to various sites as needed.



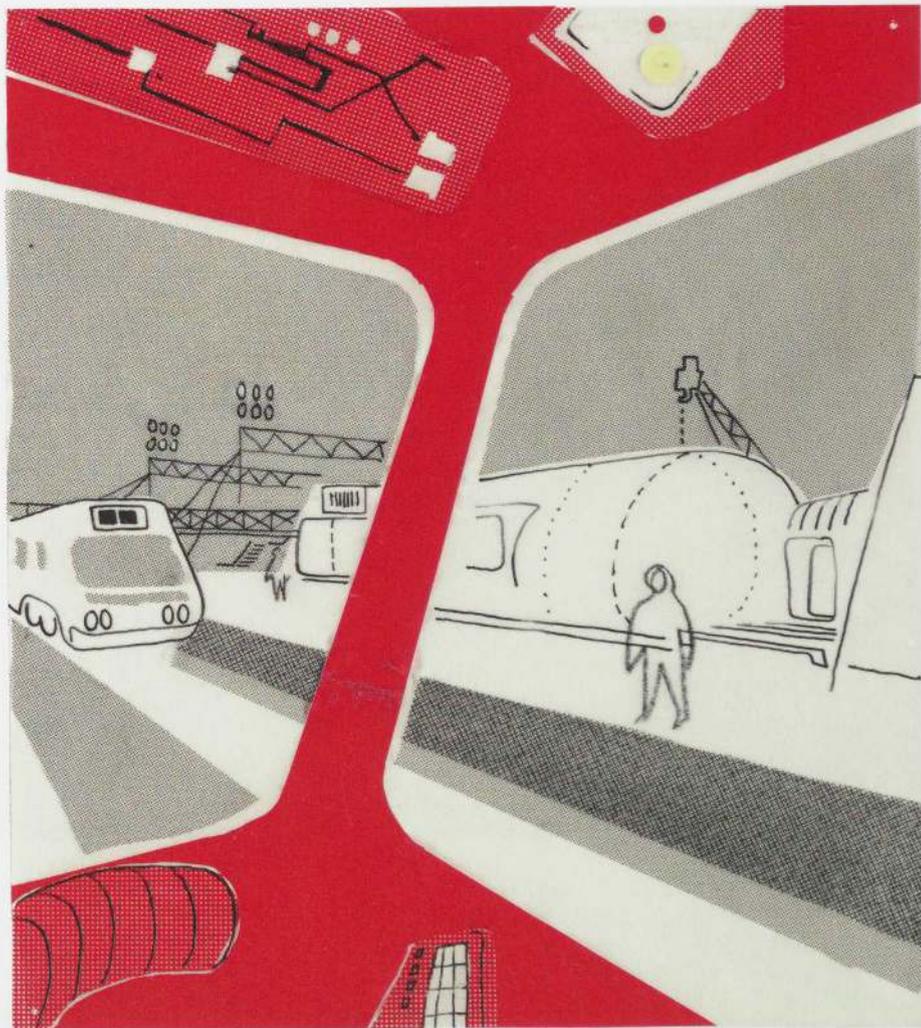
Potteries Thinkbelt, Staffordshire, England. Project, 1964-66. Perspective of Pitts Hill, North Transfer Area (1964): ink, color pencil, and graphite on tracing paper, with self-adhesive paper dot, 8 1/4 x 17 1/2" (22.2 x 44.4 cm)



Potteries Thinkbelt, Staffordshire, England. Project, 1964-66. Axonometric of Pitts Hill, Transfer Area: ink and graphite with ink stamp and self-adhesive paper dot, 24 3/8 x 34 1/2" (62.5 x 87 cm)

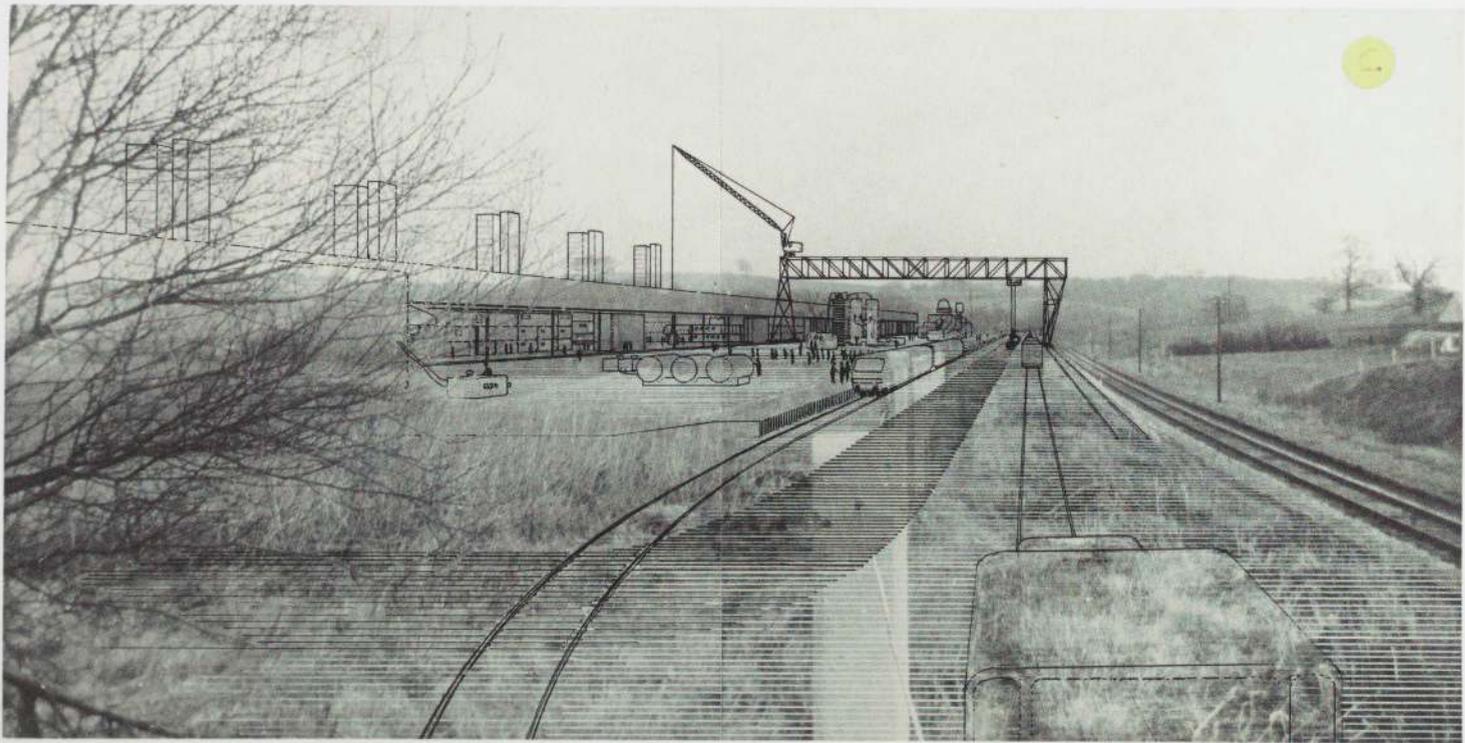


Potteries Thinkbelt, Staffordshire, England. Project, 1964-66. Sketches of Pitts Hill, Early Transfer Area (1965): ink, color ink, and color pencil on tracing paper, 19³/₈ x 29⁷/₈" (49.8 x 75.9 cm)



Potteries Thinkbelt, Staffordshire, England. Project, 1964-66. Perspective of Mobile Teaching Machines: self-adhesive printed polymer sheets with ink and graphite on tracing paper; with self-adhesive paper dots, 12 1/4 x 11" (31.1 x 27.9 cm)

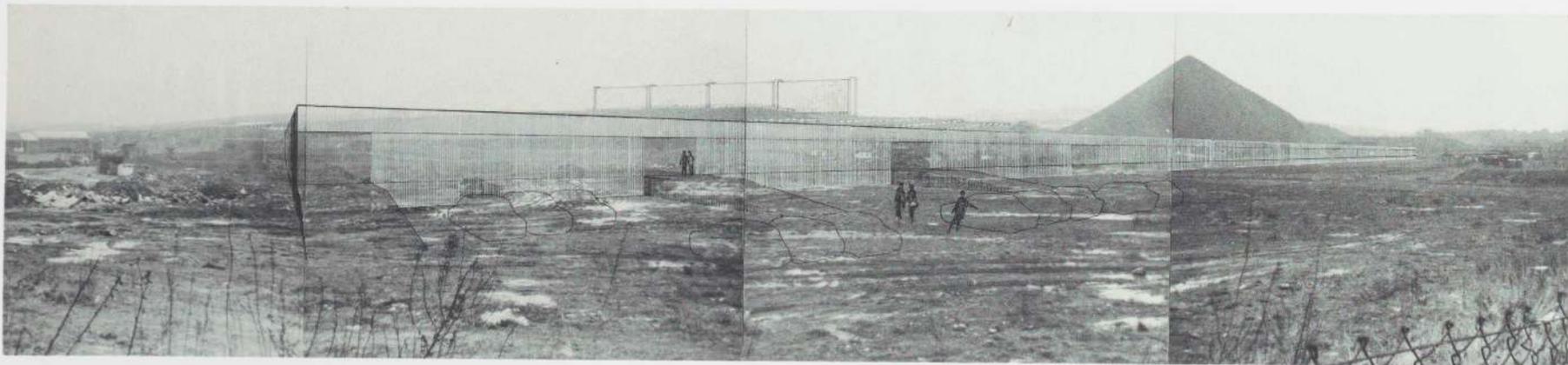
CEDRIC PRICE



64

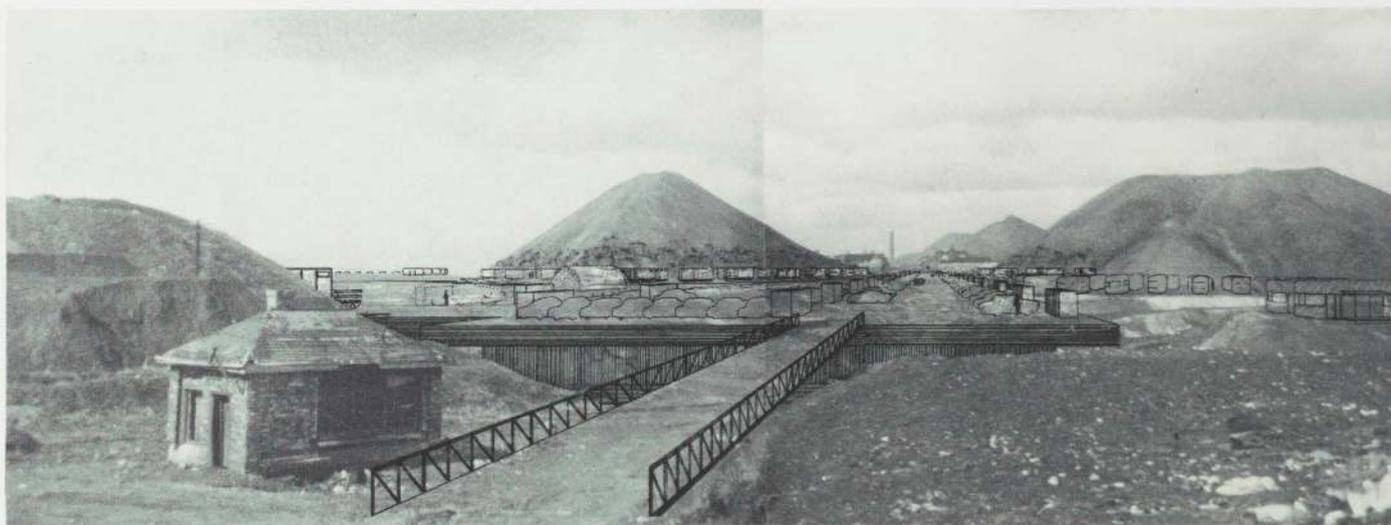
Potteries Thinkbelt, Staffordshire, England. Project, 1964–66. Perspective of Madeley Transfer Area: ink and white ink on selectively abraded gelatin silver print, mounted on board with self-adhesive paper dot, 7 1/4 x 14 3/4" (18.4 x 36.5 cm)

CEDRIC PRICE



66

Potteries Thinkbelt, Staffordshire,
England. Project, 1964-66. Perspective of
Housing Area: gouache, ink, and graphite
on gelatin silver print, 6 ⁵/₈ x 29 ⁵/₈"
(16.8 x 75.2 cm)



Potteries Thinkbelt, Staffordshire,
England. Project, 1964-66. Perspective of
Battery, Sprawl, and Capsule Housing,
Hanley Site: ink and crayon on selectively
abraded gelatin silver prints, mounted on
board, 6 7/8 x 16 1/4" (16.2 x 42.9 cm)

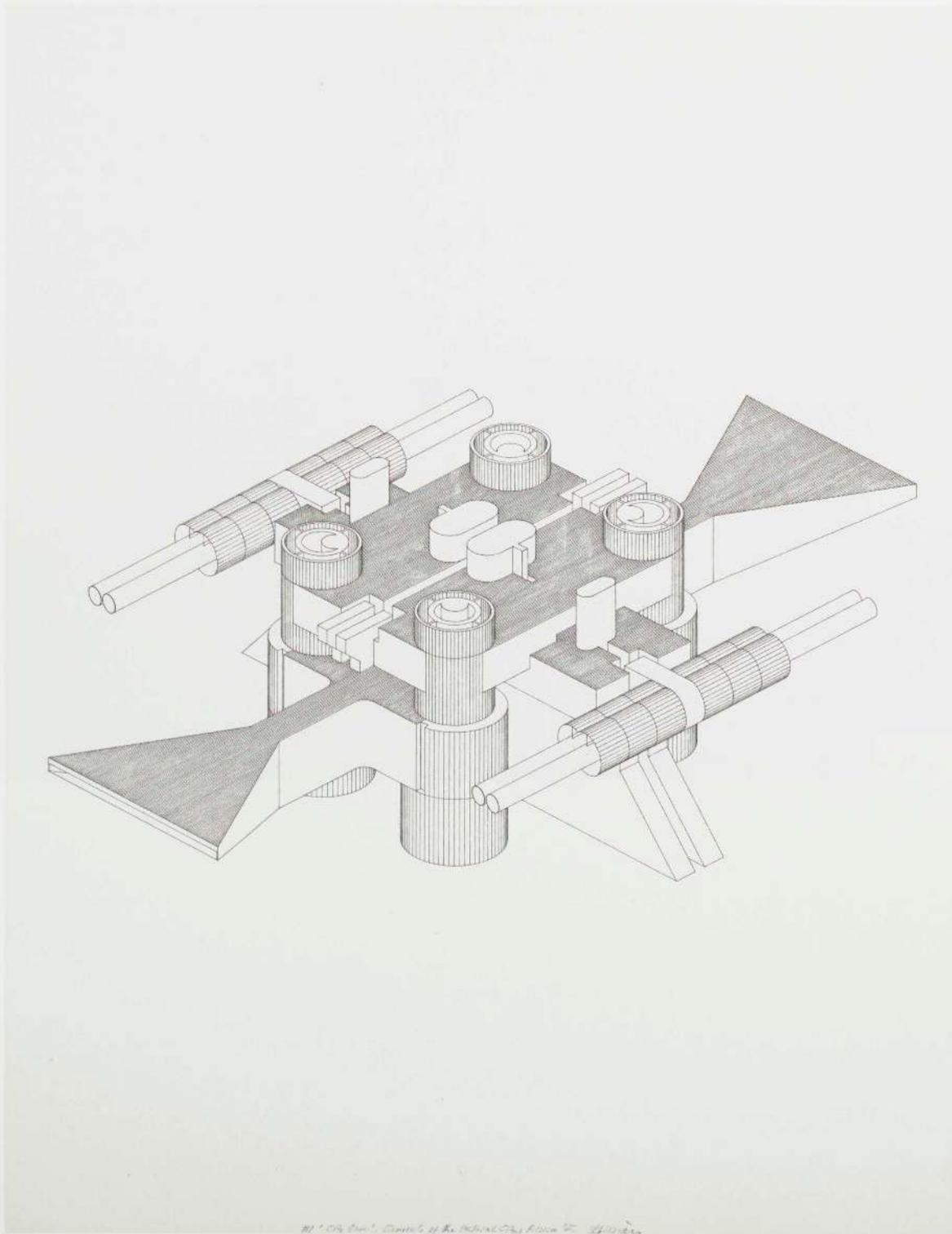
FRIEDRICH ST. FLORIAN

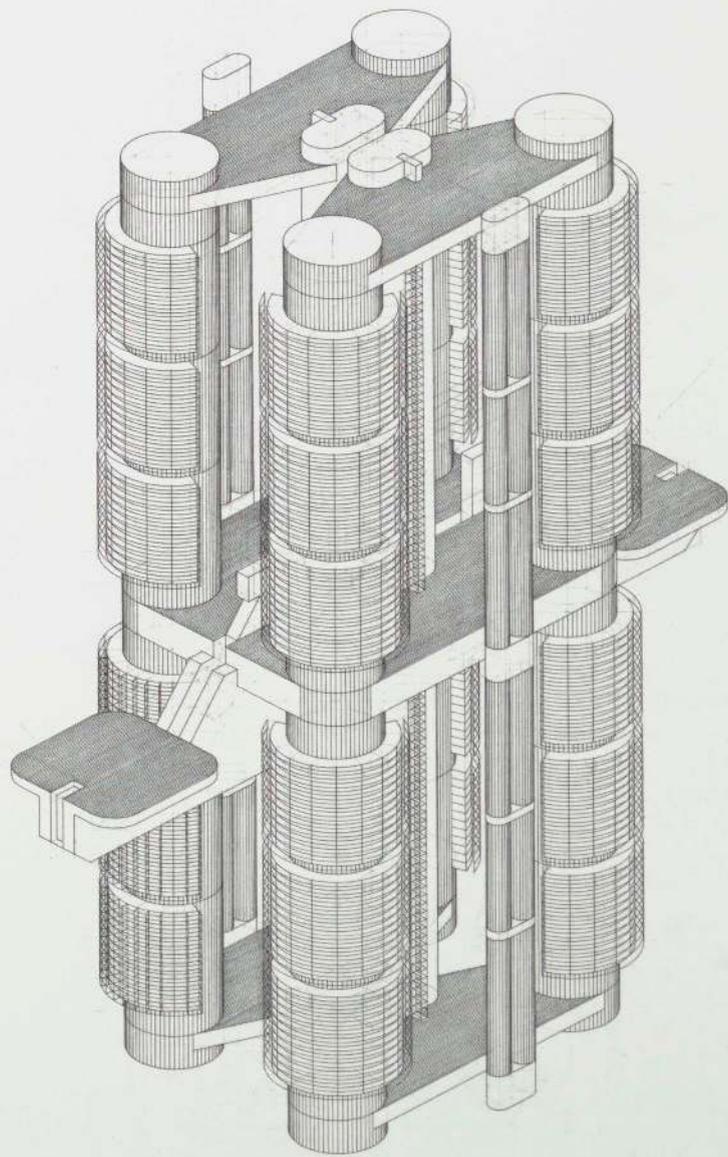
American, born Austria, 1932

Friedrich St. Florian's Vertical City, a tower of three hundred stories, was a visionary urban proposal that he believed could actually be built. The cylindrical form of the structural components was intended to allow the city to soar above the clouds, thus granting at least a hundred additional days of sunlight to those at the top. The regions beyond the clouds were designated for those most in need of light—hospitals, schools, and the elderly—which could be continually provided by solar technology. Like the modern linear city, the vertical version had centralized stations for transportation, communication, and energy.

68

Elements of the Vertical City, Rome, Italy. Project, 1965–67. Axonometric of base (1966): ink, graphite, and gouache on board, 36 x 28" (91.4 x 71.1 cm)





42. 10th Street, Elements of the Vertical City, Rome, 66. S. H. H. H.

Elements of the Vertical City. Rome, Italy. Project, 1965-67. Axonometric of torso (1966): ink, graphite, and gouache on board; 36 x 28" (91.4 x 71.1 cm)

Elements of the Vertical City. Rome,
Italy. Project, 1965-67. Axonometric of
crown (1966): ink, graphite, and gouache
on board, 36 x 28" (91.4 x 71.1 cm)

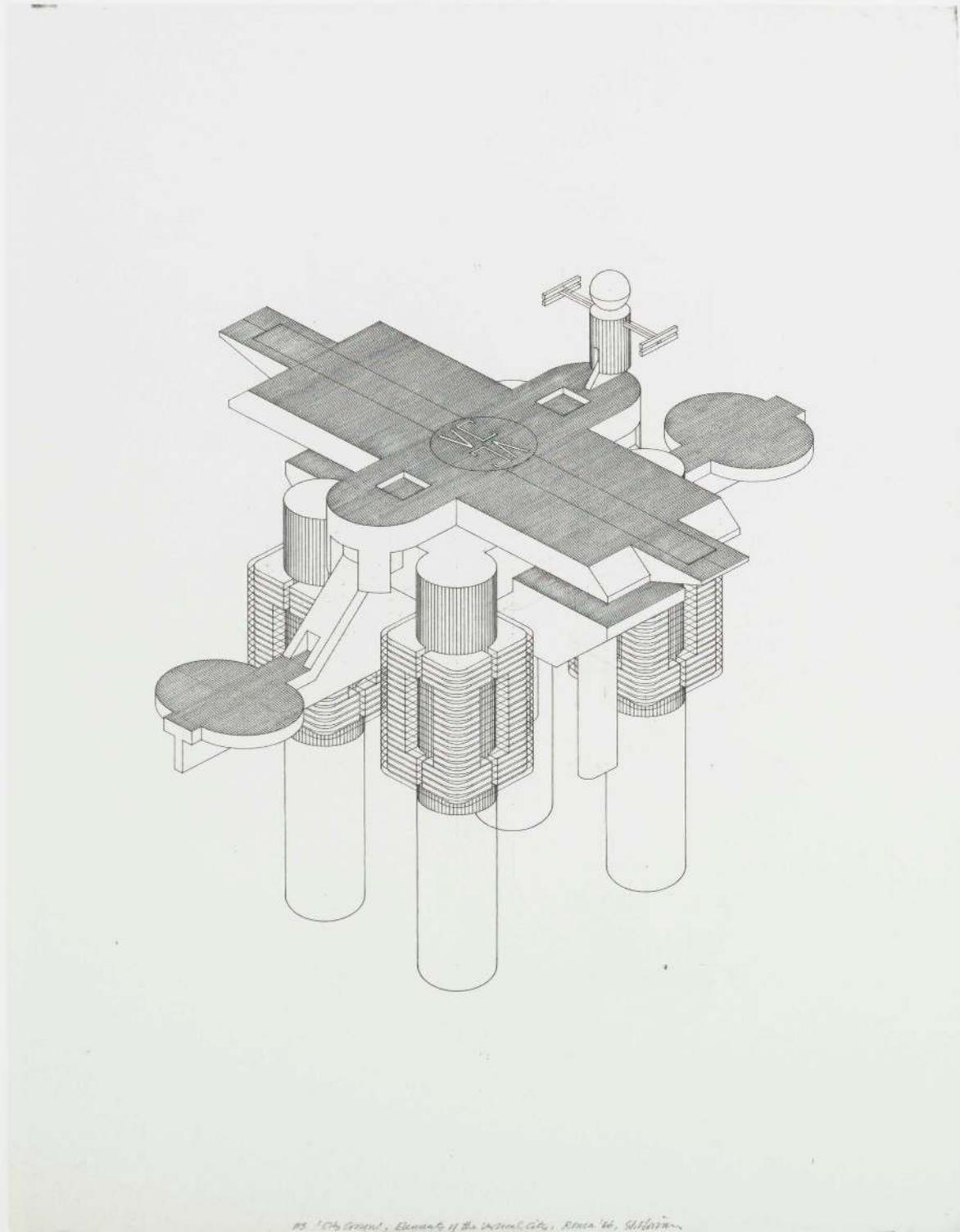
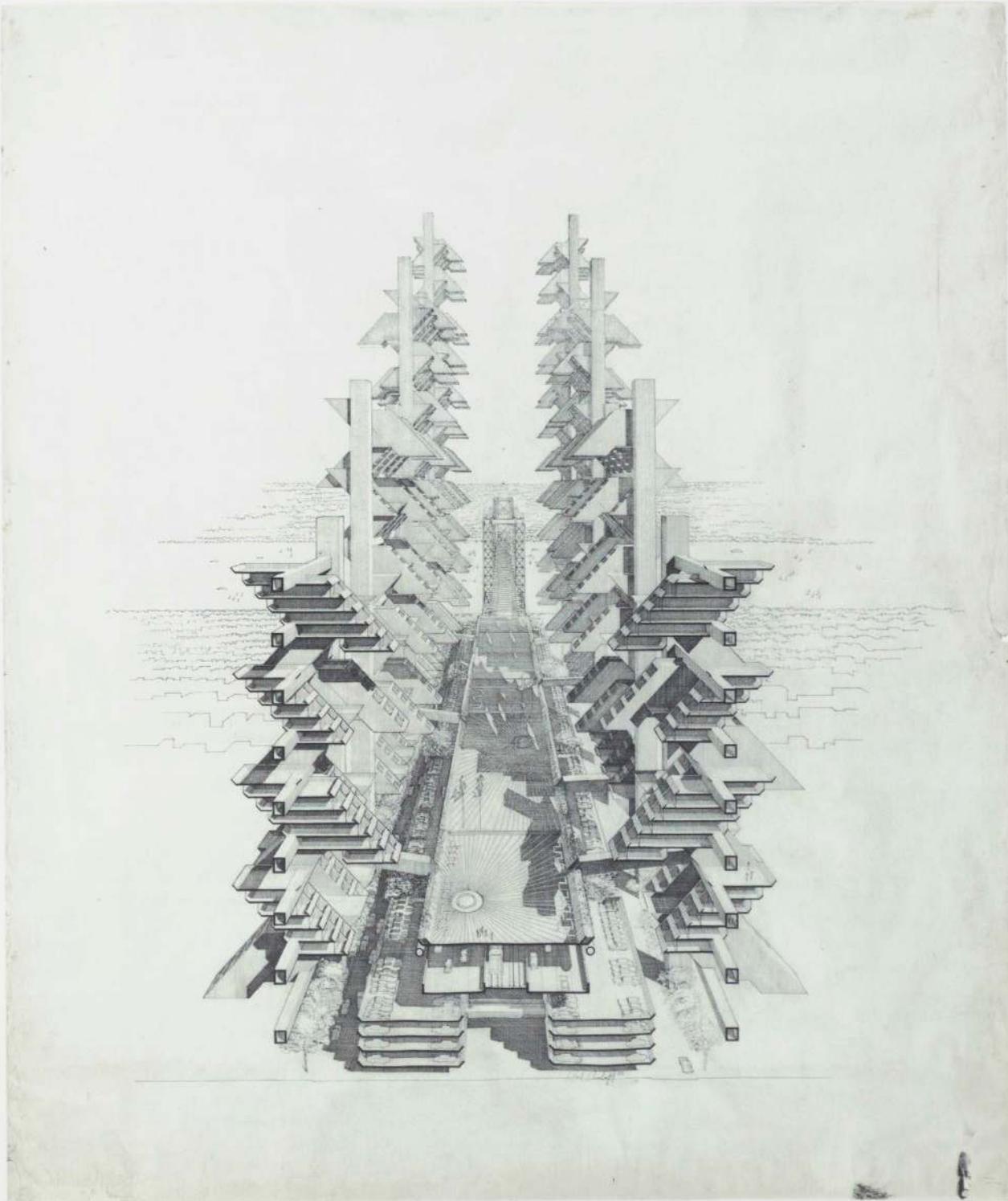


Fig. 10. 'Crown', Elements of the Vertical City, Rome '66. S. Ghisleroni

PAUL RUDOLPH
American, 1918–1997



In the late 1960s, an expressway running across lower Manhattan, linking New Jersey to Brooklyn, Queens, and Long Island via the Holland Tunnel and the Manhattan and Williamsburg bridges, was under discussion. Paul Rudolph's proposed Y-shaped corridor was designed to leave the city's infrastructure intact, and suggested a new approach to city building, which claimed that transportation networks could bind rather than divide communities. At key points in the "transportation corridor" (central hub, bridge or tunnel entries) there were multilevel, stacking pedestrian plazas, people movers, and parking—all above and below existing bridge and rail systems. Tall, stepped-back residential buildings would provide light, air, and views. Flanking the corridor at the gateways, and in conjunction with new building types, they would generate urban space.

Lower Manhattan Expressway, New York, New York. Project, 1967–72. Perspective to the east (1972); ink and graphite on paper, 40 x 33 1/2" (101.6 x 85.1 cm)

SUPERSTUDIO

Italian group, 1966–86

Cristiano Toraldo di Francia, born 1941

Gian Piero Frassinelli, born 1939

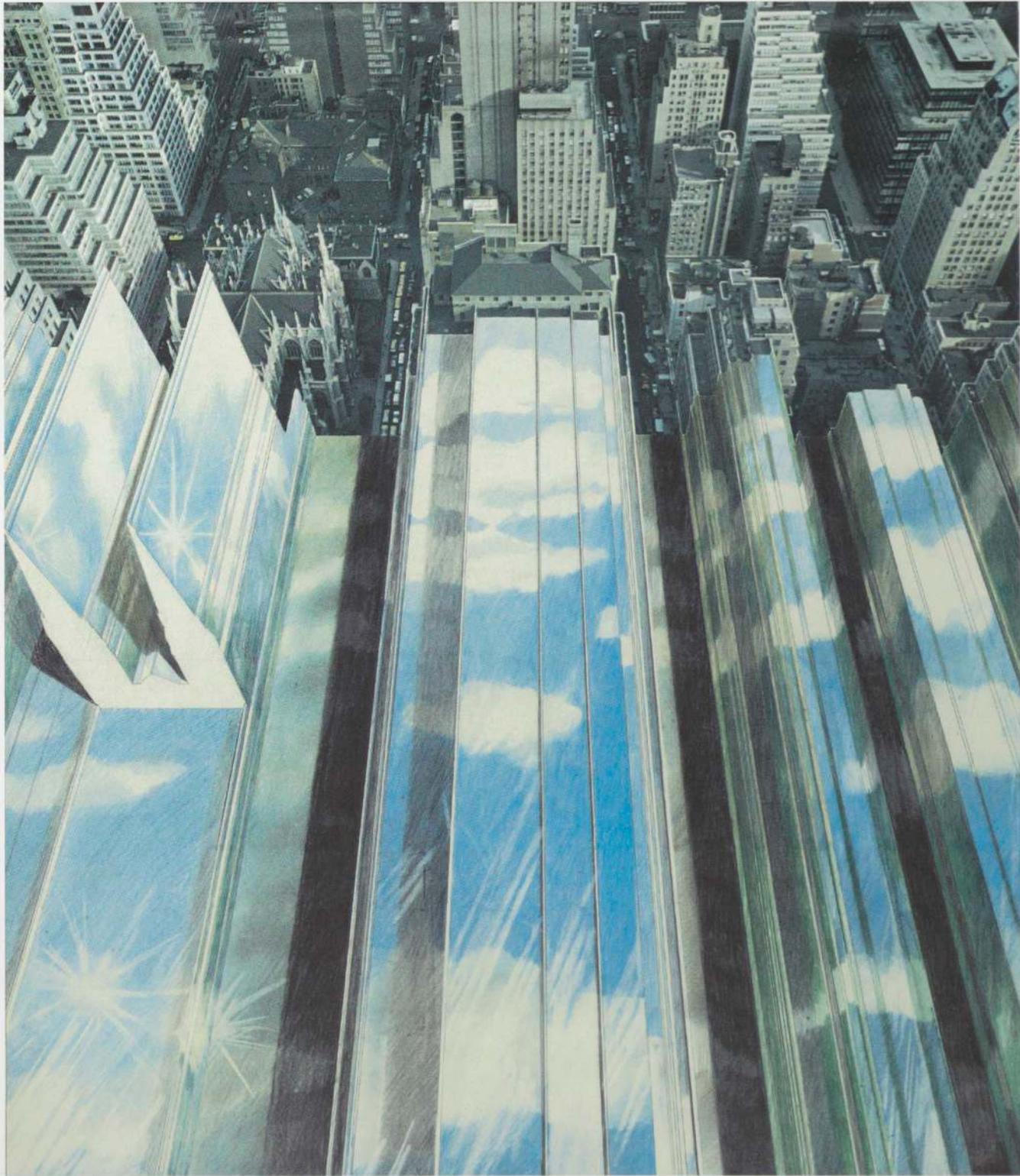
Alessandro Magris, born 1941

Roberto Magris, born 1935

Adolfo Natalini, born 1941

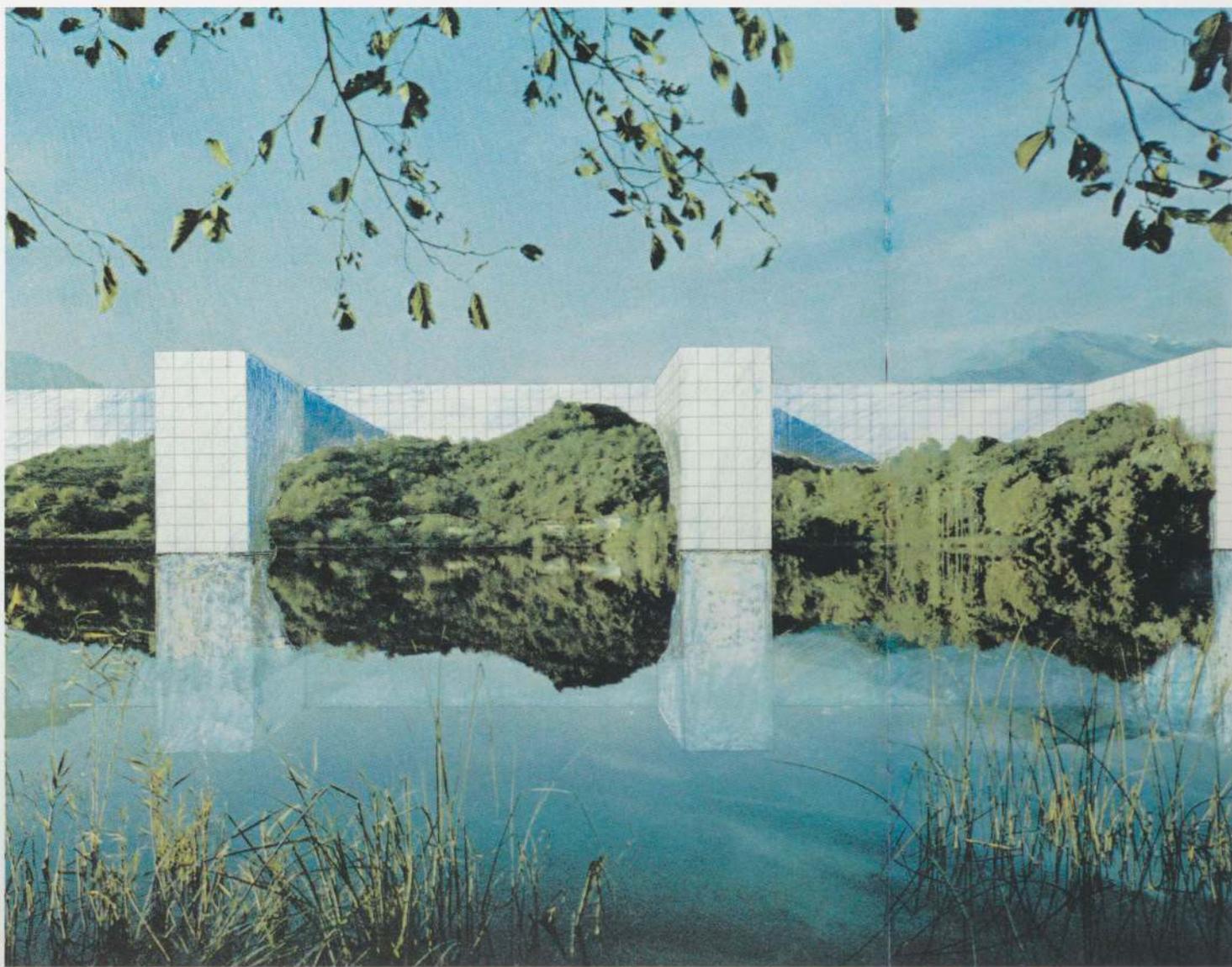
Superstudio was founded by five architects in Florence in 1966, and became the most poetic and incisive group to come out of Italy in the ensuing decade. Their purely theoretical drawings from *The Continuous Monument* series illustrate their conviction that by extending a single piece of architecture over the entire world they could "put cosmic order on earth." In the urban context, the *New York Extrusion* extends the city's profile over a section of Manhattan, and grafts nature to it by reflecting the blue sky in the tops of the buildings. In the other drawings, there are white, gridded, monolithic structures that span the natural landscape to assert rational order upon it. Superstudio saw this singular unifying act, unlike many modern utopian schemes, as nurturing rather than obliterating the natural world.

The Continuous Monument: New York Extrusion, New York, New York. Project, 1969. Aerial perspective: graphite, color pencil, and cut-and-pasted printed paper on board, 38 x 25³/₄" (96.5 x 65.4 cm)





The Continuous Monument: On the Rocky Coast. Project, 1969. Perspective: cut-and-pasted printed paper, color pencil, and oil stick on board, 18³/₈ x 18¹/₈" (46.7 x 46 cm)



The Continuous Monument: On the River. Project, 1969. Perspective: cut-and-pasted printed paper, color pencil, and oil stick on board, 17 $\frac{1}{4}$ x 15 $\frac{1}{4}$ " (43.8 x 40 cm)



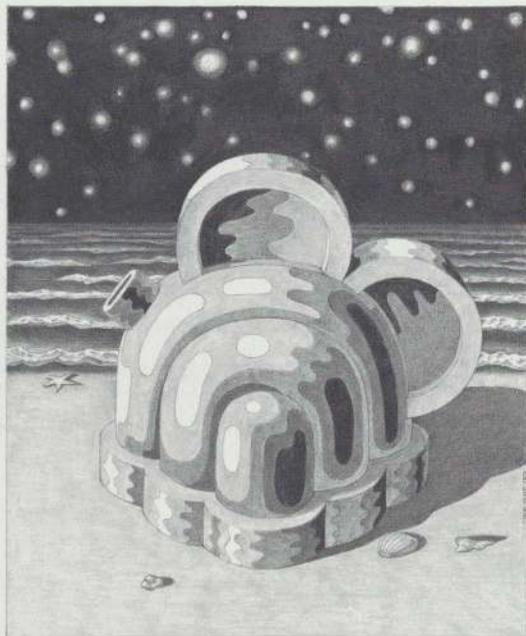
The Continuous Monument: Alpine Lakes. Project, 1969. Perspective: cut-and-pasted printed paper, color pencil, and oil stick on board, 18 x 18 1/2" (40.6 x 47 cm)



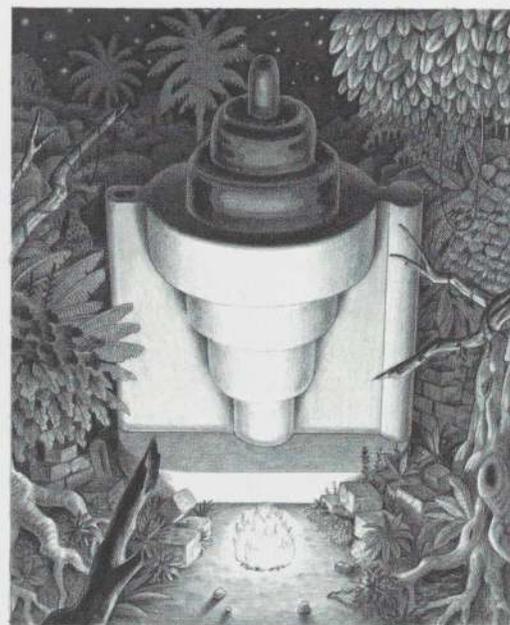
The Continuous Monument: St. Moritz Revisited. Project, 1969. Perspective; cut-and-pasted printed paper, color pencil, and oil stick on board, 16 $\frac{1}{4}$ x 19 $\frac{1}{8}$ " (42.9 x 48.6 cm)

ETTORE SOTTASS

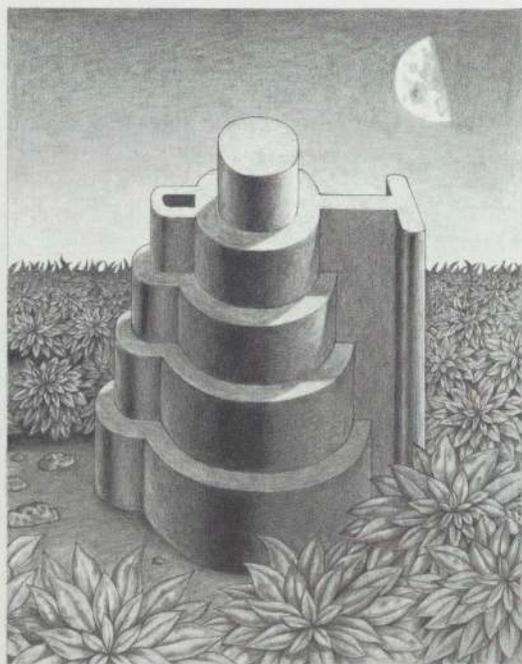
Italian, born 1917



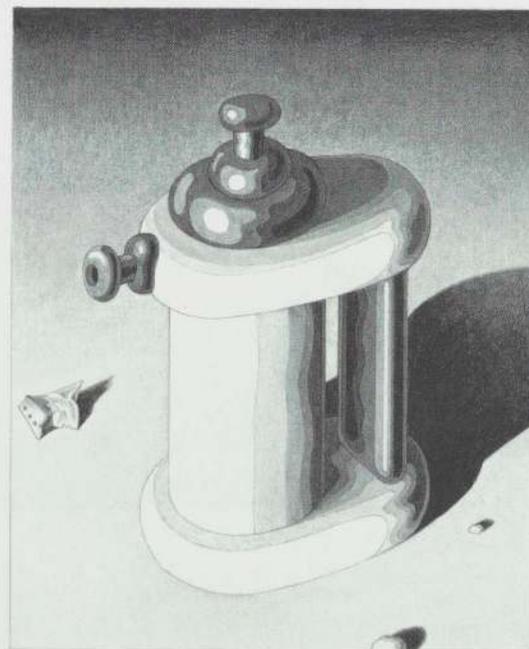
TEA POT



TEA POT



TEA POT



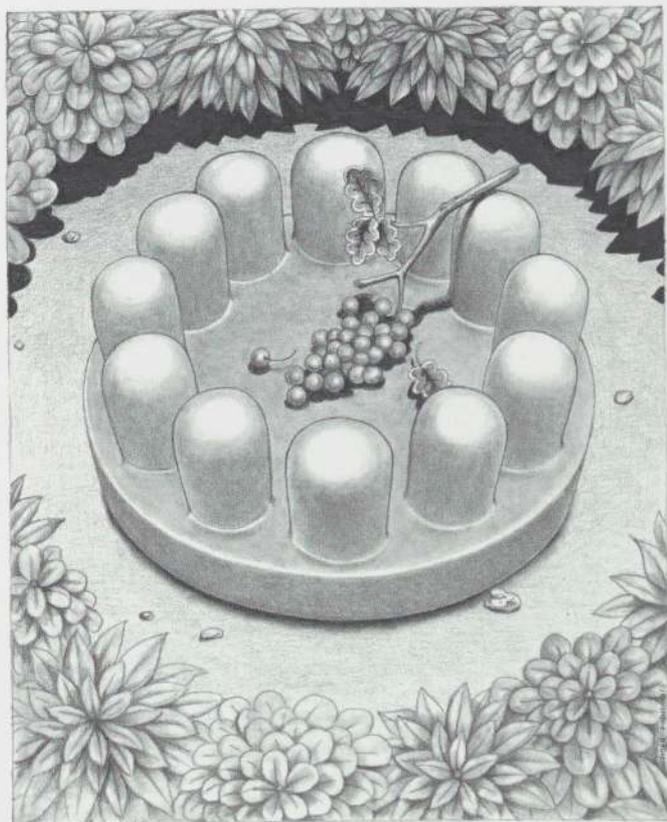
TEA POT

Study for Tea Pot (by Ocean with Shells). Project, 1973. Perspective: graphite and self-adhesive letters on paper, sheet 19 x 13 1/2" (48.3 x 34.3 cm)

Study for Tea Pot (in Forest Setting). Project, 1973. Perspective: graphite and self-adhesive letters on paper, sheet 19 x 13 1/2" (48.3 x 34.3 cm)

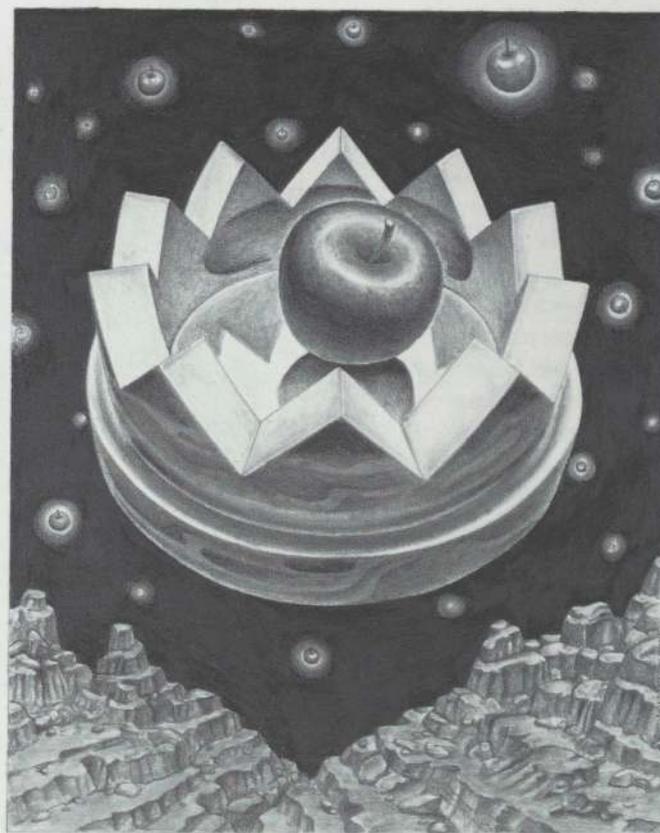
Study for Tea Pot. Project, 1973. Perspective: graphite and self-adhesive letters on paper, sheet 19 x 13 1/2" (48.3 x 34.3 cm)

Study for Tea Pot (with Red Lid). Project, 1973. Perspective: graphite and self-adhesive letters on paper, sheet 19 x 13 1/2" (48.3 x 34.3 cm)



FRUIT BOWL

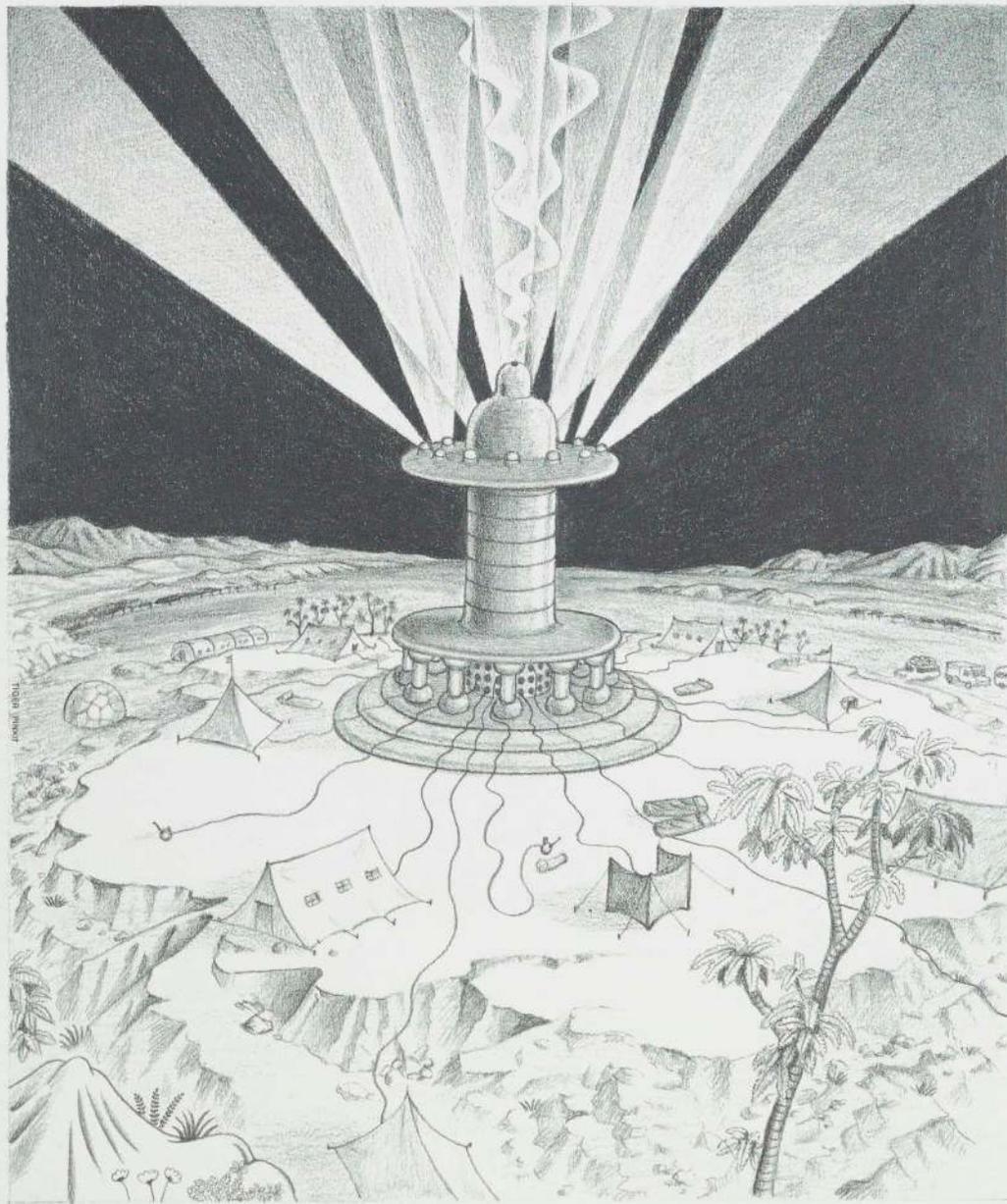
Study for Fruit Bowl (with Grapes).
Project, 1973. Aerial perspective: graphite
and self-adhesive letters on paper, sheet
19 x 13 1/2" (48.3 x 34.3 cm)



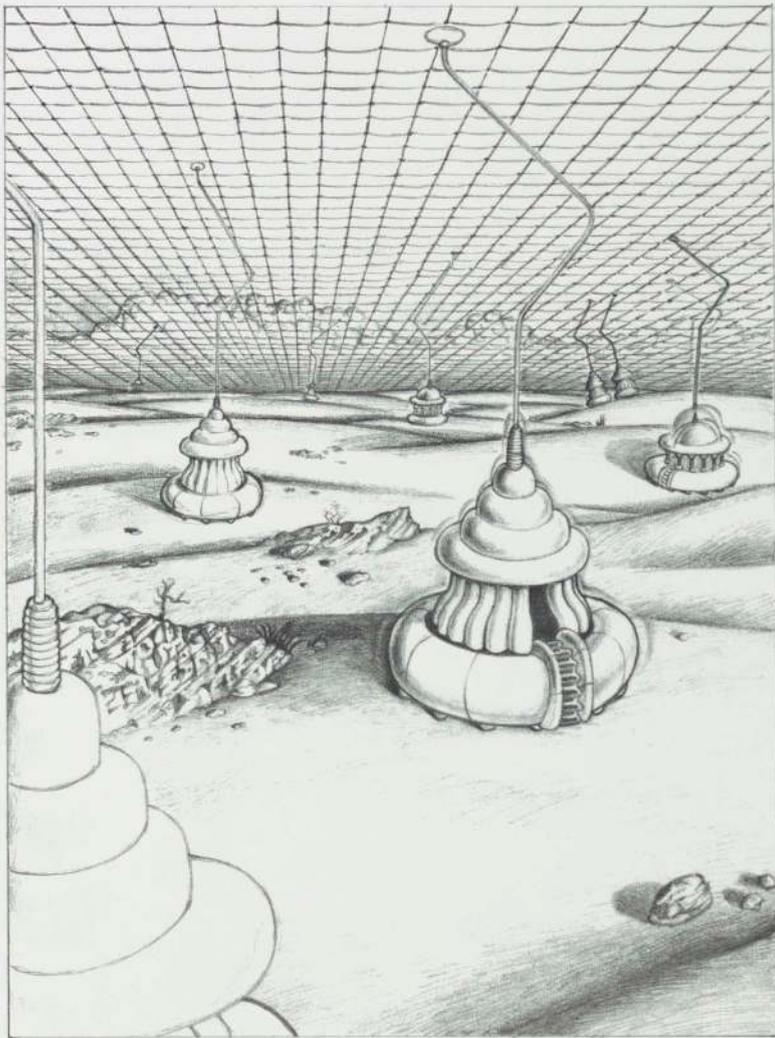
FRUIT BOWL

Study for Fruit Bowl (with Apple).
Project, 1973. Aerial perspective: graphite
and self-adhesive letters on paper, sheet
19 x 13 1/2" (48.3 x 34.3 cm)

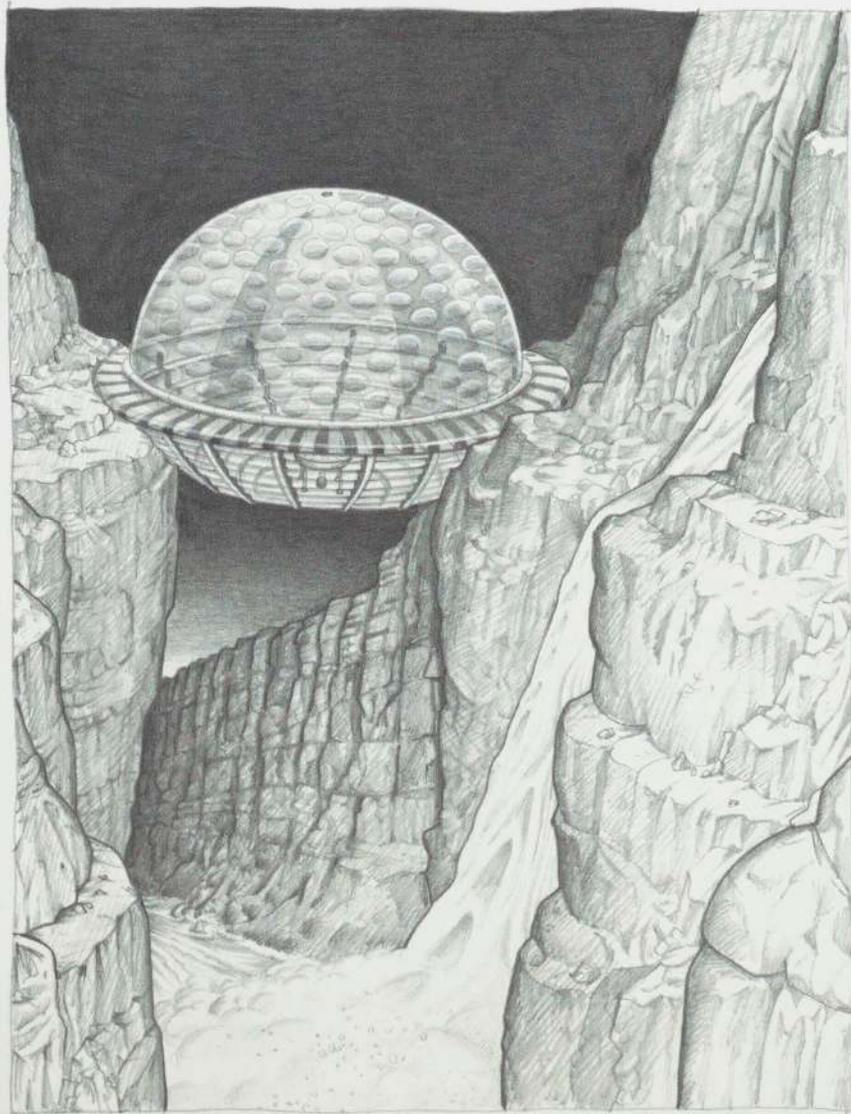
Concerned with the deterioration of urban life, Ettore Sottsass used *The Planet as Festival* series to depict a utopian land where all of humanity would be free from work and social conditioning. In his futuristic vision goods are free, abundantly produced, and distributed throughout the globe. Freed from banks, supermarkets, and subways, individuals can "come to know by means of their bodies, their psyche, and their sex, that they are living." Once consciousness has been reawakened, technology would be used to heighten self-awareness, and life would be in harmony with nature. The *Planet as Festival* drawings are black-and-white studies for hand-colored lithographs. They depict such "super-instruments" for entertainment as a monolithic dispenser for incense, drugs, and laughing gas set in a campground, rafts for listening to chamber music on a river, and a stadium to watch the stars.

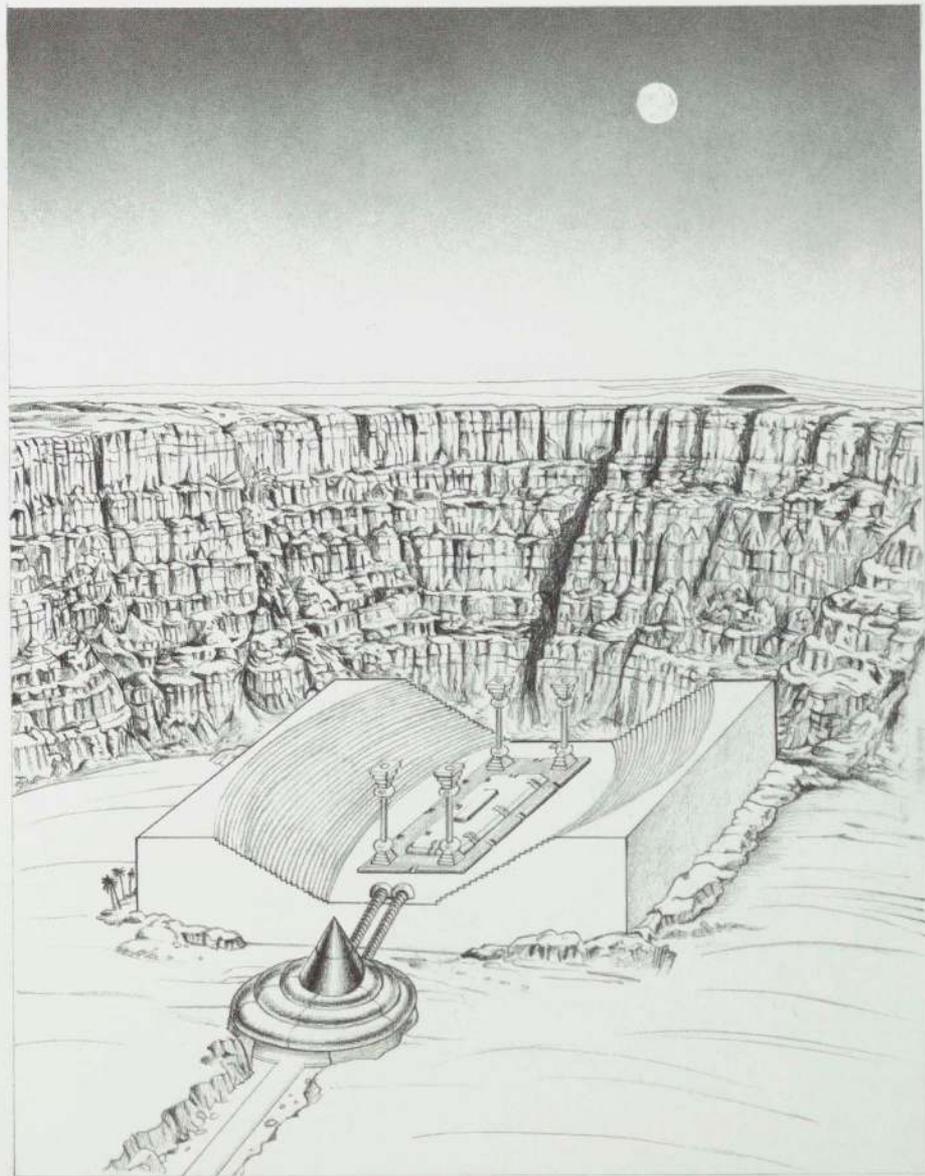


The Planet as Festival: Study for a Dispenser of Incense, LSD, Marijuana, Opium, Laughing Gas. Project, 1972-73. Perspective: graphite on paper, 15 1/8 x 13 3/8" (38.4 x 34 cm)

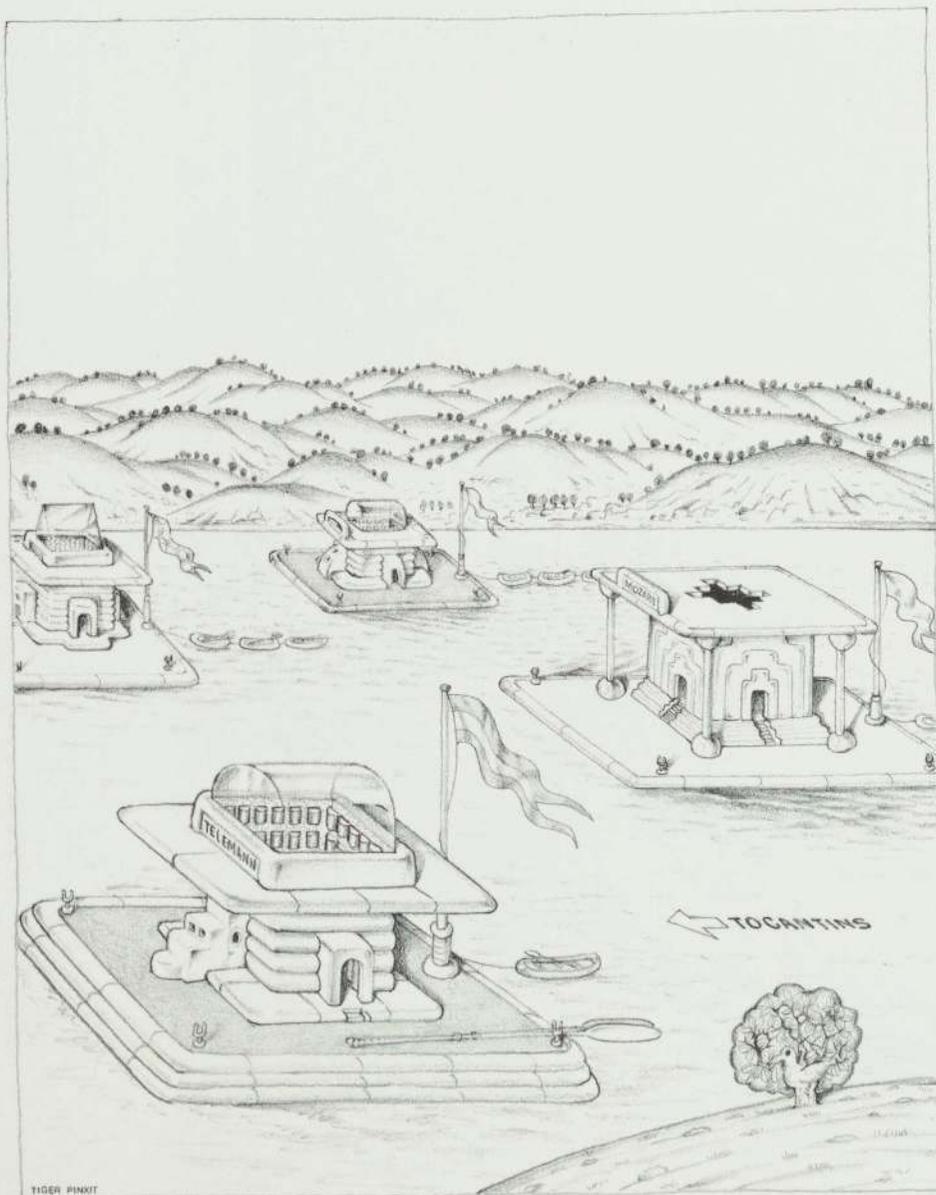


The Planet as Festival: Study for a
Large Dispenser of Waltzes, Tangos,
Rock, and Cha-Cha. Project, 1972-73.
Perspective: graphite on paper, 16 1/2 x
13 1/4" (41.9 x 34 cm)

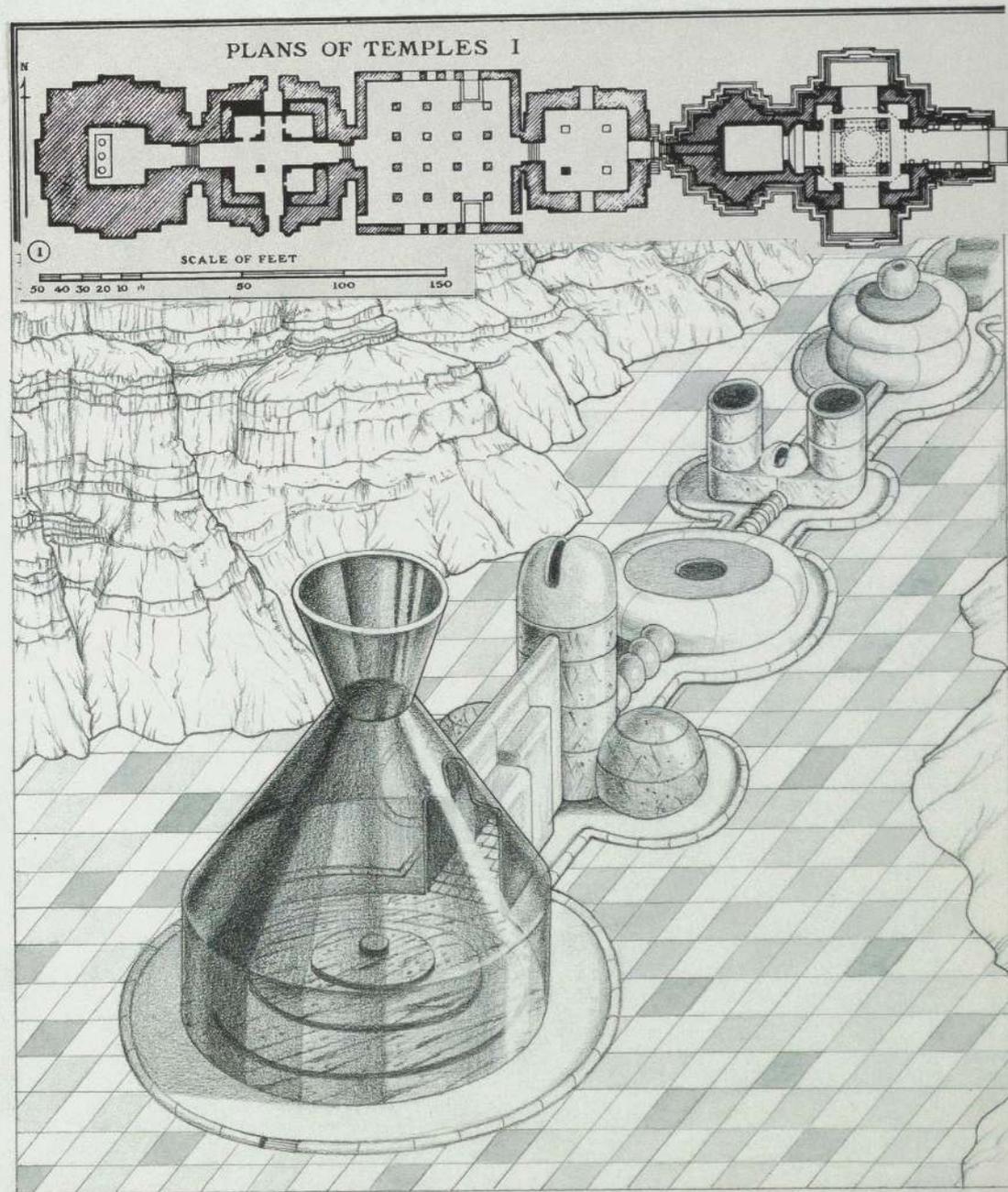




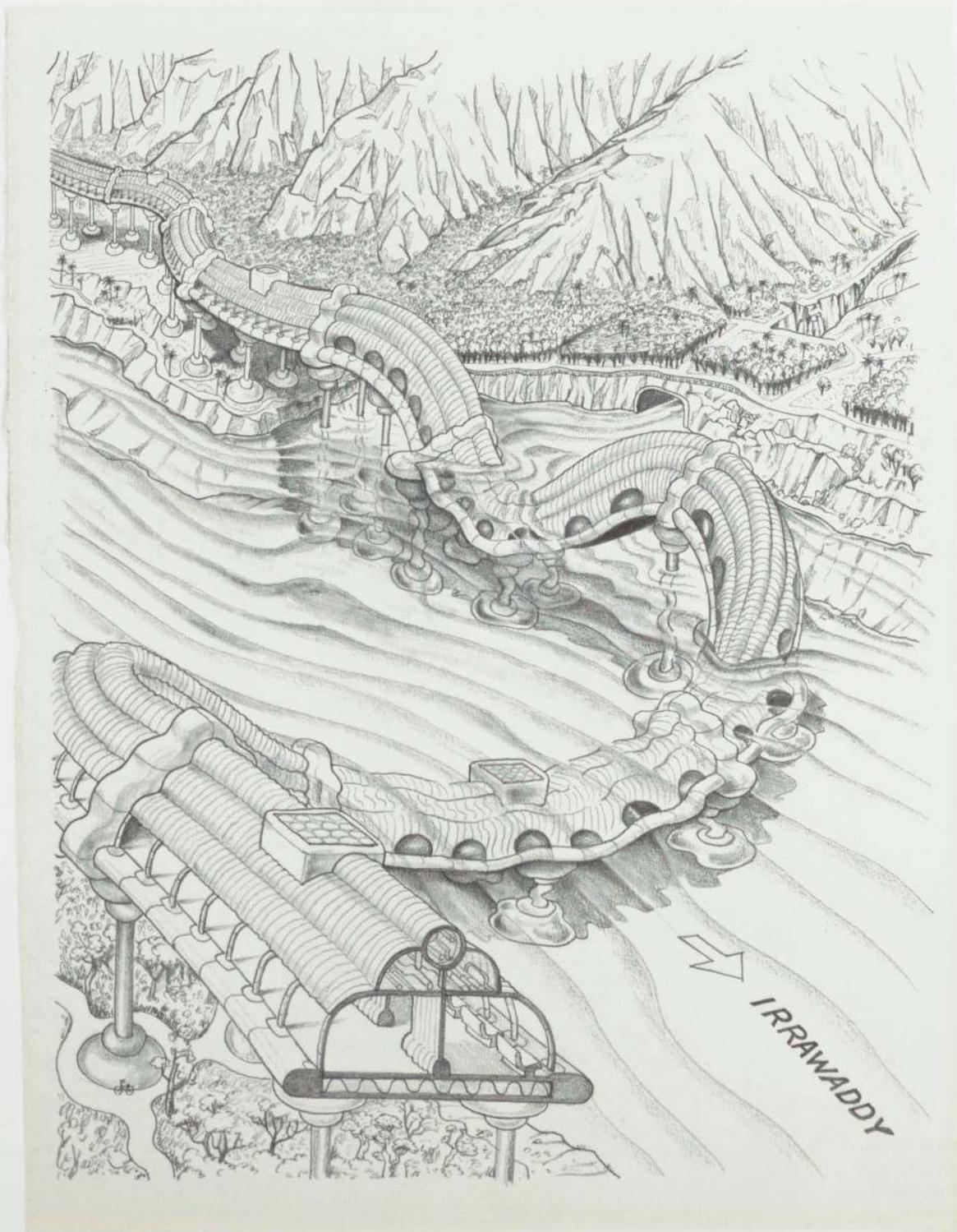
The Planet as Festival: Study for Design
of a Stadium to Watch the Stars. Project,
1972-73. Aerial perspective: graphite on
paper, 19 x 13 1/2" (48.3 x 34.3 cm)



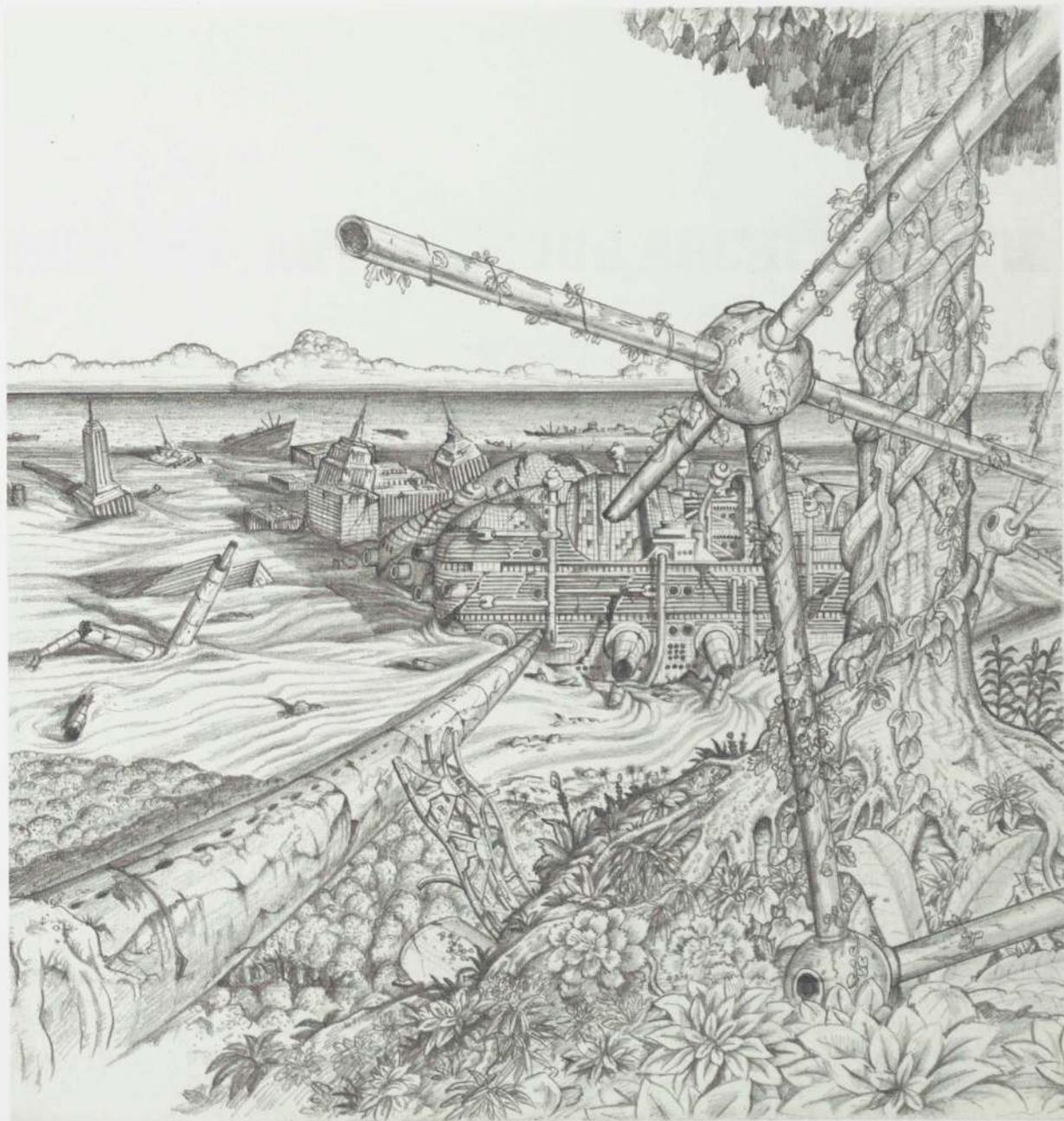
The Planet as Festival: Study for Rafts for Listening to Chamber Music. Project, 1972-73. Perspective: graphite on paper, 14 1/2 x 12 3/4" (36.8 x 31.4 cm)



The Planet as Festival: Study for Temple
for Erotic Dances. Project, 1972-73.
Aerial perspective and plan: graphite and
cut-and-pasted gelatin silver print on
paper, 13¹⁵/₁₆ x 12³/₈" (35.5 x 32 cm)



The Planet as Festival: Gigantic Work,
Panoramic Road with View on the
Irrawaddy River and the Jungle. Project,
1972-73. Aerial perspective: graphite on
paper, 16 x 12 1/4" (40.6 x 31.1 cm)



The Planet as Festival: Design of a
Roof to Discuss Under. Project, 1972-73.
Perspective: graphite on paper, 11 1/2 x
10 7/8" (29.2 x 27.6 cm)



ALDO ROSSI AND AUTONOMOUS ARCHITECTURE

Marco De Michelis

The Howard Gilman Archive of Visionary Architectural Drawings offers an extraordinary opportunity to consider the theoretical underpinnings of the architectural culture of the 1960s and 1970s. During this singular period, paper architecture played an important role in the articulation of a general disillusionment with the modern movement. An analogous expression of these concerns was also to be found among the works of writers and historians, some of them architects as well, which sought to analyze modernism's failure to fulfill its utopian promise and to remediate its misguided route. In addition, all of this took place against a backdrop of the widespread student protests and civil disobedience of the time.

The Gilman collection is unique in encompassing a variety of architectural responses to these issues: utopian,

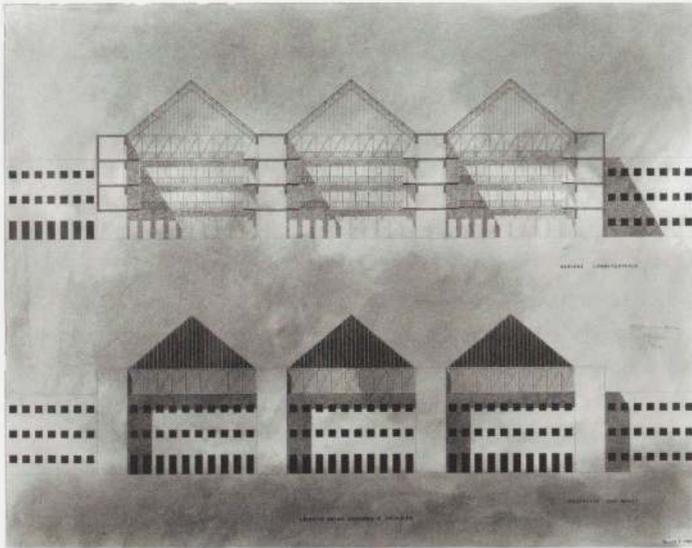
radical, monumental, Pop, technological, metaphysical, poetic, philosophical, or traditionally nostalgic; taken together they articulate the key movements of a time of artistic and social ferment that came to define the postwar world in terms of what were known as the megastructure movement and, later, postmodernism. This collection includes such definitive works as the visionary representations of the Plug-In City by Peter Cook of Archigram (pages 50–53); Yona Friedman's Spatial City (pages 40–41, 43); and works by the Austrian Max Peintner and the Italian Gaetano Pesce, which were drawn with the naive communicative power of science-fiction comics (pages 108–109, 123, 131–133). All played an important role in moving architecture beyond modernism, as did the metaphysical landscapes sketched

by Aldo Rossi, Léon Krier, and Massimo Scolari (pages 103–105, 110, 118, 124, 125); the remarkable bird's-eye views from Superstudio (pages 73–77); and Rem Koolhaas's and Elias Zenghelis's colorful axonometrics of New York (page 144).

The architectural culture during this critical period in the intellectual and creative history of the twentieth century was defined largely by architects, philosophers, and historians, whose diverse ideas were connected only by a common determination to alter the obsolete tenets of modernist practice and to reevaluate architecture in terms of the new imperatives of the postwar world. Among the most influential in helping to define the future of postmodernist practice, were the ideas of the Italian architect Aldo Rossi, whose 1966 book *The Architecture of the City* patiently built the foundations for a detached theory of architectural autonomy, which had a crucial influence both in Europe and America.¹ Rossi's moving manifesto was written at a time when his theories could only be tested on a small number of his projects, such as the designs for a competition for the Teatro Paganini in Parma (1964) and the neighborhood of San Rocco in Monza, near Milan (1966), and even fewer built works, such as the piazza in Segrate outside Milan, a commission he owed to the young Milanese architect Guido Canella. It was also published in the same year as an equally influential book appeared in America, *Complexity and Contradiction in Architecture* by Robert Venturi, that attacked the same issues from a different angle.² Venturi's book was also an attempt to shape an original historical context for contemporary architecture. In terms of the ideas of autonomy espoused by Rossi and others in Europe, the most important aspect of Venturi's book was its related aim of reestablishing in architecture an intrinsic complexity that would be detached from other disciplines, such as science, technology, and the humanities and social sciences, which he felt had blurred the boundaries between themselves and modern architecture. Venturi wrote: "I make no special attempt to relate architecture to other things. . . . I try to talk about architecture rather than around it. . . . The architect's ever diminishing power and his growing ineffectualness in shaping the whole environment can perhaps be reversed, ironically, by narrowing his concerns and concentrating on his own job."³

Rossi's book opens with the now famous declaration of a fundamental unity of identity between the city and architecture, and proposes a theory of urban artifacts characterized by "the identification of the city itself as an artifact and its division into individual buildings and dwelling areas."⁴ For Rossi, "monuments, signs of collective will as expressed through the principles of architecture,"⁵ are the fixed points in an urban dynamic, and constitute one of the principal elements in the history of culture. His peremptory affirmation of the city's architectural character implies an autonomy through which architecture itself is empowered to construct a new "urban science," and stands as one of the constituent elements of the concept of *autonomous architecture*.

Rossi's sources for his discussion of the city are highly varied. They range from classical linguistics and tools for interpreting processes of modification and permanence that can be transferred from language to the description and history of urban phenomena, by such thinkers as Ferdinand de Saussure, to disciplines such as structural anthropology, urban geography, sociology, economic policy, the tradition of modern town planning, and the vast patrimony of architectural theory. Backed by his use of these references and disciplines, Rossi tackled the problem of describing the architecture of the city, proposing it as the assimilation of large artifacts, the feats of engineering and public architecture (figure 1). Considering the city to be much like a collective work of art, Rossi wrote: "We should initially state that there is something in the nature of urban artifacts that renders them very similar—and not only metaphorically—to a work of art."⁶ Rossi had retrieved the notion of a collective work of art from the French anthropologist Claude Lévi-Strauss, as born in unconscious life, between nature and artifice, "an object of nature and a subject of culture."⁷ From the great French sociologist Maurice Halbwachs, he adopted the belief "that imagination and collective memory are the typical characteristics of urban artifacts."⁸ The relationship between the city and its inhabitants, how people orient themselves and move about within it, and form their sense of space, further enriched the issue of collective belonging and the awareness of the city as an artistic whole, allowing Rossi to formulate his conception of architecture as "a human thing,"⁹



that shapes reality and adapts material according to an aesthetic conception.

In the work of Jean-Nicolas-Louis Durand, Antoine Chrysostôme Quatremère de Quincy, and Eugène-Emmanuel Viollet-le-Duc, Rossi found the historical foundation for a theory of types, as “permanent and complex, a logical principle that is prior to form and that constitutes it.”¹⁰ He added his own particular emphasis to an essentially meta-historical—even metaphysical—typology as “the very idea of architecture, that which is closest to its essence.”¹¹ It was through the notion of type that the historicity of architecture took shape in its formal inventions, its constructive innovations, its capacity to respond to different needs and functions, and its many variations of design solutions.

From this point of view, typology, defined by Rossi as “the study of types of elements that cannot be further reduced,”¹² constituted a formidable tool for his investigation of the city’s fixed characteristics, according to the model proposed in the early twentieth century by Marcel Poète and Pierre Lavedan and their research on the generation of the urban plan. They described this as an element that simultaneously constituted the city’s permanent character and a representation of its overall wholeness. For Rossi, this last point was the most important feature of their research, the idea that: “Cities tend to remain on their axes of development, maintaining the position of

their original layout and growing according to the direction and the meaning of their older artifacts.”¹³

Rossi’s approach had many highly important consequences. His city as total architecture became describable and interpretable both in its wholeness and in the parts of which it was composed. The primary elements could be recognized in those monuments in which the very essence of the urban artifact and the forms of its surrounding environment are condensed. The characteristics of its growth, its various social, economic, and political components, could finally be led back to a sole principle and a single practice.

These considerations of the young Rossi were not the result of a solitary effort. There was in the background, from the very beginning, Saverio Muratori’s research on the urban structure of Venice, although there is no specific trace of it in *The Architecture of the City*. Of particular interest to Rossi was Muratori’s attempt to replicate the city’s morphological structures in his project for the residential neighborhood of San Giuliano in Venice in 1959,¹⁴ but it provided no basis for Rossi’s own contemporary design choices.

Also in Venice, Carlo Aymonino had been working at the Istituto Universitario di Architettura exploring the relationship between urban morphology and building typology with the aim of establishing “a method of analysis that, by placing different processes in relationship with each other, also allowed one to forecast urban issues.”¹⁵ In the research, morphology and typology served to describe the complexity of the city’s settlement process: the relationships between built space and the system of public spaces, between the ways in which it was actually used and the designated uses and building forms, and including a penetrating analysis of the peculiar characteristics of the architecture of housing and large public structures. It was precisely the challenge of a morphological coherence in the historical city, able to resist transformation and tampering by history, that provided the premise of a design strategy that professed to measure itself on major issues of urban architecture of the time, such as the reorganization of the residential suburbs of Milan in Aymonino’s and Rossi’s project for Gallarate, the new civic centers in the projects for Perugia or Pesaro, and the patient rehabilitation of the historical tissue of the ancient city, such

Figure 1. Aldo Rossi and Gianni Braghieri, with M. Bosshard. Regional Administrative Center, Trieste, Italy. Project 1974. Competition entry: elevation and section, rubbed ink and pastel on whiteprint, 28½ × 36" (72.4 × 91.4 cm). The Museum of Modern Art, New York. Philip Johnson Fund

as Venice, using morphological structures coherent with those of the past.

In 1965, the Novissime project, done by a group coordinated by Giuseppe Samonà, the director of the Istituto Universitario di Architettura in Venice, represented an extreme prototype of this attitude. It proposed to actually remove any built elements that were found to be inconsistent with the original Venetian morphological structure, in particular, by thinning and emptying out certain areas in Venice's eastern and western appendixes.

In 1978, an international seminar was held in Venice, during which ten architects (Raimund Abraham, Carlo Aymonino, Peter Eisenman, John Hejduk, Rafael Moneo, Bernhard Hoesli, Valeriano Pastor, Gian Ugo Polesello, Aldo Rossi, and Luciano Semerani) put themselves to the test redesigning a vast area of the Cannaregio, a neighborhood located between the railway station and the lagoon's edge. Although somewhat marginal with respect to the issues raised by the Venetian urban structure, this event was ultimately crucial in anticipating issues that would soon after be presented in mature designs at the International Building Exhibition, Berlin (IBA) as part of the critical reconstruction of the contemporary city. Among these were the topographical stratifications and invisible layouts of Eisenman's "intransitive objects"; Hejduk's "masks" of labyrinthine architectural stories; and Rossi's monumental metropolitan fragments (figure 2), such as the Teatro del mondo, which were actually built in 1980 on the unstable Venetian lagoon.¹⁶

Thus, the ideas proposed by Rossi in *The Architecture of the City* were not limited to laying the foundations of a new architectural approach to issues regarding the city. They raised crucial questions about the nature of architecture and its relationship to other forms of technical and scientific knowledge, and they put forward the notion that architecture could represent itself as an autonomous and independent discipline. In this way, Rossi rehabilitated an essential aspect of the modern tradition that had been overshadowed by the devastation of World War II, when architects, as well as every other intellectual, were obliged to question the essential nature of modern civilization, the notion of progress itself, and their own capacities to interpret, govern, and "design" human destiny, as well as the meaning of history.

Out of this arose both a rejection of the abstract architectural knowledge and power that had provided the foundation for the hegemonic designs of modernism and an attempt to embrace the purifying, pulsating variety of the manifestations of contemporary culture. It looked as if the now age-old dichotomy between technique and culture, and architecture's long and vain dash to take possession of the world of machinery, might conclude in a pure and simple recognition of the essential identity of architecture as technology, science, and society. The dream of directing the processes of reform in modern society turned into an acknowledgment of mass society's multivalent manifestations. The three-dimensional diagram of DNA, the metal shells of the automobile and the airplane, the new science of cybernetics, the fantastic world of cartoons and movies, the humble materials of spontaneous architecture, the trivial messages of advertising, the dreams and aspirations of ordinary people, and even the unexplored depths of the human psyche became the "found" materials used for experiments carried out by young European architects in the 1950s and 1960s.

Within this perspective, the work of the British architect Cedric Price was seminal. For him, the diagrammatic approach replaced any formal apparatus or abstract geometric system with a dynamic representation of flow, force, and resistance; it disputed the aesthetic nature of architectural practice and the conventionality of its compositional practices. The formula, "seeing everything in relationship,"¹⁷ aptly described by the Hungarian artist László Moholy-Nagy in 1947, and so radically challenged by Robert Venturi twenty years later, defined the basic problem of architectural planning as a question of *information* rather than *representation*. And Price's visionary (at the start of the 1960s) inclusion of a group of cybernetic thinkers in the planning of the Fun Palace for Joan Littlewood in London of 1964-66 (pages 58-67) clearly confirmed that he intended to write a new scientific rule book for the process of architectural planning.

Rossi's assertion of the existence of an autonomous body of architectural knowledge raised the crucial question of a critical practice of architecture, of the reconquest of analytical tools specific to the city and the territory, and of the forms of their production. The absolute present of mass cultures, "as found," was replaced by a broad

awareness of the historical space of Western architecture and, in particular, modernity. Architecture, once again, laid claim to the capacity of not just interpreting the city, but also giving it a new form, of re-forming it in accordance with the distinctive tradition of the modern. Studies of the morphological and typological structures of the city treated the urban phenomenon as the outcome of specific architectural practices, and as a physical whole in which it was possible to recognize describable and reproducible practices and codes.

From the argument presented above, it is clear that the reaffirmation of architecture as a cognitive tool in its own right has been able to produce some formidable results, both on the plane of analytical interpretation and on that of the development of working instruments: the urban project (figure 3). These results become clearly visible in the critical reconstruction of the city attempted in Berlin and in numerous other European cities, as well as in recent American developments such as the growing popularity of so-called new urbanism.

On the other hand, the peculiar kinds of aporia that the "return to order" in Western architecture of the 1970s brought to light are just as evident. At the very moment that the European city was being systematically investigated in its architectural entirety, it was undergoing crucial processes of transformation, which radically changed its structure and the problems it presented, and also shifted these problems from the center to the periphery and, further out still, to ecosystems that could not be reduced to the traditional structures of urban settlement. This encompasses those of corporate centers, shopping malls, de-industrialized swaths of territory with heavy pollution, and massive traffic infrastructures. At the same moment in time, the processes of globalization were introducing new notions of time and space that were wholly extraneous to traditional urban hierarchies and geographies and perfectly capable of operating with indifference to the particular physical organization of the locations.

Nevertheless, it is easy to see the extraordinary impact Rossi produced in Italian—and international—architecture of the late 1960s and early 1970s. The password, *autonomy*, resounded repeatedly, prompting Italian architects to consider it the foundation of the new practice and the origin of new theoretical questions and

dilemmas. Indeed, Giorgio Grassi dedicated his book *La Costruzione logica dell' architettura* "to considering the terms of autonomy."¹⁸ It was published just one year after Rossi's book and in the same year as Ludovico Quaroni's *La Torre di Babele*, which claimed the architect's right "to determine urban form."¹⁹

In the United States, the founding of the Institute for Architecture and Urban Studies in 1967, followed by the 1972 exhibition *Five Architects*, and then, the following year, by the publication of the inaugural issue of the architecture periodical *Oppositions*, were indications that the issue of autonomy in architecture had become central to the theoretical debate in America as well as Europe. And, indeed, it was in *Oppositions* in 1976 that the architect Diana Agrest offered a clear description of the conditions of autonomy most architectural theorists



Figure 2. Aldo Rossi. Large Urban Construction. Project, 1978. Oil and chalk on canvas, 51 1/16 x 35 1/16" (130 x 90 cm). The Museum of Modern Art, New York. Gift of the Architecture and Design Committee in honor of Marshall Cogan

of the period would have endorsed. She stated: "Design, considered as both a practice and a product, is in effect a closed system—not only in relation to culture as a whole, but also in relation to other cultural systems such as literature, film, painting, philosophy, physics, geometry, etc. Properly defined, it is reductive, condensing and crystallizing general cultural notions within its own distinct parameters. Within the limits of this system, however, design constitutes a set of practices—architecture, urban design, and industrial design—unified with respect to certain normative theories. That is, it possesses specific characteristics that distinguish it from all other cultural practices and that establish a boundary between what is design and what is not."²⁰

Just two years after the Institute for Architecture and Urban Studies in New York City was created under the

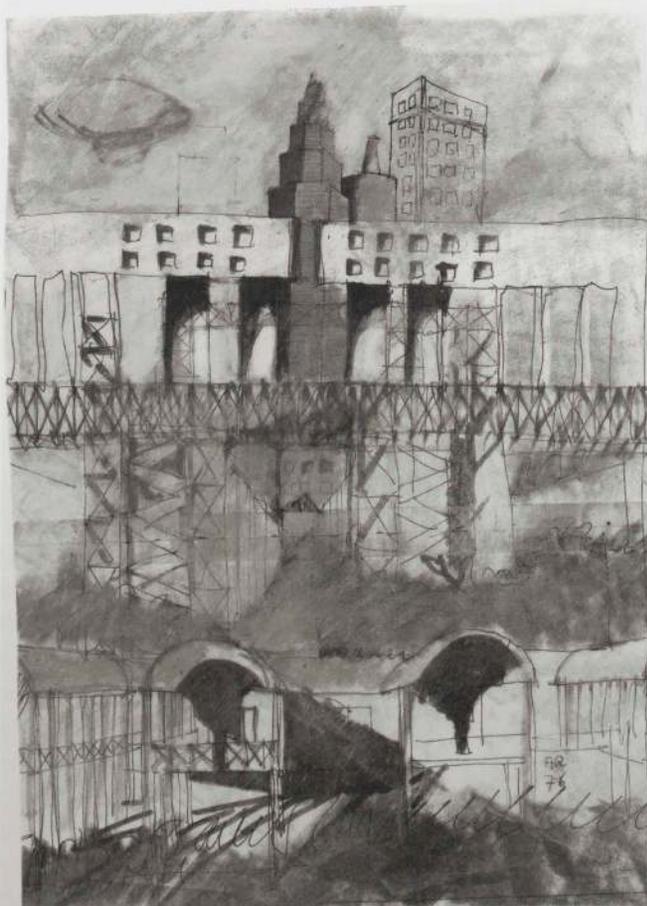


Figure 3. Aldo Rossi. Urban Architecture. Project, 1976. Perspective: oil pastel, ballpoint pen, ink, and felt-tipped marker on paper with tape, 14 $\frac{1}{2}$ × 10 $\frac{1}{2}$ " (35.9 × 25.7 cm). The Museum of Modern Art, New York. Barbara Jakobson Purchase Fund

aegis of Arthur Drexler and The Museum of Modern Art, the German architect Oswald Mathias Ungers (page 100), then at Cornell University in Ithaca, New York, whose architecture program was dominated by the ideas of Colin Rowe, tried to offer another formulation of a radical reconsideration of architecture. He and the other members of the European group Team X had reached an end point in their architectural practice, and a certainty of the necessity of bringing the essential issue of architecture back inside its historic disciplinary boundaries; of rediscovering the basics of planning practice that were consistent with the requirements of architectural form; and of redefining the relationships linking the architectural work and its rules of typology with the morphological structure of the city.²¹ This view was soon more or less shared by other European planners, such as Aldo Rossi, Vittorio Gregotti, and James Stirling. But it was equally evident that there was a growing awareness of the irreparable dissolution of a systematic architectural knowledge. Anyone who looked at the history of the discipline saw in it a jumble of elements and impressions that added up to a many-sided and fragmentary collage, rather than a new composition as an organic whole.

For almost eleven years, until the end of the 1970s, Ungers declined to practice as a professional architect, preferring teaching and a lengthy silent consideration of the possibility of rebuilding the essential foundations of architecture. I believe it is not a coincidence that it was Ungers who brought two particular young architects, Léon Krier and Rem Koolhaas, to Cornell University during those years. While Krier and Koolhaas, working with Elia Zenghelis, used methods that turned out to be quite different, they both were determined to sweep away the lingering optimism of the remaining members of Team X, the technocratic rhetoric of Archigram in London, as well as that city's prestigious school of architecture: the Architectural Association. In a recent interview, Zenghelis spoke of a battle that he fought back then, together with Superstudio in Italy, for "the rehabilitation of architecture."²²

The movement to replace modernism with a new kind of autonomy appeared in many other instances and numerous guises, none of them coordinated formally with the others. It is also important to note that these

were years of extraordinary political tension, especially in Europe, which exploded in 1968 and then in the terrible terrorism of the 1970s. But it is still necessary to attempt to interpret the reasons behind the relentless assertion of this rediscovered notion of autonomy, which seemed to open an extraordinary new potential for intervention but, even more, to exorcise the dread of the social demise of architecture.

The emergency of postwar reconstruction was over and the social-democratic call for a general reform of the political and economic apparatus had given way to an obstinate impotence, especially in Italy. The architects' call to order took on a peculiar and contradictory—even political—meaning. With the rediscovery of its own autonomy, it seemed that architecture had played its last card for a progressive role in the culture, the only possibility of representing, in architectural practice, the contradictions of the contemporary city through solutions whose “finished form” could, ironically, also present “a possible example of a different urban structure.”²³

The special attention reserved, in those years, for issues related to the “socialist city” confirms this particular aspect of the question of autonomy. It was aimed primarily at the rediscovery of Soviet architecture and its avant-garde, Constructivist, and formalist movements. But it also concerned the experience of Cuba, and, in a peculiar way, that of East Germany, where the effort toward a general industrialization of the building industry seemed consistent with experimentation with a typological approach to housing design and demonstrated the crucial importance of morphological issues for the planning of new socialist settlements.

It was not merely by chance that one of the first meetings of what would later become the *Tendenza* group actually took place during a trip through socialist Germany in 1970, in front of the grand marble flags of the Soviet war memorial, built with red granite from Hitler's chancellery. The group of Italian architects around Aldo Rossi, Giorgio Grassi, Guido Canella, and Carlo Aymonino, chose the name *Tendenza*, or *trend*, which expressed the political dilemma that embarking upon a new path in architecture appeared feasible only if it began from a reflection on the meaning and historical nature of the practice. As Canella affirmed in December

1968: “It has become evident that architectural culture needs to withdraw into itself and attempt an autonomous, constructive balance, which globally puts into play the distances and lacerations between current practice and a presumed theoretical and practical future.”²⁴

At this point, Manfredo Tafuri's theoretical work appeared on the scene and had a dramatic destabilizing effect. It could be said that, early on, Tafuri became aware that the final outcome of this process would be none other than retreat into the solitary subjectivity of architectural practice. Rossi would also recognize this a few years later in his *Scientific Autobiography*, where he stated that while writing *The Architecture of the City*, he “had perhaps simply wanted to get rid of the city and, in reality, he discovered his architecture.” His “insistence on things, revealed his craft.”²⁵

Tafuri followed the question back to a critique of the notion of architectural modernity itself in his essay “Toward a Critique of Architectural Ideology,” which was published in 1969 and further developed in *Architecture and Utopia* in 1973.²⁶ Between the nineteenth and twentieth centuries, in the very moment in which architecture had “discovered its scientific vocation,” it had also accepted its political role. Here Tafuri recalled Quatremère de Quincy's definition of architecture in his *Encyclopédie Méthodique* (1788–1825): it “sees to the salubrity of cities, guards the health of men, protects their properties, and works only for the safety, repose and orderliness of civic life.”²⁷

The only problem was that the very establishment of science and technique as independent bodies of knowledge separated and isolated architecture from the real processes of conformity to modern society and condemned it to a labored and irresolvable course. This, for Tafuri, is the origin of the ideological nature of any architectural work: the fact of not being the protagonist of the real transformations that capitalistic development produces, but of merely being able to interpret them *a posteriori*. It could be said that architecture was no longer content to give form to reality but, at most, to re-form it (*reform* being a key word of modernity), to intervene *a posteriori* in order to ensure the rationality and the harmonious balance capitalistic development did not essentially possess. For all these reasons, Tafuri observed:

"Architectural ideology, in both its artistic and urban forms, was left with the utopia of form as a project for regaining the human Totality in the ideal Synthesis, as a way of mastering Disorder through Order."²⁸

But, then, what sense could operative criticism—that "used/abused past history projecting it toward the future"²⁹—have for Tafuri in the face of the ruinous fragments of the crisis of modernity? At this point it is interesting to reread the essay published by Massimo Scolari in 1973 in the catalogue of the exhibition *Rational Architecture*, organized by Aldo Rossi at the Triennale di Milano. This text can be considered a theoretical manifesto of Tendenza and the exhibition, one in which Rossi tried to present the international panorama of autonomous architecture, showing, alongside the Italians, such architects as James Stirling, Léon and Rob Krier, Oswald Mathias Ungers and Ludwig Leo from Germany, as well as the Five Architects from America: Richard Meier, Peter Eisenman, John Hejduk, Charles Gwathmey, and Robert Stern. For Scolari, the progressive character of the rediscovery of architecture's disciplinary autonomy lay in recognizing the historical basis of its very tools of analysis and intervention, as opposed to the utopian season of the avant-garde: "In its will to start over again from nothing, it denies history in order to find another point of departure, however illusory; and in so doing it easily achieves utopia and its isolation from reality. In short, it plays an essentially reactionary role, since, with its self-exclusion, it helps to reinforce the situation it wanted to destroy."³⁰ Having dismissed the entire Italian neo-avant-garde in that way (like the radical Florentine Archizoom and, in an even more subtle way, Superstudio), with the clear intention of sheltering Tendenza from Tafuri's reflection on the ideological nature of the experience of the avant-garde movements, Scolari tried to define a "critical" condition for the strategy of architecture's "autonomization": "For Tendenza, architecture is a cognitive process that in and of itself, in the acknowledgment of its own autonomy, now necessitates a re-founding of the discipline: one that refuses interdisciplinary solutions to its own crisis, that does not pursue and immerse itself in political, economic, social, and technological events only to mask its own creative and formal sterility, but rather desires to understand them so as to be able to intervene in them with lucidity."³¹

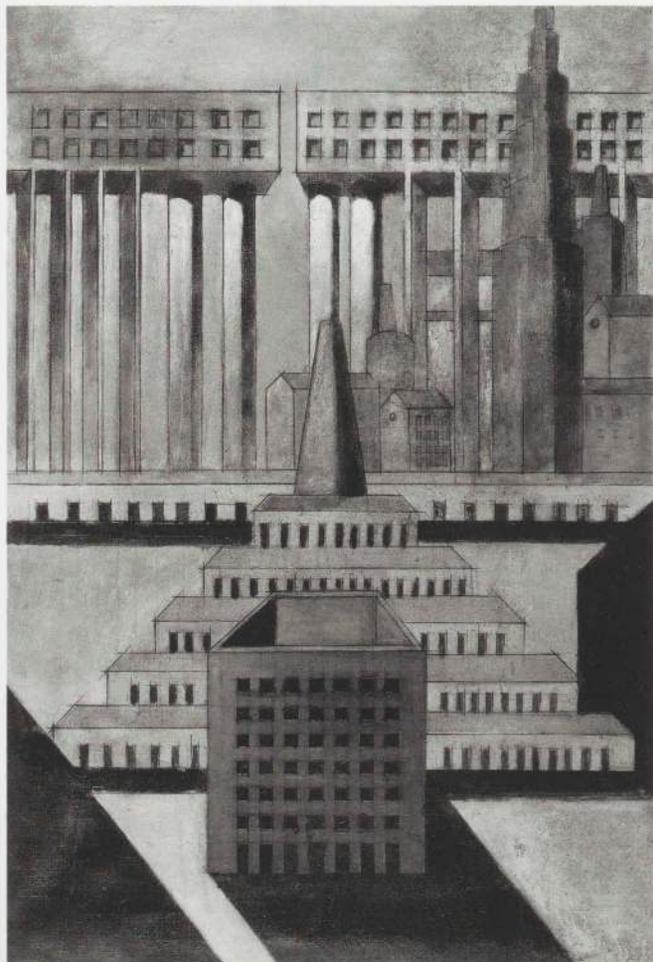
Thus, for Scolari, Tendenza was not a stylistic mask but a system itself. The operative elements of this system were set out in Aldo Rossi's *The Architecture of the City*: the distributive indifference of the type as a principle of architecture; the migratory characteristics of types; and the affirmation of a new simplified monumentality, defined by a few decisive rules, that was to bring unity and simplicity to the disorder of the modern city (see figure 4).³²

Scolari's attempt to exorcise Tafuri's criticism went as far as to identify the Roman historian as "one of the most passionate 'planners' of Tendenza, since the relationship to history contains a well-defined project, entirely thought out but no less important or suggestive than those that are 'only' designed."³³ After having gotten beyond the apocalyptic dilemma of the "death of architecture" proposed by Tafuri in his 1968 essay in *Contropiano*,³⁴ Scolari read Tendenza to make Tafuri's interpretation of the drama that characterized architecture in those years its own, "that of seeing itself forced to turn back to pure architecture, an instance of form devoid of utopia, a sublime uselessness in the best of cases. Yet to the mystified attempts to dress architecture in ideological clothing, we shall always prefer . . . the sincerity of those who have the courage to speak that silent, unrealizable purity."³⁵ In other words, Aldo Rossi!

But what Tafuri had questioned was precisely the political meaning of the attempt to recompose a unity for the discipline of architecture, to be able to finally give form to a new "treatise of composition" of which Scolari spoke. For Tafuri, the utopia of the form had by now taken on the physiognomy of the "mask": it had become an instrument for hiding the complexity of the real world.

The sullen indifference of Rossi's architecture evidenced the awareness of the disillusionment of Italian architects during the reforms of the 1970s. The project for Modena's Cemetery of San Cataldo (pages 110–115) turned its back on the noise of the world. For Tafuri, "The thread of Ariadne with which Rossi weaves his typological research does not lead to the reestablishment of the discipline, but rather to its dissolution."³⁶

Rossi presented the concept of the analogous city at the Venice Biennale in 1976, announcing the theory



"that it could be understood as a compositional procedure 'centered on some primary facts of urban reality around which other facts are constituted within the frame of an analogical system.'" Whereupon Tafuri titled his review: "Ceci n'est pas une ville," a play on the famous title of René Magritte's *calligramme*: "Ceci n'est pas une pipe."³⁷ For Tafuri, Rossi's "collage" was completely within the negative tradition of the modernist avant-garde: his message "is at once the manifestation of a negation and an interweaving of subjective impulsions and reality."³⁸ It confesses the definitive impossibility of giving a new order, of attributing a new meaning to the city and, therein, unmasks the purely ideological character of Rossi's pretense of constructing a "theory of the city" capable of governing

its transformations. In Tafuri's "L'Architecture dans le boudoir," published *Oppositions* in 1974, we can read: "He who wishes to make architecture speak is thus forced to resort to materials devoid of all meaning; he is forced to reduce to degree zero every ideology, every dream of social function, every utopian residue. In his hands, the elements of the modern architectural tradition are all at once reduced to enigmatic fragments—to mute signals of a language whose code has been lost."³⁹ At this point, the path of contemporary architecture broke off, irreparably, from Tafuri's historical project.

Tafuri's "total disenchantment" was testimony of his awareness that there was nothing more to be found in the "hypnotic solitude" of the architecture he loved to call "hypermodern." In 1969, he had written: "There is no more salvation to be found within modern architecture: neither by wandering restlessly through labyrinths of images so polyvalent that they remain mute, nor by shutting oneself up in the sullen silence of geometries content with their own perfection."⁴⁰

This dilemma still seems to raise the passions of whoever takes the time to interpret Tafuri: the reasons for his abandonment of the passionate confrontation with contemporaneity and his apparent retreat into the more conventional territories of philology and the Renaissance. For Tafuri, the autonomy of the historiographic project had its foundation in a condition of conflict between the process of analysis and its objects. The historical project was always one of crisis, nourished by "notions as hard as stone."⁴¹ One of these was the long unitary and progressive myth of modernity. What remained, in his eyes, were only fragments. By now, Tafuri had moved on and was busily engaged in studying the Italian Renaissance, an epoch of history where wisdom and power still truly blended and where the forms of architecture did not seem to be separable from those of thought.

Thus the crisis of autonomous architecture of the late 1970s is attributable not only to the growing awareness of the relativity of architecture as just one of numerous subjects and means of contemporary communication, but to the parallel acceptance of a *mise en abîme* within the various, now fragmented, critical practices.

Figure 4. Aldo Rossi. Constructing the City. Project, 1978. Oil and chalk on canvas, 51 1/8 x 35 1/8" (130 x 90 cm). The Museum of Modern Art, New York. Gift of the Architecture and Design Committee in honor of Marshall Cogan

Notes

1. Aldo Rossi, *L'Architettura della città* (Padua: Marsilio Editori, 1966); revised edition, in English: *The Architecture of the City*, Oppositions Books (Cambridge, Mass., and London: MIT Press, 1982).
2. Robert Venturi, *Complexity and Contradiction in Architecture* (New York: The Museum of Modern Art, 1966); second edition, 1977.
3. *Ibid.*, second edition: 14.
4. Rossi, *Architecture of the City*, revised edition, in English: 21–22 (pages cited hereafter refer to this edition).
5. *Ibid.*: 22.
6. *Ibid.*: 32.
7. *Ibid.*: 33.
8. *Ibid.*
9. *Ibid.*: 35.
10. *Ibid.*: 40.
11. *Ibid.*: 41.
12. *Ibid.*
13. *Ibid.*: 59.
14. Saverio Muratori, *Studi per una operante storia urbana di Venezia* (Rome: Istituto Poligrafico dello Stato, 1963). See also: Giorgio Pigafetta, *Saverio Muratori Architetto* (Venice: Marsilio Editori, 1990).
15. Carlo Aymonino, *Origini e sviluppo della città moderna* (Padua: Marsilio Editori, 1965): 54.
16. The projects were exhibited in the spring of 1980; a catalogue of the exhibition was published under the title *10 Immagini per Venezia* (Rome: Officina, 1980).
17. László Moholy Nagy, *Vision in Motion* (Chicago: Hillison and Etten, 1947): 68.
18. Giorgio Grassi, *La Costruzione logica della città* (Padua: Marsilio Editori, 1967).
19. Ludovico Quaroni, *La Torre di Babele* (Padua: Marsilio Editori, 1967).
20. Diana Agrest, "Design versus Non-Design," *Oppositions* 6, (Fall 1976); reprinted in K. Michael Hays, ed., *Oppositions/Reader* (New York: Princeton Architectural Press, 1998): 333.
21. On this topic, see my "Architectura artificialis," in *O. M. Ungers 1991–1998* (Milan: Electa, 1998): 9–18.
22. Elia Zenghelis, "Interview," in Luka Skansi, "Rem Koolhaas: Scritti, architettura 1963–1978," Ph.D. diss., IUAV, Venice, 2002: 265–277.
23. Marino Folin, *La Città del capitale* (Bari: De Donato Editore, 1972): 20–21.
24. Guido Canella, quoted in Gruppo Architettura, "Introduction," in *Per una ricerca di progettazione 1* (Venice: IUAV, 1969): 7.
25. Aldo Rossi, *Autobiografia scientifica* (Parma: Pratiche Editrice, 1990): 22; orig. ed., *A Scientific Autobiography* (New York, 1981).
26. Manfredo Tafuri, "Per una critica della ideologia architettonica," *Contropiano* 1 (January–April 1969); English trans. in K. Michael Hays, ed., *Architecture: Theory since 1968* (New York: Columbia Books on Architecture, 1998): 9. See also Manfredo Tafuri, *Progetto e utopia* (Rome and Bari: Laterza, 1973).
27. Tafuri, "Per una critica della ideologia architettonica."
28. *Ibid.*: 15.
29. Manfredo Tafuri, *Teorie e storia dell'architettura* (Rome/Bari: Laterza, 1968): 165.
30. Massimo Scolari, "Avanguardia e nuova architettura," in *Architettura razionale* (Milan: Franco Angeli, 1973); English trans. in Hays, *Architecture: Theory*: 128.
31. *Ibid.*: 131–132.
32. Rossi, *Architecture of the City*.
33. Scolari, "Avanguardia."
34. Tafuri, "Per una critica della ideologia architettonica."
35. Scolari, "Avanguardia."
36. Tafuri, "Per una critica della ideologia architettonica": 133.
37. Manfredo Tafuri, *Storia dell'architettura italiana 1944–1985* (Turin: Einaudi, 1986): 166.
38. *Ibid.*
39. Manfredo Tafuri, "L'Architecture dans le boudoir," *Oppositions* 3 (1974); reprinted in Hays, *Architecture: Theory since 1968*: 155.
40. Tafuri, "Per una critica della ideologia architettonica."
41. K. Michael Hays, "Tafuri's Ghost," in *ANY* 25/26 (2000): 36.

POSTMODERN ROOTS

OSWALD MATHIAS UNGERS

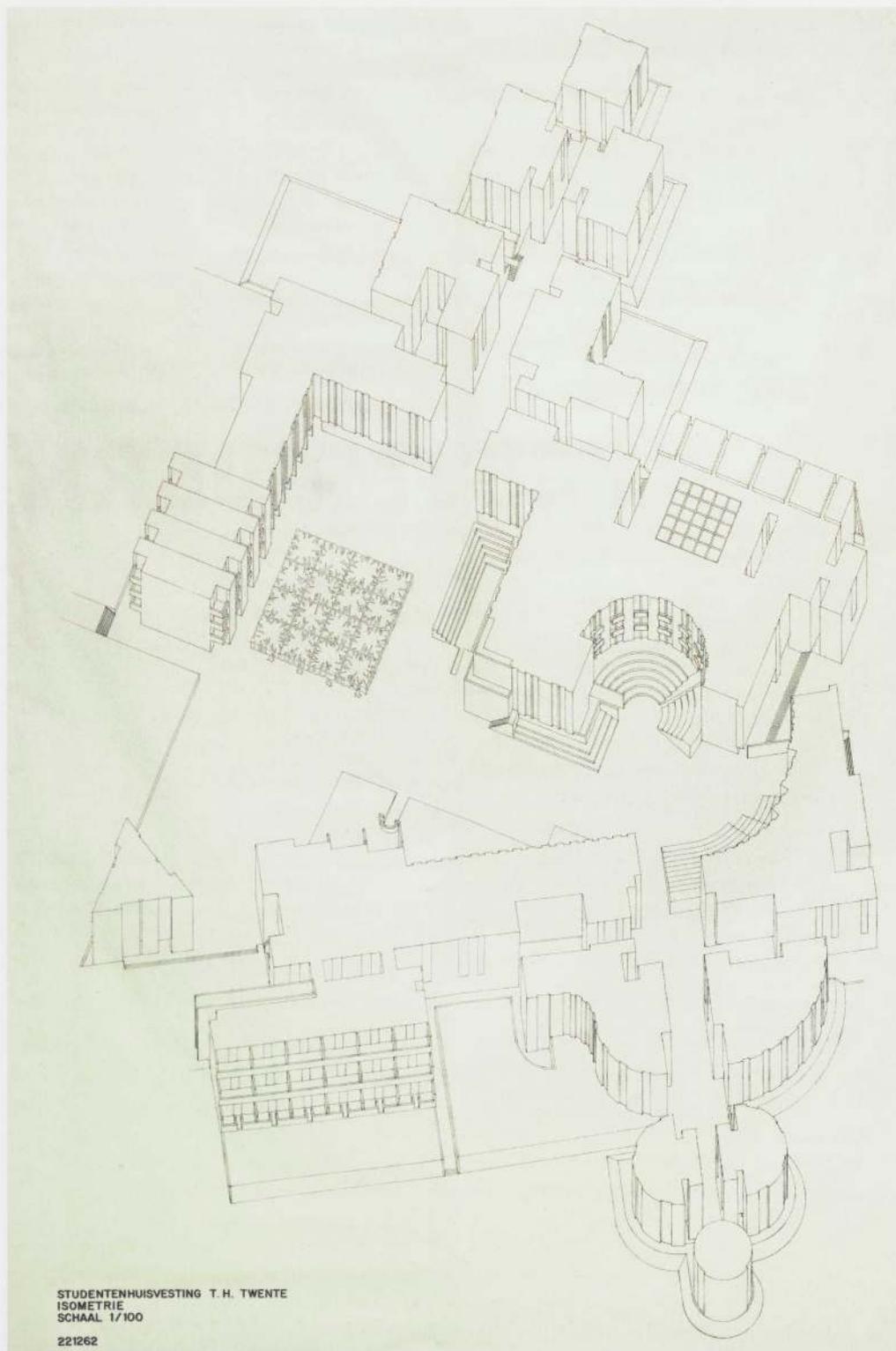
German, born 1926

with J. Geist and Jürgen Savade

Oswald Mathias Ungers's unrealized proposal for student housing was done for a competition sponsored by the Twente University of Technology, the Netherlands. The monumental Enschede dormitory at first appears to be designed in a traditional Beaux-Arts plan, incorporating classical circular and rectangular courtyards, on axis; but in fact the lower portion has been sliced open, shifted, and rotated. Such a permutation undermines the integrity of the perimeter, and fragments what appears to have been once a stable form. The viewer's sense of instability increases as the perspective in the drawing shifts at the point where the building complex pivots. During the time he conceived this project, Ungers was highly influenced by the Russian Constructivists' monumental and dynamic forms and by Giambattista Piranesi's sublime fragmented images.

100

Student Housing, Enschede, the Netherlands. Project, 1964. Aerial perspective; ink on tracing paper, 87 x 57 1/2" (213.4 x 141 cm)



ARATA ISOZAKI

Japanese, born 1931



101

Haunted by the remaining destruction of Hiroshima twenty-two years after the atomic bomb was exploded there, Arata Isozaki has projected images of his megastructures onto a photomural of the razed city. In this image his constructions are also in ruins. It is as if he had rebuilt

Hiroshima and it had once again undergone destruction. Ruins provide an important metaphor for Isozaki: "They are dead architecture. Their total image has been lost. The remaining fragments require the operation of the imagination if they are to be restored."

Re-Ruined Hiroshima, Hiroshima, Japan. Project, 1968. Perspective: ink and gouache with cut-and-pasted gelatin silver print on gelatin silver print, 13⁷/₈ x 36⁷/₈" (35.2 x 93.7 cm)

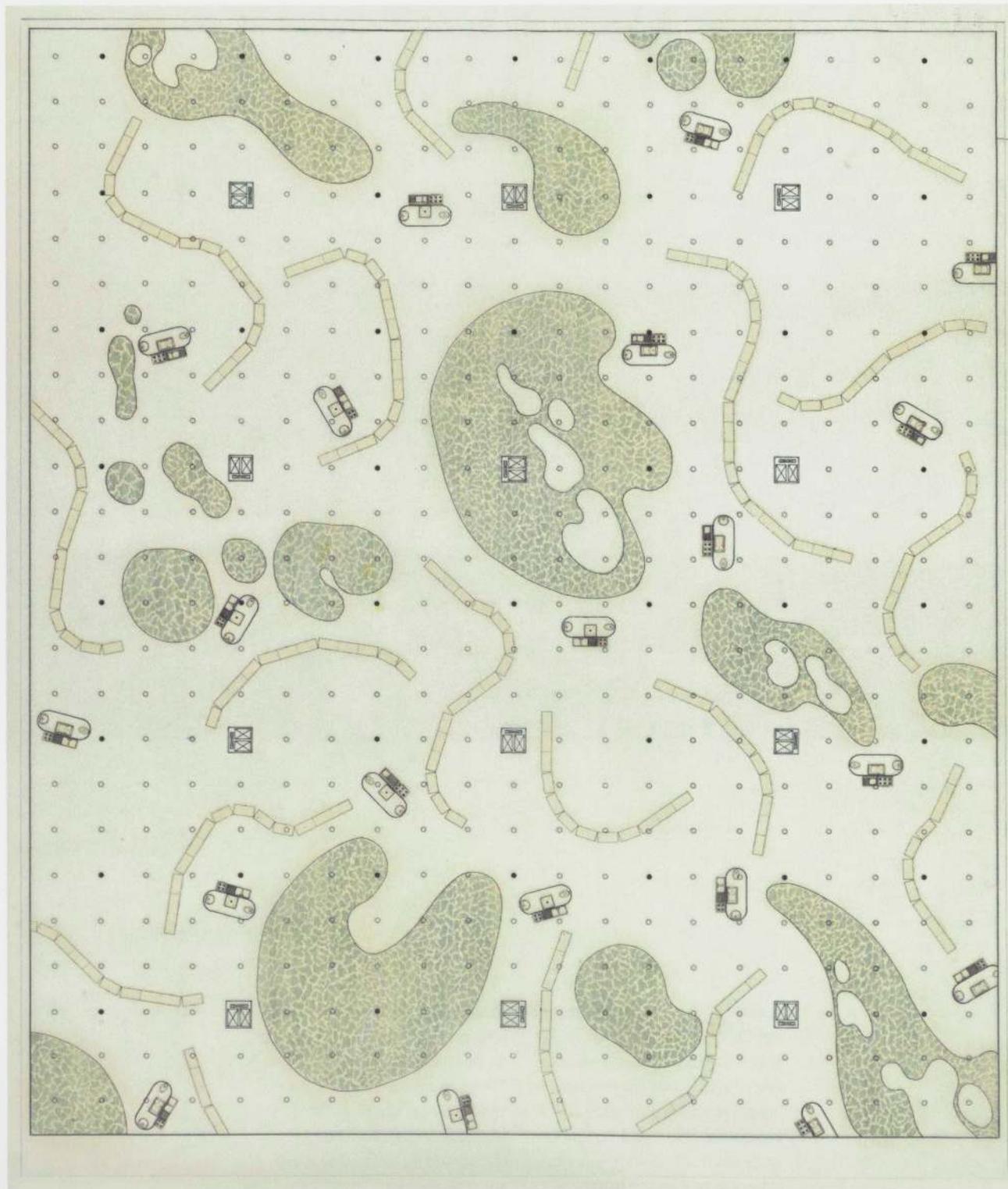
ANDREA BRANZI (Archizoom)

Italian, born 1938

Andrea Branzi, a founding member of Archizoom, the Italian avant-garde architectural group begun in 1966, was inspired by the urban utopias of the British group Archigram. His Residential Park, No-Stop City, like other works of Archizoom, is a reaction against modernist architecture that explores the imaginative at the expense of the practical. In this drawing, which presents an idea rather than an actual plan, technology eliminates the need for a centralized city. Biomorphous forms, placed haphazardly over an infinitely extendable grid represent acclimatized microenvironments, for example, green amoeba-like forms are parks, and the serpentine strings are housing units.

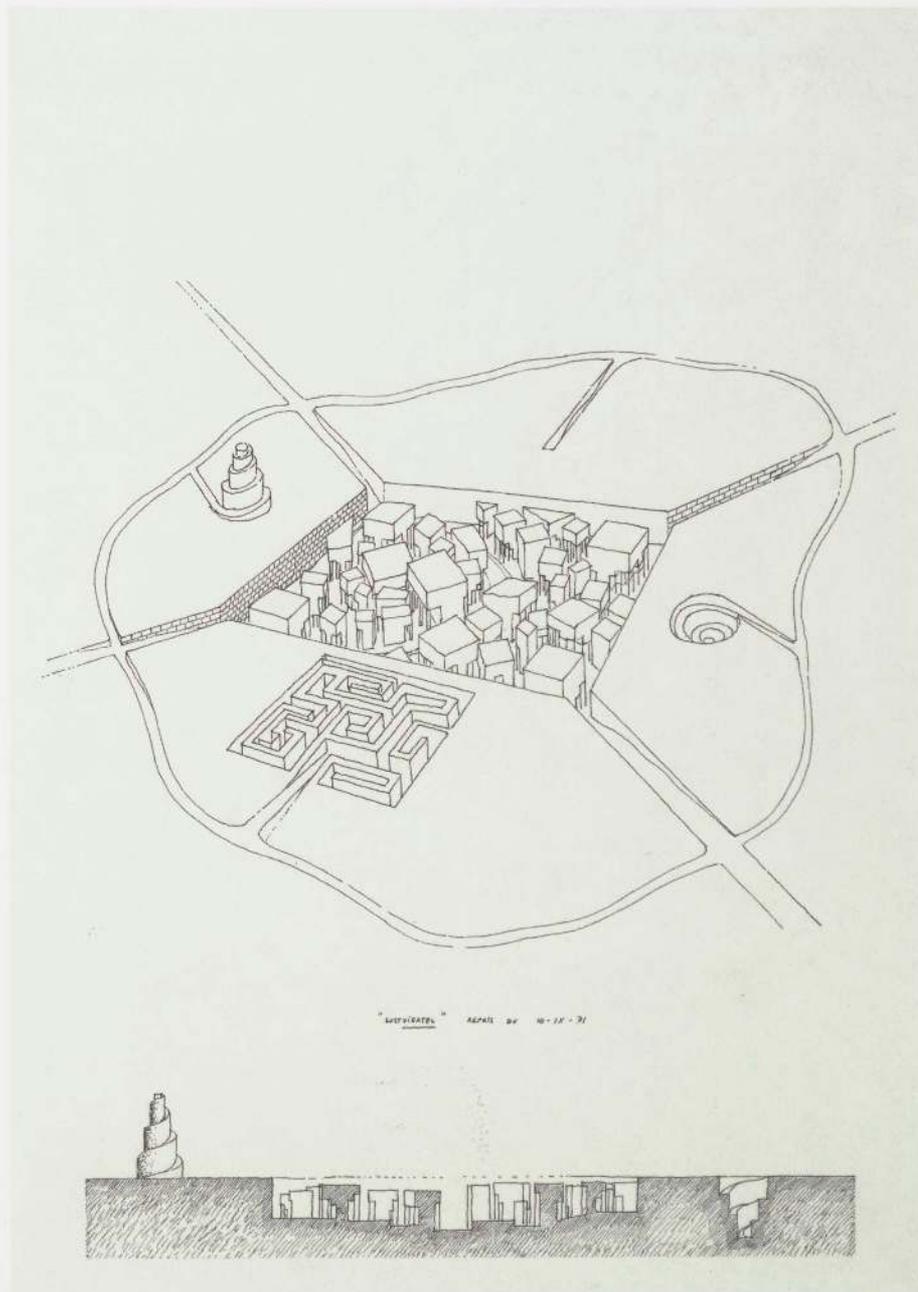
102

Residential Park, No-Stop City. Project, 1969. Plan: ink, cut self-adhesive polymer sheet, and pressure transferred printed film on tracing paper, taped to paper, 39 1/4 x 27 3/8" (99.7 x 69.5 cm)



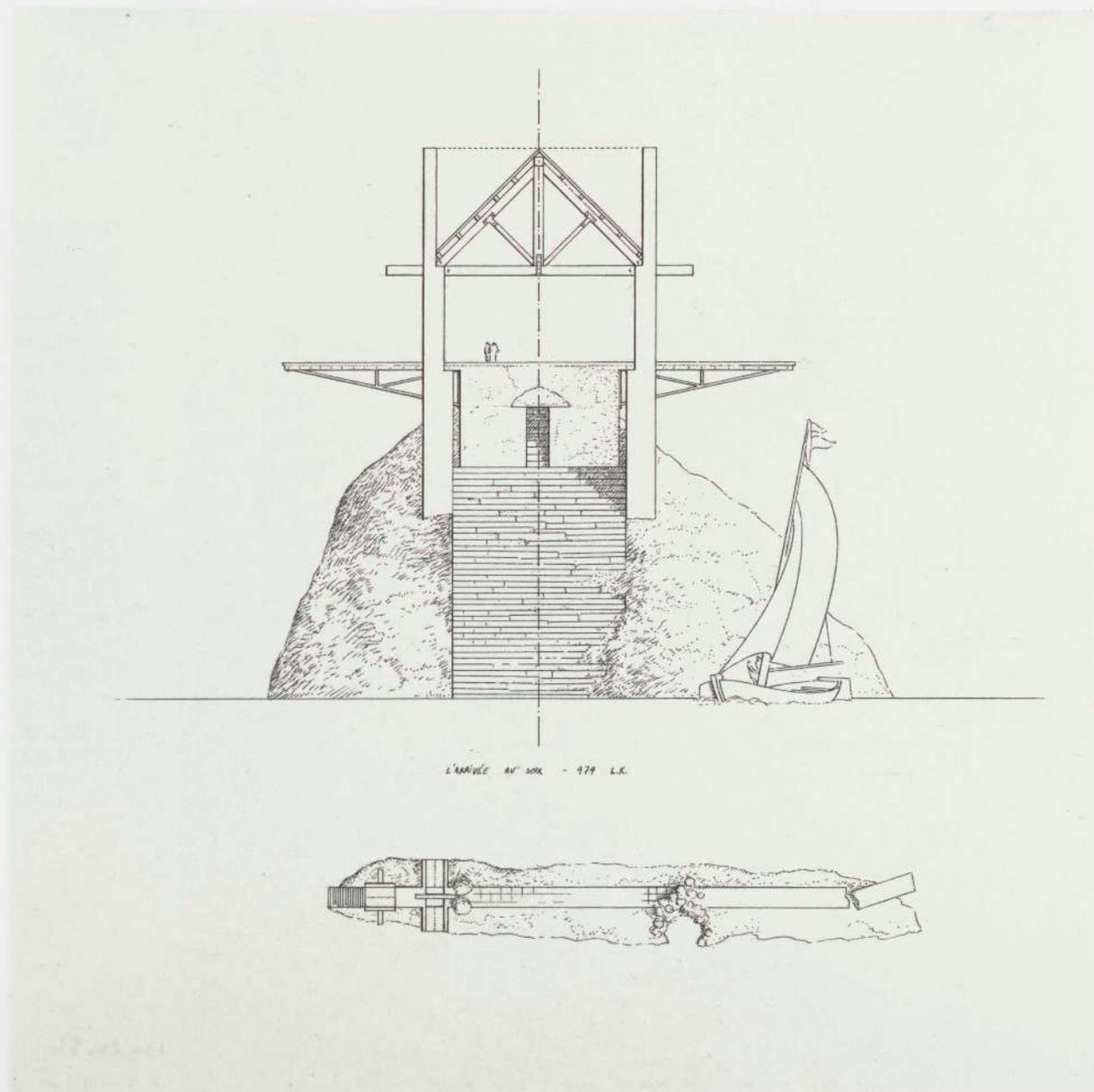
LÉON KRIER

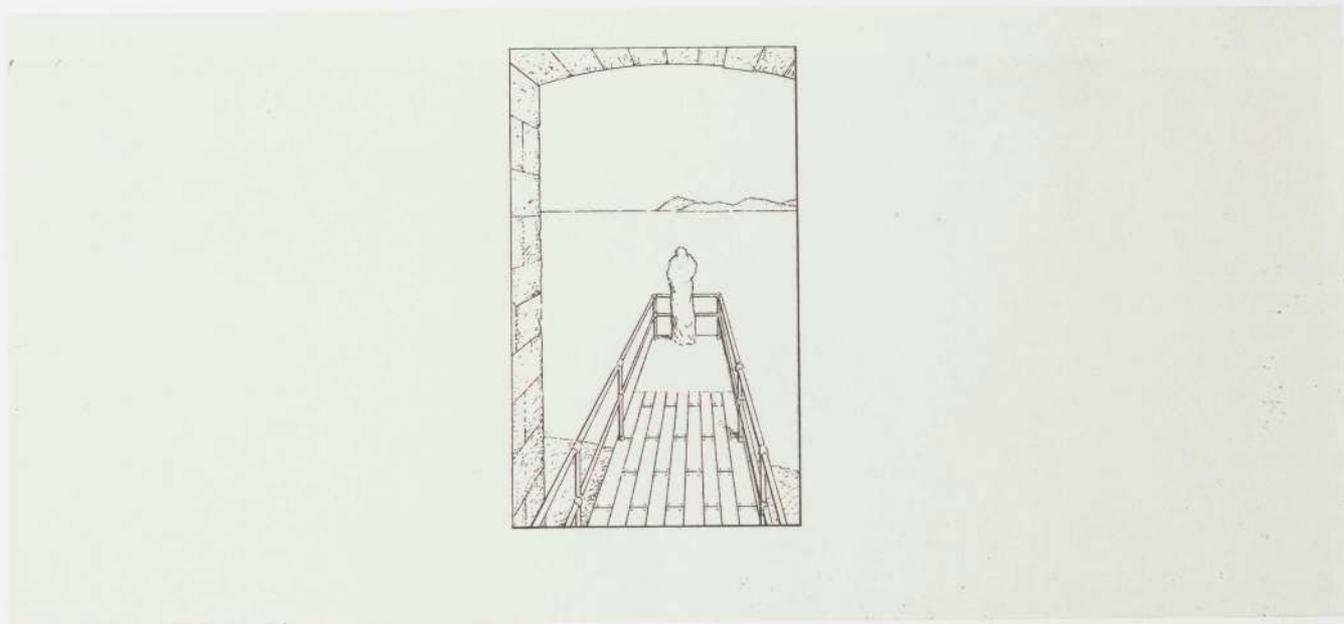
Luxembourg, born 1946



Between 1967 and 1974, Léon Krier both pursued urban projects and produced numerous drawings of architectural follies. The latter were triggered by vernacular architecture or structural engineering and generally situated in remote locations such as mountain sites, deserts, and Mediterranean islands. These visionary projects, inspired by real circumstance and dream states, were conceived for specific individuals, such as friends or people whom Krier admired from a distance. In these small, highly personal projects he sought an escape from the formal and social principals of the modern masters, in particular, those of Le Corbusier, and a rediscovery of the essential methods of construction.

Labyrinth City, Project, 1971. Aerial perspective and section: ink with gouache on paper, 11 $\frac{3}{4}$ x 8 $\frac{1}{4}$ " (29.5 x 21 cm)





House for Rita. Project, 1969-74.
Perspective (1974); ink on paper with
gouache, 3 3/4 x 8 1/4" (9.5 x 21 cm)

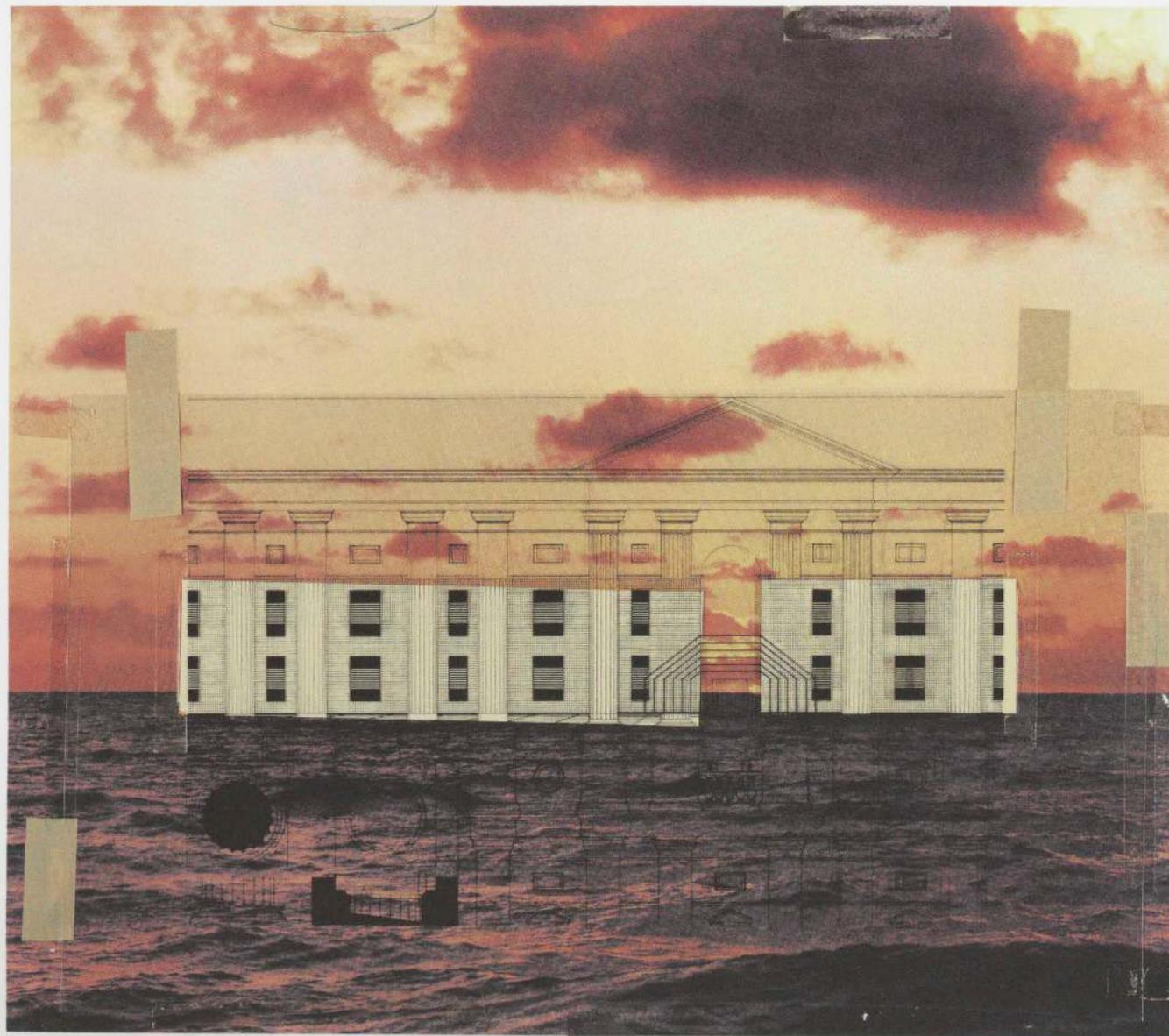
House for Rita. Project, 1969-74.
Elevation (1974); ink on paper, 4 x 11 1/2"
(10.2 x 29.5 cm)

ALESSANDRO MENDINI

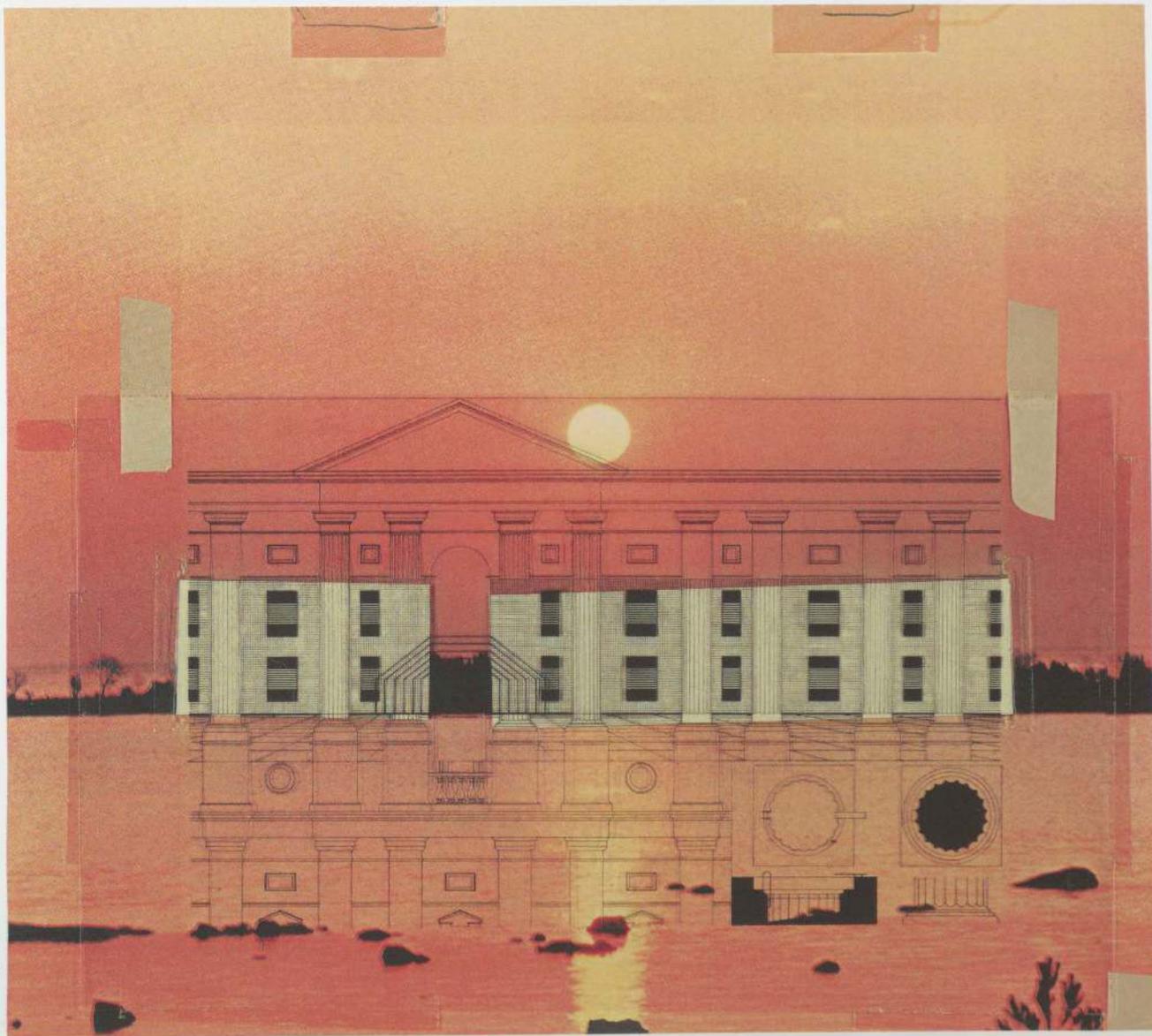
Italian, born 1931

Alessandro Mendini's design for the facade of this house appeared on the cover of the Italian design magazine *Casabella*, during the international debate sparked by radical architecture in the early 1970s. Mendini's drawings embody two of the opposing views prevalent within the debate: they reveal an architecture of unmediated structures not intellectualized by means of drawing and an architecture that is abstract, conceptual, and full of linguistic references. In these two drawings, which show the front and the back of the house in muted light, Mendini has projected onto the flat facade an image of the elevation of a Greek temple, the lower section and columnar spacing of which determine the proportions and fenestration. Mendini believed that architecture, if connected to the image of ancient construction, could gain in energy and feeling.

106



Housing. Project, 1971. Elevation: printed polymer sheet with tape on lithograph, 19 $\frac{7}{8}$ x 22 $\frac{1}{4}$ " (50.5 x 56.5 cm)



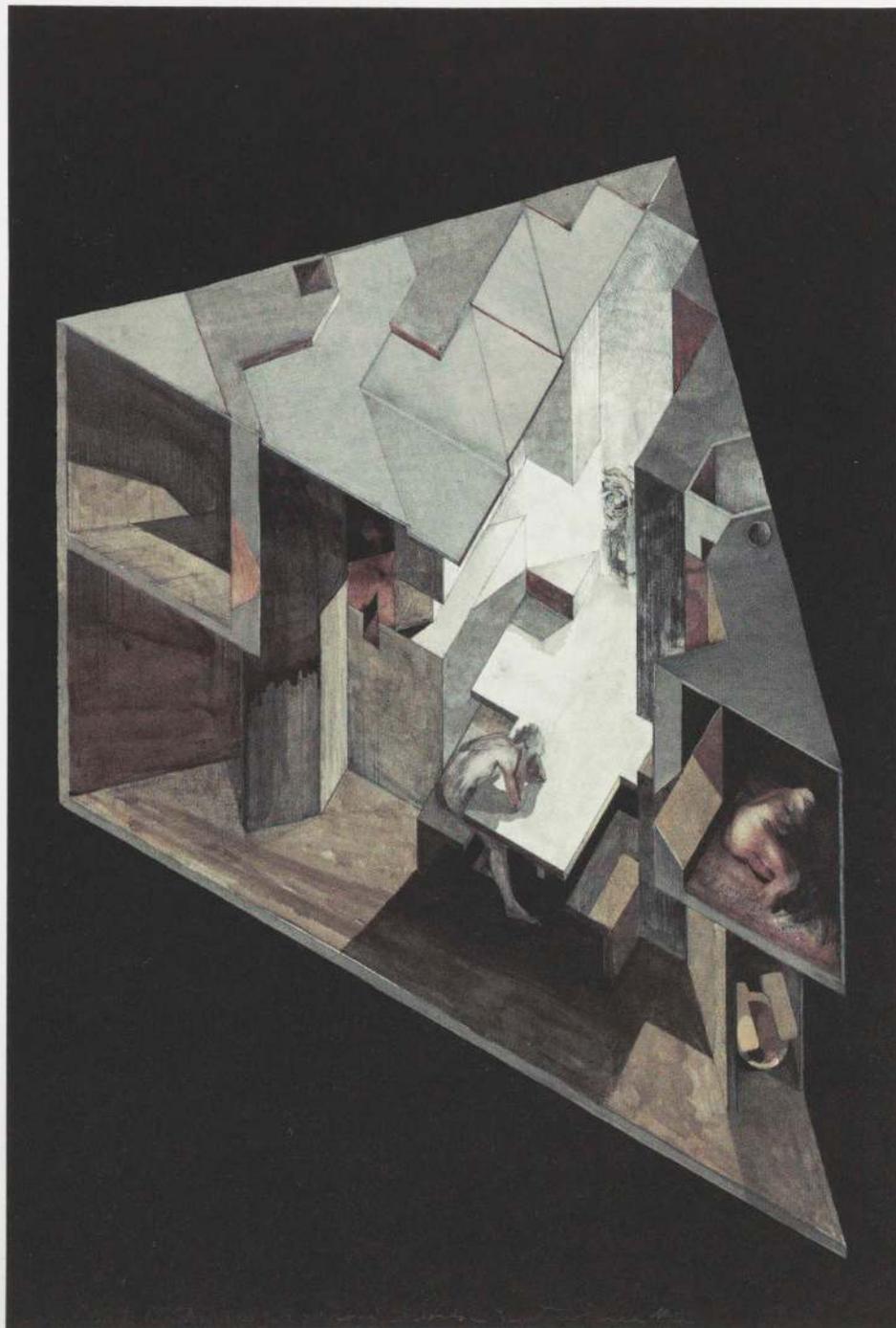
GAETANO PESCE

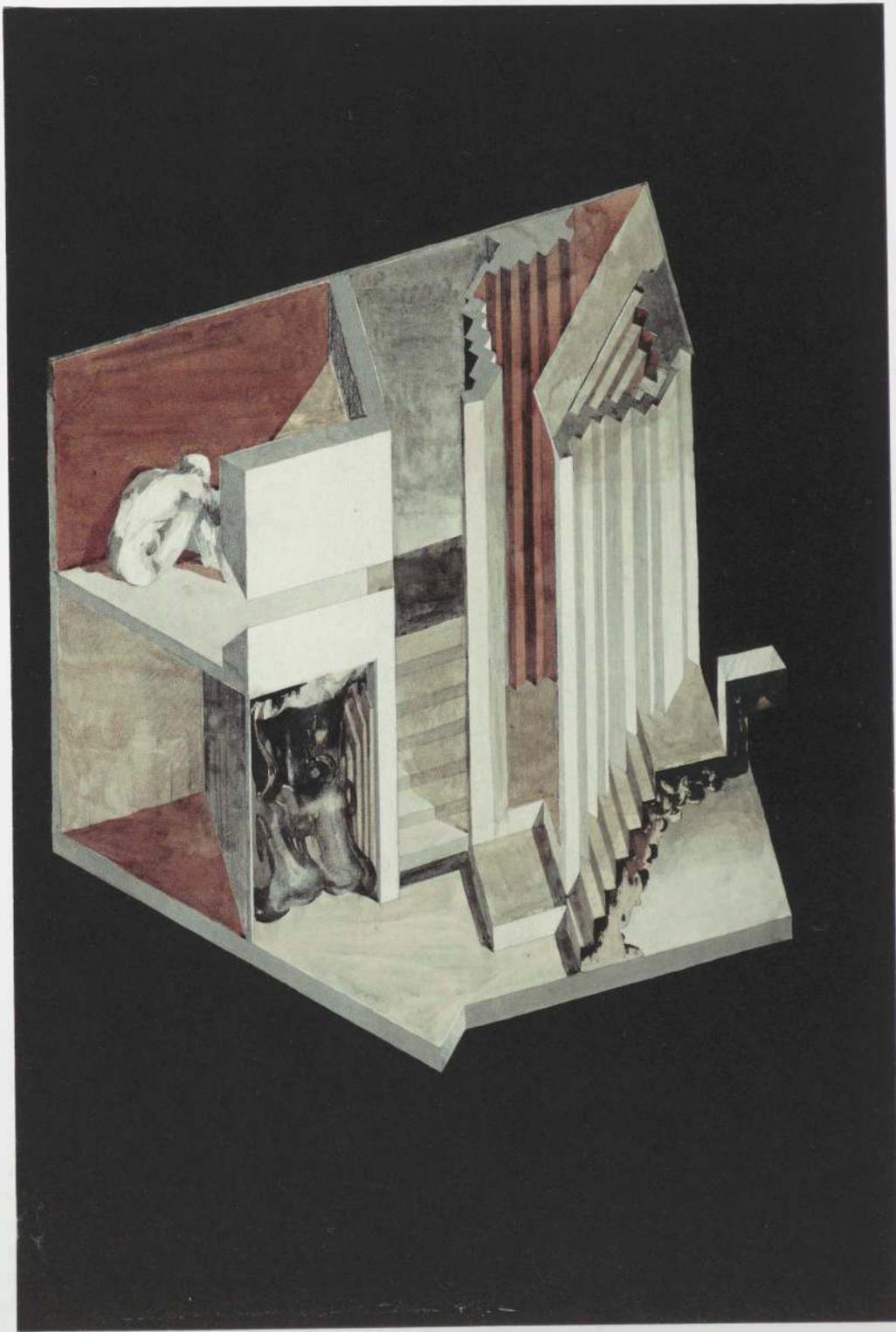
Italian, born 1939

Gaetano Pesce's drawings of *The Period of Great Contaminations: Housing Unit for Two People* are two of a number of works designed for his installation in The Museum of Modern Art's 1972 exhibition *Italy: The New Domestic Landscape*. Pesce's work presented a third-millennium archeologist's discovery of an underground southern alpine city from a hundred years earlier. The drawings illustrate an age in which people have settled in various underground pockets, drained of mineral oils and water, and sealed off from the outside world by large stones. These "archeological remains" are meant to reflect on essential conditions for living, such as, "the exploitation of the interior of the planet," "the importance of space," "the necessity of isolation," and "noncommunication as characteristic of human life."

108

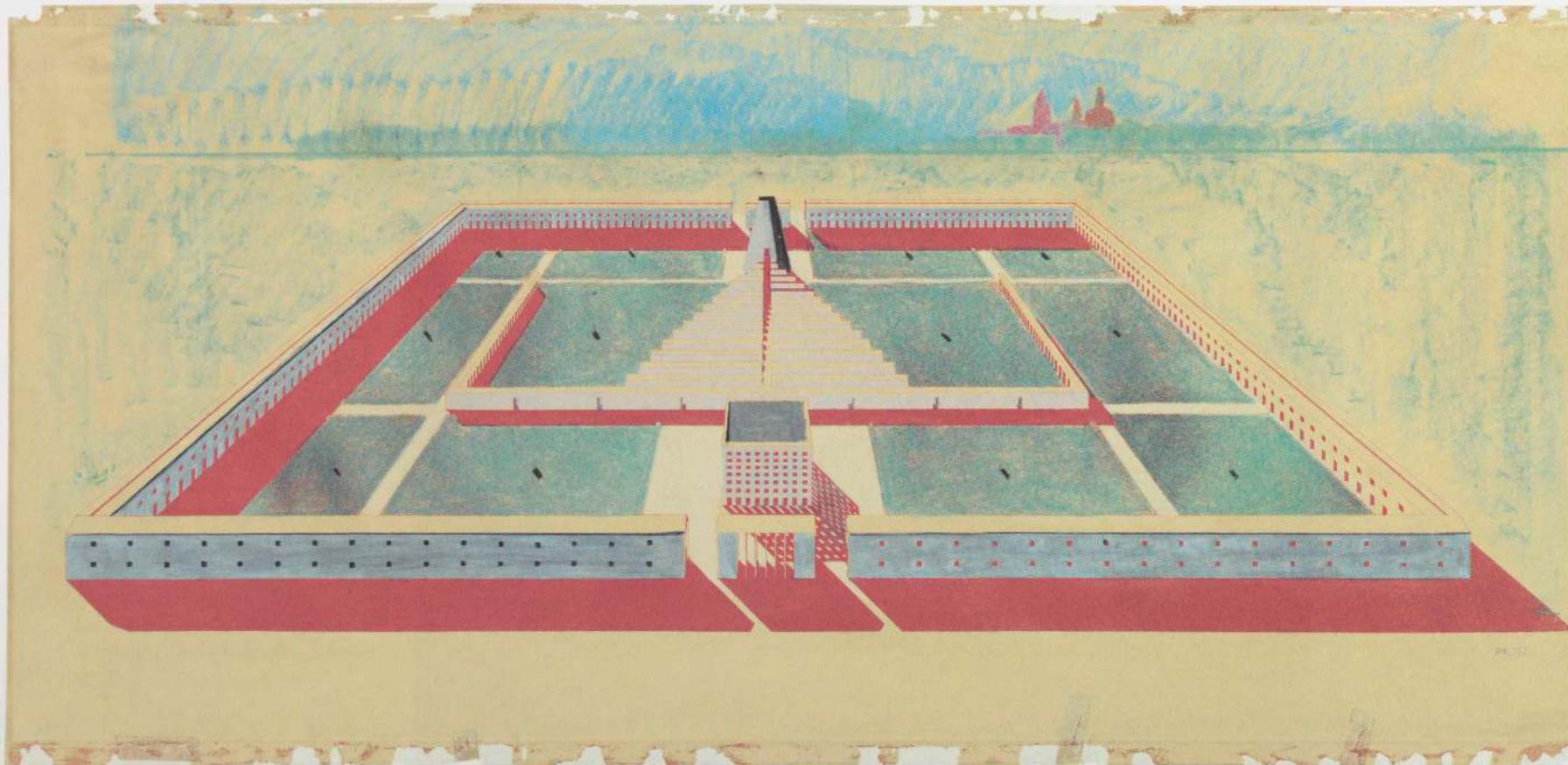
The Period of Great Contaminations: Housing Unit for Two People. Project, 1971–72. Axonometric section (1971): gouache, watercolor, and graphite with scoring on paper, 39 1/4 x 26 1/4" (99.7 x 67.9 cm)





ALDO ROSSI

Italian, 1931–1997
and Gianni Braghieri
Italian, born 1945



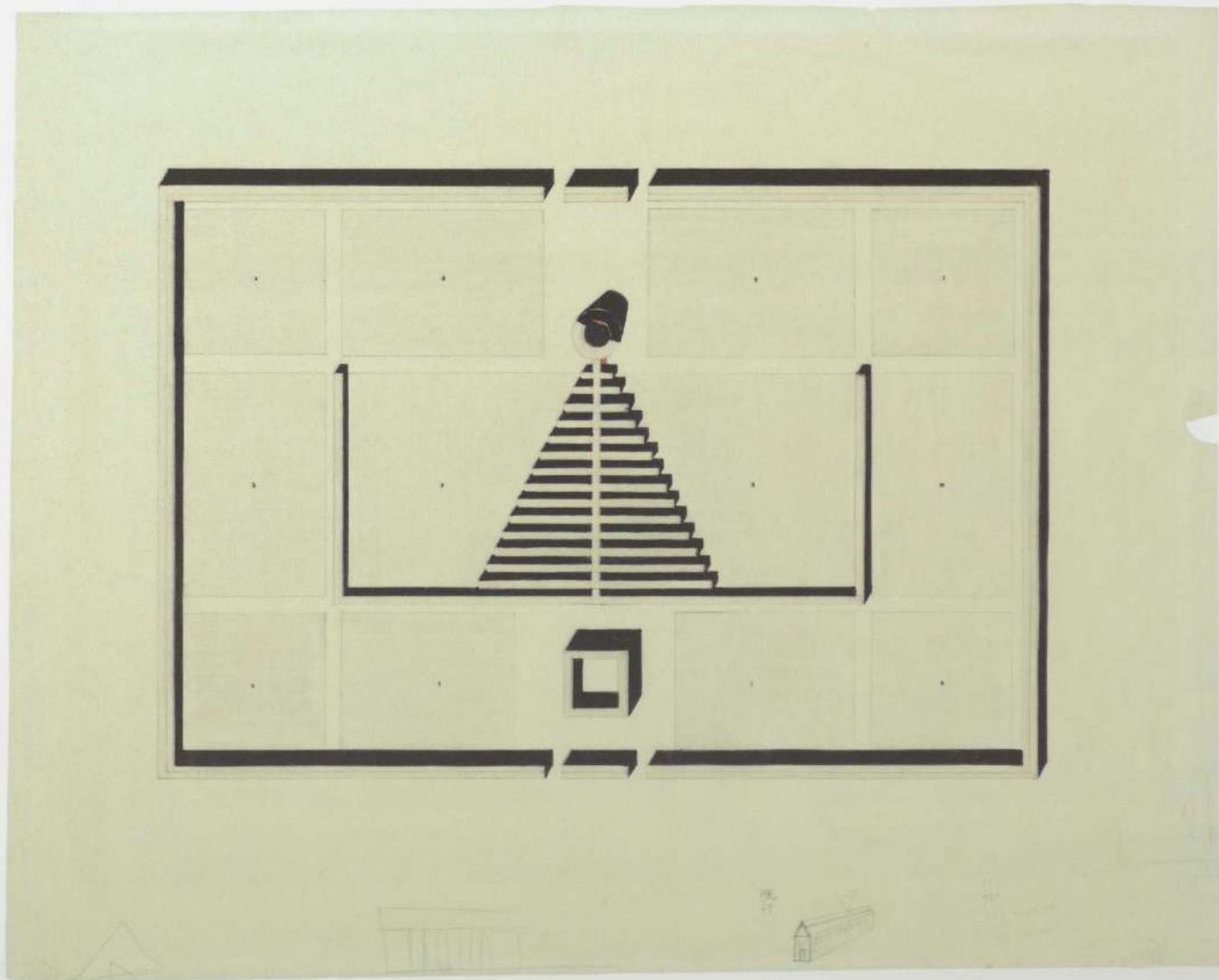
110

Cemetery of San Cataldo, Modena, Italy. 1971–84. Aerial perspective (1971): crayon and graphite on sepia diazotype, 24 x 49 3/4" (61 x 126.4 cm)

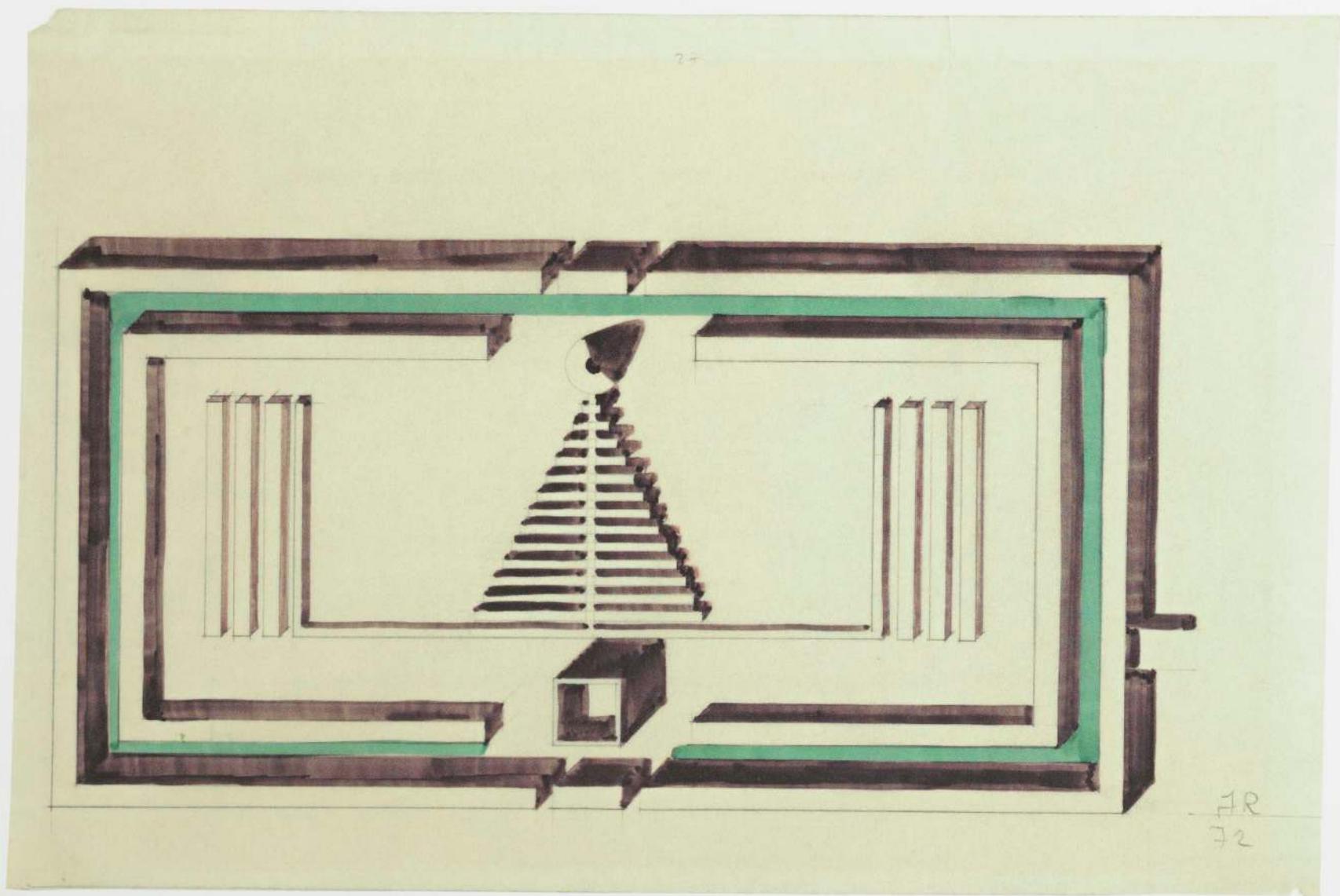
Aldo Rossi designed the Cemetery of San Cataldo for a 1971 competition that called for an extension to the adjacent nineteenth-century Costa Cemetery. Rossi's design of this important project is rooted in an Enlightenment typology of the cemetery as a walled structure set on the outskirts of a town. While based on a large communal structure, the form

of the cemetery recalls the basic elements of a house. It is, however, a "house for the dead," where roofless walls and rooms, and open doors and windows, have been designed for those who no longer need the protection of a shelter. In the aerial perspective drawing, Rossi employed conventions of perspective developed in the fifteenth century and used an

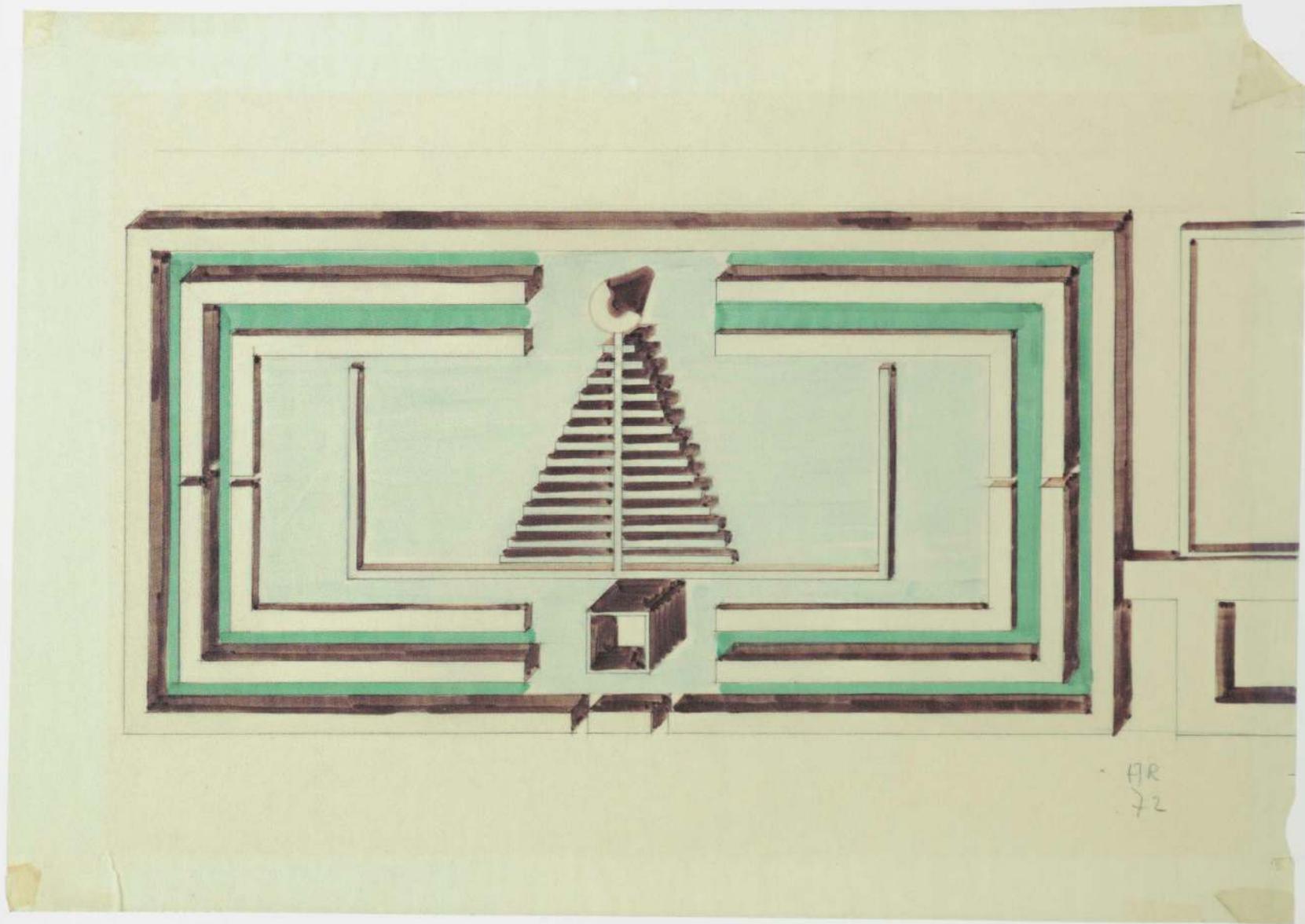
aerial view to give a sense of the cemetery in both plan and elevation. These strategies, combined with his use of elemental forms and color, construct a visual passage through the drawing that corresponds to a journey through the cemetery itself, presenting a road toward abandonment in which time seems to stand still.



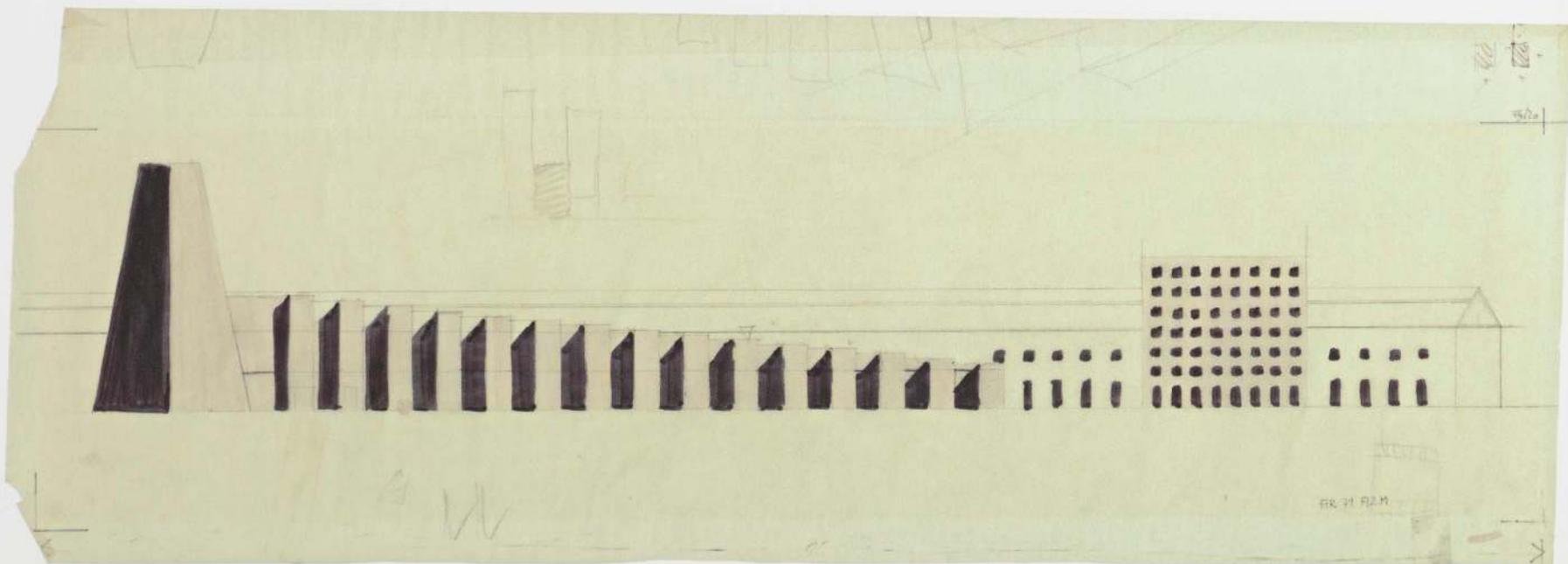
Cemetery of San Cataldo, Modena, Italy.
1971-84. Plan (1971): ink, color ink, and
graphite on tracing paper, 23 1/2 x 29 1/4"
(59.7 x 75.6 cm)



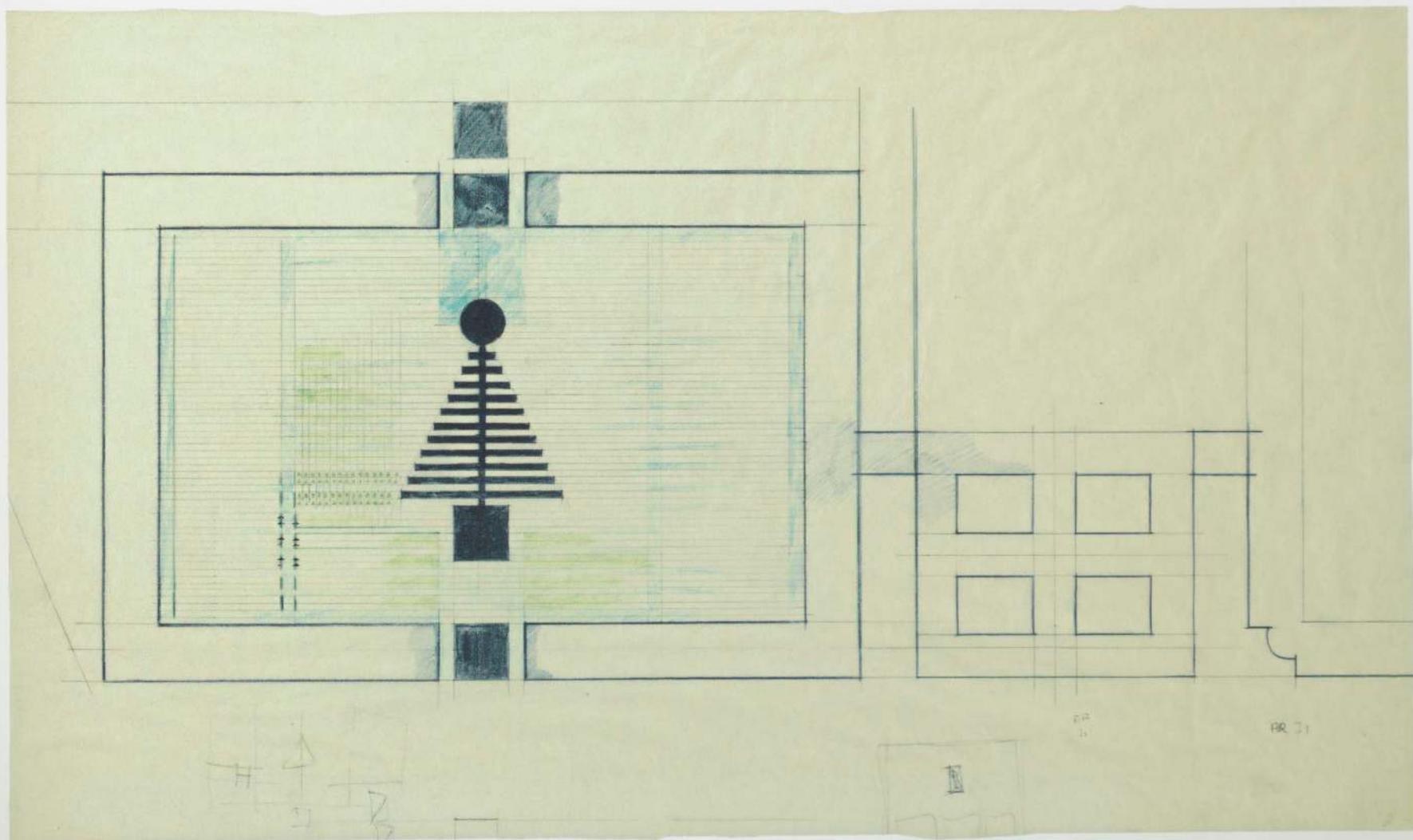
Cemetery of San Cataldo, Modena, Italy.
1971-84. Plan study (1972): color ink
and graphite on tracing paper, 10 x 14 1/4"
(25.4 x 37.5 cm)



Cemetery of San Cataldo, Modena, Italy.
1971-84. Plan study (1972); color ink
and graphite on tracing paper, 11 x 15 3/4"
(27.9 x 40 cm)



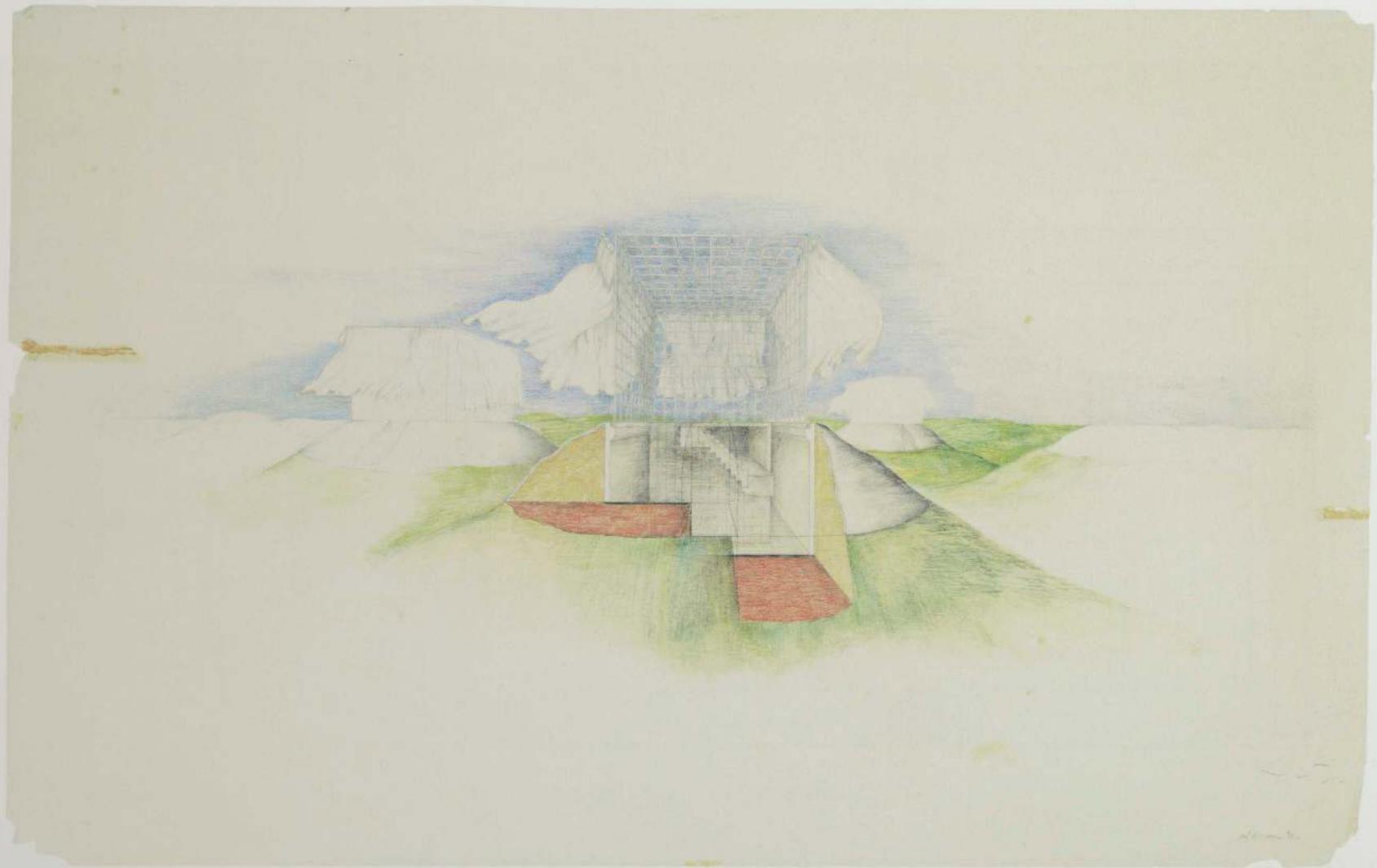
Cemetery of San Cataldo, Modena, Italy.
1971-84. Elevation study (1971): ink and
graphite on tracing paper, 11 x 30 3/4"
(27.9 x 77.8 cm)



Cemetery of San Cataldo, Modena, Italy.
1971-84. Plan study (1971); graphite,
color pencil, and dry transfer film on
tracing paper, 23 1/2 x 40 1/4" (59.7 x
102.2 cm)

RAIMUND ABRAHAM

American, born Austria, 1933



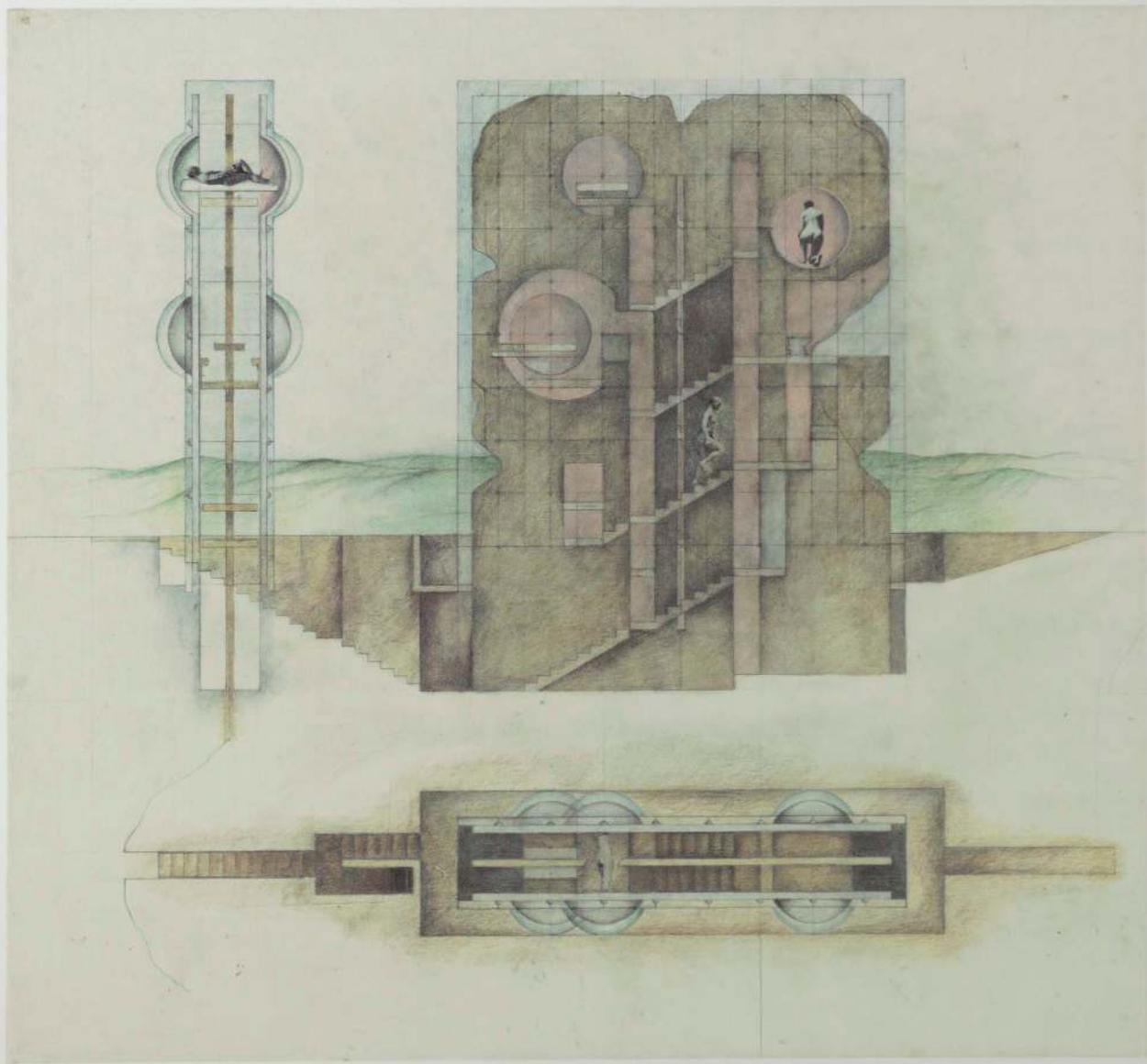
116

The House with Curtains. Project, 1972.
Perspective: crayon and graphite on paper,
36 1/8 x 56 3/4" (92.1 x 144.1 cm)

In the early 1970s Raimund Abraham's renewed interest in the typology of the house resulted in numerous projects exploring the ritual of dwelling. To explore the various psychological conditions intuited in the archetypal house, Abraham used words as well as images. In a poem he titled "Elements of the

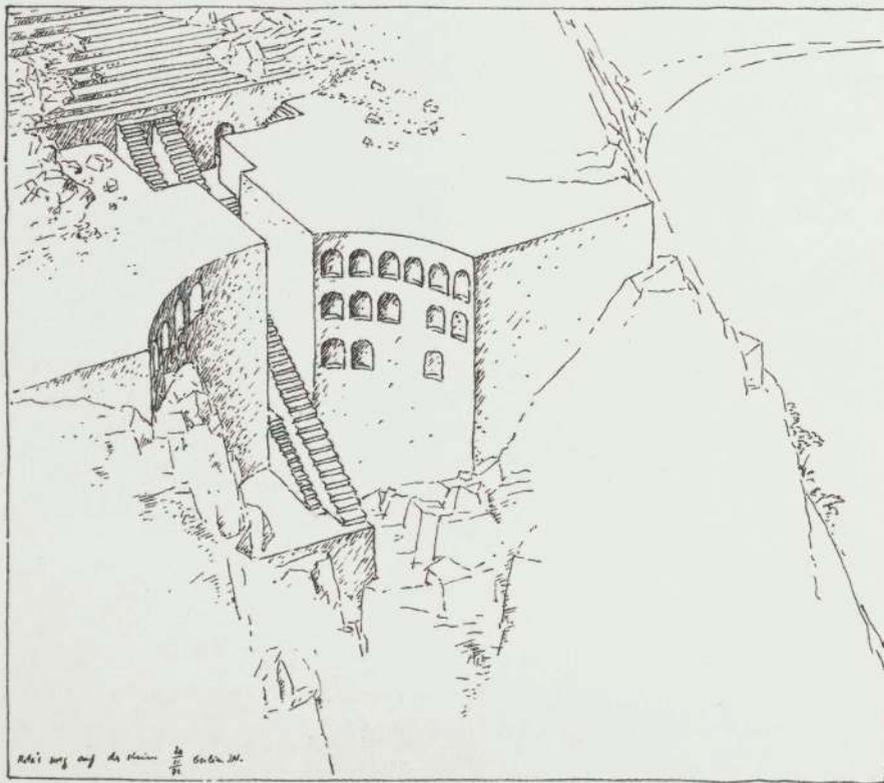
House," he indicated often opposing sensations and feelings, natural elements and cycles, and spatial components to characterize his subject. With regard to the design for *The House with Curtains*, the open grid with blowing curtain walls gives physical form to "the wind," "movement," "transparencies," and

"dreams." In *The House without Rooms*, what looks like the carved interior of a boulder embodies, "density," "paralysis," "isolation," and "wombs." Situated in barren landscapes, either imagined or from memory, both schemes are for houses that straddle the earth and the sky, and evoke life's oppositions.



The House without Rooms. Project, 1974–75. Elevation and plan (1974); color pencil, graphite, and cut-and-pasted printed paper on paper, 34 $\frac{1}{2}$ " x 38 $\frac{1}{8}$ " (87.9 x 96.8 cm)

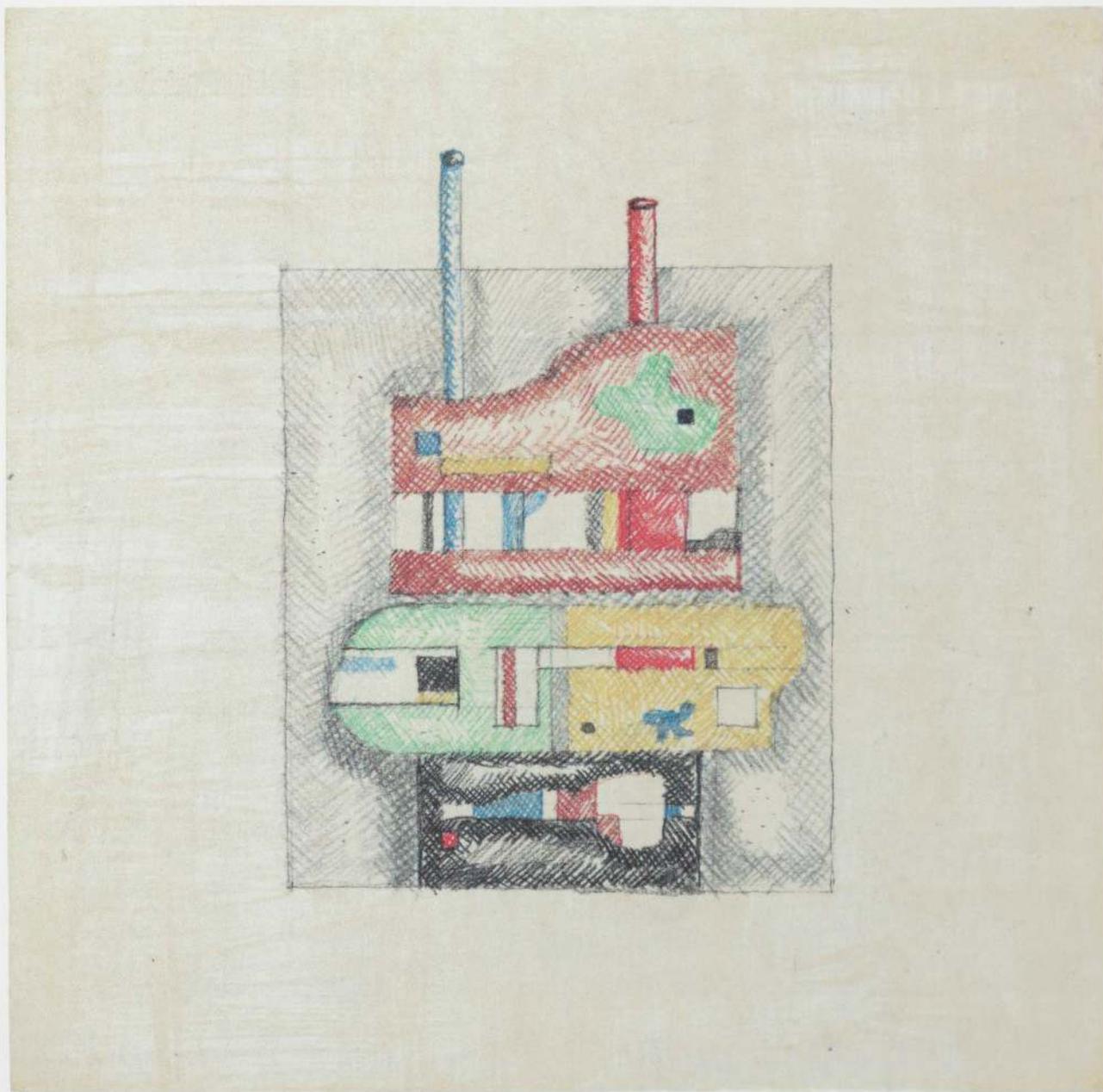
LÉON KRIER
Luxembourg, born 1946



118

House without Rooms. Project, 1972.
Aerial perspective: ink on paper, 11 $\frac{3}{4}$ x
8 $\frac{1}{4}$ " (29.8 x 21 cm)

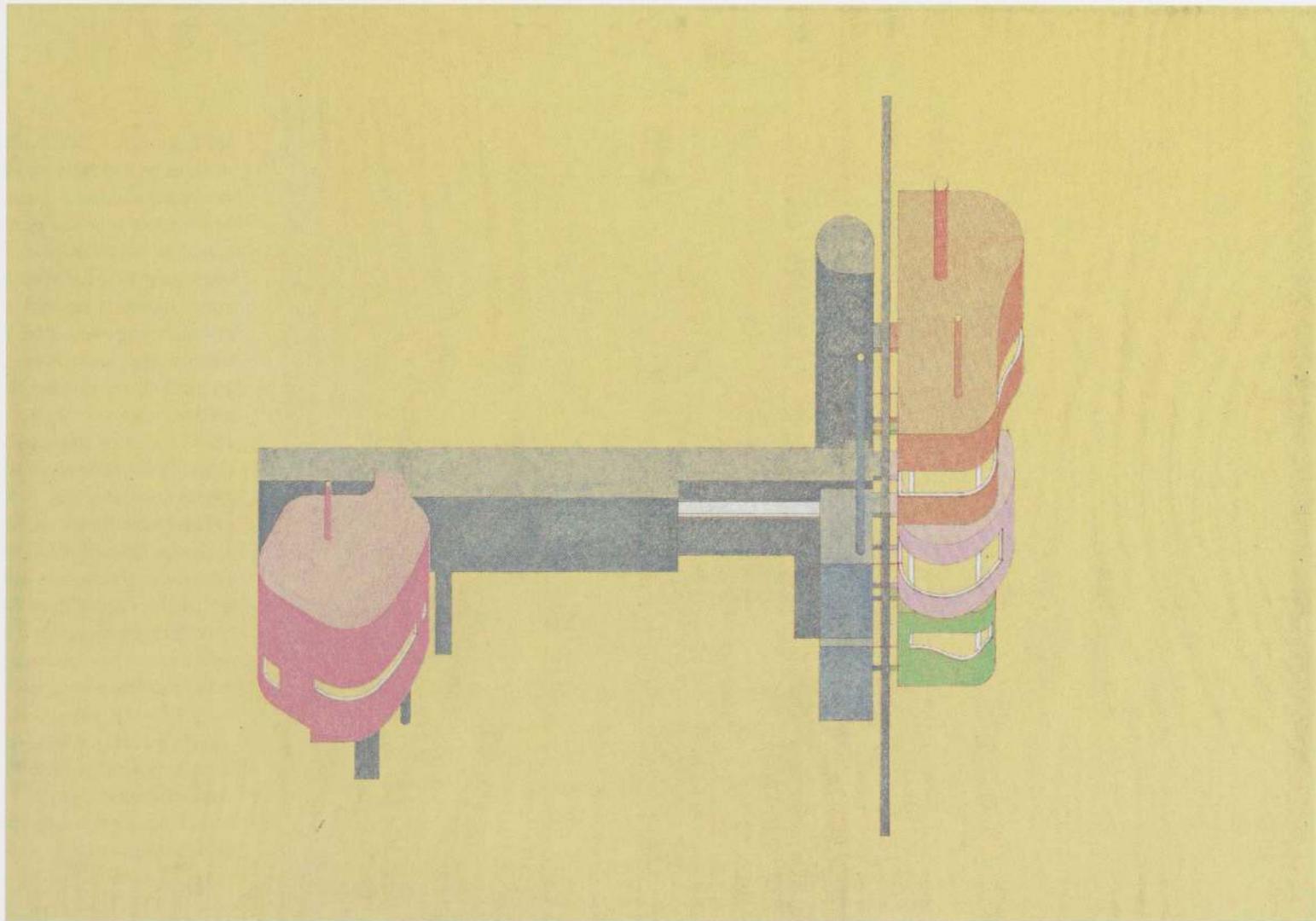
JOHN HEJDUK
American, 1929–2000



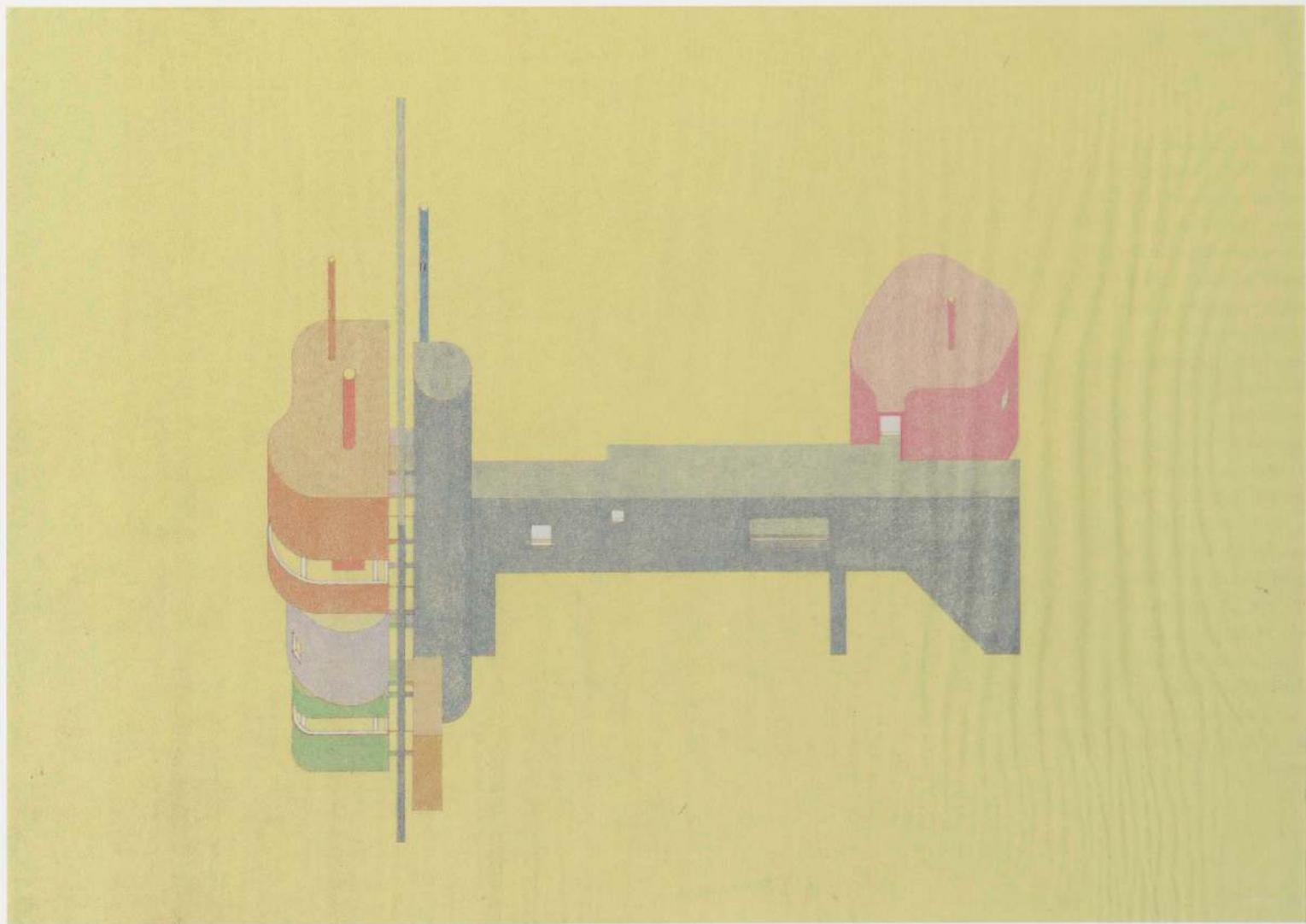
Wall House 2 (A. E. Bye House) is the second in a series of visionary projects that John Hejduk began in the mid-1960s to explore what he deemed the first principles of architecture. As with the first in the series, he used the wall to reinterpret the traditional configuration of the house in his design for the landscape architect Arthur Edward Bye. Each functional component (or room) is isolated from every other one, and all but one (the study) are stacked adjacent to the same wall. Thus, the wall becomes a dividing element, which must be passed through on leaving or entering a room, as well as a unifying element, which binds them. The separate function of each room is reinforced by its color: green reflects the nourishment of dining, yellow the energy of cooking, and gray the realm of reflection. Originally designed in 1973–76 for a site in Connecticut, the Wall House 2 was eventually built in Gröningen, the Netherlands, in 2001.

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Wall House 2 (A. E. Bye House),
Ridgefield, Connecticut. Project,
1973–76. Combined elevation and plan
(1973): color pencil and graphite on
tracing paper on board, 8 x 8 1/8"
(20.3 x 20.6 cm)



Wall House 2 (A. E. Bye House),
Ridgefield, Connecticut. Project,
1973-76. Isometric (1973): crayon on
sepia diazotype, 28 x 40 1/2" (71 x 102 cm)



Wall House 2 (A. E. Bye House),
Ridgefield, Connecticut. Project,
1973-76. Isometric (1973): crayon on
sepia diazotype, 28 x 40 1/8" (71 x 102 cm)

REM KOOLHAAS

Dutch, born 1944
with Zoe Zenghelis
British, born Greece, 1937

The City of the Captive Globe is a rendering of Rem Koolhaas's intuitive approximation of the architecture of Manhattan. This drawing, the architect later wrote in *Delirious New York*, celebrates Manhattan's "culture of congestion," presenting a relentless grid as Manhattan's overriding characteristic. Within this scheme, each city block is designated to embody a different value or philosophy, among these are many avant-garde movements previously thought of as incompatible. Each block, which is itself a city, is surmounted by a structure that represents its function or identity, for example, El Lissitzky's Lenin's Stand, Le Corbusier's Plan Voisin, or Wallace Harrison's Tylon and Perisphere for the 1939 New York World's Fair. Koolhaas's metaphor proposes an urban model in which unity accommodates heterogeneity.

122



The City of the Captive Globe, New York, New York. Project, 1972. Axonometric: gouache and graphite on paper, 12 $\frac{1}{2}$ x 17 $\frac{1}{4}$ " (31.8 x 44.1 cm)

MAX PEINTNER

Austrian, born 1937



123

Take-Off. Project, 1974. Perspective:
pencil on paper, 24 1/2 x 34 1/4" (62.2 x
87.9 cm)

MASSIMO SCOLARI

Italian, born 1943

Massimo Scolari used images to manipulate form without using Renaissance or neoclassical styles. His drawings are pure fantasy and often defy explanation. In *Urban Passage*, geometric forms resembling a house seem to be projected onto a mythical landscape by the sky. In *Addio Melampo*, these forms emanate from the earth itself. Its title refers both to the name of a dog in an Italian novel and to a mythical Greek man who can see the future and understand the voices of animals, although for Scolari there is not necessarily a connection between the title and the image of a drawing. *Addio Melampo* is clearly a drawing born from imagination.

124



Urban Passage. Project, 1974.
Axonometric: color ink and watercolor
on board, 7 1/8 x 5 1/8" (18.1 x 13 cm)



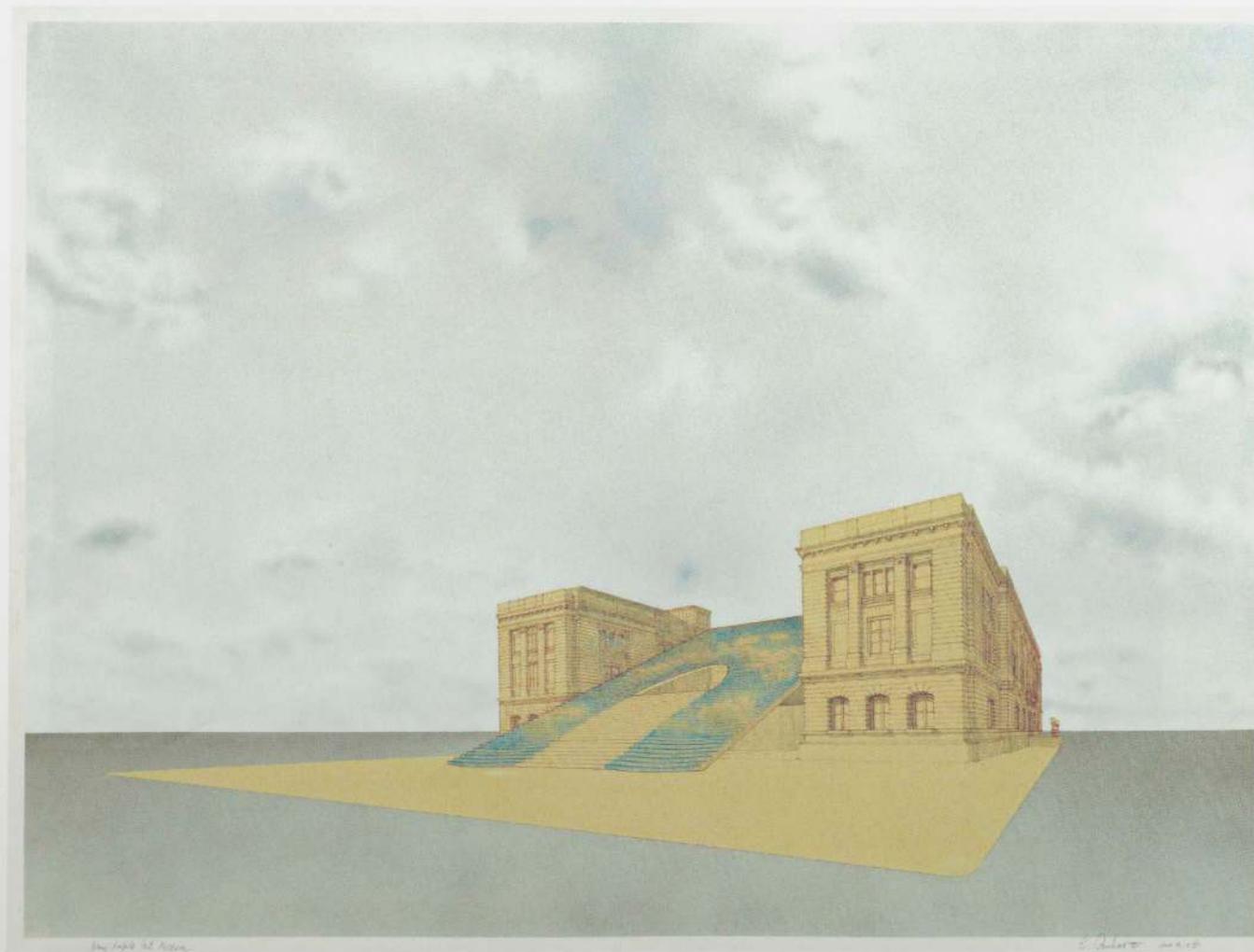
Addio Melampo. Project, 1975. Oblique projection: color ink, watercolor, and graphite on board, 11 $\frac{3}{4}$ x 10" (30.2 x 25.4 cm)

EMILIO AMBASZ

Argentine, born 1943

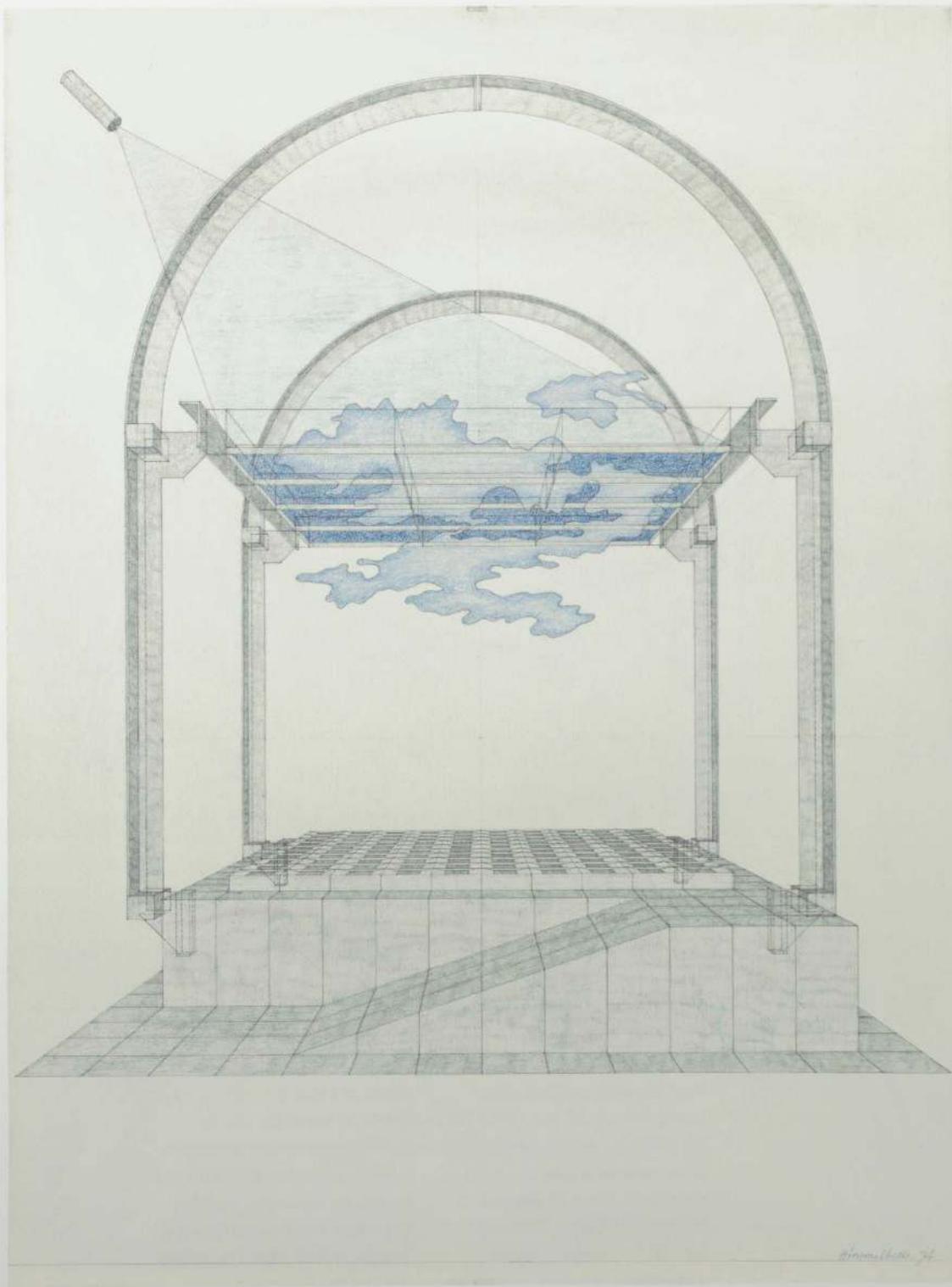
Emilio Ambasz's design for the Grand Rapids Art Museum proposed to transform an existing 1908 Beaux-Arts post office into the museum's new headquarters. The intention was to revitalize the Grand Rapids downtown area by using this vacant federal building in conjunction with additional underused or abandoned structures. Ambasz left the existing structure intact; his only intervention was to move the entrance to the open courtyard, thereby creating a single entry for the museum and reintegrating the building with a nearby college and commercial downtown area. The entrance to the grand foyer is created by means of an inclined plane flanked by two stairways, which creates a ceremonial entrance as well as a covered courtyard. Similar inclined entrances were to be used in the additional structures. Although it had been commissioned by the museum, the design was never realized owing to financial difficulties.

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Grand Rapids Art Museum, Grand Rapids, Michigan. Project, 1975.

Perspective: cut-and-pasted sepia diazotype with crayon on paper and airbrush, 30 x 40" (76.2 x 101.6 cm)



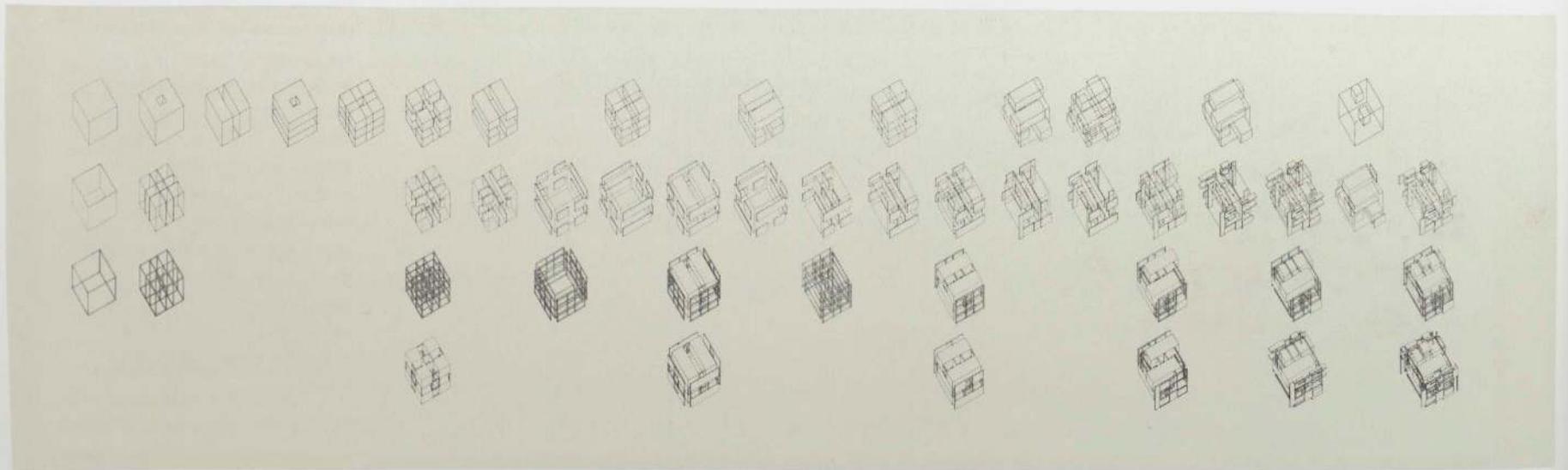
FRIEDRICH ST. FLORIAN

American, born Austria, 1932

Friedrich St. Florian undertook the theoretical Himmelbett project during a period in which he oscillated between embracing and rejecting built form, and explored the juxtaposition between real physical space and the imaginary realm of dreams. In this drawing, a holographic projection of the sky, or heaven, hovers above what St. Florian described as a classic bed, constructed from the essential building blocks of steel and stone. The green marble floor was to have a high polish in order to reflect the sky above. This would, in effect, allow the inhabitant to float somewhere between heaven and earth, as if taking a "walk into the sky."

PETER EISENMAN

American, born 1932



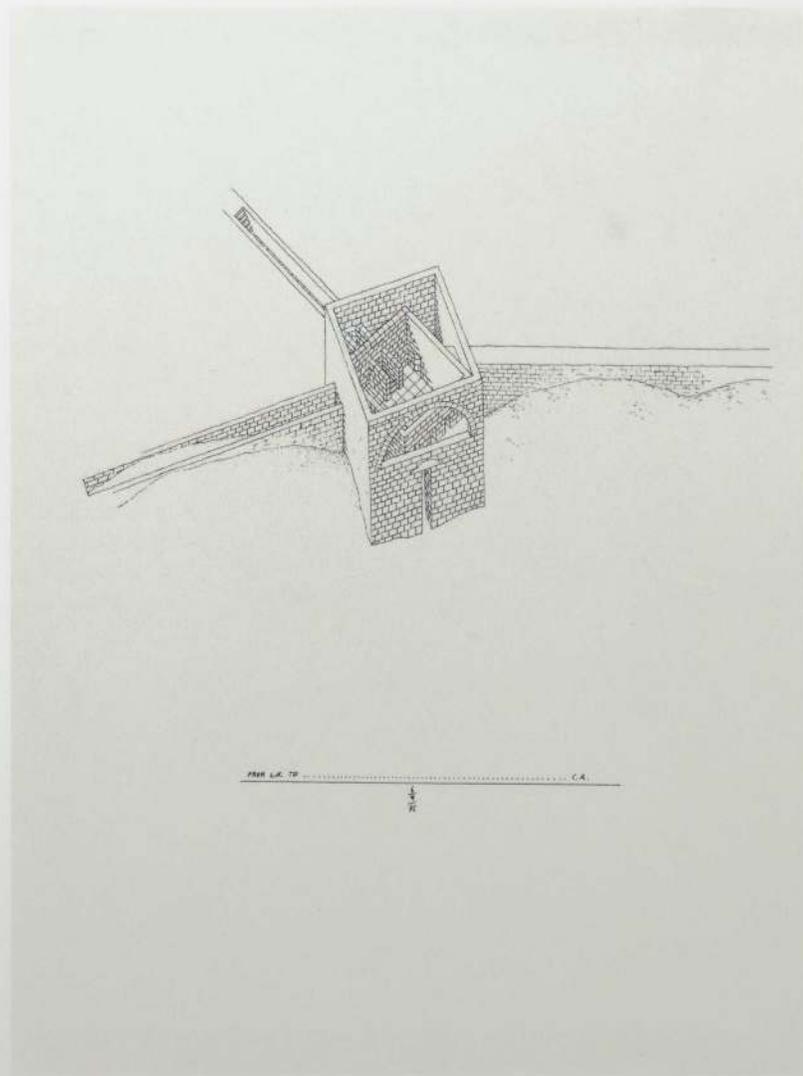
128

House IV, Falls Village, Connecticut.
Project, 1975. Axonometrics: ink on
frosted polymer sheet, 14 x 46 $\frac{3}{4}$ "
(35.6 x 118.7 cm)

Peter Eisenman designed eleven houses between the late 1960s and the 1970s that explore the principles of autonomous architecture. In the drawing for House IV, designed for a site in Falls Village, Connecticut, but never realized, a sequence of axonometrics illustrates the transfor-

mation of a basic cube into a highly developed spatial configuration. Based on a generative rule system, in which each move is a response to the last, the cube is cut, extended, and rotated until the final form is achieved without regard to function and program.

LÉON KRIER
Luxembourg, born 1946



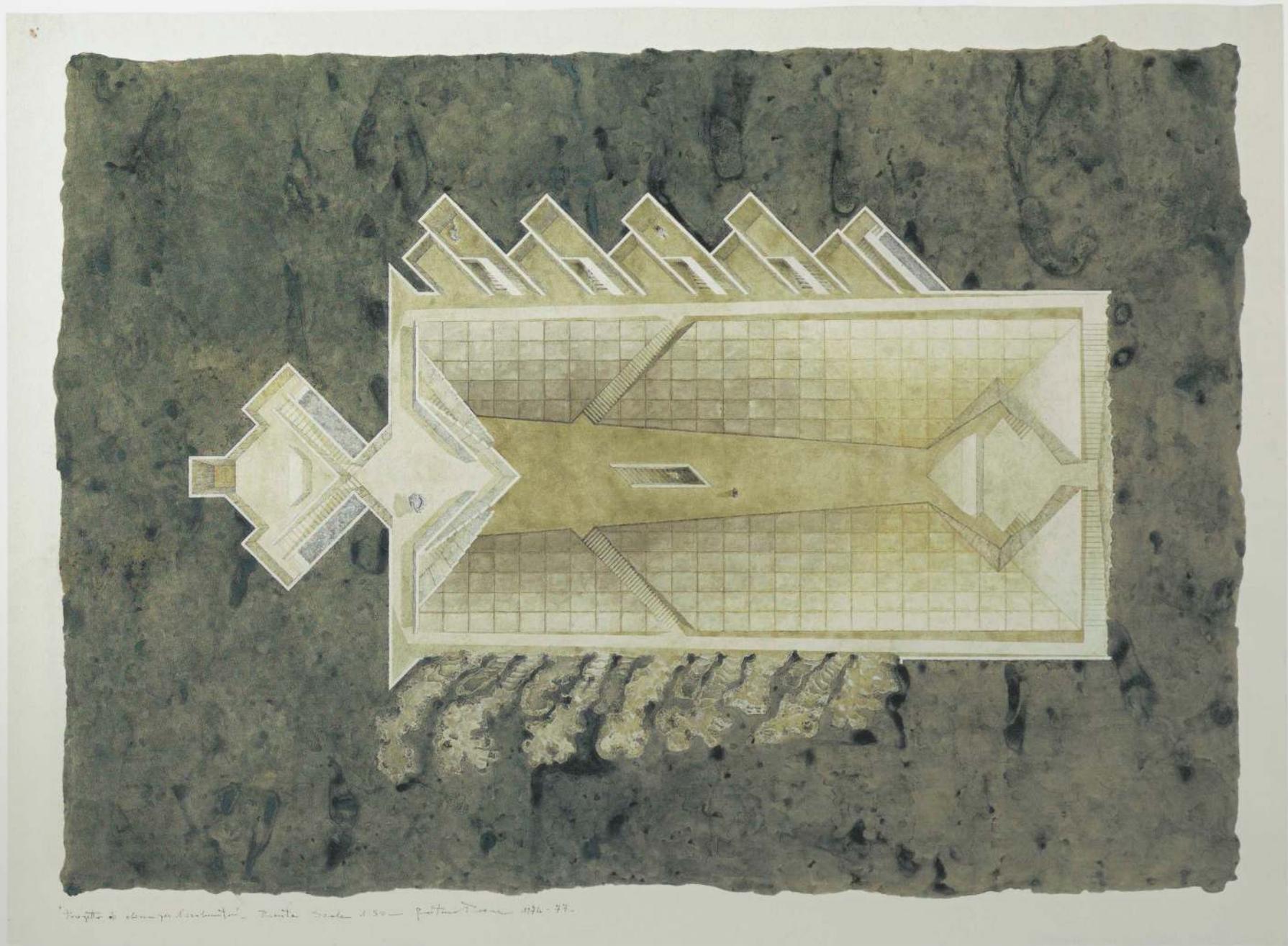
House for Colin Rowe. Project, 1975.
Aerial axonometric: ink with gouache
on paper, 11 x 8 1/4" (27.9 x 21 cm)

GAETANO PESCE

Italian, born 1939

Gaetano Pesce's Church of Solitude was conceived in reaction to his experience of New York in the 1970s, where he saw people living together, "helter-skelter in crowds." To provide a serene place for introspection and contemplation, he buried the church beneath a vacant lot amid the towers of the city. The silent sanctuary incorporated small individual cells, a further retreat from the city's corporate and institutional culture. An excavated landscape was, for Pesce, an overlooked space that could provide for people's future needs.

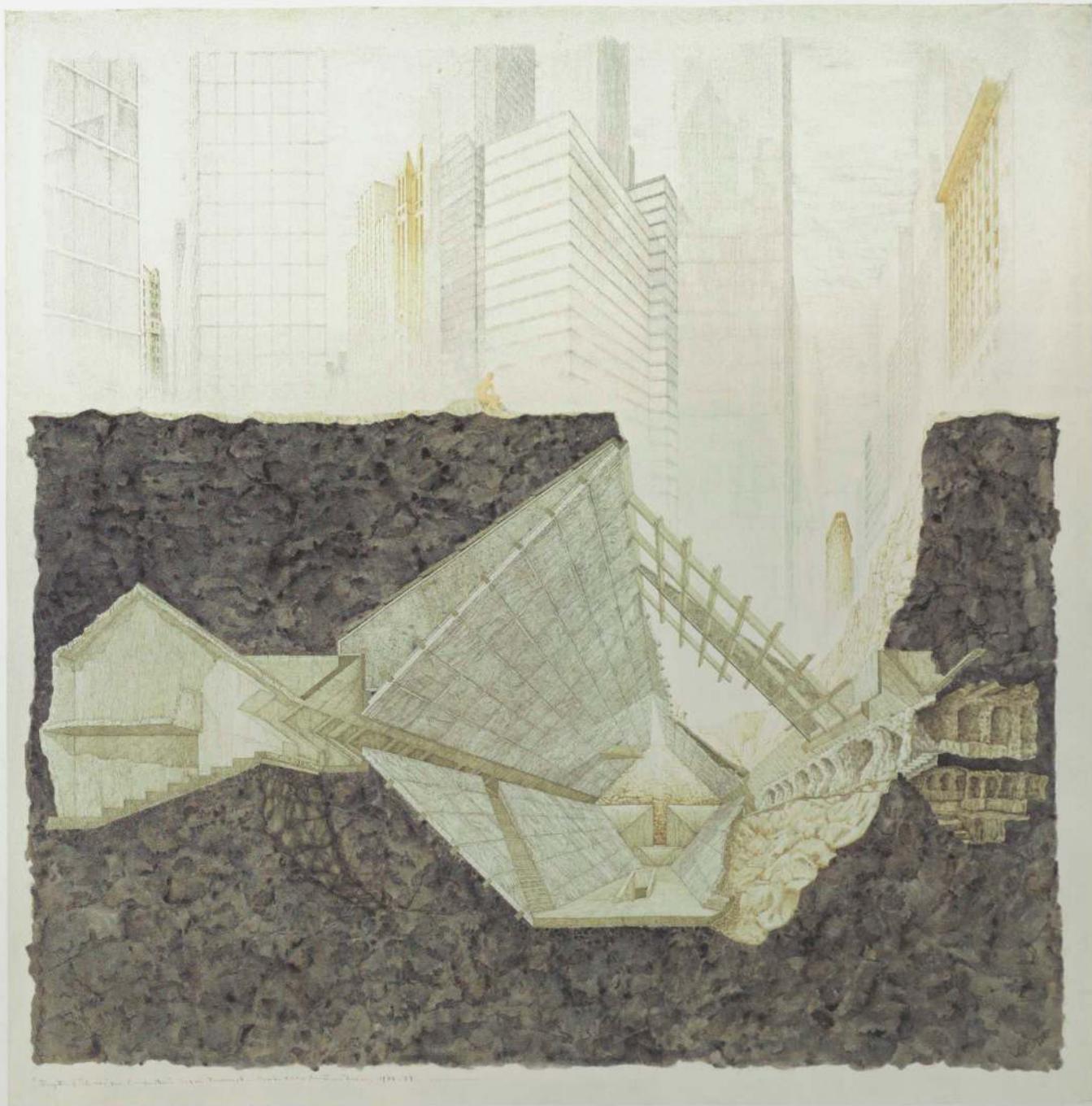
Church of Solitude, New York, New York.
Project, 1974–77. Plan: watercolor, ink and color ink, gouache and graphite on paper; 42½ x 58¾" (107.9 x 148.9 cm)



Progetto di un'opera di architettura. Roma. Scala 1/50 - postumum 1924-27.



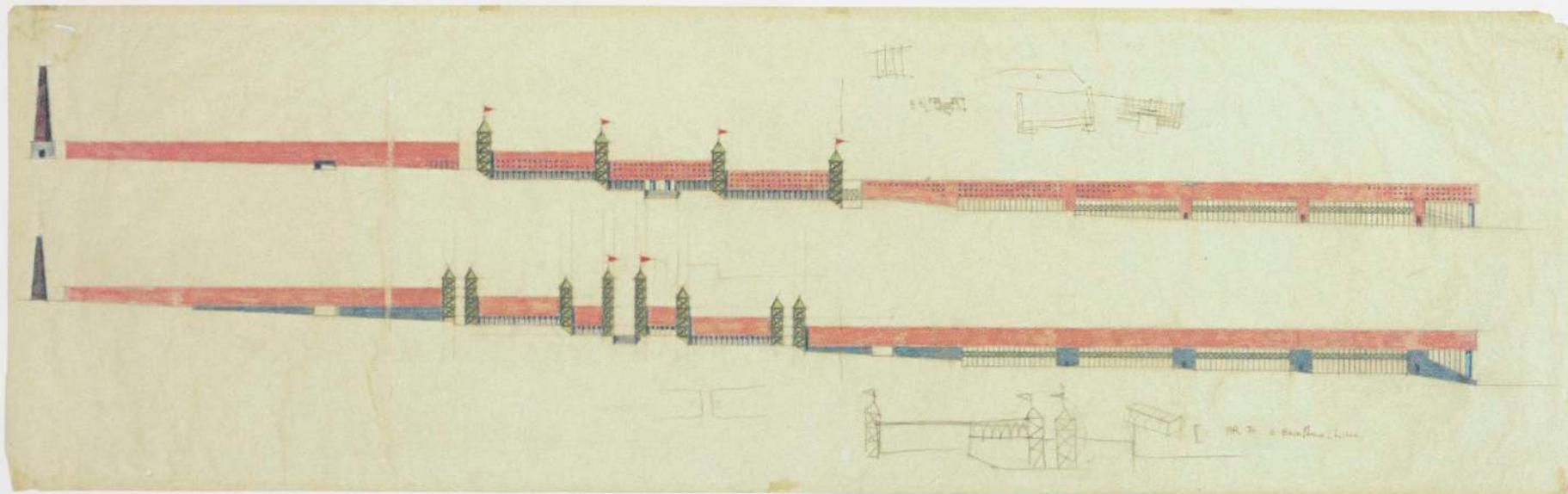
Church of Solitude, New York, New York. Project, 1974–77. Longitudinal section: watercolor, ink, color ink, gouache, and graphite on paper, 42 1/4 x 58 1/2" (107.3 x 148.9 cm)



Church of Solitude, New York, New York.
Project, 1974–77. Transverse section:
watercolor, color ink, and pencil on paper;
58 7/8 x 58 7/8" (149.5 x 149.5 cm)

ALDO ROSSI

Italian, 1931–1997
and **Gianni Braghieri**
Italian, born 1945
with **J. da Nobrega**
Portugese, born 1945
and **J. Charters**
Portugese, born 1945



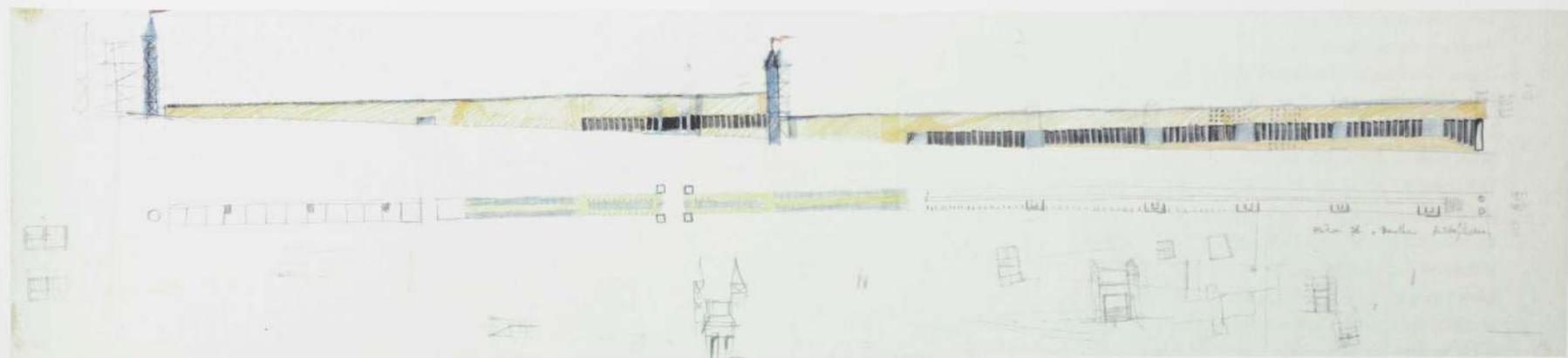
134

Housing, Setubal, Lisbon, Portugal.

Project, 1975–76. Elevation (1975): color pencil, graphite, and felt-tipped pen on tracing paper, 18 x 57 1/2" (45.7 x 146.1 cm)

Aldo Rossi's unbuilt housing scheme for Setubal, a fishing town outside Lisbon, was designed for a site that gently slopes toward a coastal highway. While the building's base follows the topography, the roofline remains constant, stepping down once near the mid-point and creating two giant steps in the landscape. The lower building becomes a terrace

overlooking the sea. As the ground recedes, Rossi's characteristic rectilinear forms are supported on pilotis, which create covered walkways with adjacent shops and community facilities. A water tower, echoing the industrial setting, marks an entrance to the building, while other similar cylindrical structures flag locations where streets cross below.



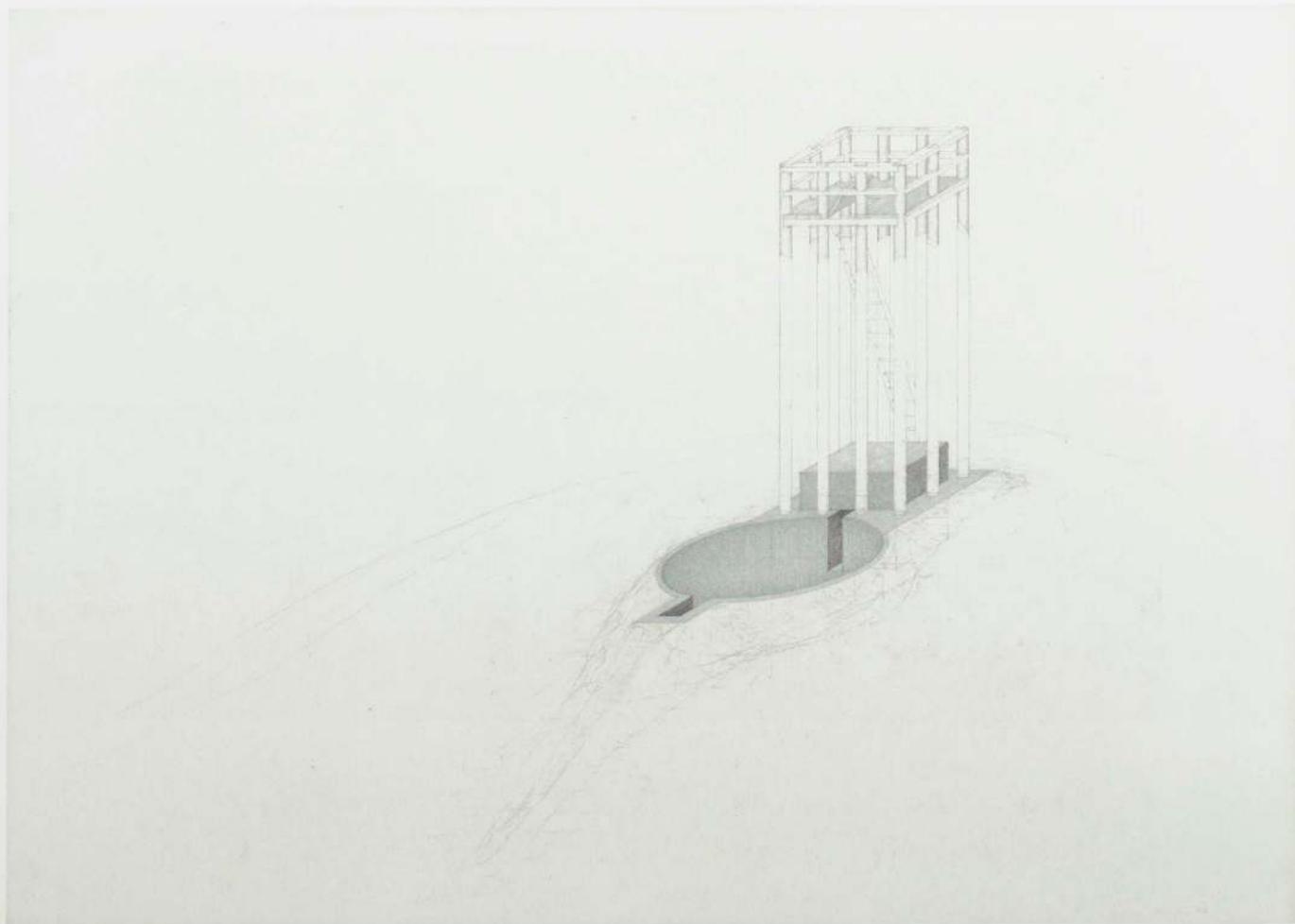
Housing, Setubal, Lisbon, Portugal.
Project, 1975-76. Elevation (1976): crayon,
graphite, and felt-tipped pen on tracing paper,
15 x 65 1/4" (38.1 x 166.4 cm)

WALTER PICHLER

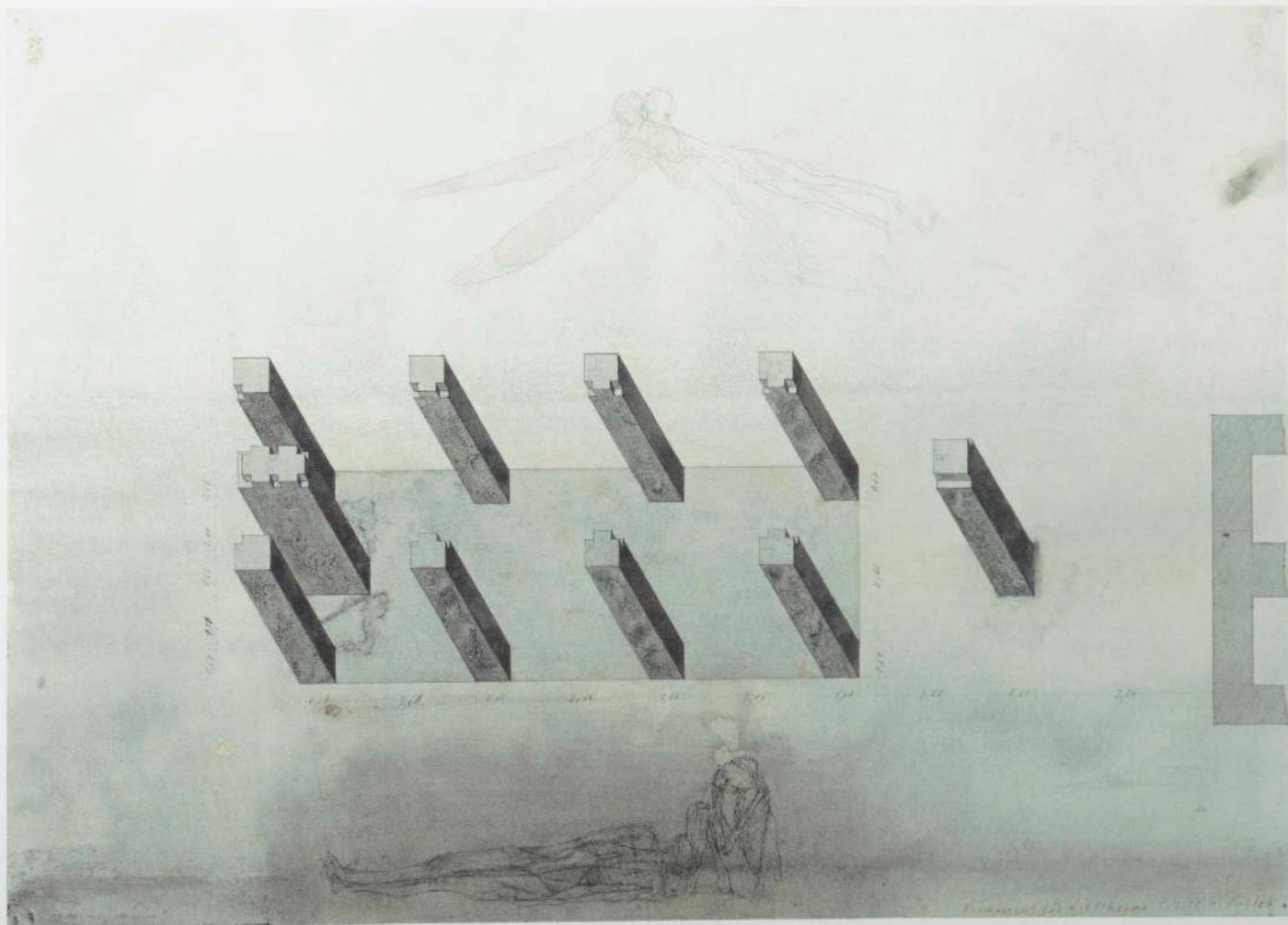
Austrian, born 1936

Walter Pichler, an influential Austrian avant-garde figure of the mid-1970s, collaborated at times with Raimund Abraham and Hans Hollein. His own highly individual and personal drawings conjure up lost civilizations and abandoned dwellings. Large Figure with an Organ, Two Rooms, Observatory and Pillars Under the Shed are all intimate isolated structures, in some cases partially buried. For Pichler they house the loneliness and solitude of the mind, and recall dreamlike images, past feelings, and childhood memories. Pichler is primarily known as a sculptor rather than an architect; the structures represented in his somber, monochromatic drawings are not delimited by their utility but would, he believed, ultimately find their own usefulness.

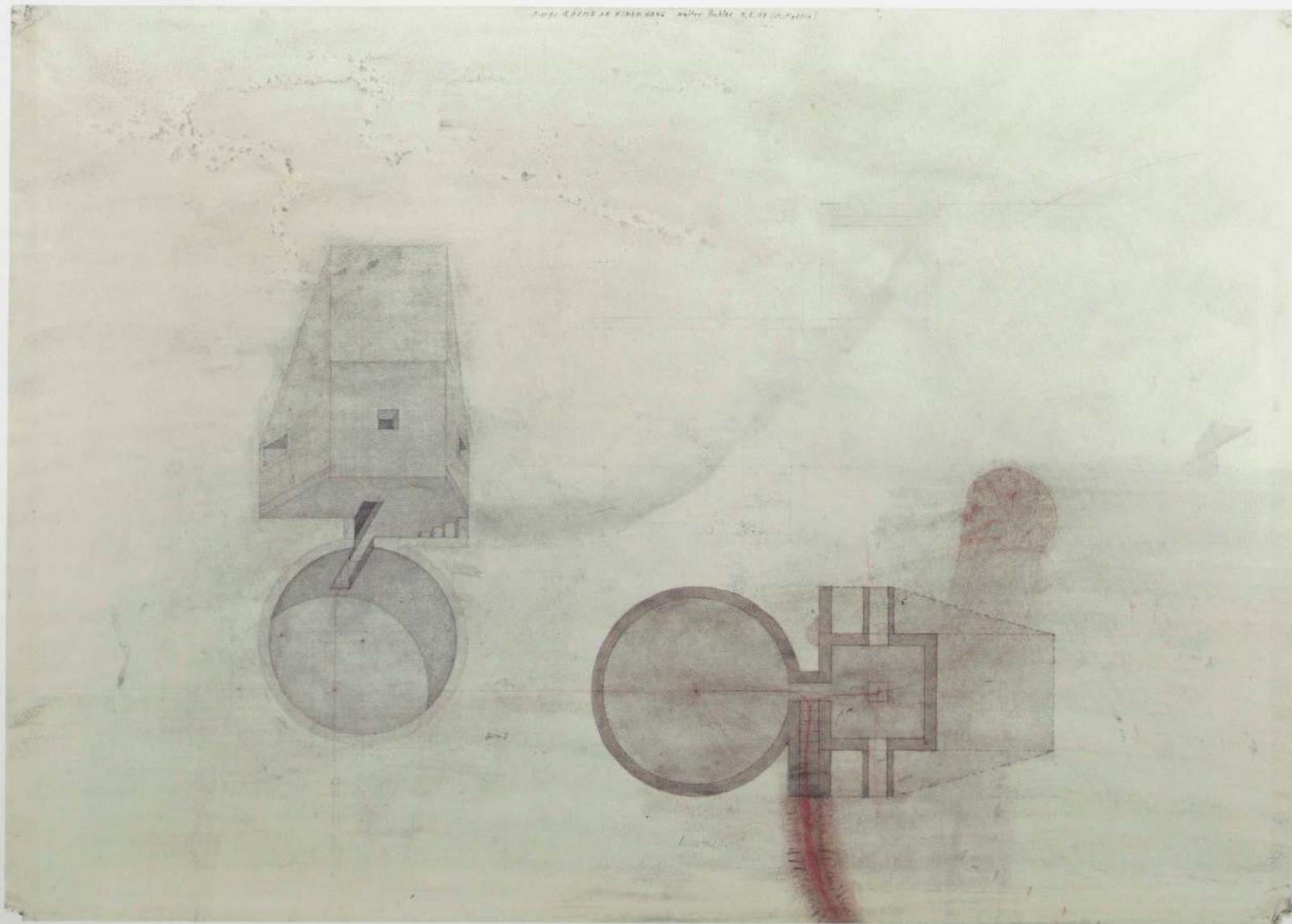
136



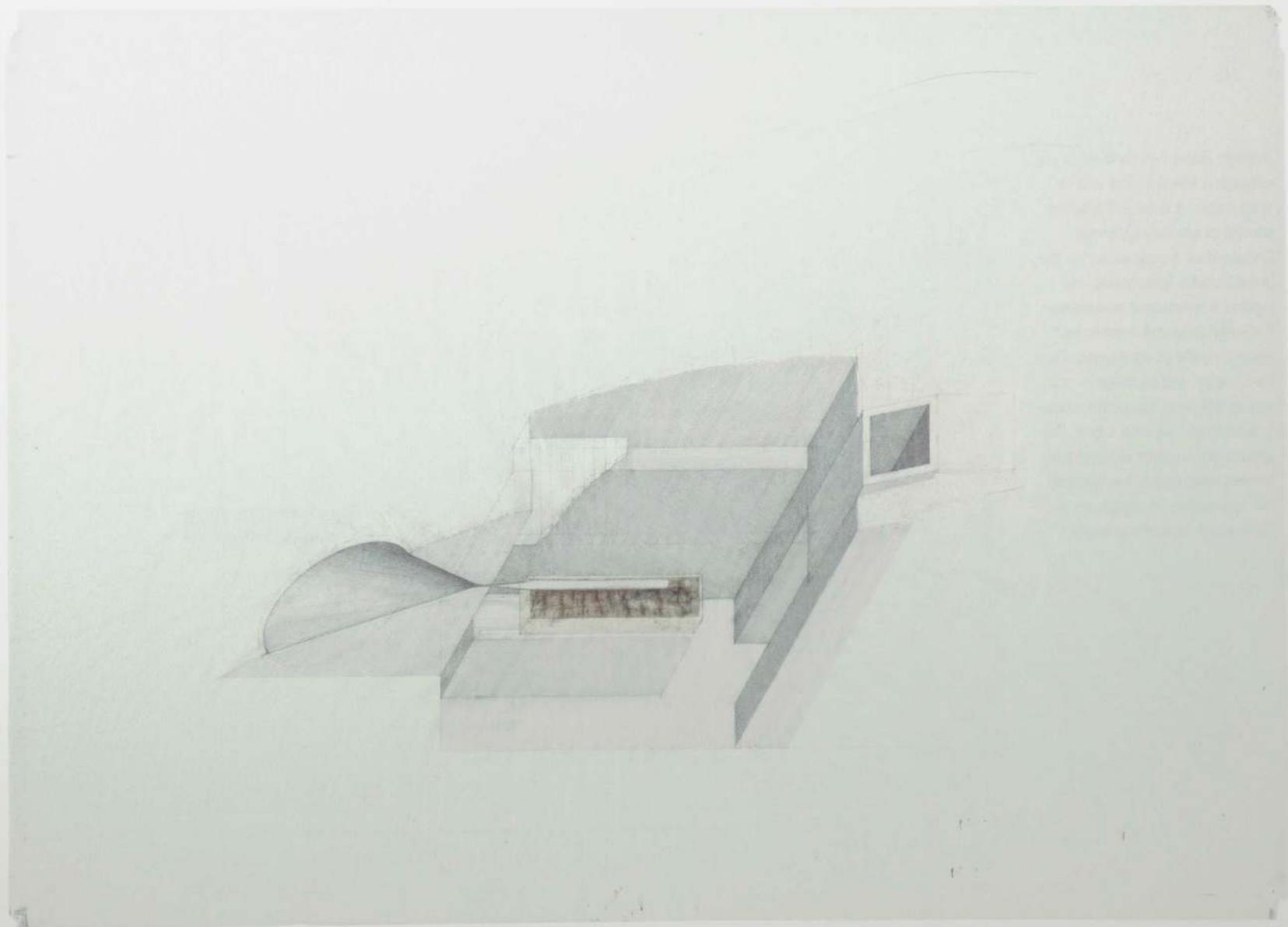
Observatory. Project, 1974. Perspective: graphite on illustration board, 24 $\frac{1}{2}$ x 34 $\frac{1}{2}$ " (62.2 x 87.6 cm)



Pillars under the Shed. Project, 1975.
Aerial perspective: ink, color ink, and
graphite on paper, 13 3/4 x 19 1/4"
(34 x 48.9 cm)



Two Rooms. Project, 1975. Perspective and plan: ink, graphite, and color pencil on paper, 19 1/4 x 27" (48.6 x 68.6 cm)



Large Figure with an Organ. Project,
1977. Axonometric: graphite and
watercolor on paper, 24 x 33 1/4"
(61 x 85.7 cm)

RODOLFO MACHADO

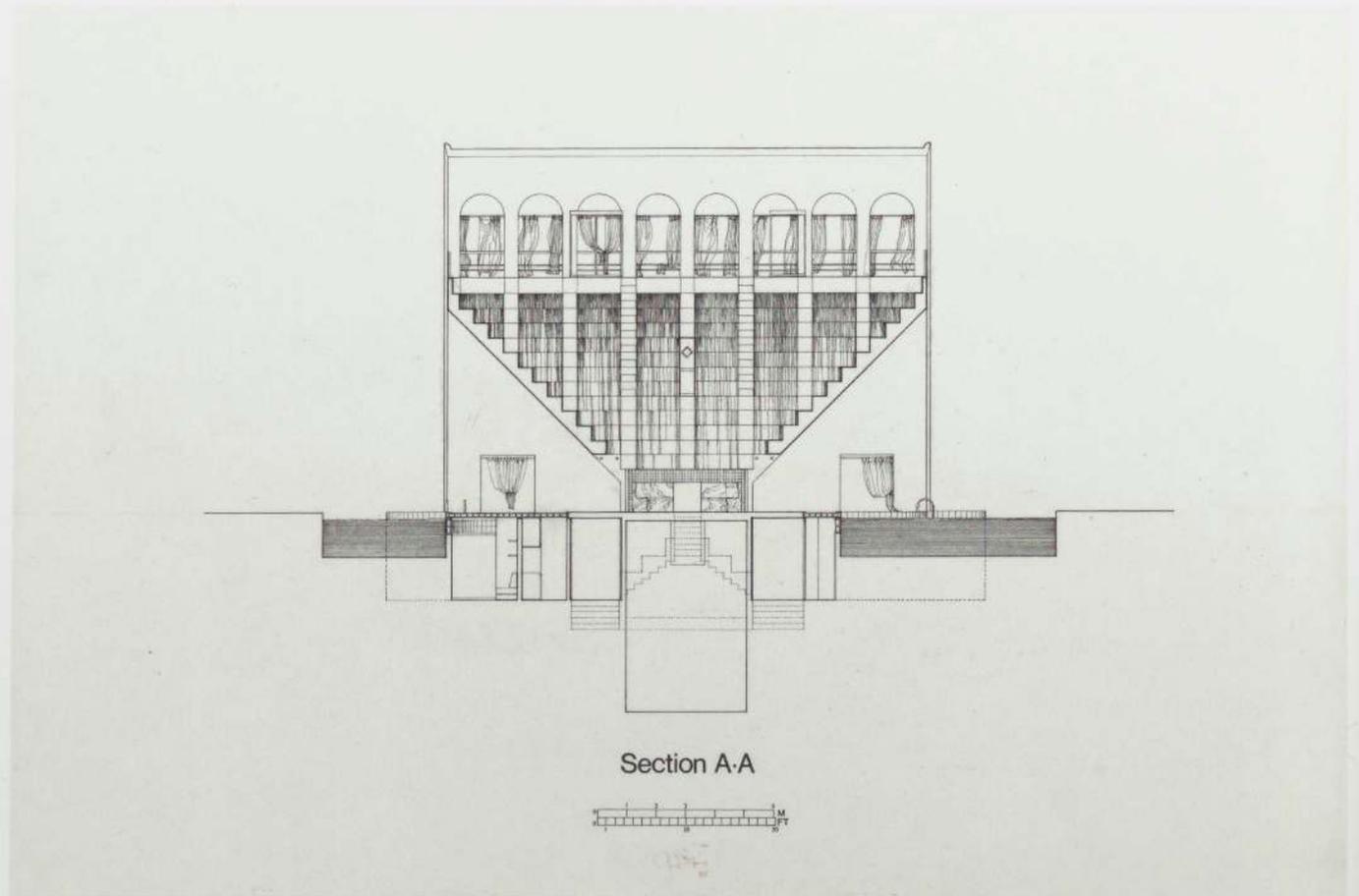
American, born Argentina, 1942

and **JORGE SILVETTI**

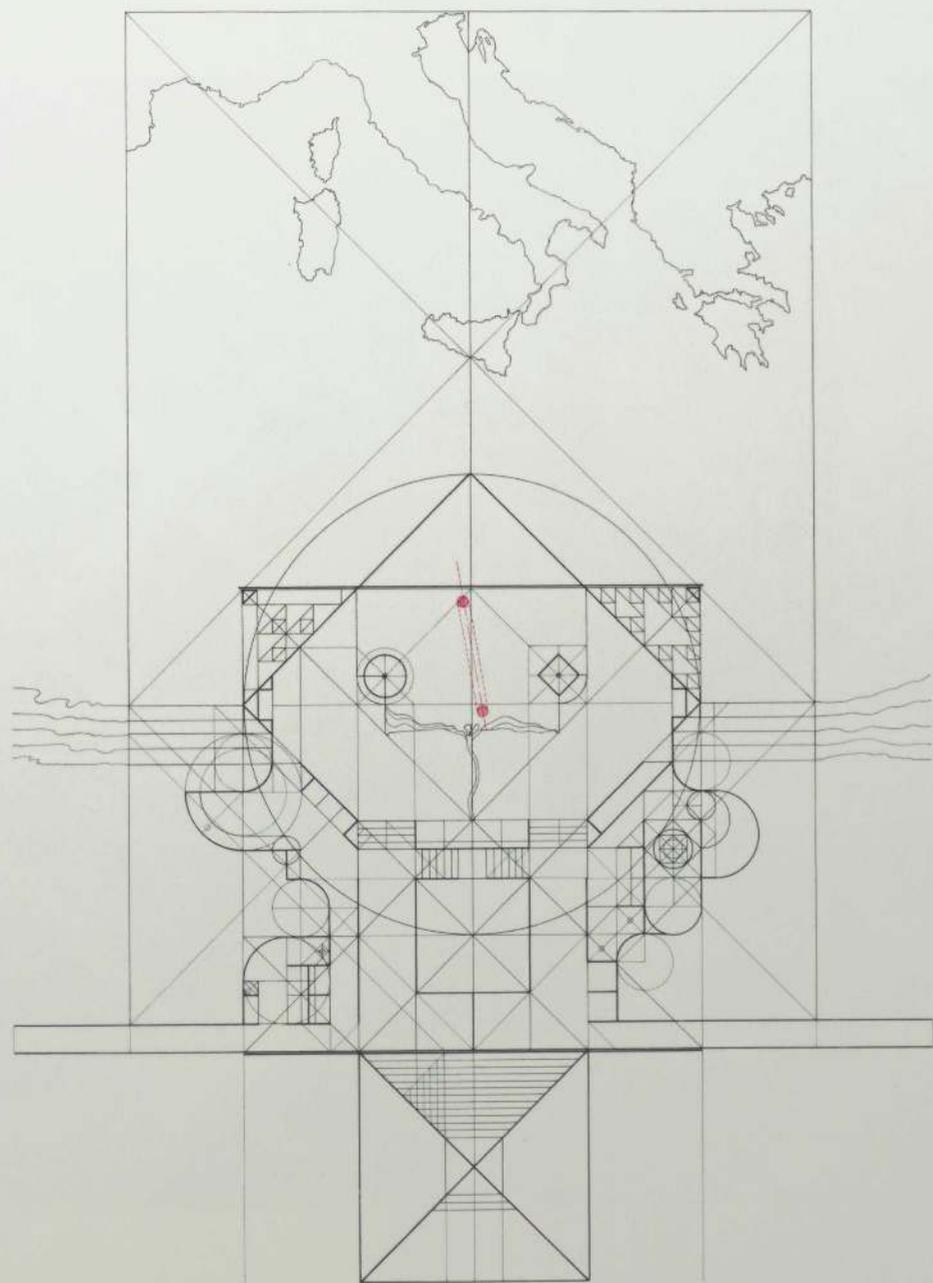
American, born Argentina, 1942

Fountain House had no client or site, although it was designed with an artist couple in mind and possibly situated in southern California. Conceived as a commentary on the programmatic, functionalist, and rationalist concerns of modernism, it stresses instead the artistic and creative nature of architecture. The form begins with an image or a fiction; in this case, the section recalls a fountain and the plan a face. The architecture is meant to transform the real environment into a space that approaches the imaginary, a place where beauty is primary.

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Fountain House. Project, 1975. Section A-A: ink, self-adhesive lettering, and graphite on frosted polymer sheet, 24 x 36" (61 x 91.4 cm)



10/75

Fountain House, Generative Geometries.
Project, 1975. Plan: ink on polymer sheet,
41 1/4 x 32 1/4" (106 x 81.9 cm)

ELIA ZENGHELIS

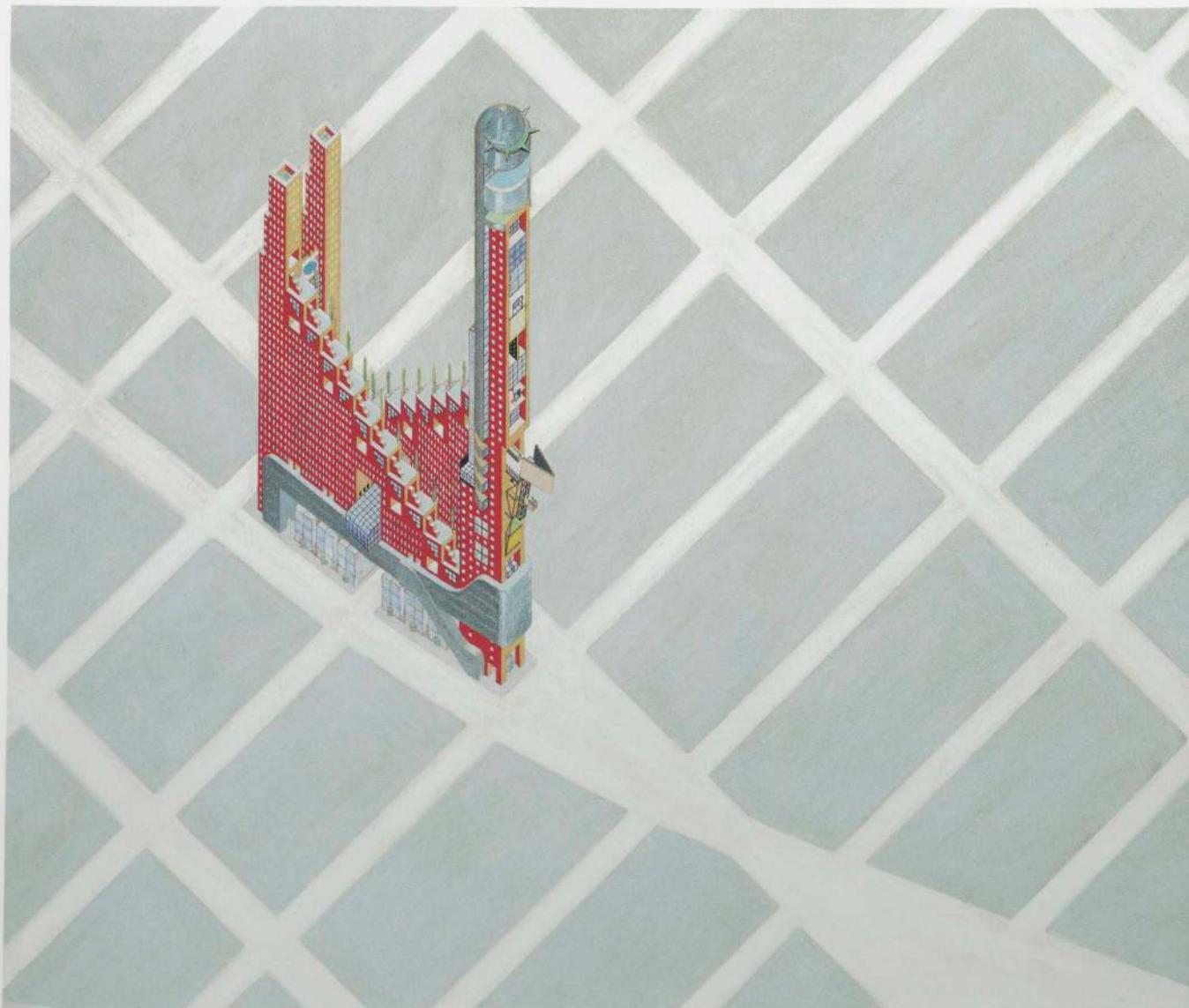
British, born Greece, 1937

and **ZOE ZENGHELIS**

British, born Greece, 1937

Elia and Zoe Zenghelis designed the Hotel Sphinx for Times Square, at the intersection of Broadway and Seventh Avenue, that was included in Rem Koolhaas's book *Delirious New York*. It proposed an urban hotel as a model for mass housing. Each physical part of the hotel as sphinx accommodates different programmatic functions: the legs contain escalators ascending to theaters, auditoriums, and ballrooms; the two towers of the tail contain studio apartments; the neck contains social clubs; the head is dedicated to relaxation and sports; and the spine houses hotel rooms, apartments, and villas with terraced gardens. Manhattan was intended to function as an extended lobby providing all possible amenities, and, likewise, the ground floor and mezzanine were designed to draw in the city and to take on the character of the Times Square area, a seedy neighborhood in the 1970s.

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Hotel Sphinx, New York, New York.
Project, 1975–76. Axonometric: synthetic polymer paint and ink on paper, 18 $\frac{1}{2}$ " x 22" (46.7 x 55.9 cm)



Hotel Sphinx (The Head), New York,
New York. Project, 1975–76. Axonometric
(1975); synthetic polymer paint and ink on
paper, 70³/₁₆ x 27¹/₂" (178.8 x 69.9 cm)

REM KOOLHAAS

Dutch, born 1944

with **Elia Zenghelis**

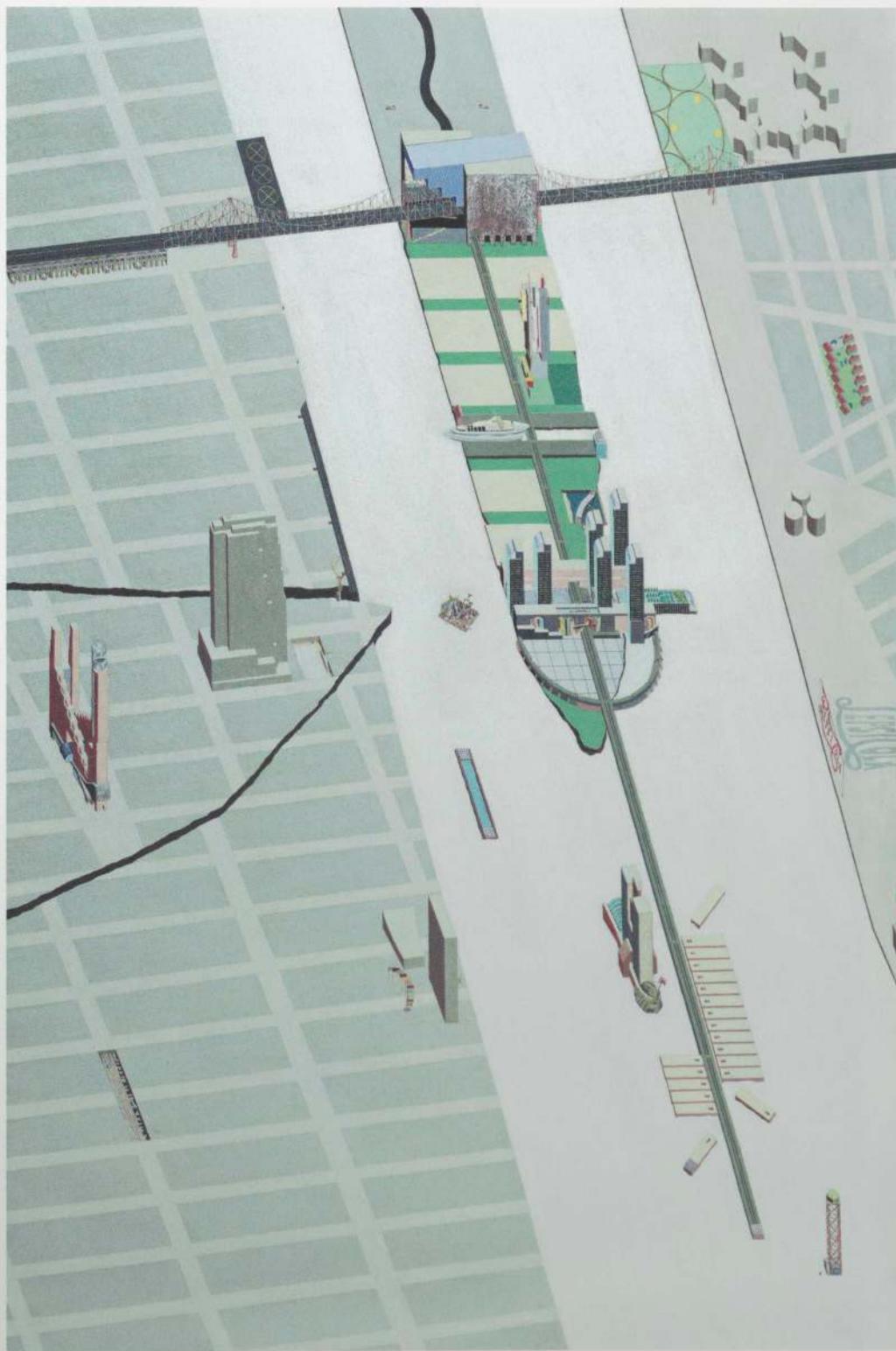
British, born Greece, 1937

In the mid-1960s there was a movement to redevelop Roosevelt Island, the narrow strip of land in the East River between Manhattan and Queens, which had been dedicated to hospitals, asylums, and prisons since the early nineteenth century. Rem Koolhaas and Elia Zenghelis entered a 1974 competition for the north end of the island, with a strategy to map elements, concepts, and typologies based on nearby Manhattan, in contrast to earlier plans that had ignored the island's urban context. Thus, they literally extended the city grid between Seventy-first and Seventy-fifth streets to Roosevelt Island. As in Manhattan, Seventy-second Street was to be a main thoroughfare lined with shops and restaurants. Rows of "synthetic brownstones" made from glass, rock, plastic, marble, and aluminum were framed by highrise buildings situated so as to maximize the views.

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Roosevelt Island Redevelopment
Project, Roosevelt Island, New York,
New York. Project, 1975. Axonometric:
gouache and graphite on board, 29 x
36 3/4" (73.7 x 98.1 cm)



REM KOOLHAAS

Dutch, born 1944
with **German Martinez**
Colombian
and **Richard Perlmutter**
American
Painting by **Zoe Zenghelis**
British, born Greece, 1937

Rem Koolhaas, German Martinez, and Richard Perlmutter designed New Welfare Island for the south end of Roosevelt Island (once known as Welfare Island). This theoretical project extended Manhattan's grid, in this case between Fiftieth and Fifty-ninth streets, onto the island, in a manner similar to that used for Koolhaas's and Elia Zenghelis's Roosevelt Island Redevelopment competition entry. Each newly created lot was intended to support competing structures—formally, ideologically, and programmatically—corresponding to what they viewed as Manhattan's dominant characteristic. Just north of the "travelator," a moving pavement extending to the rivers, is a convention center. To its south, amid vacant lots reserved for future use, are Kazimir Malevich's Architecton, an interior harbor housing a 1932 Norman Bel Geddes yacht, and a "Chinese" swimming pool. The Welfare Palace Hotel, a city within a city, which looks toward Manhattan, is situated at the bottom of the island.

New Welfare Island, Roosevelt Island, New York, New York. Project, 1975–76. Aerial perspective: gouache on paper, 58 x 40" (147.3 x 101.6 cm)

REM KOOLHAAS

Dutch, born 1944

with **Richard Perlmutter**

American

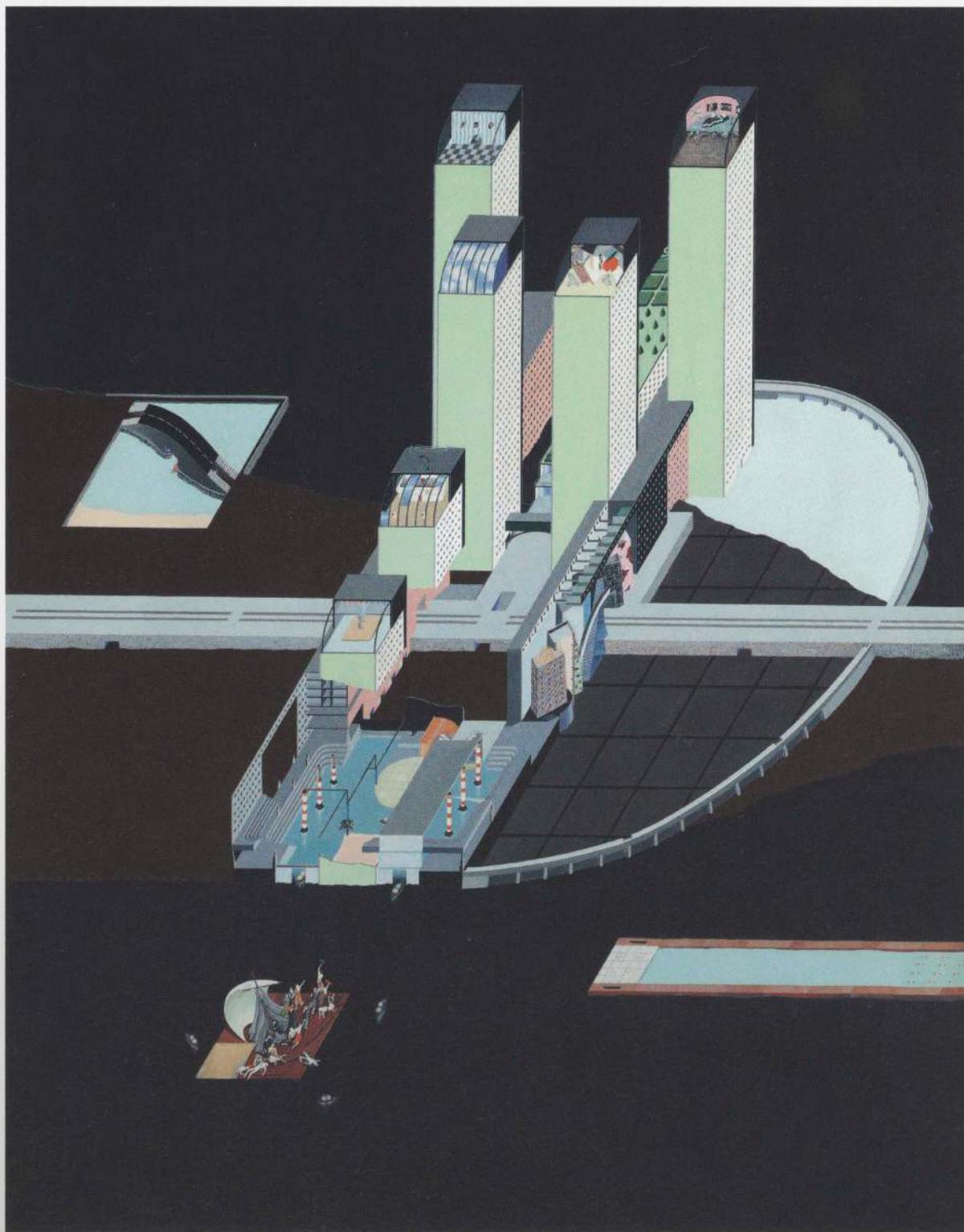
and **Derick Snare**

American, born 1952

Painting by **Madelon Vriesendorp**

Dutch, born 1945

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Welfare Palace Hotel, Roosevelt Island,
New York, New York. Project, 1976.

Cutaway axonometric: gouache on paper,
51 x 40 1/2" (129.5 x 102.9 cm)

INTERVIEW WITH PIERRE APRAXINE

Paola Antonelli

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his interview was conducted on October 29 and November 8, 2001. Pierre Apraxine was the Curator of the Howard Gilman Collection of Visionary Architectural Drawings from 1975 until the collection was donated to The Museum of Modern Art by The Howard Gilman Foundation in November 2000. Paola Antonelli is a Curator of Architecture and Design at the Museum.

PAOLA ANTONELLI: The Howard Gilman Collection of Visionary Architectural Drawings, now housed in the Department of Architecture and Design at The Museum of Modern Art as the Howard Gilman Archive of Visionary Architectural Drawings, is generally regarded as one of the most important collections of twentieth-

century architectural drawings ever assembled. When did you create this collection?

PIERRE APRAXINE: I would say it was started in 1976, and by 1980 the collection was pretty much completed. It was all done in a relatively brief period.

ANTONELLI: Did you add any works to the collection after that?

APRAXINE: Yes. In 1992, we added a drawing by Paul Rudolph, related to a design project for a Lower Manhattan Expressway of 1967–72 (page 71). It's quite an early ink drawing for a project that was much talked about at the time. Then in 1997 we acquired a major group of drawings

and other materials, over fifty pieces, by the British architect Cedric Price; these were related to the Generator of 1978–80 (pages 156–189), a project commissioned in 1976 by the Gilman Paper Company for its White Oak Plantation in Florida.

ANTONELLI: Can you explain the genesis of the collection and how you became involved with it?

APRAXINE: In 1975, I was asked by the owners of the Gilman Paper Company, Howard Gilman and his brother Charles Gilman, Jr., to put together a collection of contemporary art for the company's newly redesigned offices in the Time-Life Building in New York. I proposed a collection of Minimal and Conceptual art, which, at that time, would have been a bold statement for a corporation to make, and very much in keeping with the image of progressive thinking that the owners wanted to project. Paintings by Frank Stella, Ad Reinhardt, Ellsworth Kelly, and Agnes Martin; wall drawings by Sol LeWitt and Dorothea Rockburne; sculptures by Dan Flavin, Donald Judd, Richard Serra, and Walter de Maria—works that were intellectually demanding and austere, mostly abstract—dispersed through the offices created an unusual environment for a workplace. We also started to collect photographs with the aim of introducing subject matter familiar to the employees; and that collection, as you know, was to grow to institutional proportions over the years.

Then around the same time, I saw an exhibition of visionary architectural drawings for unbuilt projects, organized for The Junior Council [now The Contemporary Arts Council] at The Museum of Modern Art. I was enchanted by the show, which was overseen by Barbara Jakobson and directed by Emilio Ambasz, then Curator of Design at the Museum, and I thought that a group of similar drawings would complement the Conceptual nature of the Gilman collection. It also seemed a good way to reintroduce the recognizable imprint of the hand of the individual artist, often deliberately shunned by the Minimalists.

ANTONELLI: What had been your interest in architecture up to that point?

APRAXINE: Well, I must confess that I did not have any particular knowledge of architectural history or theory outside what I gleaned from the very general courses I had taken at the Louvain University in Belgium. I started to look at contemporary architecture when I refocused my interest in fifteenth-century Flemish painting toward modern and contemporary art, and in 1966 became the curator of Baron Léon Lambert's collection. Lambert had commissioned Gordon Bunshaft to design the new headquarters for the family bank in Brussels, and had started to assemble a collection of contemporary art, a bit along the lines of what David Rockefeller had done for the Chase Manhattan Bank headquarters in New York, also by Bunshaft. I watched the new Banque Lambert emerging from the ground. In Brussels, I also had the good fortune to know the owners of two masterpieces of early twentieth-century architecture, the Palais Stoclet by the Viennese architect and designer Josef Hoffmann [1905–24] and the Hôtel Solvay by the Belgian Art Nouveau architect and designer Victor Horta [1895–1900], and to have been a guest at these houses.

When I took my first adult trip to America—New York, San Francisco, and Chicago—in the winter of 1968–69, I went as much to see the newest architecture as the newest art. When I moved to New York in 1970 to work at The Museum of Modern Art, I learned about American architecture just by walking for hours on end through the city. It was also a heady time in the city for people interested in ideas and ideals; there were cultural and political protests of all kinds—the feminists, the Black Panthers, and artists refusing to be controlled by the marketplace! The Museum was an extraordinary place from which to observe and participate in many of the movements for change that were going on.

It was really when I worked there, as an assistant curator of painting and sculpture, that I started to develop a somewhat informed view of contemporary architecture and design, and became acquainted with the work of such luminaries as Claude-Nicolas Ledoux and Antonio Sant'Elia, Buckminster Fuller and Robert Venturi. I am self-taught in this field; I see myself as an enlightened amateur.

ANTONELLI: Were you the first curator for the Gilman collection?

APRAXINE: Yes. Howard Gilman and his brother had been buying art for themselves, but the corporate collection started with me. Just after World War II, their parents had bought some classic modern pieces: an Edgar Degas, a Vincent van Gogh, and other European works. It was a rather conventional collection, but they grew up in an environment where there was a familiarity with art. Howard was, however, always attracted to things that had not been tried before. Contemporary architectural drawings were not really collected at that time outside of museums. The Museum of Modern Art's collection of architecture and design had grown by gift rather than purchase. Also, many architects considered their drawings to be illustrations of their ideas for publication purposes, and did not dwell on their intrinsic value as drawings. I remember a few instances when the architects I visited—like Peter Cook or Aldo Rossi—had problems even locating drawings I had seen published and wanted to acquire.

ANTONELLI: What made you first formulate the idea of collecting architectural drawings rather than other things?

APRAXINE: As I mentioned, I saw such a collection as a foil to the group of Minimal and Conceptual art I was assembling for Gilman at the time, and which was well on its way. With the help of Barbara and Emilio, whose exhibition had given me the idea for this collection, I put together a list of architects.

Then I got myself a few books and I started to study. Despite my scanty knowledge of architecture, I thought I would be able to recognize a good drawing and the power of a good idea. For every one of the projects, I tried to imagine what would be the crucial drawing, the one that would express the idea most forcefully, the drawing that mattered. These architects were still young, my contemporaries, and it was not too difficult for me to understand how they were breaking new ground.

ANTONELLI: Which architects did you approach at first?

APRAXINE: I think one of the very first drawings I bought, in May 1976, was *The House with Curtains* of 1972 by Raimund Abraham (page 116), a teacher at The Cooper Union in New York. The concept, for me, had

all the purity of a Sol LeWitt structure and the poetry one associates with sails, or sheets on a clothesline, billowing in the wind. And, of course, there is this wonderful, typical Austrian draftsmanship. Abraham was very encouraging, helping me to establish my credentials with other architects.

Then in July of that year, I embarked on a tour of Europe. In London, I met the architects Peter Cook (of Archigram), Cedric Price, Léon Krier, and James Stirling. I was usually well received, but I also met with some refusals: Price was noncommittal, and Stirling wanted to keep his archive together. Passing through Paris, I met Yona Friedman, who was very forthcoming, and I went on to Austria, where I saw Hans Hollein, Max Peintner, and Walter Pichler. From there I went to Italy, to Alessandro Magris (of Superstudio), Aldo Rossi, and Ettore Sottsass. Later, in New York, I also met with the Italian architect and designer Gaetano Pesce, from whom I bought the beautiful just-completed drawings for the Church of Solitude of 1974–77 (pages 131–133).

ANTONELLI: I know that you made numerous other trips abroad after that first one. Are there any particular moments that stand out in your mind, any fond or weird memories during all these trips?

APRAXINE: Well, of course. The first thing that comes to mind is Rossi showing me around the Gallarate housing project. To be shown a building by its architect is always a memorable experience. I was struck by the way this long, quite uncompromisingly pure building nevertheless encouraged its inhabitants to express their individual tastes and how thrilled Rossi was in pointing out laundry drying here or some improvised pergolas there; I have not seen it since, and I wonder how it has survived.

I also remember my first visit to Vienna, spending my days on pilgrimages to Otto Wagner's Postal Saving Bank [1904–06] and Adolf Loos's Kärntner Bar [1907], and my wine-soaked evening with Walter Pichler in the country, in the Austrian state of Burgenland. Contiguous with the westernmost reaches of Hungary and Slovenia, Burgenland had provided the passageway into Western Europe for all of history's invaders from the east, and the

landscape struck me as haunted. Pichler was erecting a cluster of buildings there, integrating living spaces with his sculptures, and teaching the locals ancient building techniques that had been lost.

What I remember as the most intriguing aspect of my trip was the extensive interaction with Cedric Price. As I mentioned, Price was not interested in selling any of his drawings. But I very much felt that if there was an architect who was at once visionary and solidly anchored in the social realities of his time—which was, as you know, of great interest to me—it was Price. I liked his use of prefabricated modules and the way his projects were conceived as solutions to certain needs at particular points in time. They made no claims on permanence; on the contrary, they stressed their ephemeral natures. They were anything but monuments to an ego. By coincidence, Howard was, at that time, envisioning new programs to take place at White Oak Plantation, the Gilman corporate estate in Florida. He counted among his friends many performing artists, and he dreamed of a retreat for creative minds. He also had a passion for nature and wanted to use the plantation as a preserve for endangered animal species as well as a kind of residency for visiting artists—sort of a preserve for artists and animals. Gilman and Price met in the autumn of 1976, and the Generator project was conceived. Later, in 1980, we bought some of Price's most important drawings, including those related to the Fun Palace for Joan Littlewood of 1959–61 (pages 44–48). I suppose Price felt that they would be safe with us.

ANTONELLI: Can you explain more about the plantation and about how the Generator project happened?

APRAXINE: The Gilman Paper Company was originally located in northern Vermont, where there is still a small town bearing the Gilman name. In the 1930s, Howard Gilman's father relocated the company and the mill to the South, near Saint Marys, Georgia, and bought extensive forested lands both in Florida and Georgia. The White Oak Plantation was an old rice plantation along the Saint Marys River, which forms part of the border between the two states; its original buildings have long since gone, but the ruins of its slave quarters are still

barely visible. Located in Florida, north of Jacksonville, and looking across the river into Georgia, the plantation is swampy near the river, with old rice paddies marking the landscape. The view across the river is reminiscent of Africa: impenetrable bush crisscrossed by waterways and dotted with truncated trees on which ospreys perch. The family residence was a somewhat grand log cabin. There were stables where Howard and his brother raised thoroughbred horses, and a short distance away there was a lodge for business guests. In all, the fenced compound comprised ten thousand acres and was populated with wild deer, armadillos, and occasional snakes. When you were there, you felt that you had stepped into a place that was totally removed from the outside world.

When Price came to visit the plantation in 1976, he was asked to design a versatile building that could accommodate a somewhat contradictory program. On the plane back to New York, with Howard and Price, I remember drafting an initial brief for the Generator project on a paper napkin. Among its points were the following: "A building which will not contradict, but enhance, the feeling of being in the middle of nowhere; has to be accessible to the public as well as to private guests; has to create a feeling of seclusion conducive to creative impulses, yet . . . accommodate audiences; has to respect the wildness of the environment while accommodating a grand piano; has to respect the continuity of the history of the place while being innovative." The users of the building were to be dancers, composers, and singers; the audience could be as large as one hundred people or as few as six, who were not to feel lost in the space. The activities would include performances, film screenings, conferences, and seminars. Because of its complexity, Price seemed to be the best architect for the project.

ANTONELLI: That sounds like a perfect project for Cedric Price.

APRAXINE: Indeed. This was a tailor-made brief for Price. What he came up with was a series of mobile cubes that could be assembled, according to the needs of a particular activity, by cranes on permanent standby.

ANTONELLI: What was the Generator designed to generate? Ideas? Life?

APRAXINE: Yes, both. Unfortunately, the Generator remained only a project. Price's proposal involved the active participation of the plantation workforce, which was, of course, the beauty of it. But the obvious maintenance requirements associated with such structures were considered a stumbling block and were opposed from within the Gilman organization, despite Howard's efforts. No consensus could be reached within management on the feasibility of the plan, and it had to be abandoned.

Nevertheless, Howard went forward with his ideas, collecting endangered species as well as erecting, over the years, more conventional structures to accommodate conferences, seminars, screenings, and dance rehearsals. The brief to generate creativity at White Oak Plantation was amply realized, although not on Price's terms, and the friendship between Howard Gilman and Cedric Price lasted until Howard's death in 1998.

ANTONELLI: In retrospect, how do you now see the Gilman collection? How do you feel about it?

APRAXINE: Well, like most collectors looking back, I mostly remember the ones that got away, drawings by James Stirling, Kisho Kurokawa, Hans Hollein, and others that we were not able to have.

ANTONELLI: Well, during the period you were collecting drawings, how frequent was your exchange with architectural historians and scholars around the world?

APRAXINE: I had very few exchanges with scholars. I went directly to the architects and to their work, and I stayed away from the theoretical side of things. As a collector, you enter a field in a way quite different from that of an historian or a critic; you start with your response to the objects and go from there to theories, not the other way around, which is the way of academia. I think I had the kind of innocence that is needed to take a plunge into a field in which one is barely conversant and which is populated by formidable intellects. For me,

everything is filtered through the senses, and the mind is there only to help. Sometimes I cannot really articulate why certain things happen as they do: I respond first and analyze later. So I am actually a bit, not astonished, but intrigued by what this collection now represents.

ANTONELLI: One does not often see radical architecture of the 1970s, Pop architecture of the 1960s, and straightforward postmodernism in the same collection. It's very interesting that they are all represented together in the Gilman collection. Did you see them as separate in your mind, or were they all part of the same evolution?

APRAXINE: The only thing I knew at that time was that the modernist aesthetic was being questioned. But how it would change, really, nobody knew. I could feel a general disaffection with the exhausted idiom of conventional modernism. I knew there were different reactions occurring; they were uncoordinated, but all were related by what they were trying to tear down.

ANTONELLI: How did you choose from the work of each architect? Was there a big dialogue with each of them? Were there times when you would disagree, would want one drawing and the architect wanted to give you another?

APRAXINE: There was certainly a dialogue, and I remember a few disagreements. Generally, the architects were not in the habit of selling, so when they did agree to sell they usually would give me the drawings I wanted. Ron Herron (of Archigram) would not part with a seminal collage for *Cities: Moving* of 1964, but I was able to buy two others of similar importance related to the project (pages 54–55). When I visited Peter Cook, I knew that *Plug-In City* of 1962–64 (pages 50–53) was going to be the piece to get. With Aldo Rossi it was the *Cemetery of San Cataldo* in Modena of 1971–84 (pages 110–115). But, as I have said, what I regret are the drawings I could not buy.

ANTONELLI: Which ones were they?

APRAXINE: Well, there were Stirling and Venturi, who wanted to keep their drawings in their archives. Among the architects who are represented at The Museum

of Modern Art, there are Kurokawa and Hollein, who has sold or given to the Museum all the seminal drawings of the 1960s that I wanted to buy. I would add a few others, for instance, Louis Kahn.

ANTONELLI: Do you like the term *visionary architecture*, for your collection?

APRAXINE: Yes, I like the term. The collection is in this spirit. The other term that I sometimes use is *utopian*.

ANTONELLI: If you had the opportunity to update the Gilman collection to the present, what drawings by which architects would you add?

APRAXINE: I continue to follow architecture avidly, but I leave the additive process to others. As it stood, the collection rather neatly covered the same time period as that addressed by the collection of Minimal and Conceptual art of the 1960s and 1970s. They were challenging times for architects. The oil crisis of the early 1970s had made things difficult for them. Little interesting building was going on, and they were able to devote their time to visionary projects, promoting ideas rather than building schemes. The ferment of ideas made that period extraordinarily interesting.

ANTONELLI: You're right. Your collection was assembled at a very special moment.

APRAXINE: Yes, and that moment was underlined by an exhibition at the Leo Castelli Gallery in the fall of 1977. From time to time, the Castelli gallery functioned as a quasi-museum. The exhibition, *Architecture I*, presented the work of seven architects: Raimund Abraham, Emilio Ambasz, Richard Meier, Walter Pichler, Aldo Rossi, James Stirling, and Venturi and Rauch. It was typical of Leo's openness that he responded to architecture by having models and drawings for sale.

ANTONELLI: The architecture critic Ada Louise Huxtable said that before the exhibition at Leo Castelli's, architectural drawing was shown only among the *cognoscenti* and published in specialized magazines, but not really to

a wider public. Was the public able to understand and appreciate the drawings?

APRAXINE: If I remember correctly, the exhibition was widely visited by collectors and students alike. I know it was a critical success; and an expanded version was presented in 1978 at the ICA in Philadelphia.

ANTONELLI: It must have helped that the drawings were so beautiful.

APRAXINE: Yes, they were beautiful, and the subject matter was something that the public could easily recognize. Their formal qualities lay outside the strictures of the Minimalist and Conceptual canons prevalent at the time. There were models, too. There was a model of a fountain by Aldo Rossi, and there was a beautiful model by Venturi and Rauch for the Fontainebleau Hotel in Miami, which they were trying to save.

ANTONELLI: I see that you have a recent article from *The New York Times* about the American architect John Hejduk's visionary Wall House 2 (pages 119–121), first designed in 1973–76 for A. E. Bye of Ridgefield, Connecticut, finally having been built in Gröningen, the Netherlands, after the architect's death in 2000.

APRAXINE: I just wanted to make the point that this situation is not without irony. Except for the interior remodeling of The Cooper Union, where Hejduk was Dean of the School of Architecture, and a housing project in Berlin, none of Hejduk's work was built during his lifetime.

ANTONELLI: Did Howard Gilman ever aspire to the building of ideal towns?

APRAXINE: A project of that size did not interest him at all. He needed a more intimate scale that allowed him to be involved personally at all levels. One of his great joys when he was at the plantation was to show his guests the mill where the paper was made. He would take them through the entire process, from the tree trunks floating toward an enormous block-long building to the emergence

at the other end of rolls of brown kraft paper. He showed the same involvement in the care of the animals, not hesitating to go out in the middle of the night to assist at a difficult birth. He knew all the people who worked for him personally, and also knew about their families; his involvement was always on a personal level. Speaking from my own experience, not a drawing, painting, or photograph was acquired without a lengthy discussion between us of its merits. What Howard liked, besides people and nature, was collecting ideas, and the architectural drawings were the perfect medium in that respect.

ANTONELLI: All the drawings seem romantic in one way or another.

APRAXINE: I guess you are right. But then, Howard and I were definitely romantics.

ANTONELLI: As I look at the collection today, particular drawings do feel nostalgic, neoclassical, postmodern, like those of Massimo Scolari and Léon Krier, for instance (pages 103–105, 118, 124, 125, 129).

APRAXINE: These architects seemed to look backwards but foretell the future. A retreat into a nostalgic introspection was not then an accepted path toward progressive architecture; that came with postmodernism, which was not quite a reality, although it was in the air. One has also to differentiate between drawings that want to create a strong image, a comment *about* architecture, and drawings that are renderings of structures to be built, which *are* architecture. Krier and Scolari belong to the first category, but Emilio Ambasz's project for the Grand Rapids Art Museum of 1975 (page 126), although dramatically presented, was designed to be built. In fact, it won the competition for the remodeling of that museum.

ANTONELLI: And what do you recall about Ettore Sottsass, with his humor and sexuality?

APRAXINE: Well at that time, Sottsass was better known as a designer than as an architect. *Memphis* was not yet known; that would come later. I knew about him through *Italy: The New Domestic Landscape*, an

exhibition organized by Ambasz at The Museum of Modern Art in 1972. I thought he was the one designer in that exhibition who was really going to change the way we live with things, and, indeed, the drawings he offered to sell us blur the line between architecture and design in such an unexpected way. Their deeply hedonistic aspect, of course, was also delightful (pages 78–87).

ANTONELLI: There are many nuances of dreams about the future in much of the work.

APRAXINE: For sure. Most of the work is resolutely optimistic. The dread of overbuilding and overcrowding is met with such elegant poetic or humorous solutions in the work of Superstudio, Yona Friedman, and Rem Koolhaas (pages 40–43, 73–77, 144–146)! But, if there is one work in the collection that expresses the unease of living today or in future times, it is Max Peintner's *Take-Off* of 1974 (page 123).

ANTONELLI: Just how did you decide on the collection's starting the point in time with Buckminster Fuller?

APRAXINE: I thought of Fuller as a kind of historical antecedent for much of the material in the collection. It is not really a starting point. His drawings signal the continuity of some ideas. We wanted the collection to be about the diversity of contemporary work, and did not necessarily want to trace its roots to the early part of the century. But if one has to find a historical precedent, why not make it an American? It is, after all, an American collection. As you know, there are not too many American-born architects in the collection apart from Peter Eisenman and John Hejduk.

ANTONELLI: Why do you think there are so many British and Italian architects included?

APRAXINE: I think they were the most extreme exponents of certain ideas. They pushed the vision as far as it could go.

ANTONELLI: It's interesting to compare the two, how one is based on technology, the other on metaphysics.

APRAXINE: Right. It's not a surprise that Norman Foster and Richard Rogers come from Britain. Think of the Crystal Palace; it is not a surprise that the British drawings in the collection are imbued with a romance with technology. And it is not a surprise that metaphysics plays such an important part in the Italian context. The past is so ever-present in Italy that one must acknowledge it (as in Rossi) or negate it in an extreme radicalism (as in Superstudio). The only thing that disappoints me from that period is that there were no French examples. But there simply weren't any. One has the feeling that Le Corbusier had cleared the decks.

ANTONELLI: What did this collection teach you about your own perception of the world?

APRAXINE: Certainly it taught me something about the impact of an individual's creative mind on the world at large. Until then I had only been involved with artists fighting their solitary battles in the studio, in front of the blank canvas. Architects are out there in the real world, dealing with patrons, contractors, municipalities, and dreaming of projects that could change the look of cities and countries, and affect the lives of millions. The

architectural canvas is much richer, and infinitely larger than the one I was accustomed to. It was exhilarating. I think what I really learned is to better appreciate the interconnection of all the disparate elements of a culture. I was also moved by the fact that these architects were actively involved with the social issues of their times.

Many of the architects I met, from Rossi to Price, were very much on the Left politically, which is what I considered myself to be. I am using the term in its European connotations. I know that in America it makes people nervous. In Europe, it simply denotes a set of values in which the well being of the many is a concern that has to be addressed by government. How some broad humanistic concerns found concrete expression in a building like Rossi's Gallarate housing project in Milan is fascinating. Price's desire to involve the workers at the White Oak Plantation in active participation in the creative process was another manifestation of this idea.

I often look back with great fondness to those years of my intense involvement with architecture and architects. I had the good fortune to find my way to a much wider and more varied landscape than I had known before, one that has stayed with me ever since.

EPILOGUE

CEDRIC PRICE

British, born 1934

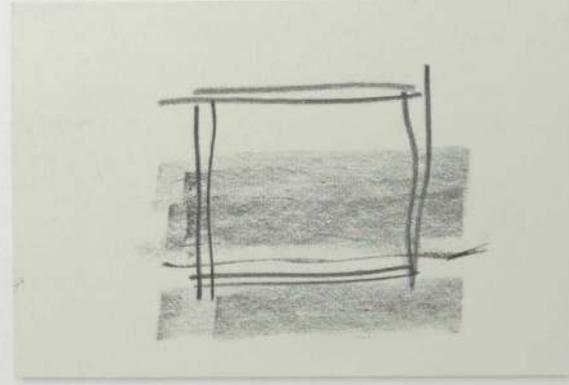
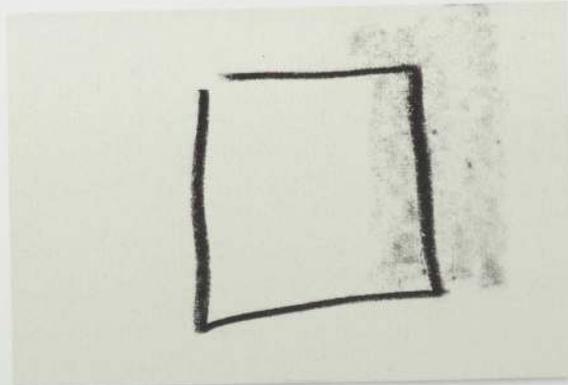
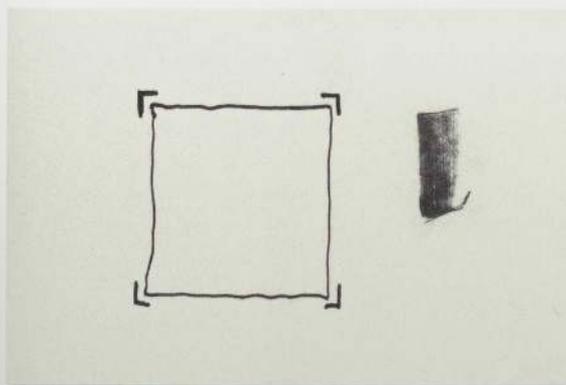
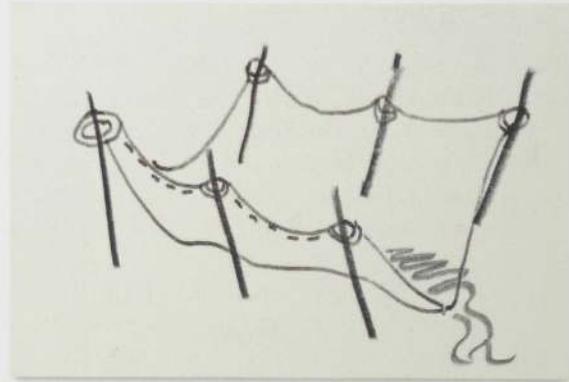
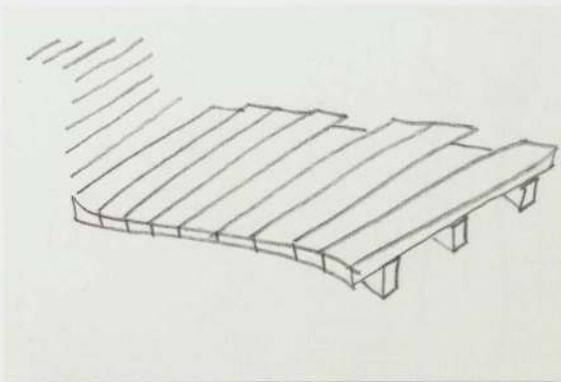
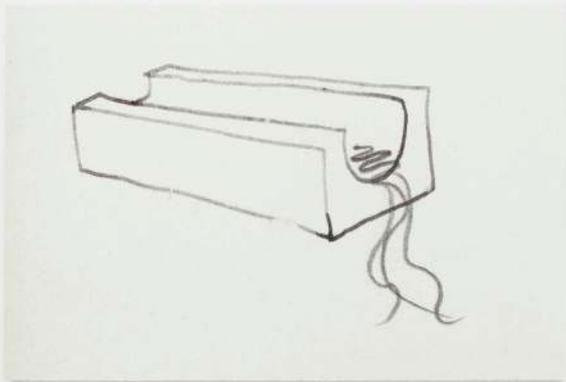
The Generator, an early investigation into artificially intelligent architecture, was the only commission and the latest project in the Gilman collection. It was designed with no specific program, but only a desired end-effect, in mind.

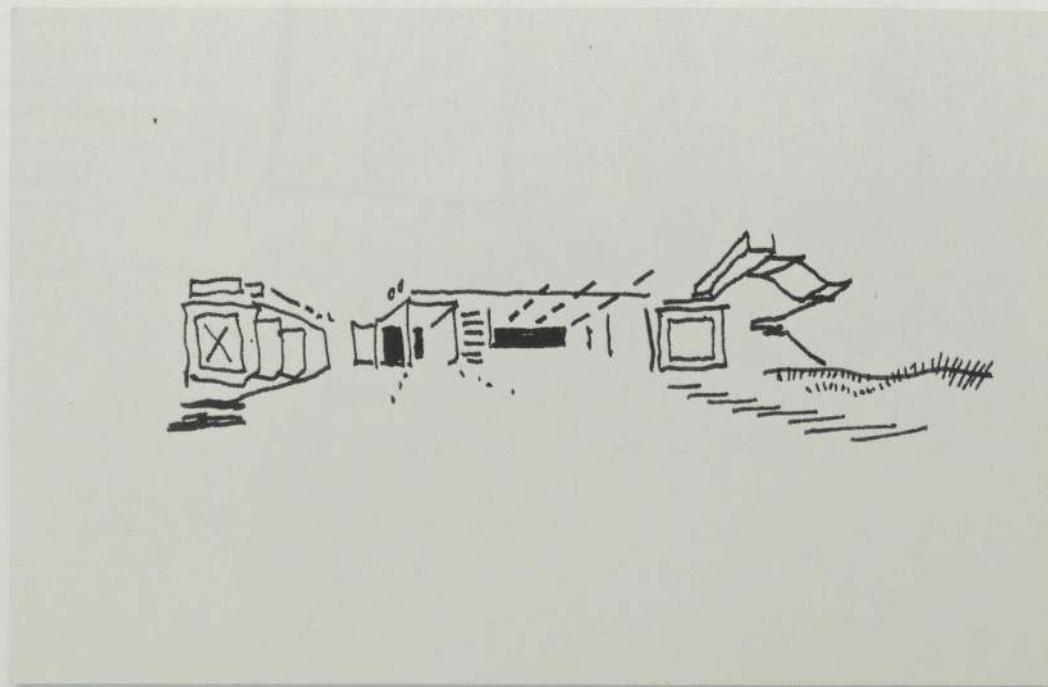
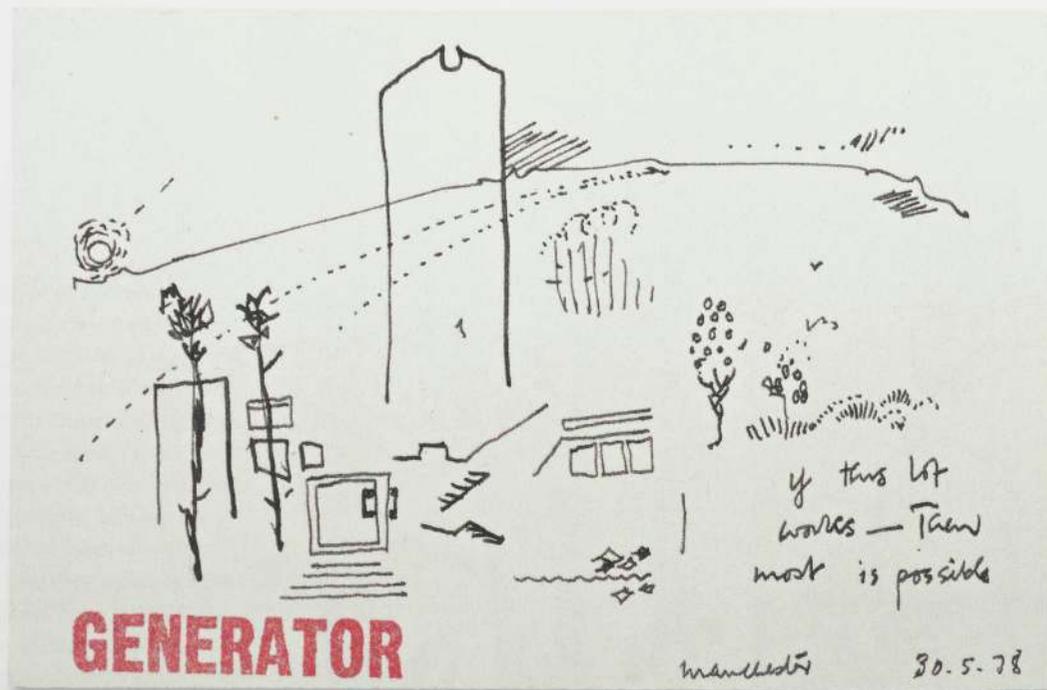
The project was commissioned by Howard Gilman for a site at the Gilman Paper Corporation's White Oak Plantation in Florida to provide a facility to house dance, theater, and visiting artists. Cedric Price explored a type of architecture that, like medicine, would operate less as a remedy for the ills of society and more as a preventive system, creating flexible conditions previously thought impossible within a socially beneficial environment. This complicated project, for which many drawings and diagrams were made, was essentially a system of cubelike elements that could be moved and combined with others or with additional elements to

create temporary structures for a rehearsal or performance space, housing, or just contemplation within a lush natural setting. It was intended to operate by means of a central computer with which a visitor would combine any of 150 of the Generator's four-by-four-meter, fully serviced, air-conditioned cubes, or walls, screens, gangways, and communications channels into a structure. The computer would encourage the visitor to continually refine and improve his or her design. In fact, change and artistic freedom are the underlying ideas of the Generator; they were considered prerequisites, and the computer was to be programmed to make unsolicited alterations should the framework remain static. Price's intricate scheme to provide an environment dedicated to nurturing the arts was never built.



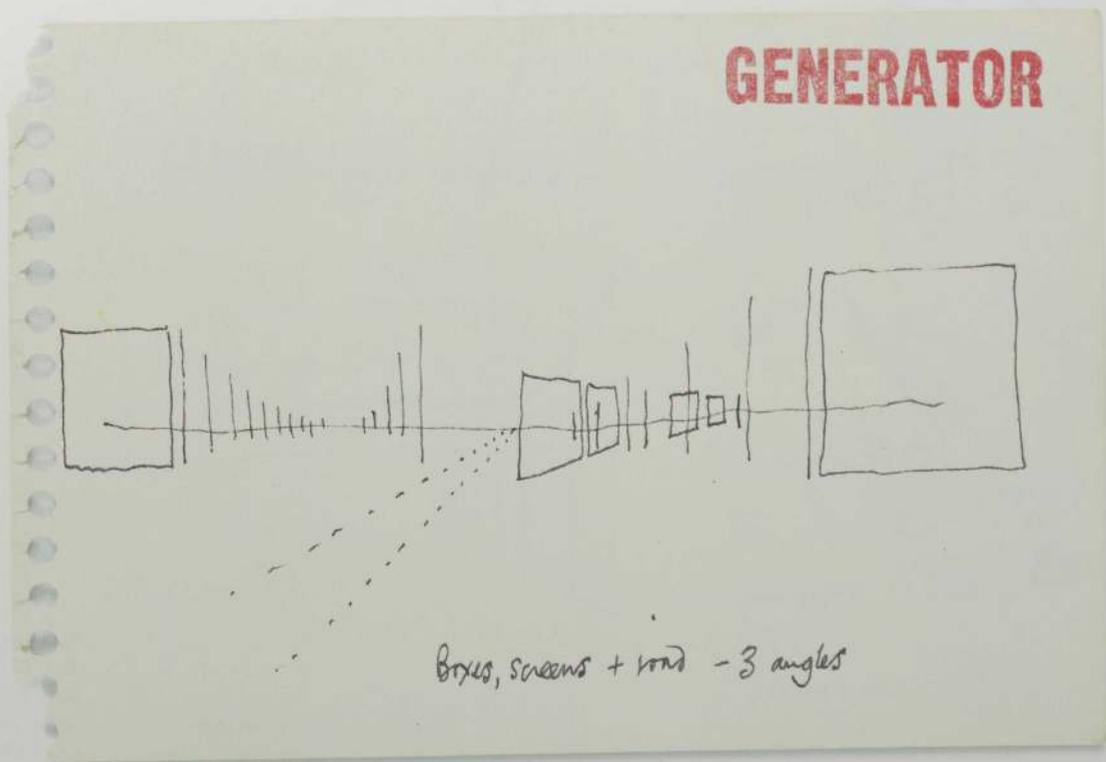
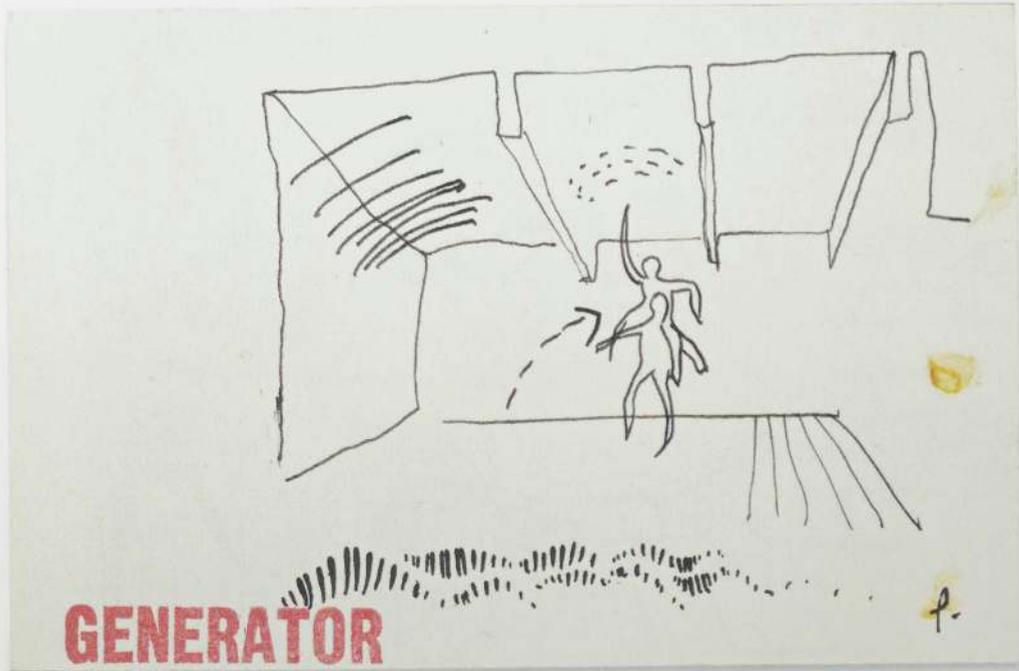
Generator, White Oak, Florida. Project, 1978–80. Sketch "On St. Marys River": watercolor and graphite on paper, 6 1/8 x 4" (15.6 x 10.2 cm)





RIGHT AND OPPOSITE

Generator, White Oak, Florida. Project, 1978–80. Perspectives and sketches: ink on paper with ink stamp, one mounted on board, each $3\frac{3}{4} \times 5\frac{3}{4}$ " (9.2 x 14.3 cm) or 4 x 6" (10.2 x 15.2 cm)



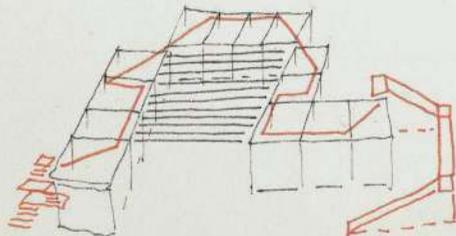
GENERATOR

30.12.77

Ref also w/ sketch book



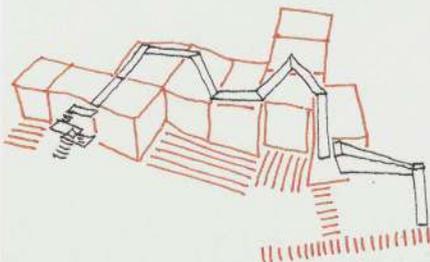
upper level 'controlled' routing



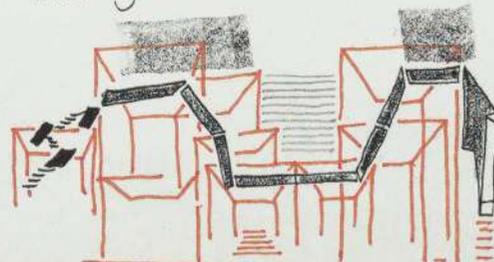
with 45° ended car walks in places.

GENERATOR

31.12.77



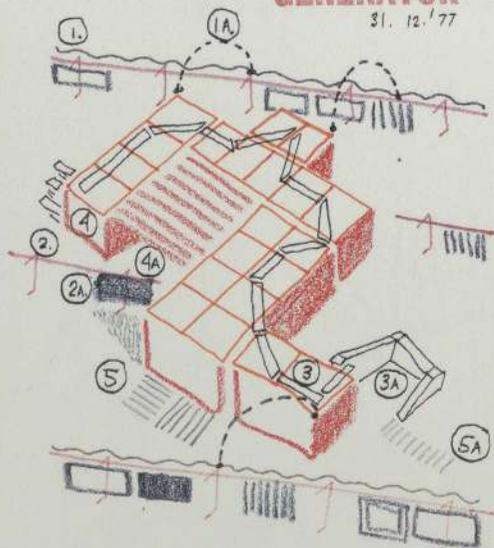
H.L. routing as commencement barrier breakers.



H.L. routing as terminal distributors

GENERATOR

31.12.77

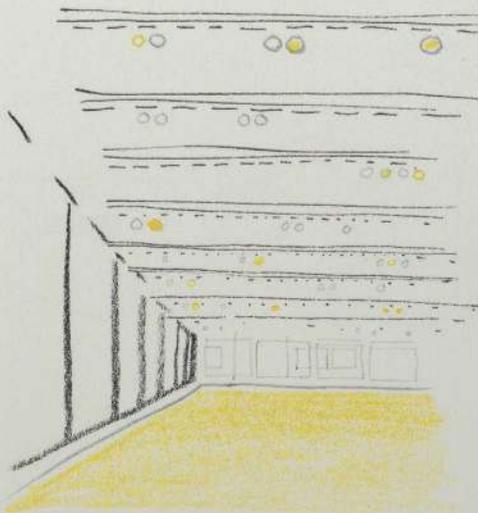


- | | |
|-------------|------------|
| 1. Feed | 1A Connect |
| 2. Route | 2A Control |
| 3. Demark | 3A Retail |
| 4. Contain | 4A Extend |
| 5. Entrance | 5A Release |

BONE & MUSCLE

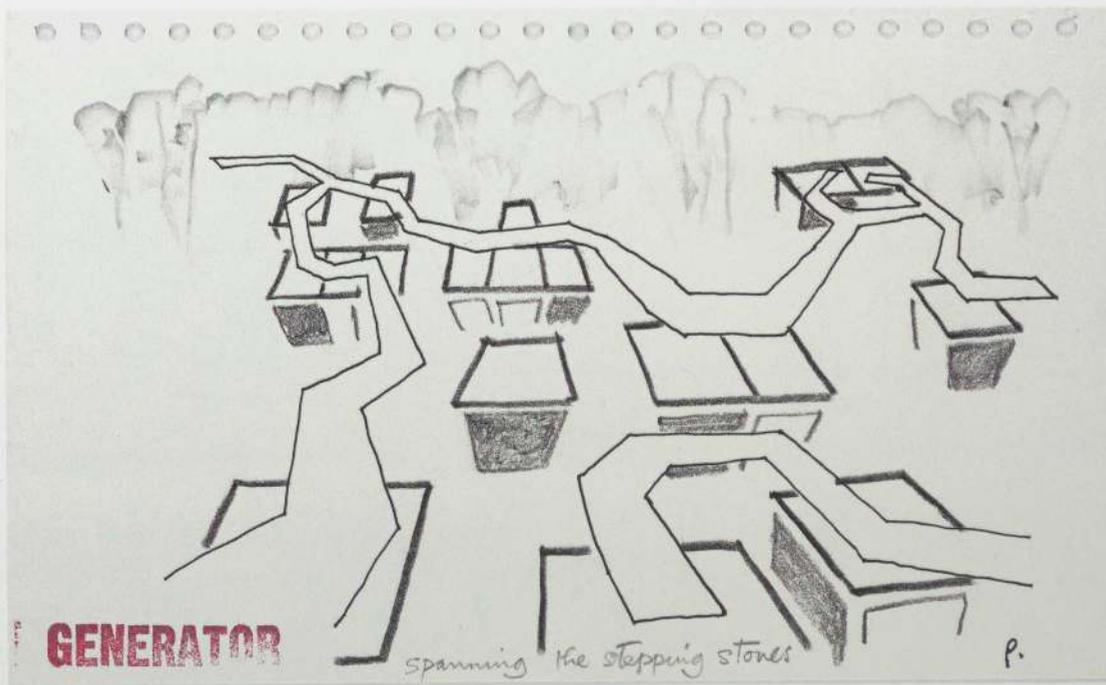
GENERATOR

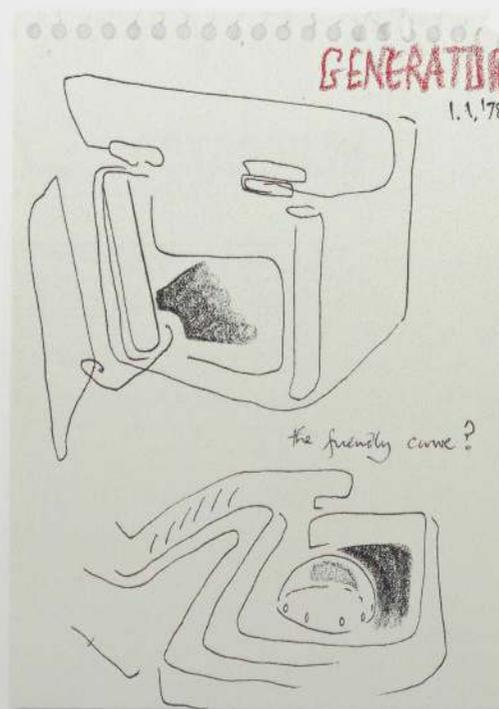
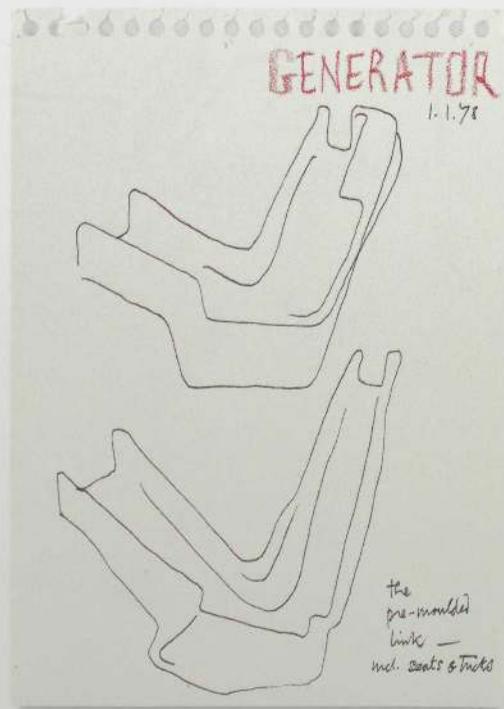
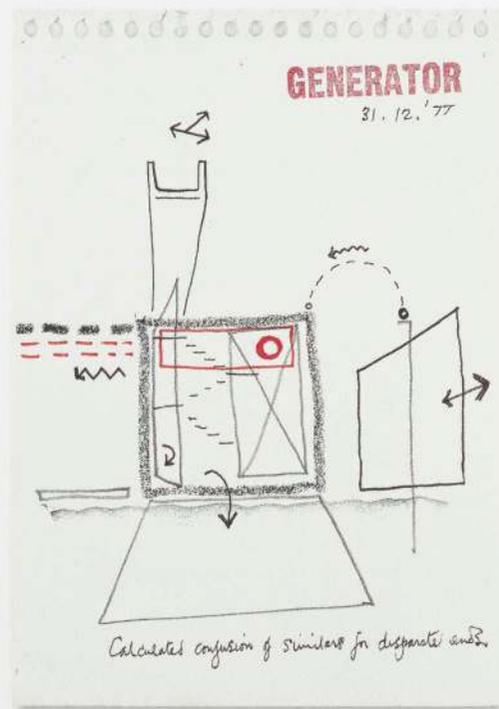
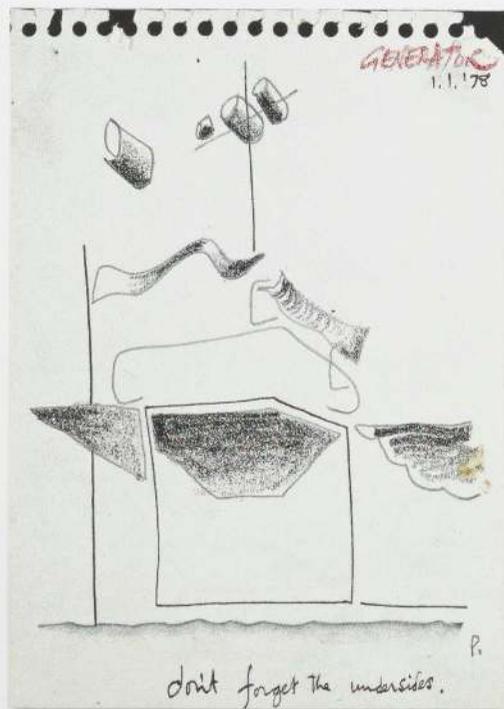
1.1.78



the ceiling + floor as landscape.

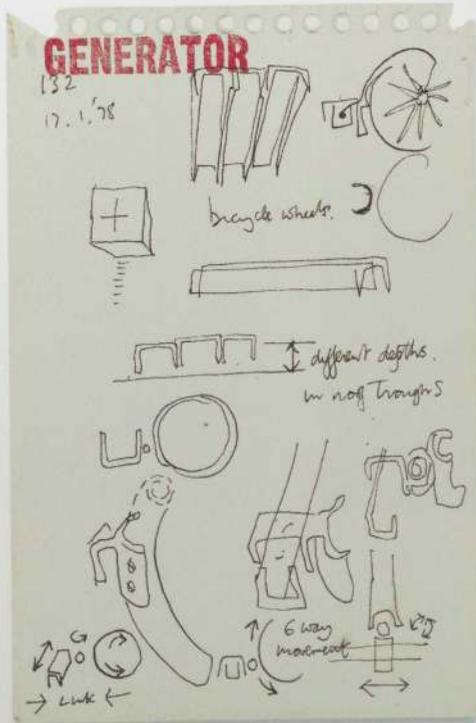
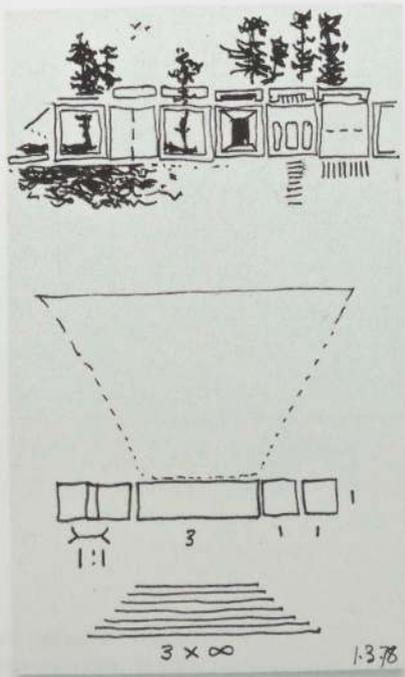
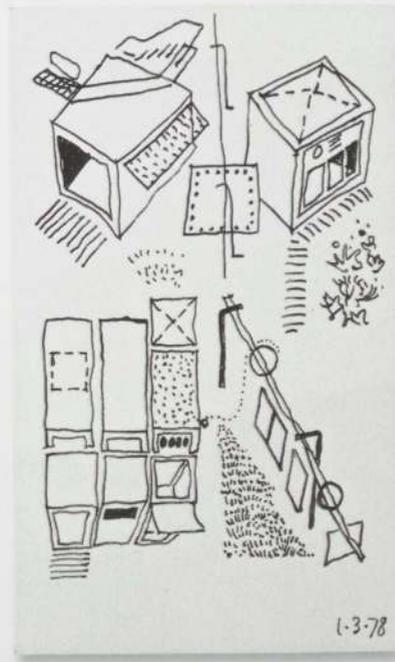
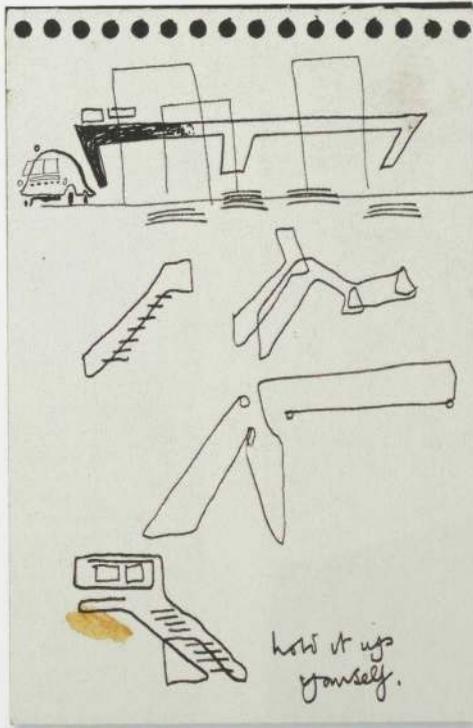
Generator, White Oak, Florida. Project, 1978-80. Design Thoughts Used as Reminders within Office B: ink, color ink, crayon, graphite, and ink stamp on paper, each 7 x 5" (17.8 x 12.7 cm)

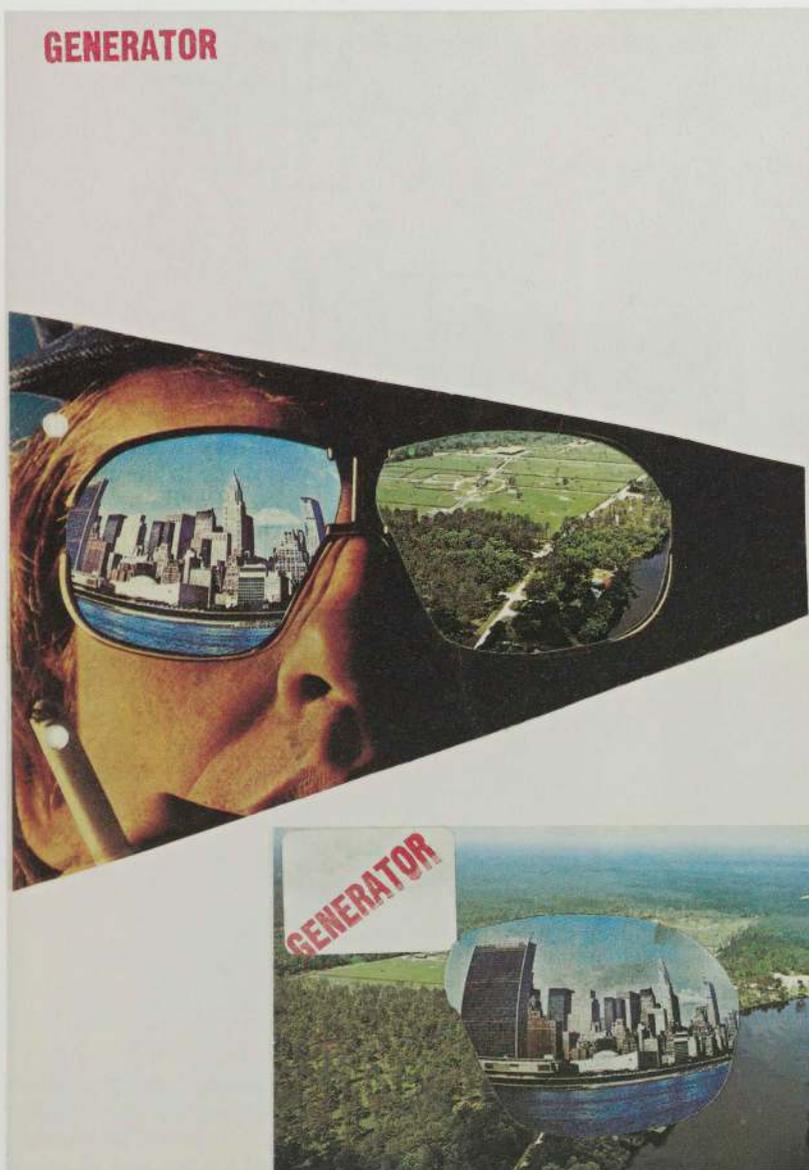




Generator, White Oak, Florida. Project, 1978-80. Perspectives and sketches: ink, crayon, color ink, graphite, and ink stamp on paper, one mounted on board, each 7 x 5" (17.8 x 12.7 cm)

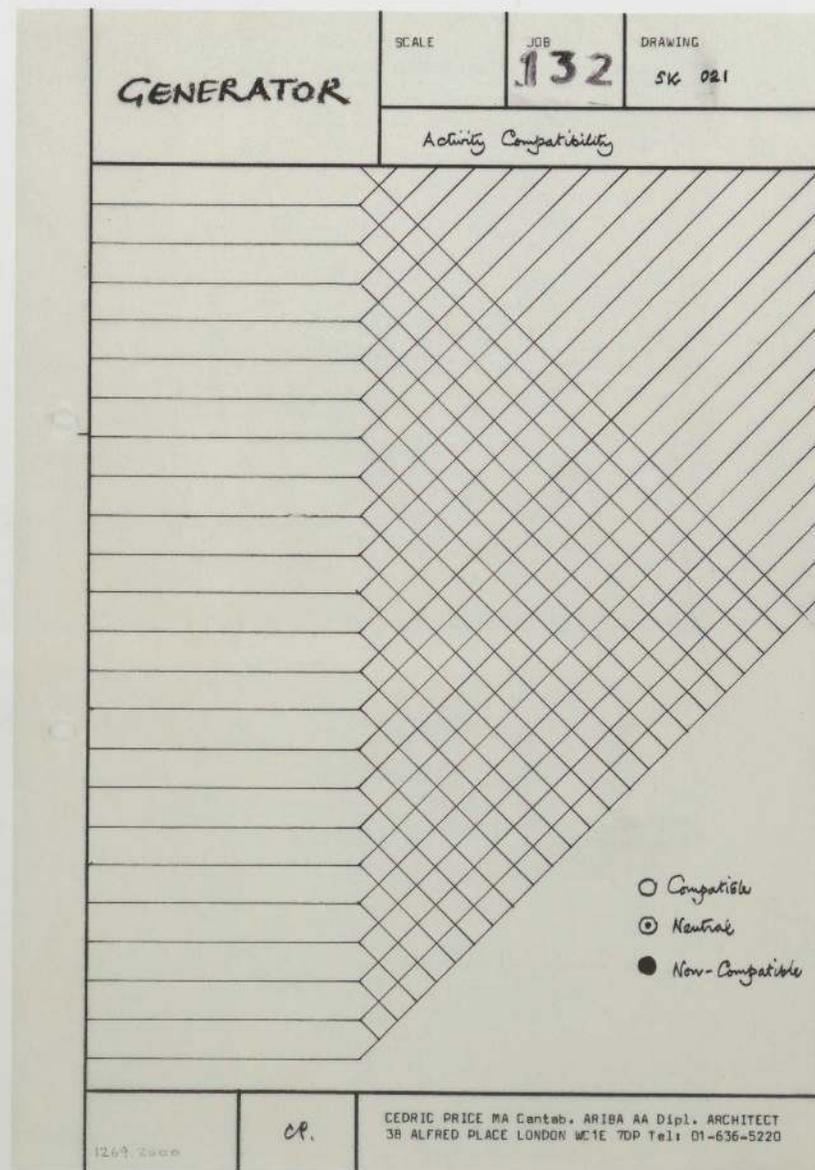
OPPOSITE
Generator, White Oak, Florida. Project, 1978-80. Sketches: all ink on paper, one mounted on board and one with ink stamp, one sheet, graphite and crayon, 6 x 4" (15.2 cm x 10.2 cm) and 5 x 3" (12.7 x 7.6 cm)





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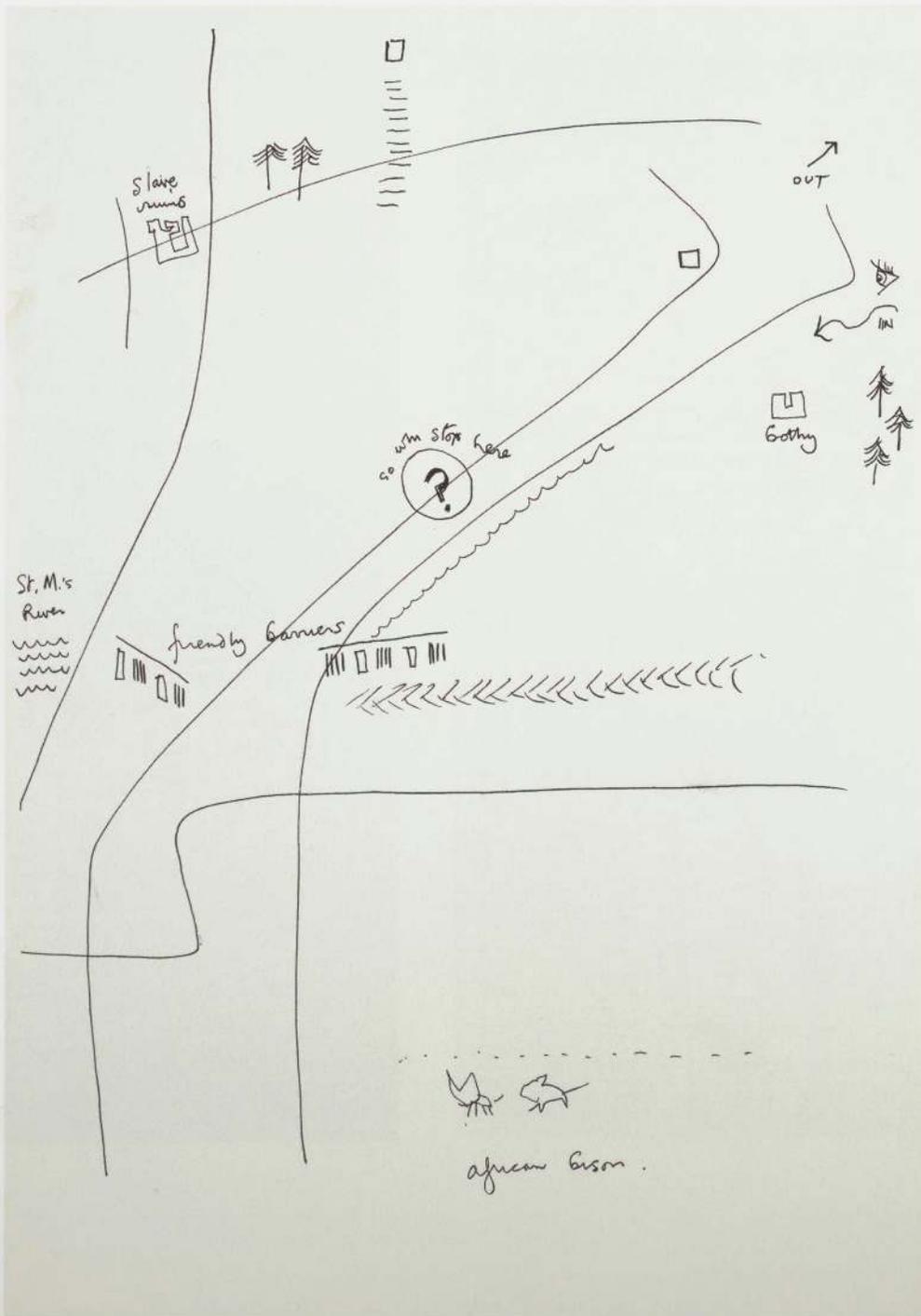
Generator, White Oak, Florida. Project, 1978-80. Untitled: cut-and-pasted printed papers with ink stamp on self-adhesive label, on paper with ink stamp, 11 1/4 x 8 1/4" (28.6 x 21 cm)

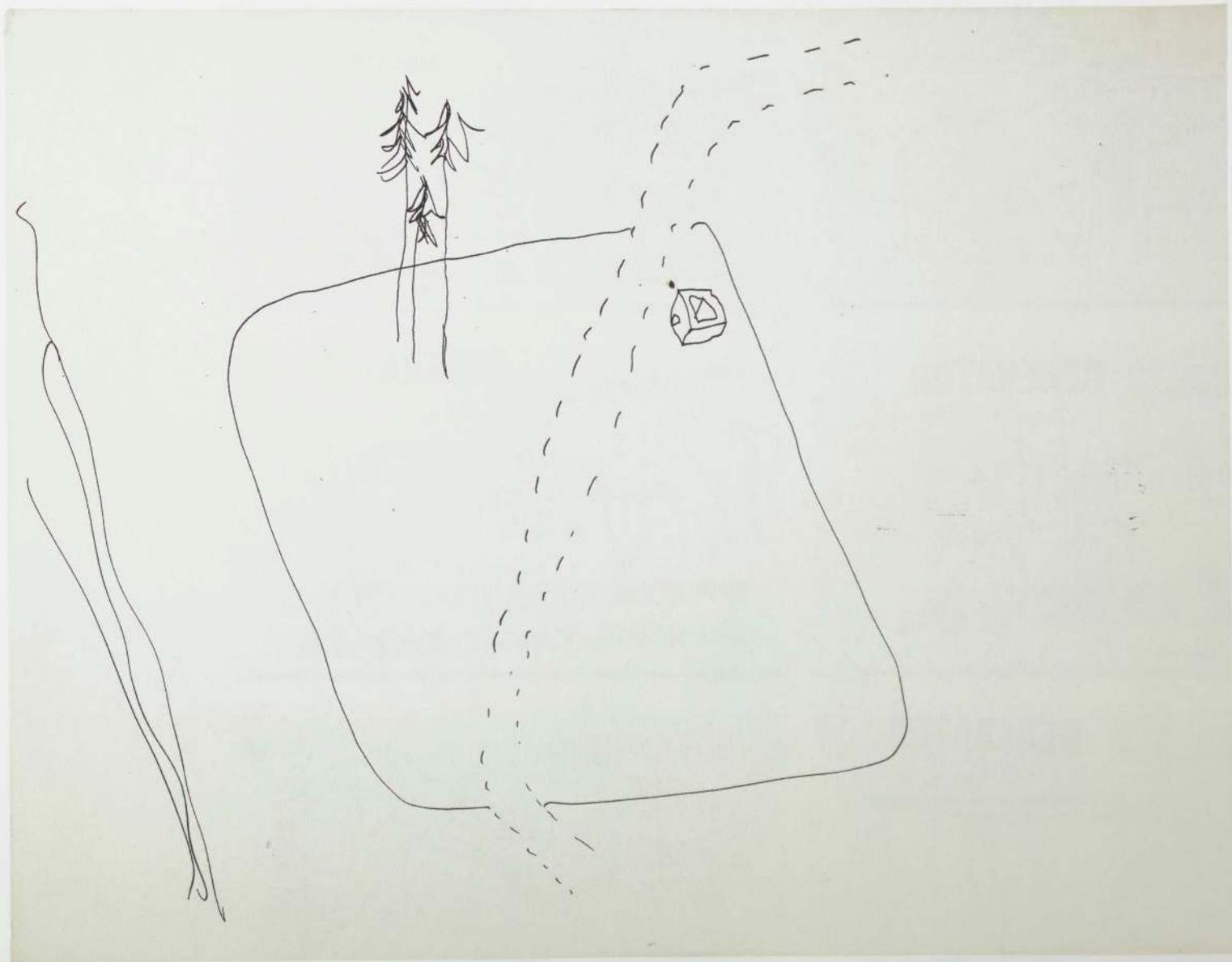


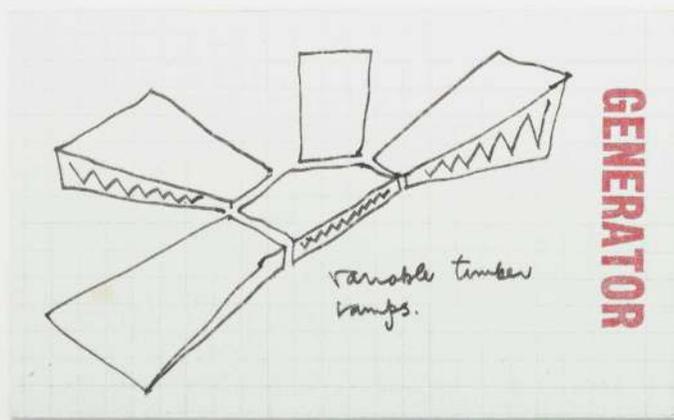
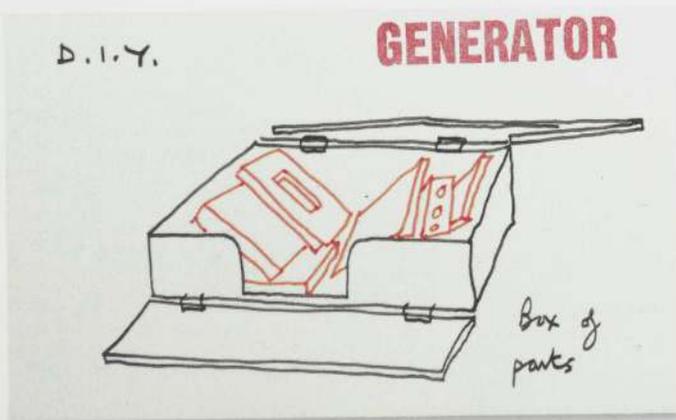
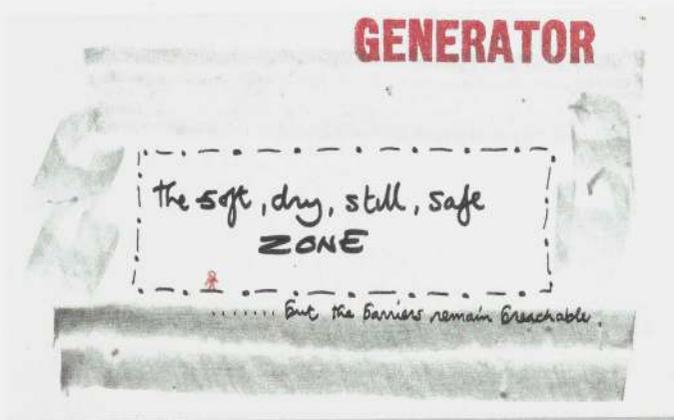
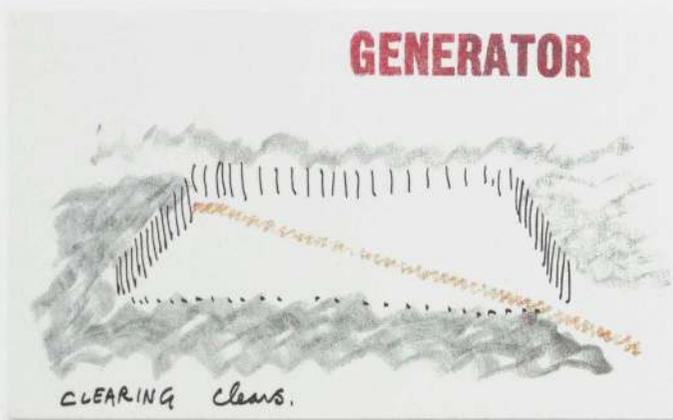
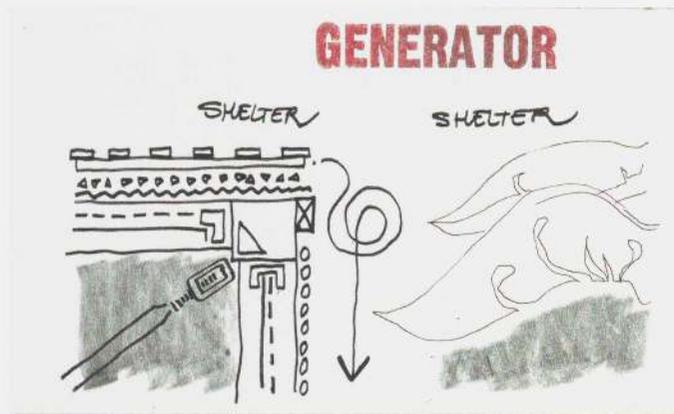
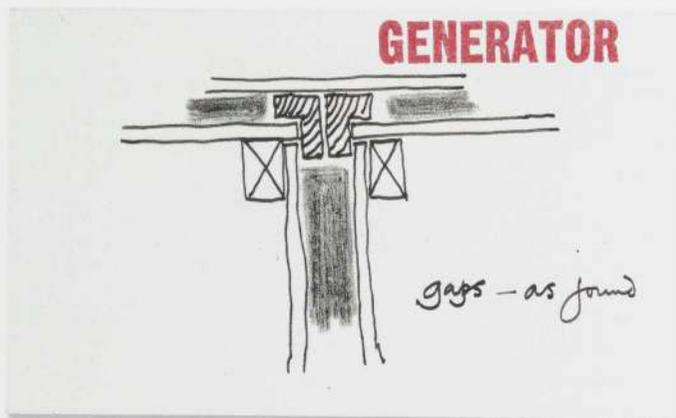
Generator, White Oak, Florida. Project, 1978-80. Activity Compatibility Graph: ink and crayon on printed tracing paper, with ink stamp, 11 1/4 x 8 1/4" (29.5 x 21 cm)



Generator, White Oak, Florida. Project, 1978-80. Site and Size Comparison: cut-and-pasted printed paper with crayon, ink, graphite, and color ink stamp on printed color paper, with ink stamp and ink, each 11 $\frac{3}{4}$ x 8 $\frac{1}{4}$ " (29.9 x 21 cm)

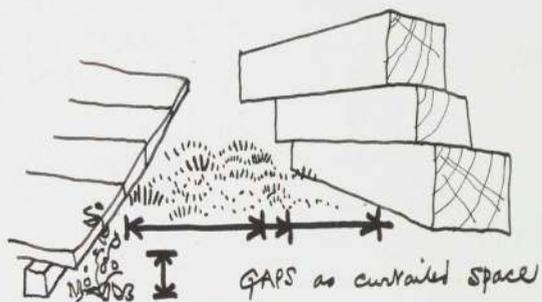




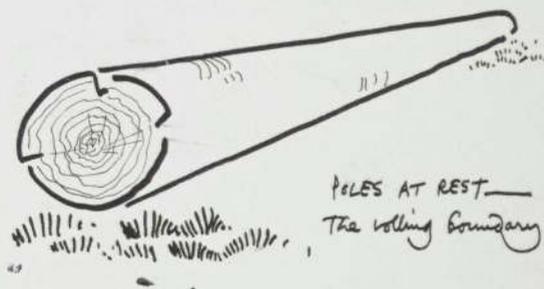


Generator, White Oak, Florida. Project, 1978-80. Selections of Design Thoughts Used as Reminders within Office B; ink, graphite, charcoal, color ink, crayon, and ink stamp on paper, one mounted on board, each 3 x 5" (7.6 x 12.7 cm)

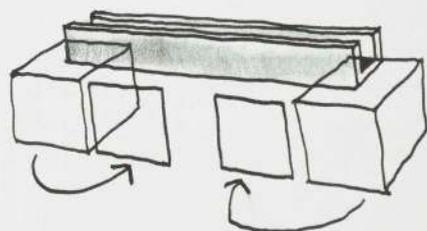
GENERATOR



GENERATOR

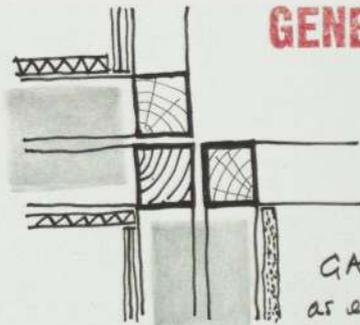


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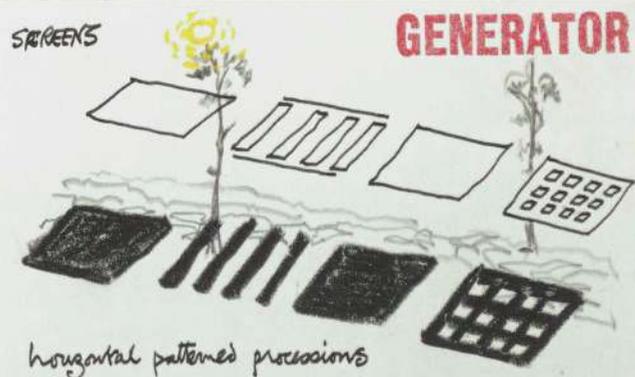
Winged planes with V bridge.

GENERATOR

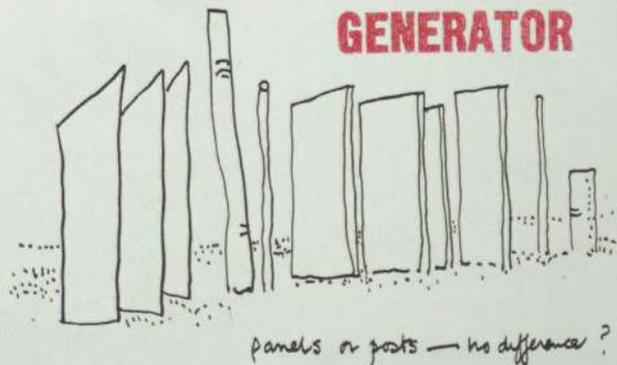


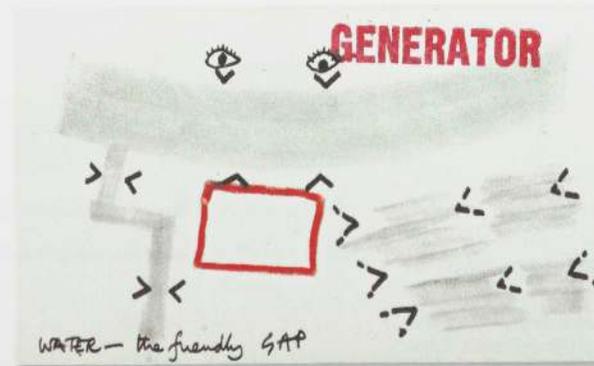
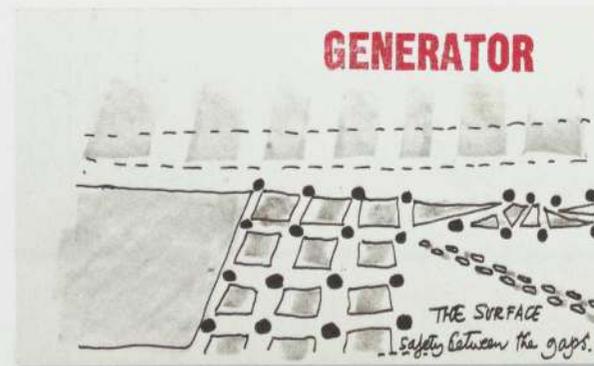
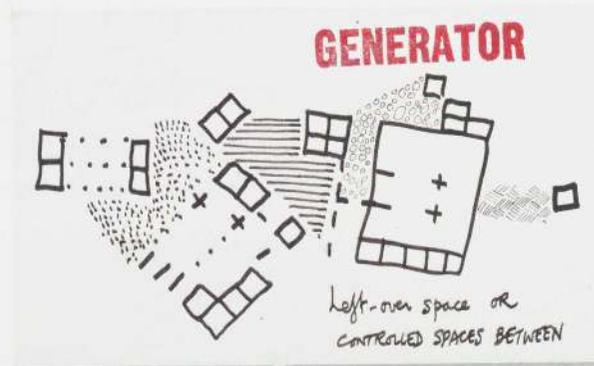
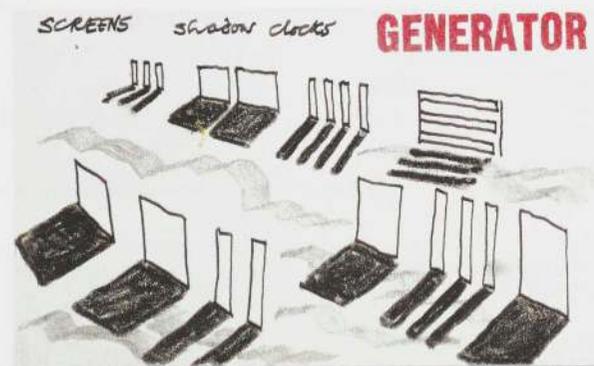
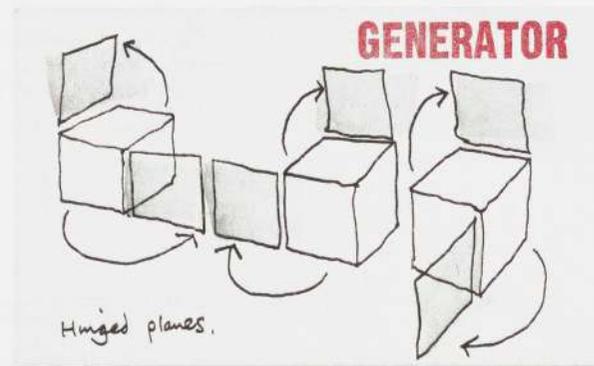
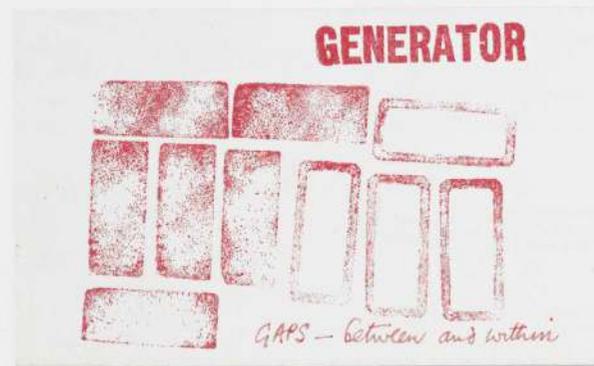
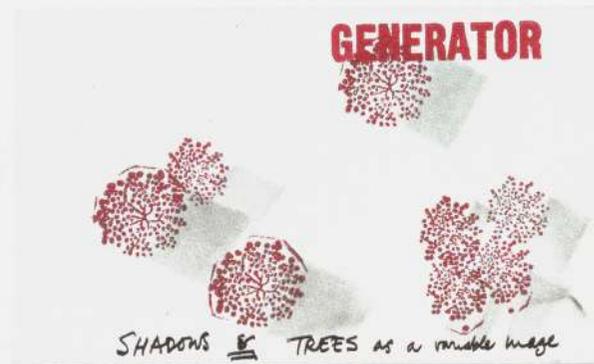
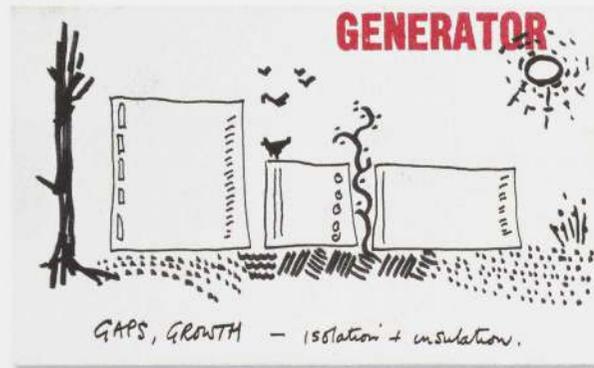
GAPS —
as engineers

GENERATOR



GENERATOR

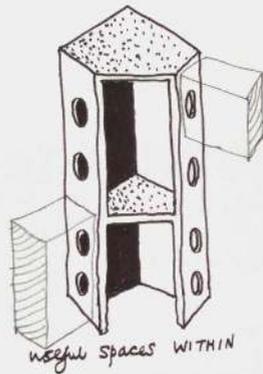




Generator, White Oak, Florida. Project, 1978-80. Selection of Design Thoughts Used within the Office, C: ink, crayon, and graphite with ink stamps on paper, two mounted on board, each 3 x 5" (7.6 x 12.7 cm)

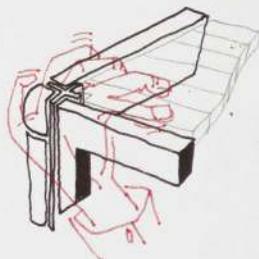
GENERATOR

CORNERS.



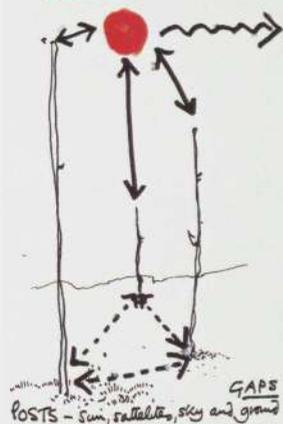
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CORNERS.

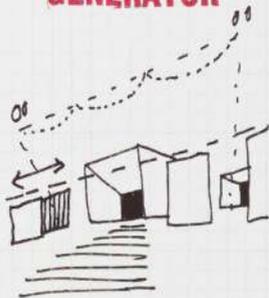


The capacity to be able
to HOLD and FEEL

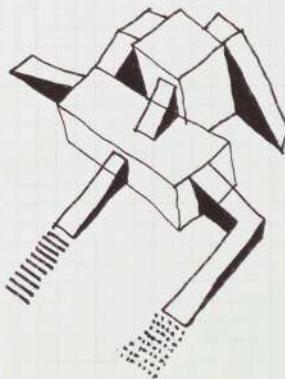
GENERATOR



GENERATOR

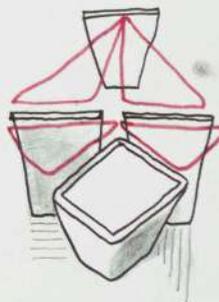


GENERATOR



GENERATOR

GAPS



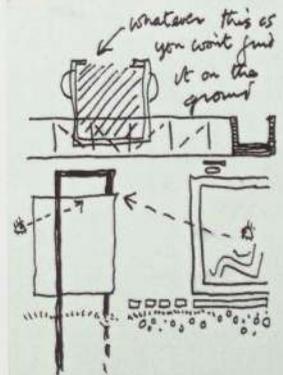
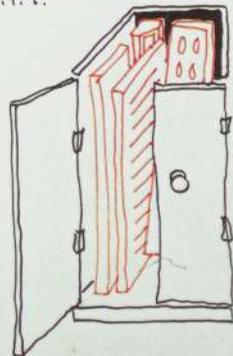
The Triangles in the air

GENERATOR



GENERATOR

D.I.Y.

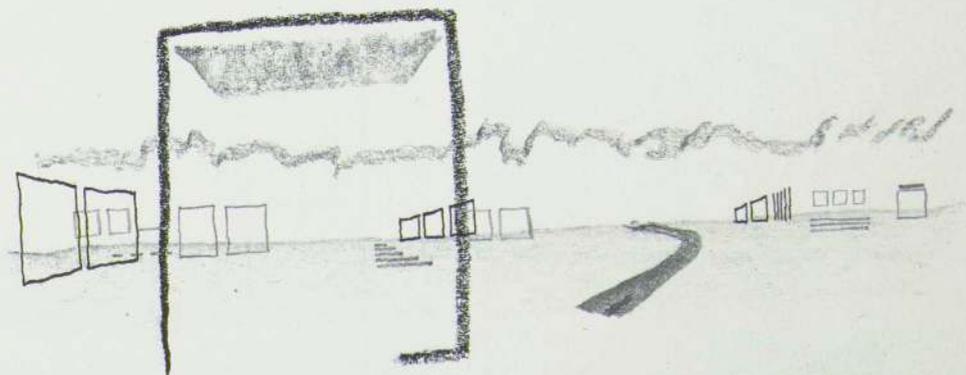


GENERATOR

Generator, White Oak, Florida. Project, 1978-80. Selection of Design Thoughts Used as Reminders within Office D; ink, color ink, graphite, and crayon on paper with ink stamp, one mounted on board, each 4 1/8 x 3" (12.4 x 7.6 cm)

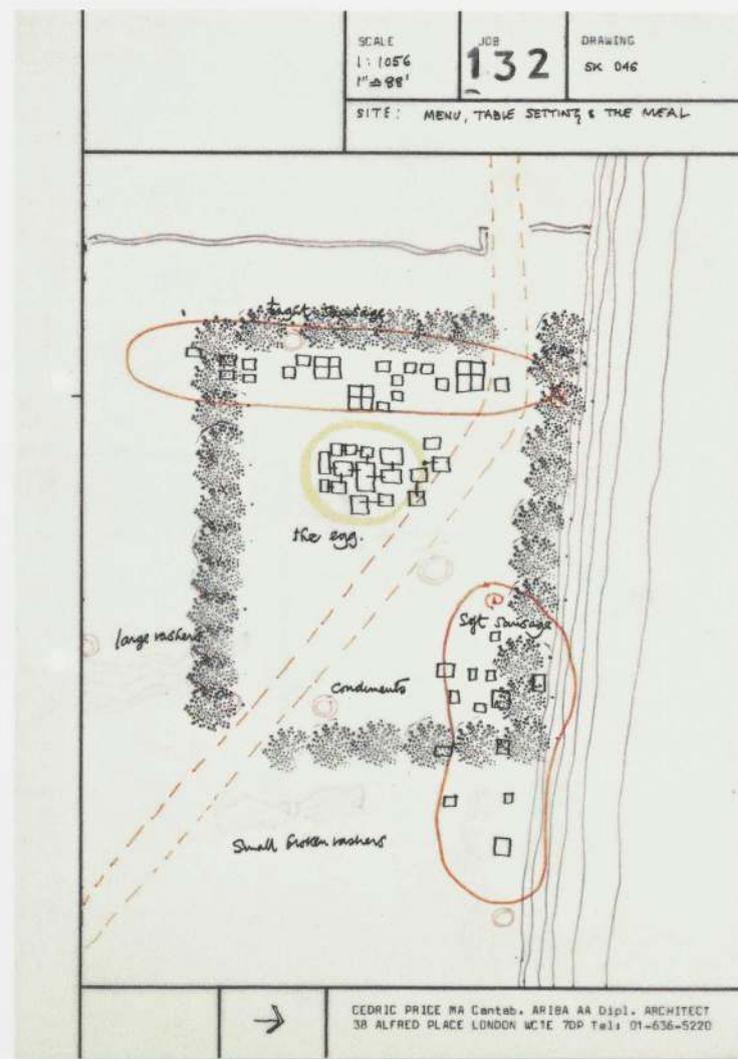
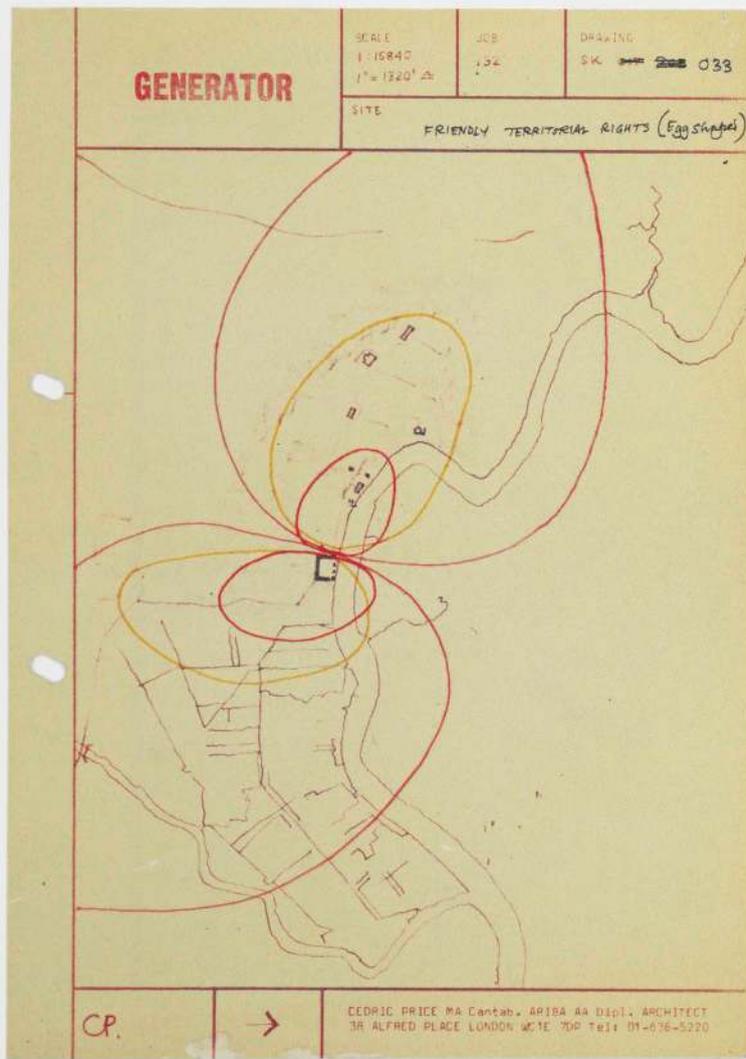


ABOVE AND OPPOSITE
Generator, White Oak, Florida. Project,
1978-80. Overriding architectural perspec-
tives: graphite and ink on paper, mounted
on board with ink stamp, one with crayon,
8 x 10 (20.3 x 25.4 cm) and 8 x 9 1/2"
(20.3 x 24.1 cm)

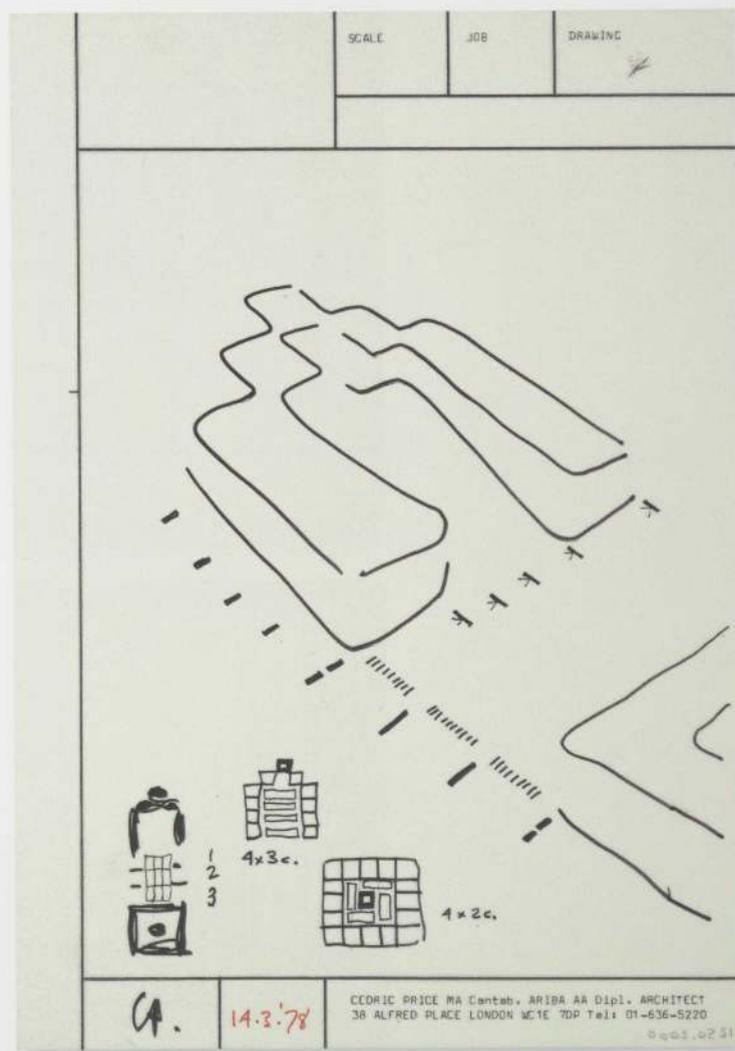
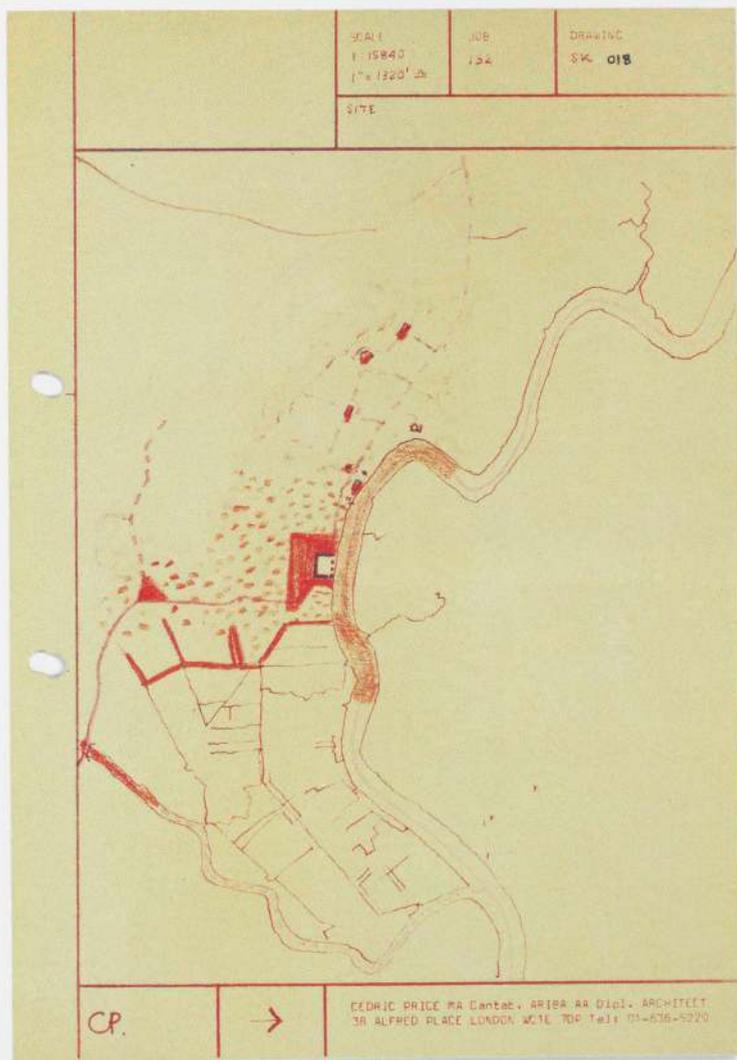


never look empty, never feel full.

GENERATOR



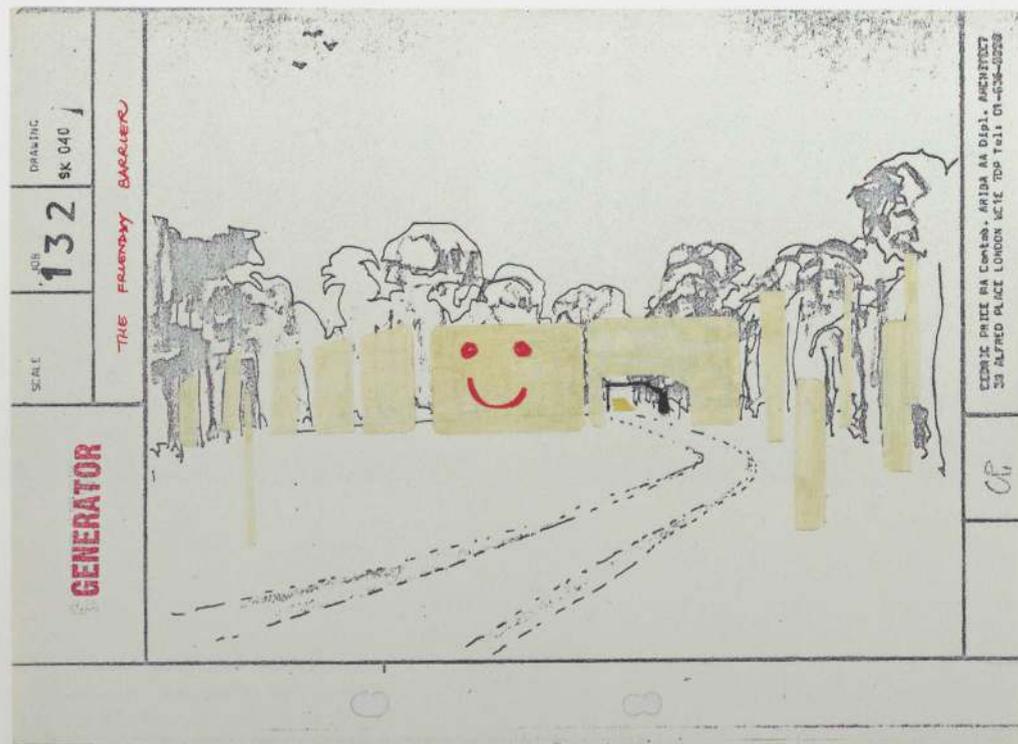
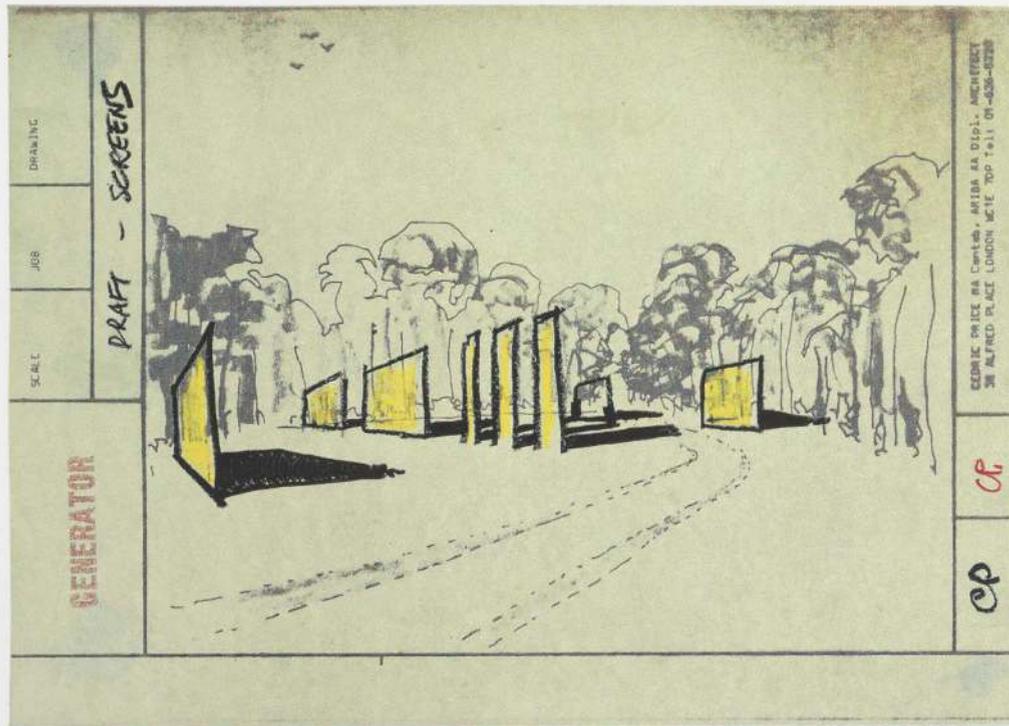
ABOVE AND OPPOSITE LEFT
Generator, White Oak, Florida. Project,
 1978-80. The Site Large and Small: three
 sheets, left to right, color ink, ink, and ink
 stamp on diazotype; ink, color ink, and ink
 stamps on printed paper; crayon and ink
 on diazotype, each 11 3/4 x 8 1/4" (29.8 x
 21 cm)

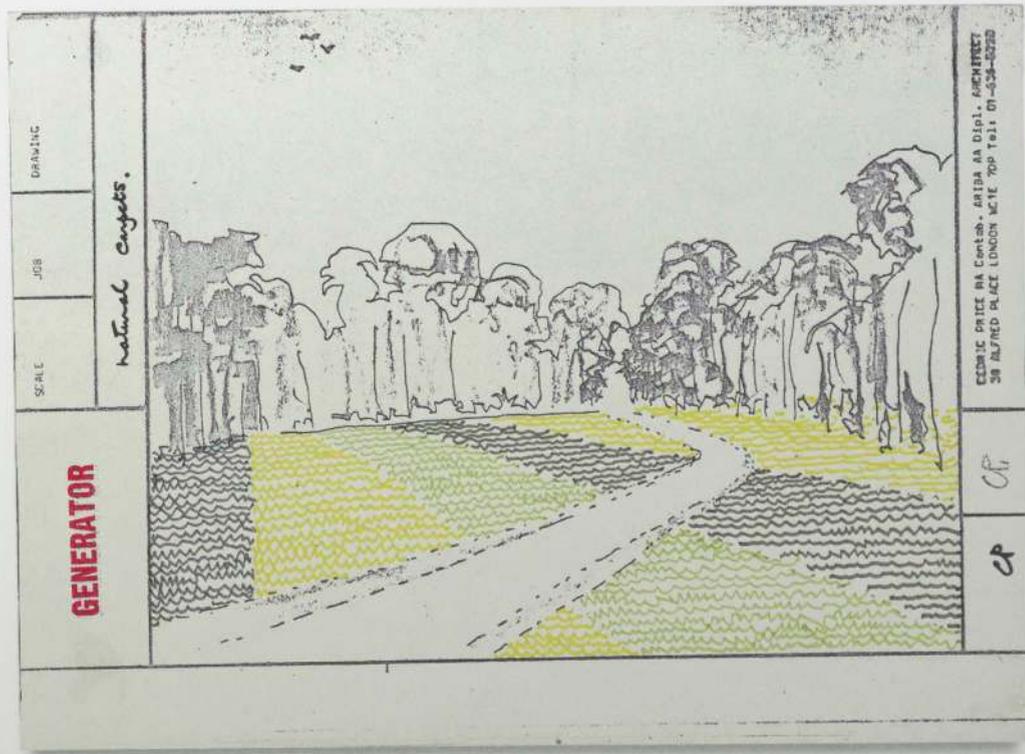
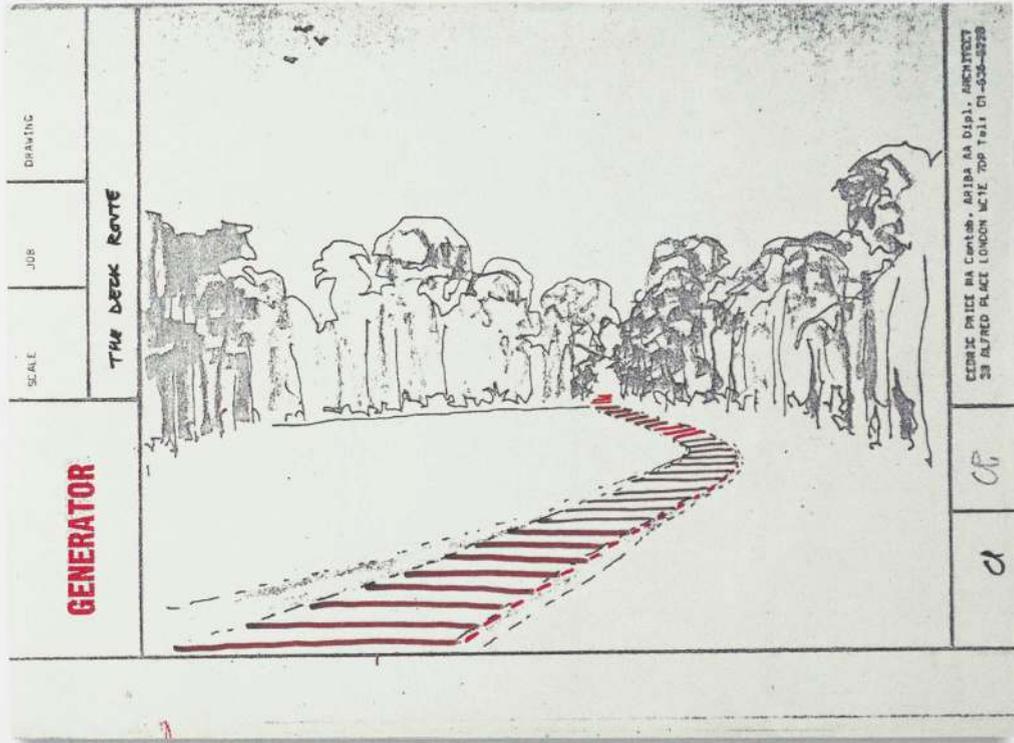


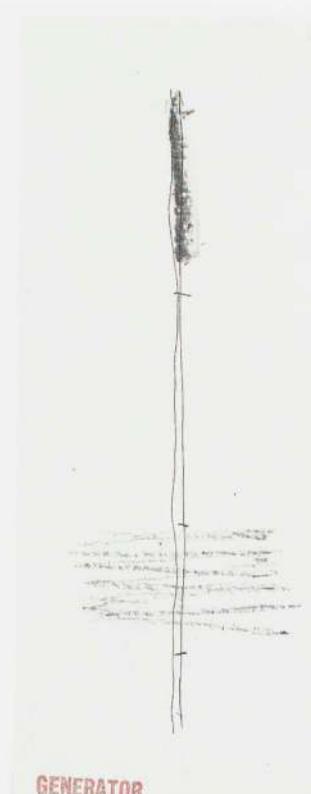
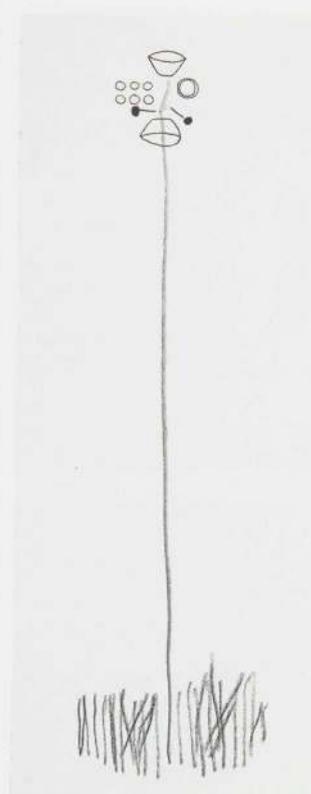
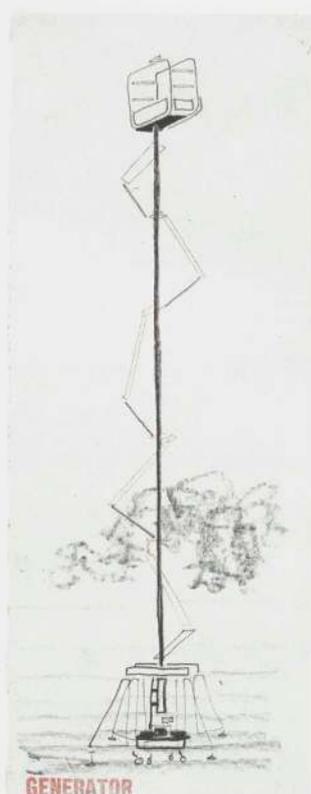
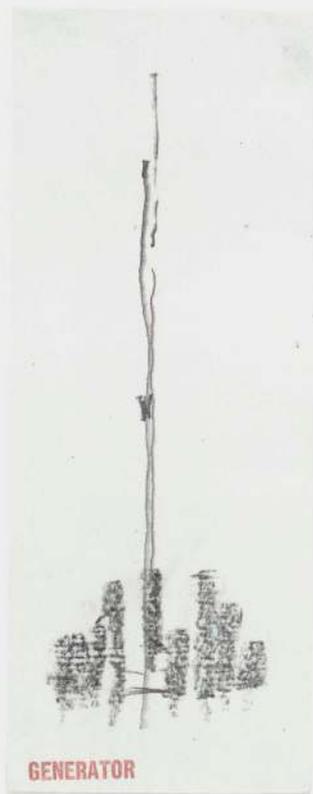
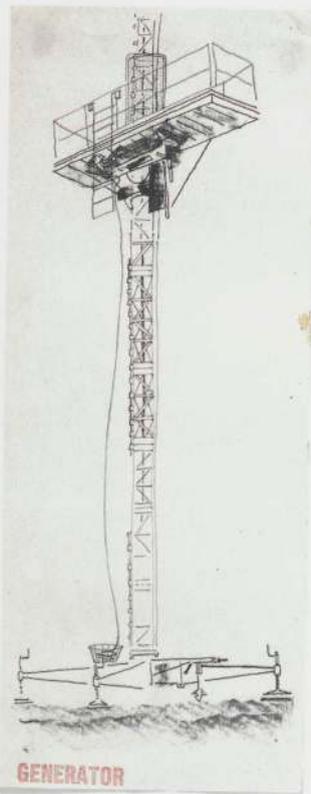
Generator, White Oak, Florida. Project,
1978-80. Plan, elevation, and perspective
(1978): ink and color ink on printed tracing
paper, 11 7/8 x 8 1/2" (29.8 x 21 cm)

RIGHT AND OPPOSITE

Generator, White Oak, Florida. Project, 1978–80. Development of the “Friendly Barrier Concept”: crayon, ink and ink stamp on electrostatic print; color ink, ink, and ink stamp on electrostatic print; crayon on cut self-adhesive labels on electrostatic print, with crayon and ink stamp; color ink and ink stamp on electrostatic print, mounted on board, each 8 1/4 x 11 3/4" (21.6 x 29.9 cm)

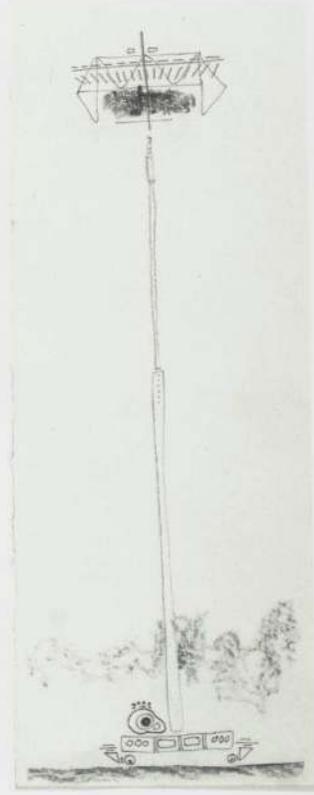
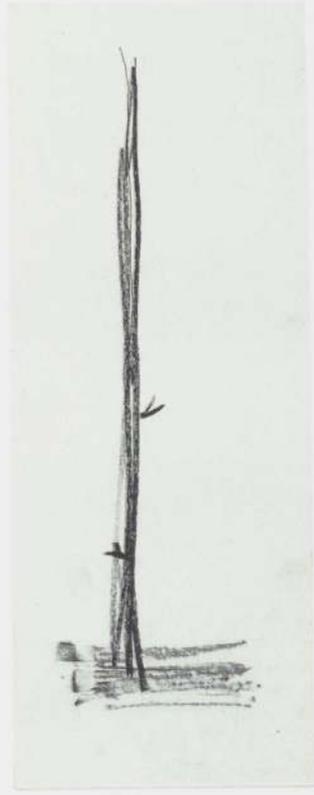
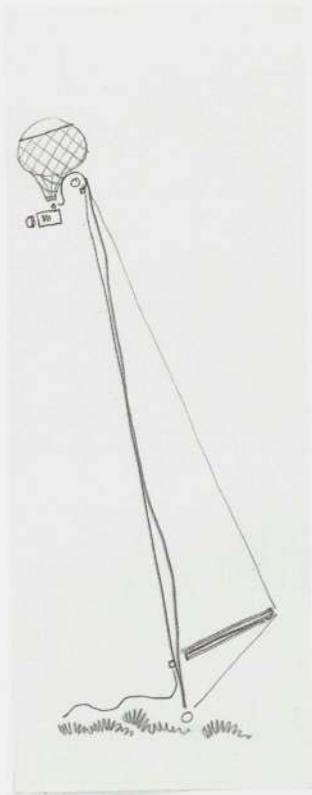
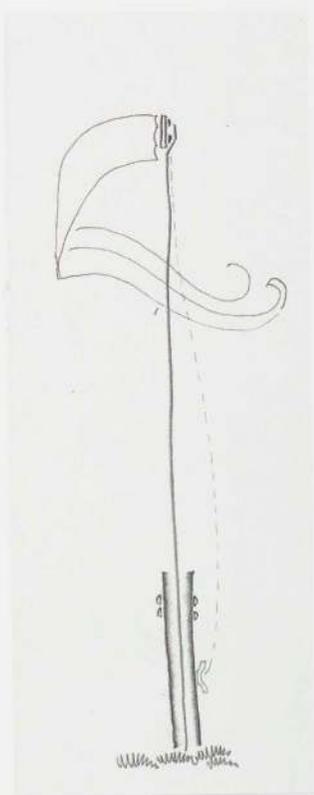




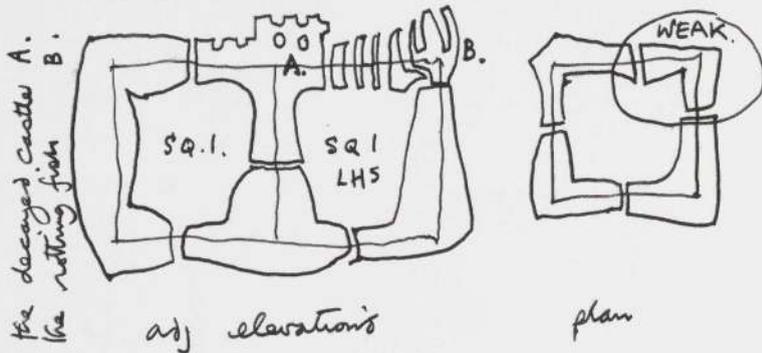


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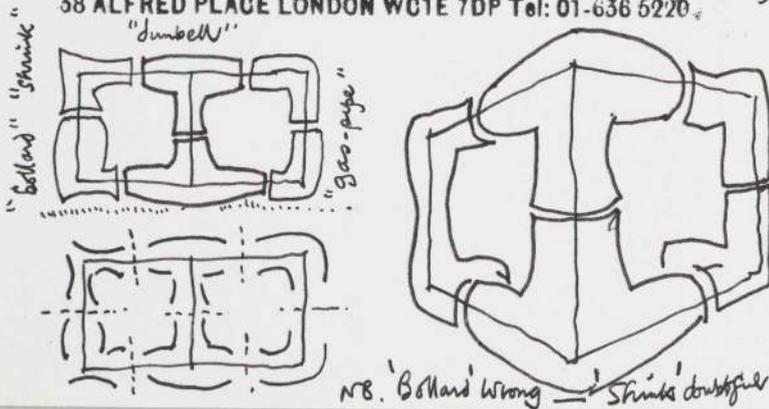
ABOVE AND OPPOSITE
Generator, White Oak, Florida. Project,
1978-80. Trees natural and man-made,
site totems: graphite, ink, crayon, and ink
on paper, with color ink stamp, each 13 x
5" (33 x 12.7 cm)



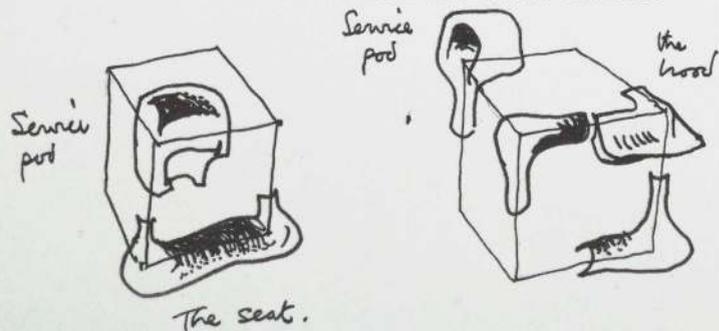
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 38 ALFRED PLACE LONDON WC1E 7DP Tel: 01-636 5220 ^{28.1.79}



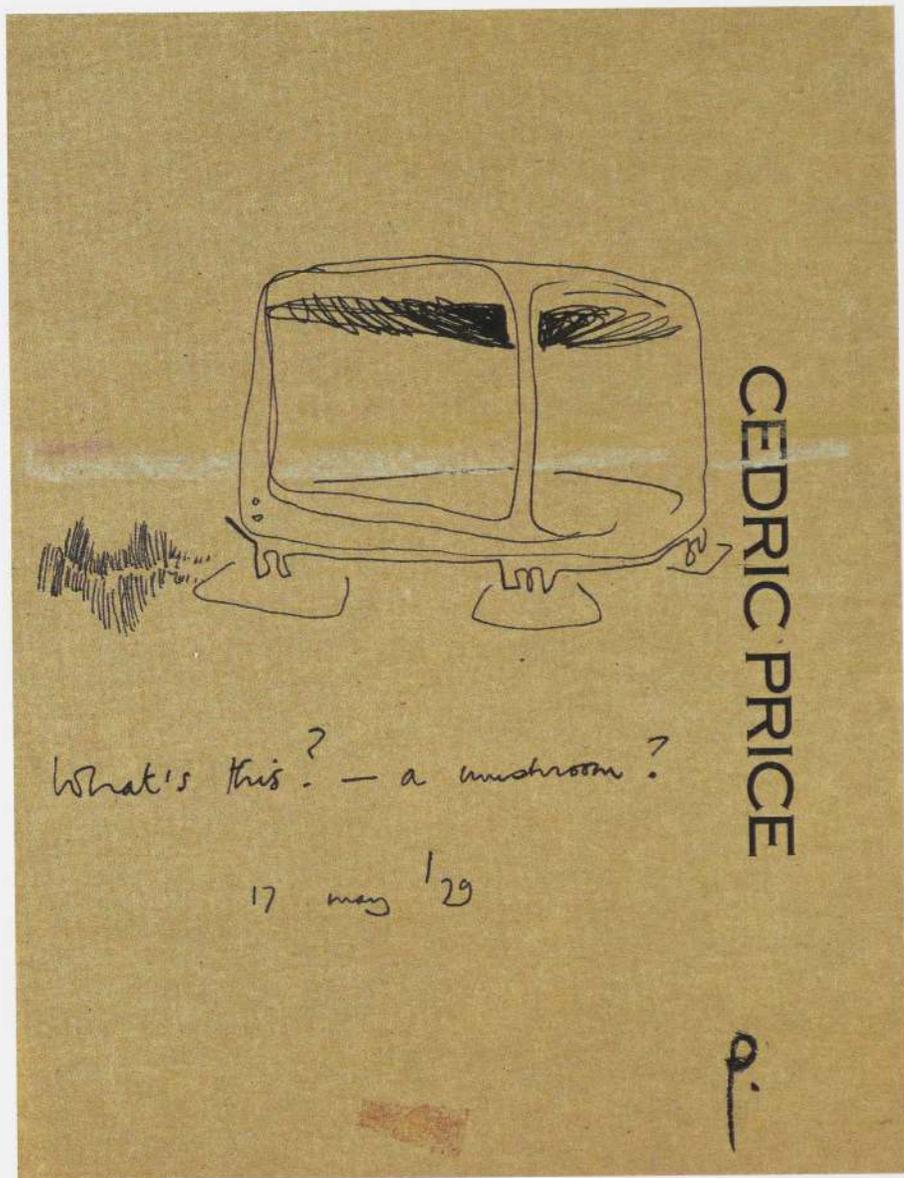
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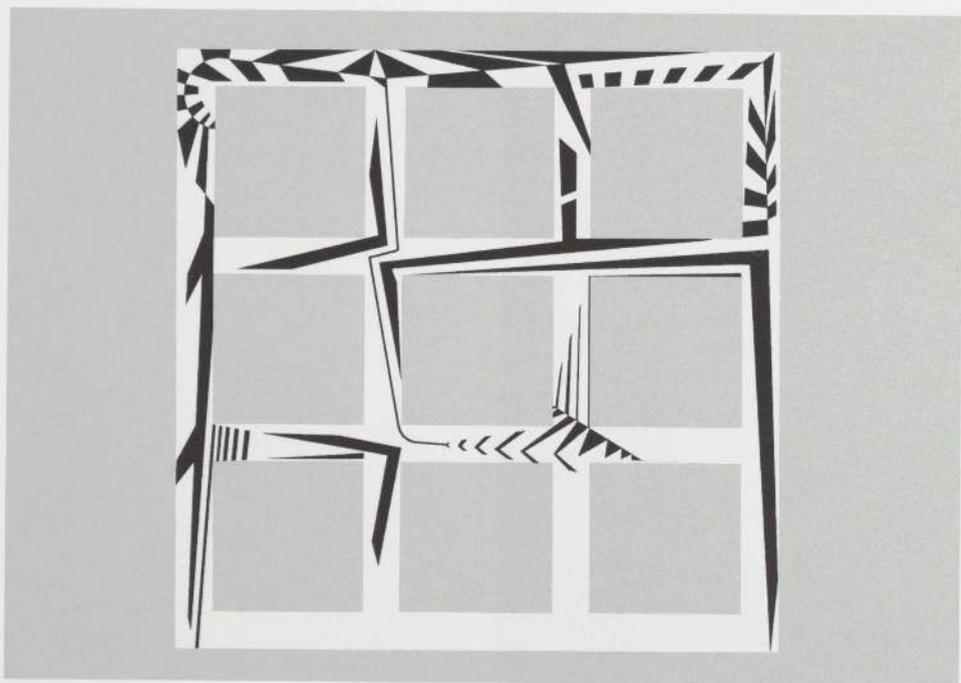


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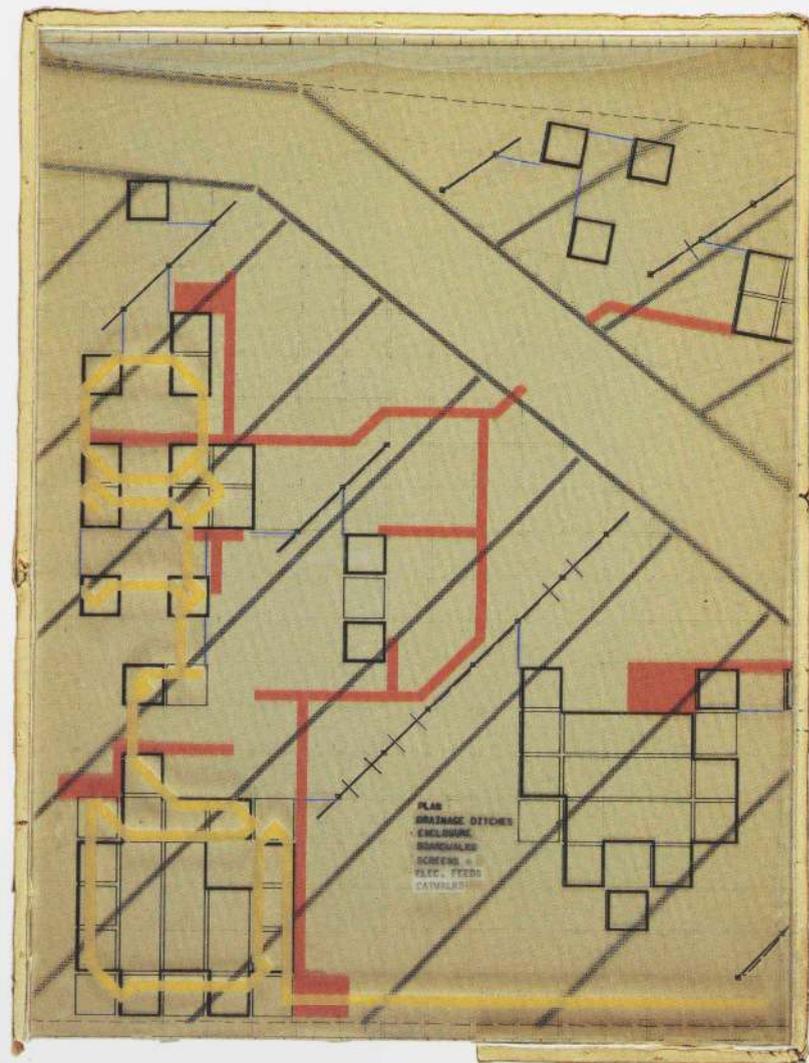
Generator, White Oak, Florida. Project, 1978-80. Investigations of casings to the structural frames, plan, section, and elevation: ink and ink stamp on paper mounted on paper, each 3 x 5" (7.6 x 12.7 cm)



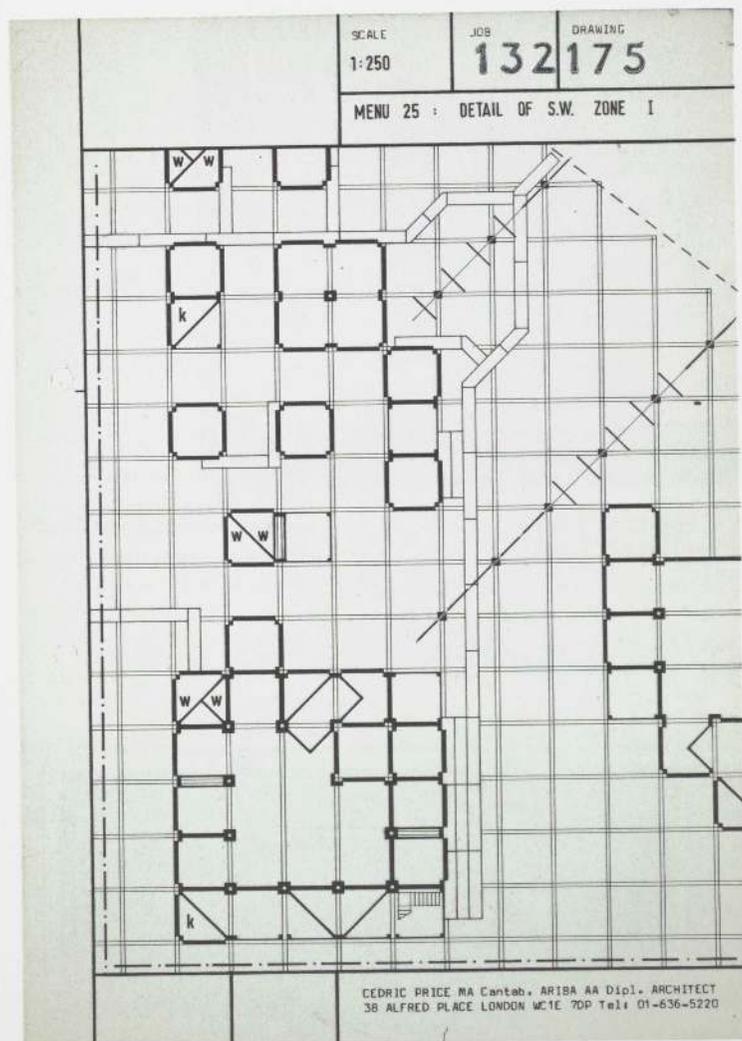


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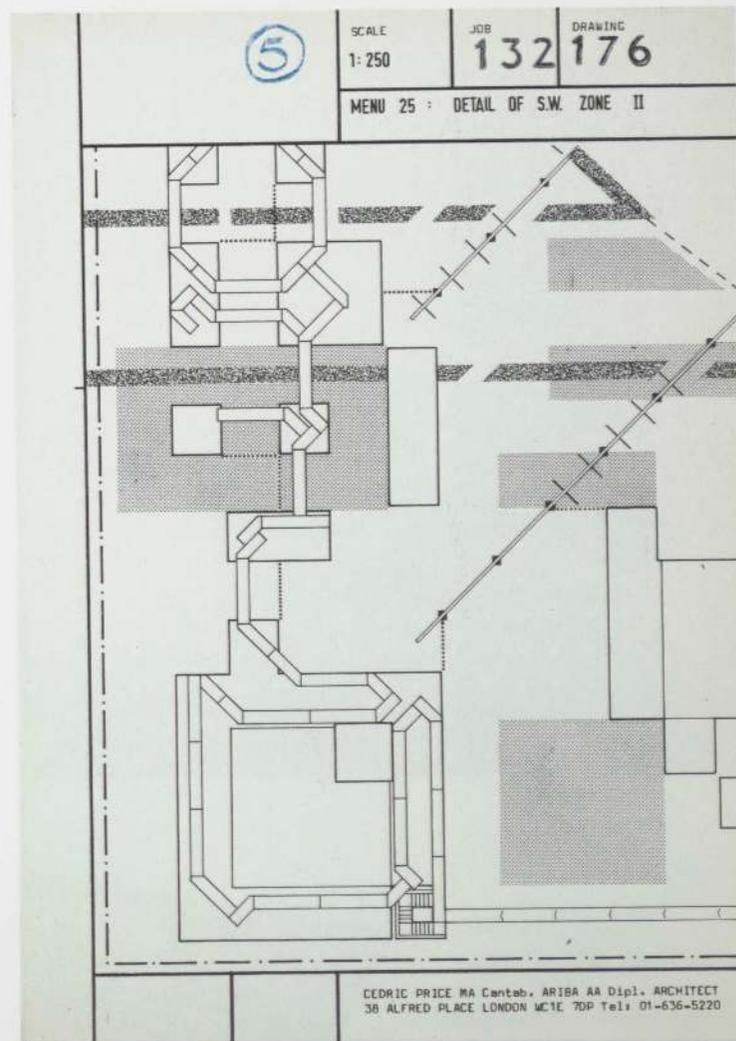
Generator, White Oak, Florida. Project,
1978-80. Plan: lithograph, 8 1/4 x 11 5/8"
(21 x 29.5 cm)



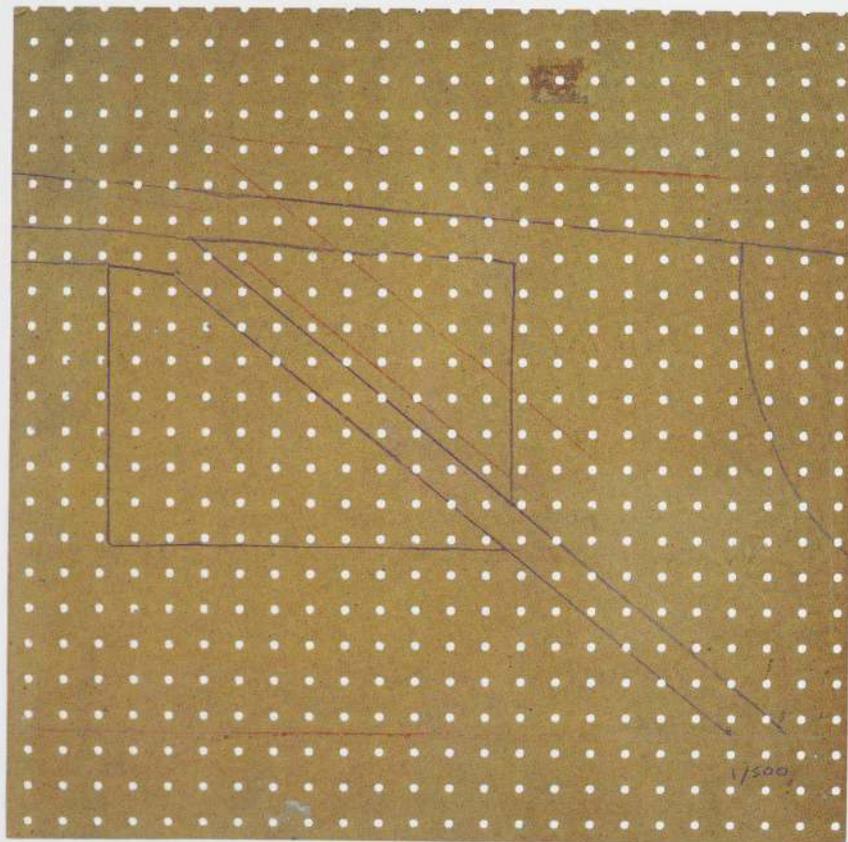
Generator, White Oak, Florida. Project,
1978-80. Plan of Service and Structure
with Key: cut-and-pasted self-adhesive
polymer sheets on polymer sheet, layered
in board frame, 14 1/2 x 10 7/8" (36.8 x
27.6 cm)



Generator, White Oak, Florida. Project,
1978-80. Plan of Menu 25, detail of S.W.
Zone I (plan with overlays): gelatin silver
print, 11 $\frac{1}{4}$ x 8 $\frac{5}{8}$ " (29.9 x 21.3 cm)



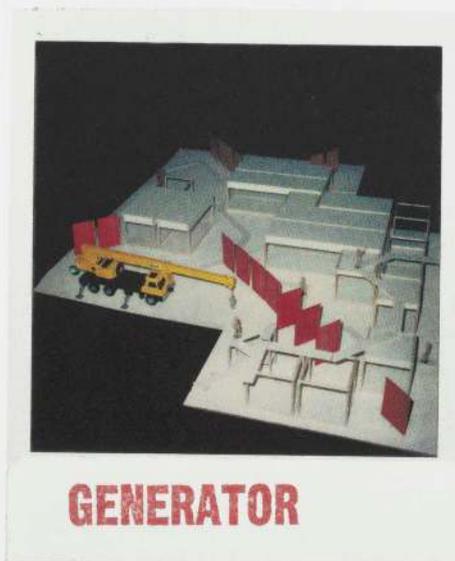
Generator, White Oak, Florida. Project,
1978-80. Plan of Menu 25, detail of S.W.
Zone II (plan with overlays): crayon on gel-
atin silver print, 8 $\frac{1}{4}$ x 11 $\frac{1}{4}$ " (21 x 29.9 cm)



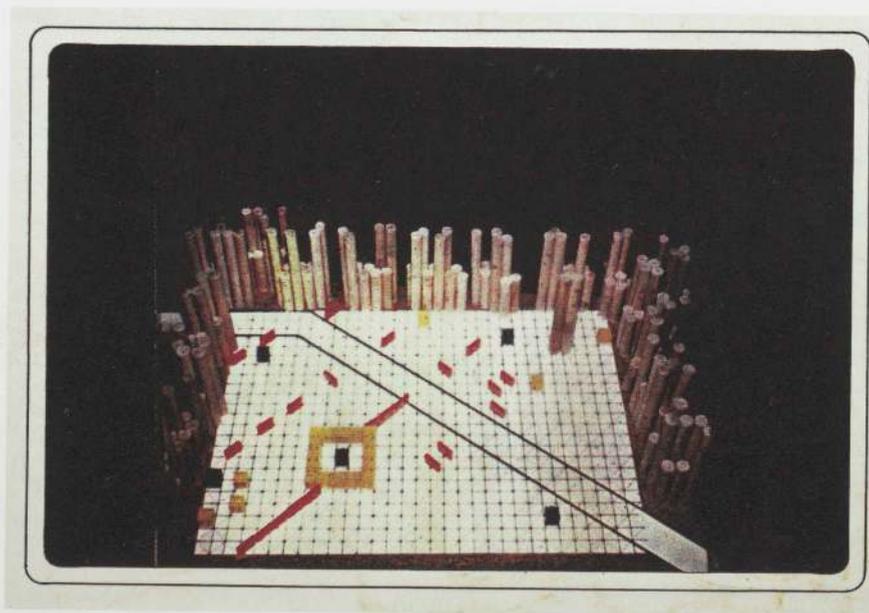
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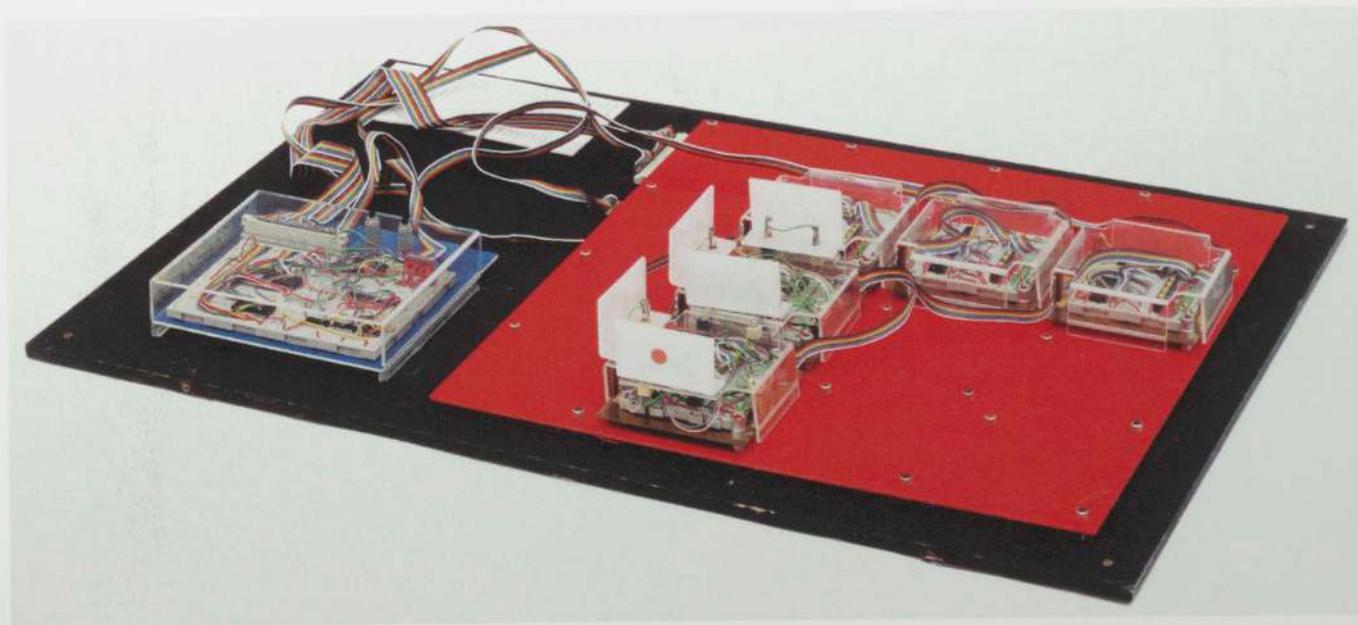
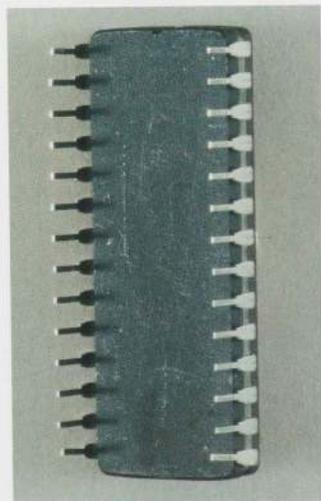
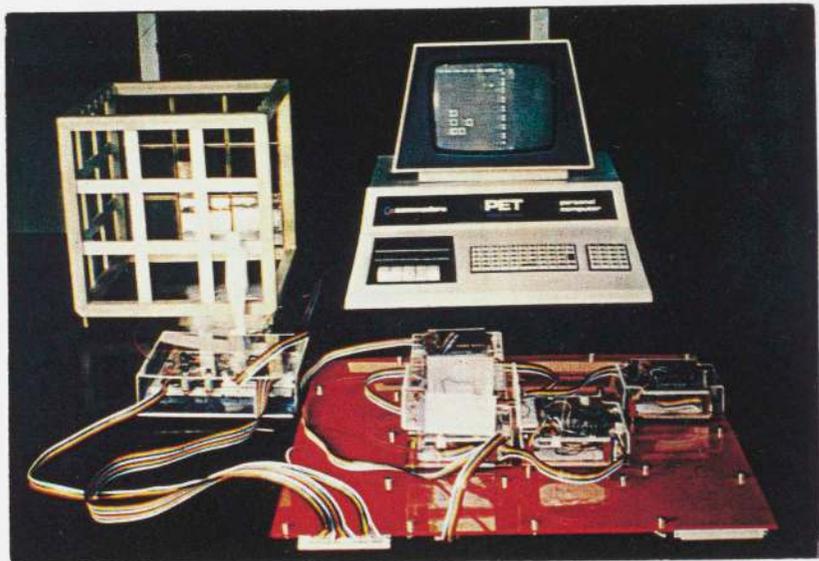
Generator, White Oak, Florida. Project,
1978-80. Plan: color pencil on perforated
board, 18 x 18" (45.7 x 45.7 cm)

Generator, White Oak, Florida. Project,
1978-80. Perspective of study model: color
electrostatic print mounted on board, 8 1/4 x
11 1/8" (21 x 29.5 cm)



Generator, White Oak, Florida. Project,
1978-80. Axonometric of model under
construction: color instant print (Polaroid)
with ink stamp on self-adhesive paper
label, 4 1/8 x 3 3/8 (11.4 x 9.2 cm)

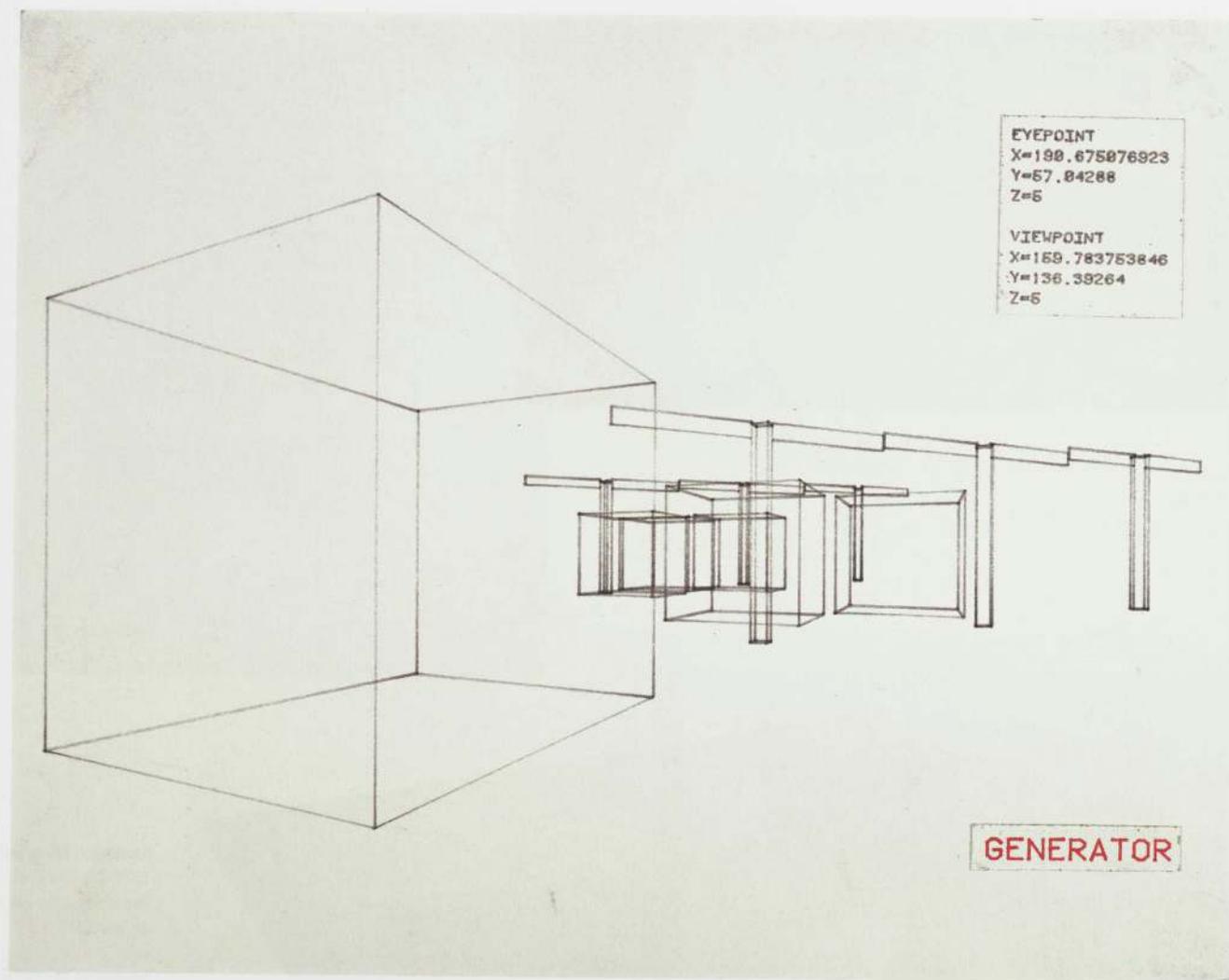




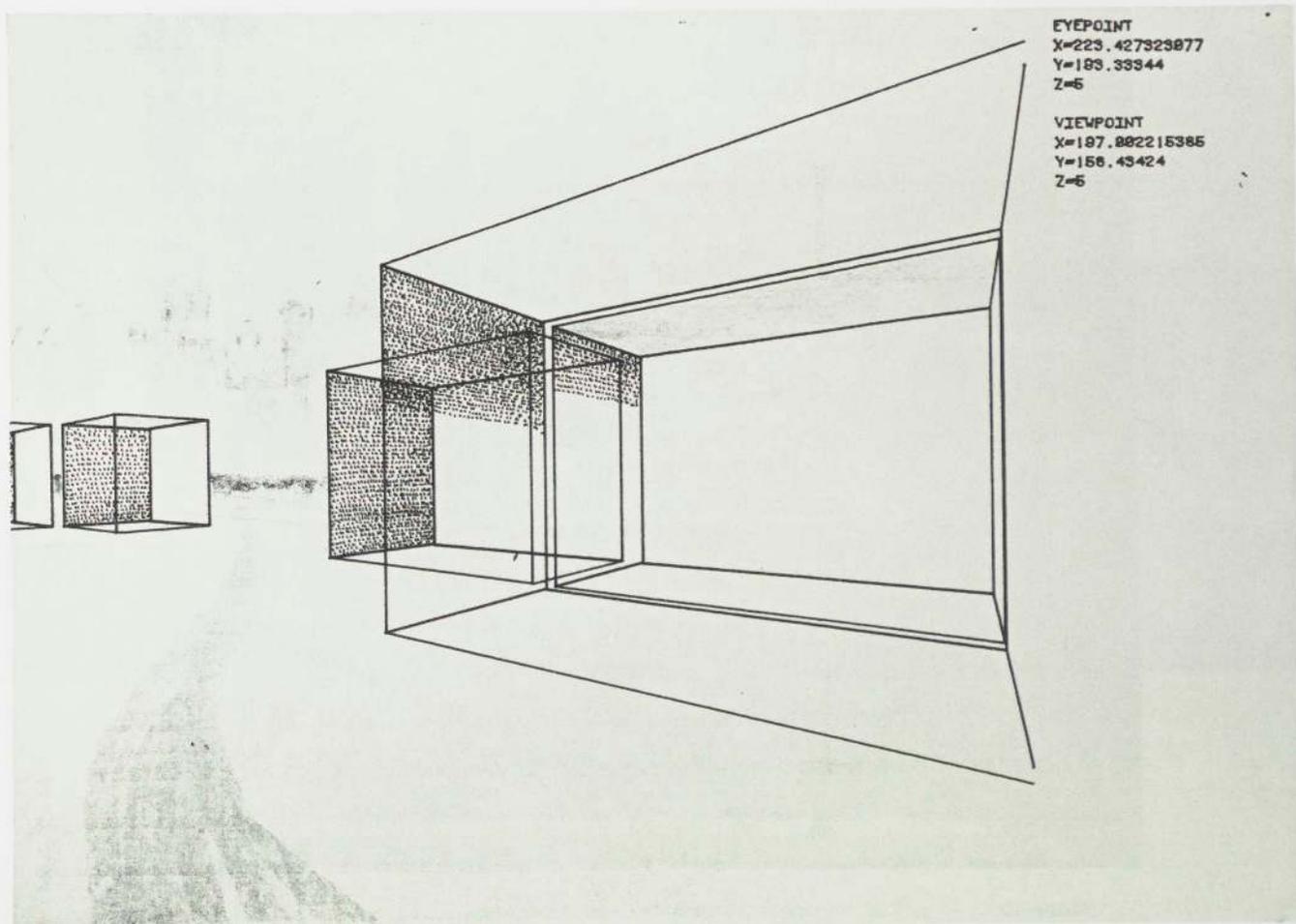
Generator, White Oak, Florida. Project, 1978-80. Five Enclosures, Model and Baseboard: color electrostatic print mounted on board, 6 $\frac{3}{8}$ x 9 $\frac{1}{2}$ " (16.2 x 24.1 cm)

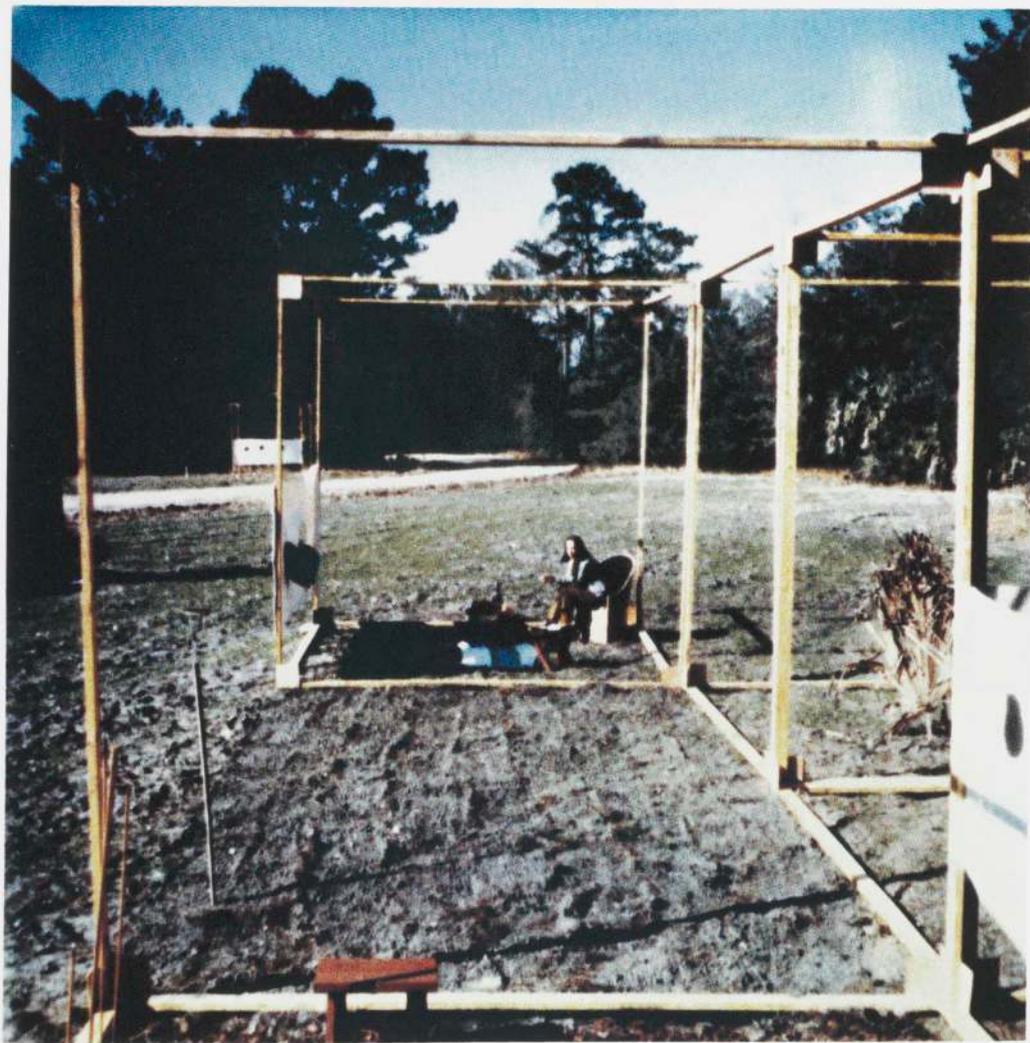
Generator, White Oak, Florida. Project, 1978-80. Computer Chip Containing Complete Generator Program, $\frac{1}{2}$ x 1 $\frac{1}{2}$ x $\frac{3}{8}$ " (1.8 x 3.8 x 1.5 cm)

Generator, White Oak, Florida. Project, 1978-80. Model: Plastic, metal, plastic coated wires, and self-adhesive paper dots, 4 $\frac{1}{4}$ x 31 x 20 $\frac{1}{2}$ " (10.8 x 78.7 x 52.1 cm) (irreg.)

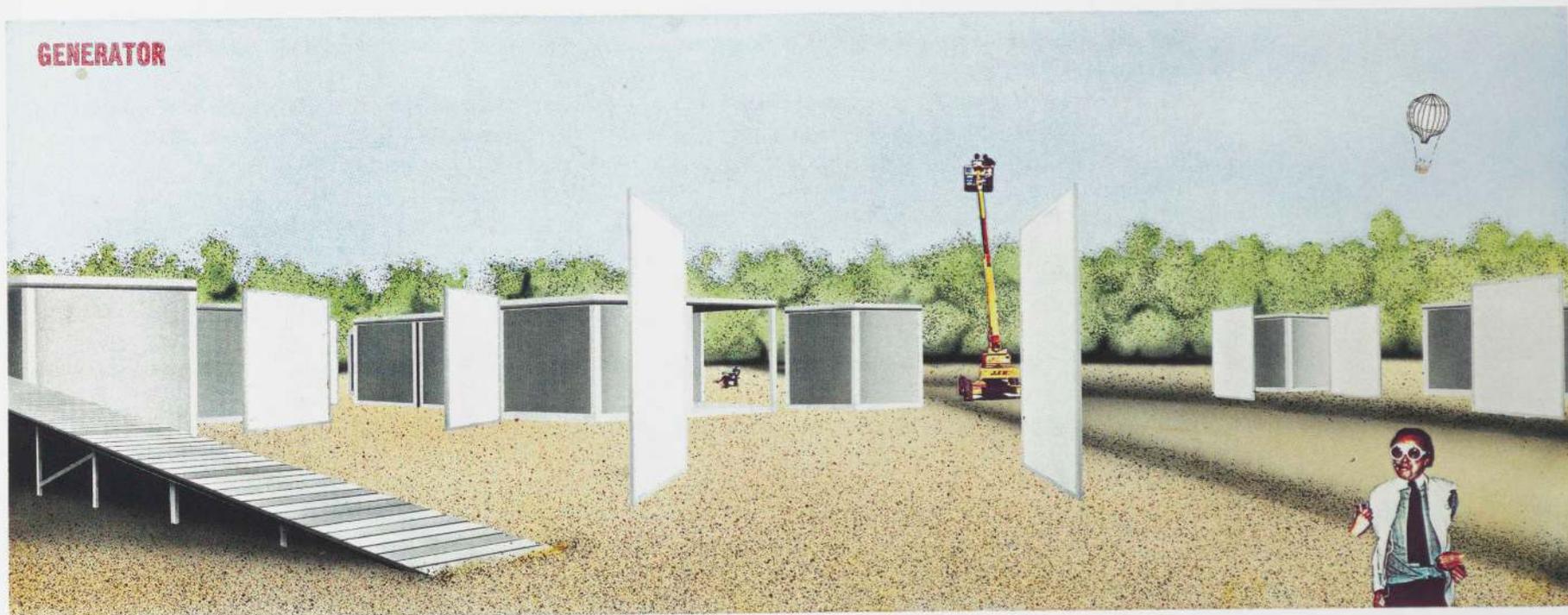


Generator, White Oak, Florida. Project, 1978-80. Perspective: ink on paper with ink and color ink on cut-and-pasted paper, mounted on board, 8 1/4 x 10 1/8" (21 x 26.7 cm)





GENERATOR



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Generator, White Oak, Florida. Project, 1978–80. Perspective: cut-and-pasted printed color electrostatic print on electrostatic print, with airbrush, ink, graphite, crayon, and ink stamp on board, 8 1/4 x 21 1/2" (20.6 x 54.6 cm)



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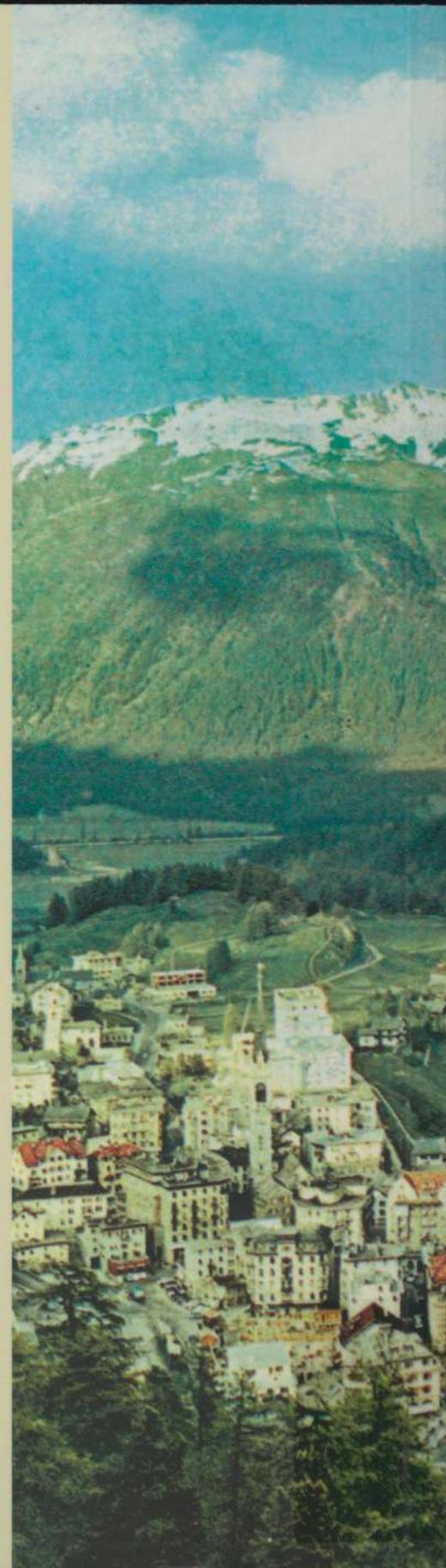
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Published by The Museum of Modern Art, 11 West 53 Street,
New York, New York 10019. www.moma.org

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