SKYSCRAPEROLOGY:
Tall Buildings in History and Building Practice (1975-1984)

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ABSTRACT. SKYSCRAPEROLOGY:
Tall Buildings in History and Building Practice (1975-1984)

In the 1970s, a number of European and American architectural journals focused their content exclusively on the typology of the skyscraper. Across their pages, images of contemporary projects appeared juxtaposed alongside a collection of texts that recounted the history of the tall building. This superimposition of past and present resulted in disjunctive rather than reconciliatory narratives, due to the lack of correspondence between these texts and images. As a way to explore this chasm, this dissertation studies the subject of “skyscraperology”—a composite discourse that examines the tall building by tracing the simultaneous innovations that took place in its practice, history, theory, and criticism.

During the decade of “skyscraperology” (1975 – 1984), while the typology of the tall building reached an unprecedented scale and degree of technological complexity, it also confronted theoretical debates that challenged the terms of its history as well as those of contemporary practice. The impulse to reexamine the history of the tall building as it transitioned from a late modern to a postmodern era was an attempt to both contextualize and re-imagine its development, prompted by the belief that the potential to change the future necessitated confronting and reexamining unresolved questions from the past. Although the history and practice of tall building design are often perceived as being driven by a pronounced technological motive, this dissertation argues that tracing the transformation of the skyscraper during this period ultimately reveals technology’s unstable status, rendering the tall building as a complex and contested historiographical artifact whose rise is far from neutral.

Given its parallels to our contemporary condition, the decade of “skyscraperology” becomes an instrumental period of study as a means to reimagine practice and its production of tall buildings today. Rather than continuing to exploit a narrow and positivist project based on technological innovation, the interest here lies in broadening disciplinary concerns by challenging the typology through a historiographic framework. It is precisely from an expanded notion of the discipline, one that is understood as responsible for its own history, that new historiographical journeys will emerge reimagining the terms of history as well as those of contemporary practice as a way to reshape the future in unprecedented ways.
ACKNOWLEDGEMENTS. SKYSCRAPEROGY:

Tall Buildings in History and Building Practice (1975-1984)

In this project, I am most indebted to the extraordinary generosity and intellectual rigor of my adviser Spyros Papapetros, who has taught me that teaching is in effect an act of learning through sharing one’s questions and intellectual knowledge with others. I hope that, just as it has been the case for him and for those whom have been fortunate to have him as a mentor and colleague, the potential of this project lives up to the promise of this tradition of shared inquiry. In this sense, I am also eternally grateful to all those people who have been my mentors and conversely to all of my students who have embarked alongside me on innumerable adventures. For their encouragement, mentorship, and shared insight, my deep gratitude goes to Beatriz Colomina, Stan Allen, Iñaki Abalos and Alejandro Zaera-Polo in the committee, and also to Alan Balfour, David Bell, Christine Boyer, Frances Bronet, Jean-Louis Cohen, Mark Cousins, Ed Eigen, Kenneth Frampton, Jeff Kipnis, Greg Lynn, Reinhold Martin, the late Detlef Mertins, Farshid Moussavi, Peter Parsons, Nicole Pertuiset, the late Kenneth Warriner, Sarah Whiting, and Mirko Zardini. For their friendship and advice throughout this process, I am also deeply grateful to my “PhD friends” Nerea Calvillo, Esther Choi, Anthony Fontenot, Urtzi Grau, Whitney Moon and Rafi Segal.

This project would have been impossible without the generosity, personal reminiscences, and archival documents provided by some of the protagonists of this dissertation with whom I have been fortunate to discuss my project in person: Madelon Vriesendorp, Charles Jencks, Kevin Roche, John Portman, Micky Steinberg, and Raj Ahuja. I am also grateful to the Princeton University’s Media and Modernity Program and Italian Studies Graduate Symposium; the International Alvar Aalto Meeting on Modern Architecture in Jyväskyla, Finland; and the Iranian Architecture journal for publicly presenting and publishing sections of the dissertation materials. I am also grateful to the University of San Diego for all of its support and to my colleagues in the Department of Art, Architecture and Art History for all of their friendship and camaraderie.

With love, I dedicate this project to my parents, Paula and Manuel, for instilling in me confidence and curiosity, and to my family. Alicia and Gabriel, the not-so-silent partners that have grown with me throughout this time – at 4 and 6, both are living proof of the miracles that come with the passing of time and a constant reminder of all of the promises and potential that the future holds. And most of all to Celine, my wife and partner-in-crime, whose unwavering support and critical contribution makes this project hers as much as mine.

Acknowledgements: SKYSCRAPEROGY. ii.
INTRODUCTION. SKYSCRAPEROLOGY: 
Tall Buildings in History and Building Practice (1975-1984)

“The history of the skyscraper has, in the past, proven hard to write, and even harder to think about. The more historians and scholars [“skyscrapologists”] grapple with this voluminous subject the more elusive it becomes, disappearing into the mists of uncharted territory and contradictory definition. One finally concludes in exasperation that the history of the skyscraper does not exist. And yet there is the evidence before our eyes in every large city, and the testimony of the public who have a very clear idea of what a skyscraper is: the Empire State Building, or the Chrysler Building, and now, the largest building in the world, the Sears Tower in Chicago […] How can its history not exist?”

In the 1970s, a number of European and American architectural journals focused their content exclusively on the typology of the skyscraper. Across their pages, tall buildings often appeared in a state of “double exposure,” wherein images of contemporary skyscrapers were juxtaposed alongside a collection of projects and texts that recounted the history of the tall building. Yet remarkably, this superimposition of past and present resulted in disconnected rather than reconciliatory narratives, due to the lack of correspondence between these texts and images. In an attempt to explore this chasm, this dissertation explores the subject of “skyscraperology” referenced in the opening epigram of this chapter— a composite discourse based on a term inferred by Charles Jencks.

“Skyscraperology” examines the subject of the tall building by tracing the simultaneous innovations that took place in its practice, history, theory, and criticism during the near decade spanning 1975 and 1984. In this period, the typology of the skyscraper reached an


2 The term “double exposure” is borrowed from Beatriz Colomina’s theorization of the photographic (and cinematographic) technique of double-exposure—the superimposition of two or more exposures on the same photographic plate, producing a composite image that reveals a degree of disjunction. Colomina uses this concept as a way to analyze Dan Graham’s Alternation to a Suburban House Project which explores the complex relationship between art and architecture in his work. See Beatriz Colomina, “Double Exposure: Alterations to a Suburban House,” Prototype 3, no.6 (Dec. 2001): 164.
unprecedented scale and degree of technological complexity in practice. Similarly, the theoretical debates pertaining to tall buildings challenged and ultimately reformulated the terms of architectural building and writing.

The aforementioned impulse to reexamine the skyscraper’s history was an attempt to both contextualize and re-imagine the typological development of the tall building as it transitioned from a late modern to a postmodern era. But this interest in the historical imaginary was not based on a desire to affirm the models that already existed in contemporary practice. Rather, it was prompted by the belief that the potential to change the future necessitated confronting and reexamining unresolved questions from the past. It was also a symptom of the general sense of disillusionment that grew in reaction to the inherent positivism of the technological project of modern architecture. Although the history and practice of tall building design are often perceived as being driven by a pronounced technological motive, tracing the transformation of the skyscraper during this period reveals technology’s unstable status, rendering the tall building as a complex and contested historiographical artifact whose rise was far from neutral.³

As a contribution to a “critical historiography,” I suggest that the decade of “Skyscraperology” can be understood as a period when theory and practice overlapped to reformulate the terms of their relationship altogether.⁴ Historiography in this dissertation is

³ This reaffirms and expands the thesis put forth by Iñaki Abalos and Juan Herreros in *Tower and Office* into the realm of historiography: “This book examines the relationships between contemporary building technology and architectural design, noting the ways in which the positivism associated with technology intertwines with the subjective nature of the conceptual process. [...] The premise is that in an era in which technology has come to acquire a dominating presence in our lives— affecting the entire scope of our daily activities, unfolding as the sole universal ideology, imposing limits on human experience—these questions are by no means neutral.” Iñaki Abalos and Juan Herreros, “Introduction,” *Tower and Office, From Modernist Theory to Contemporary Practice* (Cambridge: The MIT Press, 2003), 2.

⁴ The term “critical historiography” is based on a formulation by Mark Jarzombek: “[...] a “critical historiography” (and I should add, it is possible to envision an art or architectural practice as historiography!) functions on the principle that history and the production of art and architecture are only as strong as the
not presented in opposition to building or other modes of practice; it is itself an expanded form of practice not limited to the writing of academic histories. Its source material, largely found in architectural journals, consists of texts written by critics, theorists, architects and historians. Yet drawings, paintings, photographs, exhibitions, and even buildings—all of which address and often attempt to revise or redesign the history of the skyscraper—comprise outlets for historiographic investigation and expression.

Methodologically, the dissertation considers the output of professional journals and exhibitions, as much as built projects, as its primary objects of study. Throughout the 1970s, professional journals became the discursive platform on which historical debates concerning the skyscraper took place. Their formats expanded to feature not only contemporary projects, but historical content as well. Meanwhile, exhibitions curated by architectural historians and theorists sought to articulate the relationship between history and practice by using the space of the exhibition to juxtapose contemporary projects against competing histories and theories. While in both configurations images played an important role in articulating the development and significance of the skyscraper, they evinced a disjuncture between the theoretical discourse of the skyscraper and the built projects.

The polemic surrounding the skyscraper is not new. Since the late nineteenth-century, skyscrapers and their history have captivated architects and historians alike, while generating a great deal of critical debate. Due to a variety of social, political, cultural, and economic factors, tall buildings have become one of the most controversial objects of modern and postmodern architectural historiography and criticism. For historians and theorists, the possibility of laying claim to the origins of the skyscraper as an elusive

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historical artifact has triggered numerous competing narratives that have sought to
definitively script its evolution. For architects, the allure of the skyscraper has exceeded
aspirations of novel spatial and structural organization and, prompted by its symbolic status,
crossed over into the realm of fantasy. This dissertation examines this controversy during its
postmodern turn.

 Debates surrounding the Chicago School dominated the onset of the decade,
partially as a result of a broader reflection on Mies’s oeuvre that took place shortly after his
death in the summer of 1969. A symposium entitled “The Chicago School of Architecture”
at Northwestern University during the spring of that year, along with the catalog publication
for the 1970 exhibition, The Rise of an American Architecture at the Metropolitan Museum of
Art in New York, sparked historians to discuss the development of the modern skyscraper.
Interest in the subject on the part of European historians and theorists, more specifically,
was evinced in journals such as Alvin Boyarsky’s 1971 issue of Architectural Design entitled,
“Chicago a la Carte, The City as Energy System,” a Chicago-focused anthology that
republished foundational texts such as Colin Rowe’s “Chicago Frame” essay (fig. 0.1) (fig.
0.16-0.28).

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By mid-decade, as part of the 1976 Bicentennial celebrations in Chicago, two exhibitions entitled *100 Years of Architecture in Chicago, Continuity of Structure and Form* and *Chicago Architects* proposed contrasting versions of the historical development of modern architecture through the lens of the skyscraper. Yet both exhibitions centered on Chicago’s contribution since the turn of the century, which stemmed from a strong desire to reimagine the Miesian model in practice. In parallel, a number of European and American professional

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Introduction: SKYSCRAPEROLOGY.

Journals focused on the discourse of “skyscraperology” on more universal terms. Beyond Chicago, historical writing approached the topic of the American skyscraper as an element of urban planning that shaped the future of American and European cities. The tall building was perceived in Europe as a particularly threatening element of urban planning, endangering the European historical city center (fig. 0.16-0.28).

A 1975 issue of the French journal *L’Architecture D’Aujourd’hui* entitled “The Life and Death of the Skyscraper,” featured a broad collection of historical and contemporary writing by a number of European and American architects and historians, including Raymond Hood’s “City under a Single Roof,” (1929)⁹ (fig. 0.2).¹⁰ Editor Bernard Huet also included a section dedicated to contemporary projects including the World Trade Center in New York and the Sears Tower in Chicago. Illustrated through very detailed plans, sections and axonometric drawings (fig. 0.3), the technical precision of these projects appeared incongruous with the questions raised in their accompanying texts (fig. 0.16-0.28).

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World Trade Center, New York

Credit Client : The Port Authority of New York and New Jersey, Robert A.M. Stern Architects and Asso., Emer Roth and Son.
Ingenieurs : Skilling, Nielson, Dinkelmann, Robertson (structure), Joseph L. Loring and Asso. (électrocam), Jens Baun and Belles (mécanique), The Port Authority of New York and New Jersey, Engineering Dept. (ventilation), The Port Authority of New York and New Jersey Realty and Construction Company.
Lieu : Un terrain de 7 ha sur Hudson River en ban de Manhattan.
Côté de l'ensemble : 9 895 millions
Auteur mis en œuvre par tour : 79 000 tonnes
Surface brute par tour : 416 000 m².
Programme : L'ensemble comprend deux tours carrés 80,5 x 80,5 m, hauteur 411 m, 110 étages, un courtier, une chambre de commerce, et quatre bâtiments annexes de 4 à 15 étages réservés aux services des douanes, à l'hôtel, à la consultation, à la restauration, au logement.
Entre ces immeubles et les tours, une place de 2 ha d'herbe et de jardin fleuri.
Le complexe offre 50 000 postes de travail, et de pouvoir recevoir 80 000 visiteurs par jour.
Afaires des administrations, firms commerciales, compagnies d'assurances et banques.
Chaque étage comportant une surface utile de 2 900 m², sous les toits.
Commerces de restauration et services divers.
Des ascenseurs, d'au moins libre et expres, d'attraits, de 2 100 voitures.
Ahosts de chaque tour par 108 ascenseurs.
Autres mouvements de charges. Un tabby au 1er étage est et deux « stocks » en 47 et 76 étages divisant la tour en trois zones de circulation.
L'ensemble peut être considéré comme une tour entièrement occupée, et un de service (pont) de 50 000 personnes : 1 minute.
Construction : Le bon sol
se trouvant à 21,32 m, et l'on procédant à une excavation de 44 000 m³ entouré de 440 m de béton armé de 90 cm
ce qui a nécessité 10 000 personnes.
Les architectes et ingénieurs ont fait supporter ses façades aux murs portants de l'ensemble ; à temps intérieur ne joue qu'un rôle secondaire dans la structure ; ses dimensions, son volume, ses voûtes laissent une surface le plancher maximum et le plus intéressant des bâtiments verticaux.
Les murs intérieurs sont constitués de 300 colonnes verticales, divisées selon un réseau des colonnes, des postes horizontales, des éléments de la structure et des éléments annexes.
Les postes horizontaux sont formés de colonnes de béton armé de 90 cm de diamètre, de 1 500 m de hauteur, ont une capacité de 2 900 m³.
Leur structure continue est un élément de l'ensemble ; à l'intérieur joue un rôle secondaire dans la structure ; ses dimensions, son volume, ses voûtes laissent une surface le plancher maximum et le plus intéressant des bâtiments verticaux.
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Les murs intérieurs sont constitue...
In his contribution to this issue of *L'Architecture D'Aujourd'Hui*, Manfredo Tafuri traced the differences between the American and European notions of the skyscraper from the turn of the century to arrive at an understanding of both versions.\(^\text{11}\) Following Colin Rowe’s comparison of European and American typologies in his essay, “Chicago Frame,” Tafuri further reflected on the skyscraper’s effect on its urban context. A number of contemporary projects in the volume illustrated the ideological and urban differences outlined by Tafuri.\(^\text{12}\) Whereas Tafuri described the contemporary skyscraper as an alienating presence that had internalized the European avant-garde’s techniques of abstraction,\(^\text{13}\) the Chicago-based historian Carl W. Condit argued the skyscraper’s crisis resulted from a loss of American traditions and an increase in European influence.\(^\text{14}\)

\(^{11}\) Manfredo Tafuri, “The author proposes that perhaps the best way to understand what the American Skyscraper is not, would be to study the ways in which European culture tried to assimilate and translate this paradox of urban life into its own terms. [English Summary],” “La Dialectique de L’Absurde, Europe – U.S.A: le avatars de l’ideologie du gratte-ciel (1918-1974)” *L’Architecture D’Aujourd’Hui*, no.178 (March – April, 1975), 1-16.


\(^{14}\) Condit, “Buildings constructed before the 50s in America and in Europe are now considered those which blend best with their surrounding urban fabric. […] Later, with negative effects, European influence came to be felt, leading to the gradual loss of independent American design. This was the period characterized by those dreary and pompous office buildings – dehumanized bare blocks raised higher and higher but farther and farther away from the reality of the territory. […] It is here that the technological machine shows its true colors – as the makers of monsters palmed of as useful instruments in the pursuit of prosperity and economic growth, but actually the wretched monuments of a concept of life geared to production for its own sake.” *Casabella*, Ibid., 15.
In his essay, “The Technological Triumph and Architectural Failure of the Contemporary Skyscraper,” published in a 1976 issue of *Casabella*, Condit described the correlation between the loss of American rituals and the technological triumph of tall buildings.\(^\text{15}\) For Condit, the glass monolith had replaced Sullivan’s legacy and its sole virtue was its monumental display of the processes of production. As a structural grid built at an unimaginable scale, the skyscraper’s only relationship to its urban context was its ability to reflect the “bankruptcy” of the city center; it was otherwise oblivious to its rich American heritage (fig.0.4). The journal’s editor Carlo Guenzi juxtaposed Condit’s contribution with Oriol Bohigas’s review of the newly finished Fiat Tower in Paris, a forty-five story crystal prism by Skidmore, Owings and Merrill, that represented the latest export of the American tall building in Europe (fig. 0.5). Despite Bohigas’s description of the project as an exemplary exponent of curtain wall construction whose refinement stemmed from the legacy of Mies, its scaleless and undifferentiated black surface made of tinted glass

and black marble seemed scaleless silently corroborated Condit’s thesis of the tall building’s technical “triumph” and urban “failure” (fig. 0.16-0.28).

Figure 0.5: Oriol Bohigas, “La Tour Fiat a Parigi,” Casabella no.418, (October, 1976), 55.
At the end of the decade, the discourse of “skyscraperology” resulted in new theories on the subject. Charles Jencks’s small publication *Skyscrapers, Skyprickers, Skycities* featured personal photographs of tall buildings, taken by Jencks himself, to illustrate his novel theoretical approach to the history of the skyscraper.\(^\text{16}\) In his introduction, Jencks narrated the skyscraper’s development, while referencing a number of previously written versions of its history. He proposed that the legibility of the skyscraper could be deciphered through the use of a “metaphorical equation” based on a system of structural, programmatic, and stylistic criteria that “emerged from the need to start anew:” “Morphology + articulation + style + activity + technology + motivation = Metaphor (‘skyprickers’, ‘skyscrapers’, ‘skycities’)”\(^\text{17}\) (fig. 0.6). For Jencks, the “metaphorical equation” offered the possibility to “name and classify”—a means to break out of the historiographical impasse that had haunted the different versions of its history and start “anew.”\(^\text{18}\) The function of this formula was twofold: analytically, it served as a device for the historical examination of case studies, while generatively it also provided a formula to produce new designs. It also offered a means to reconcile the book’s disjuncted format of past precedents and contemporary projects. Perhaps a product of his own multifaceted professional identity as an architect, theorist and historian, Jencks’s methodology integrated the methods from all three architectural “subfields” (fig. 0.16-0.28).

\(^\text{17}\) Jencks, “It is necessary to start again with a compound definition which reflects the complexity of the facts. […] Morphology + articulation + style + activity + technology + motivation = Metaphor (‘skyprickers’, skyscrapers, Skycities). *Skyscrapers, Skyprickers, Skycities*, Ibid., 7.
\(^\text{18}\) Jencks, “This equation, or something like it, should be our starting point. When we name or classify a tall building any number of points may become salient: the vertical surface, the point at the top, the mass, the neo-Gothic style, the technology, the number of people (as represented by the windows) – whatever is brought to the foreground by the designer.” Ibid.
### Figure 0.6: Charles Jencks, “Metaphorical Equation,” *Skyscrapers, Skyprickers, Skycities* (London: Academy Editions, 1980), 14.
But this integration of history, theory and practice was also not necessarily new in the 1970s. Professional journals focused on contemporary practice typically included historical and theoretical material written by historians and practicing architects. A decade earlier, an issue of the Italian journal *Edilizia Moderna* entitled “Il Grattacielo” (1963), edited by the architect and historian Vittorio Gregotti, featured different theories and histories on the topic.19 Along with features on contemporary buildings, the issue’s thematically organized, content included various historical accounts that brought together both European and American contributors.20 By republishing contributions that dated back to different periods since the turn of the century (1880-1890s, 1920-1930s, and 1950-1960s), Gregotti’s “Il Grattacielo” offered a renewed historiographical perspective that entirely reconfigured the history of twentieth century architecture through the lens of the skyscraper.


20 The themes that Gregotti uses to structure the journal include: “Un Nodo di problema dell’eta moderna” [A knot of problems in the modern era]; “Suddivisione del suolo urbano” [Subdivision of urban land]; “I Titani” [The Titans]; “Morfologia del Grattacielo” [Morphology of the Skyscraper]; “New York, 1703-1808-1903;” “L’Avanguardia Europea” [The European Avant-Garde]; “La Questione delle Abitazioni Della Classe Operaia” [The housing question of the Working Class]; “Metamorfosi del Castello” [Metamorphosis of the Castle]; “Utopia e Presente” [Utopia and Present]; “1922: Concorso del Chicago Tribune” [1922: The Chicago Tribune Competition]; “Tra i Muri Della Città” [Among the walls of the city]; “USA: Grattacieli Per Abitare” [USA: Skyscrapers For Living]; “Verso La Simplificazione” [Toward Simplification]; “Dopo Il Conflitto Questi Sono” [These are the post-conflict]; “Dalla Superficie Delle Cose” [From the surface of things]; “Più in Alto” [Higher]; “Nuovi Monumenti” [New Monuments]; “Nello Stesso Edificio Destinazioni Differenziate” [In the same building but Differentiated]; “Ristrutturazioni” [Urban renewal]; “Contenitori” [Containers]; “Allora, Quando La Vasta Regione” [The vast region]; “Ordine Nel Movimento” [Order and Movement]; *Edilizia Moderna*, Ibid.
Introduction: SKYSCRAPEROLOGY. 14
“Il Grattacielo” included contributions written by many well-known historians including Giulio Carlo Argan, Leonardo Benevolo, Carl W. Condit, Sigfried Giedion, Lewis Mumford, James Marston-Fitch, and Bruno Zevi,^{21} collaged alongside the projects of Le Corbusier, Louis I. Kahn, Mies van der Rohe, Louis H. Sullivan, Kenzo Tange, Antonio Sant’Elia, El Lisitski, Theo van Doesburg, and Frank Lloyd Wright.^{22} This extraordinary range of participants is a testament to the fact that, one by one, most of the major architects and historians from the turn of the century onwards have contributed to the discourse of “skyscraperology”.

The range of images on the cover of “Il Grattacielo” encapsulates many of the themes that would form the basis for the discourse of “skyscraperology” since the turn of the century. Consisting of pairs of images, each represent a historical cross section while drawing a number of contrasts and comparisons (fig. 0.7). In one pair, the struggle of New York City construction workers to build these tall structures at unprecedented heights is juxtaposed with an elevation of South Michigan Avenue, featuring the Gage Building (1896-99) by Louis Sullivan, Holabird and Roche, representing the task of implementing modern infrastructure in Chicago.^{23} A second pair of images consists of a portrait of Louis Sullivan


23 While the first image served as an illustration for a poem by Carl Sandburg in the volume, the elevation of South Michigan Street accompanied an excerpt of the “The Titan” (1914) by the American novelist Theodore Dreiser (1871-1945). An excerpt of Dreiser’s novel in the journal tells the struggle of a street-

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next to a model of Le Corbusier’s “Plans of Paris ’37” (1936). While Sullivan’s portrait comes from an illustration accompanying Bruno Zevi’s contribution entitled “The Chicago School” showing the major figures and works of the Chicago School at the turn of the century in the form of a family tree of buildings and faces (fig. 0.8); its pairing with Le Corbusier also signals different conceptions of the skyscraper as a complex typological artifact in the American instance and an element for urban planning in the European case.

In another set, an image of a woman on a Manhattan streetscape lined with loft buildings is contrasted with a turn of the century axonometric of the corner of Randolph and Clark Streets in Chicago’s North Side. The portrait entitled “New York” (1929) illustrates a contribution with the same title by the poet, playwright and artist Vladimir Mayakovski—a colorful description of New York’s textured and densely decorated urban environments, from the elevator in the Woolworth Building to the lobby of the Pennsylvania Hotel. Included in a section entitled “Towards Simplification,” its introduction compares two radically different projects by Raymond Hood: the neo-gothic Chicago Tribune Building from 1923, and the more abstract Daily News Building from 1930, the precedent for Rockefeller Center.  


Figure 0.8: Bruno Zevi, “La Scuola di Chicago”, *Edilizia Moderna*, No. 80 (September, 1963), 15.
A more contemporary contrast to the historical images included is created by Gregotti’s inclusion of Bertrand Goldberg’s Marina City Towers (1964). Inside the accompanying article, the case of Marina City illustrates the social and civic challenges facing the skyscraper as a “super-container,” an alienating mega-structure of unprecedented scale and programmatic complexity that internalizes the entire family of programs that at one point had defined the city. The homogenization and interiority of inhabitation proposed by Marina City risked reducing the programmatic heterogeneity of urban life to the lowest common denominator of functionality, a loss that would affect not only the urban environment, but civic conscience as well.

Despite their aleatory arrangement, the various constellations of images on the cover of “Il Grattacielo” can be read in multiple ways. On the one hand, they can be understood as a collection that represents a multifaceted yet coherent historiography of modern architecture through the lens of the skyscraper, a chronological narrative that concludes with the skyscraper at its most complex manifestation. On the other hand, they can also be interpreted as a representation of an anachronistic history, one that collages disparate contributions as a way to challenge and undermine a single, coherent historical narrative. In each instance is the question as to how these case studies are aligned and what historical model they represent—whether that might be a renewed historiography or the rejection of a grand narrative. The fact that Gregotti opted for an undefined editorial position vis-à-vis a thematic rather than a chronological organization points towards the second interpretation.

27 “Nello Stesso Edificio Destinazioni Differenziate,” 92.
Figure 0.9: Gio Ponti, “Pirelli Building, Milan,” *Domus*, No. 316 (March, 1956), 1-17.

Figure 0.10: Design Variations of the Torre Velasca as it was developed from a steel to a reinforced concrete skeleton. Photographs from the private collection of Alberico B. Belgiojoso, “Archivio Photographico BBPR” [Gian Luigi Banti, Lodovico B. Belgiojoso, Enrico Peressutti, Ernesto N. Rogers] (Milan, 1955-1959).
Throughout the 1960s, European and American skyscrapers underwent a process of dramatic transformation evinced in a number of parallel built projects in Milan and New York. In Milan, the significant differences between the Pirelli Tower (1956-1960) and the Torre Velasca (1956-1958) were symptomatic of changing typological orders and the challenges that these typological innovations faced apropos their relationship to the old European city and its urban history. Although the design of both projects was influenced by the Lever House (1951-52) and the Seagram Building’s (1954-58) American conception of curtain wall construction, their final forms proved to be radically different. In lieu of an evenly divided curtain wall whose scale and subdivisions related to the interior structure, both the Pirelli and Velasca towers exposed their structures as part of their exteriors (fig. 0.9) (fig. 0.10). The structure of each building also changed as the building gained height, a condition that Gio Ponti referred to as “concluded form” or “forma-finite.”28 In Reyner Banham’s comparison of both projects, the Pirelli was characterized as a corporate regression into “Neo-Liberty,”29 an Italian strand of Art Nouveau that, like its predecessor, was destined to obsolescence due to mechanization while the Torre Velasca was the result of a historicist revival dating back to the Middle-Ages whose “obtrusive” form was ultimately illegible.30 Banham’s attack of Pirelli’s shallow and regressive formalism and the Velasca’s ambiguous historical form, was indicative of their polemical reception and ongoing questions surrounding the legibility of the tall building in the 1960s, particularly

29 Reyner Banham, “The Pirelli is not just a work of architecture, it is also – perhaps primarily – a big pitch in an advertising campaign […] Pirelli is good architecture in almost exactly the ratio that it is good or effective advertising.” “The History of the Immediate Future,” RIBA Journal, vol. 68 (May, 1961), 253.
30 Reyner Banham writes: “…Unlike the Torre Velasca, for instance, where the formal bit is obtrusive every time you look at it. [Art Nouveau] died of an irreversible cultural revolution attributed to the mechanization of the domestic environment through the introduction of electric cookers, telephones, gramophones, vacuum cleaners.” Reyner Banham, “Neoliberty, the Italian Retreat from Modern Architecture,” Architectural Review 125 (April, 1959): 230-235.
with respect to the question of history. In contrast, Tafuri argued in a comparison between the Castello Sforzesco (1450) in Milan and the Torre Velasca, that the virtue of the Velasca was, in fact, its ambiguous aura. He found rediscovered meaning in the form of historical analogies and implications so characteristic of the city itself:

Like the museum of Castello Sforzesco, in fact, the Velasca tower intends to “teach us to see;” the internal resonances which have generated this form call the “consciences” to a collective epoch, to radical reconsideration of the new in light of the temps perdu, it stimulates us to rediscover.[…]

But principally, the Velasca, wrapped in its ambiguous aura composed of meanings rediscovered in analogies and implications, is there to constitute a symbolic synthesis of the aspirations of the Italian architecture of the 1950s: in the great museum which is the historical city, it appears to be possible to find a “home” which consoles the signs of estrangement, protecting them from the future, reassuring them about the validity of their moral claims. 31

Rather than dismissing it as vague or historically inaccurate, the Velasca’s ambiguity was reframed by Tafuri as a moment of synthesis between the seemingly irreconcilable dichotomies of the “old” versus the “new” in the European city.

In the United States, skyscrapers underwent radical changes as well. As a parallel example, the Chase-Manhattan (1961) and the Marine Midland (1968) towers in New York, both designed by Gordon Bunshaft of Skidmore, Owings and Merrill, stand as two radically different, late modern examples on the Lower Manhattan skyline. Whereas Chase-Manhattan proposes an organic alignment of its plan, section and structural module with a design that is highly exaggerated by piers that corrugate the surface of its curtain wall (fig. 0.11), the irregular prism of Marine-Midland follows the trapezoidal perimeter of its tapering site and is wrapped with an impossibly thin and continuous matte-finished black aluminum skin (fig. 0.12).

Reflecting on the transition from the Chase-Manhattan’s extruded and variegated tower to the Marine Midland’s pure prism, Arthur Drexler observed that the Marine-Midland was “so flat that it seems as if it had been printed rather than built.” Drexler’s description inferred that rather than being understood as artifacts of technological innovation, tall buildings in the 1960s could be seen as artifacts to be “read”—as historiographical objects that embodied narratives whose histories, like those of the written word, seek legibility and interpretation. In this synthesis between text and image, the disjunction between object and discourse vanished. Drexler’s claim also asserted the importance of the façade over the organizational plan, a counter-narrative to the notion that the driving, generative factors in the design of the skyscraper should follow programmatic and structural organization. The significance of a late modern building such as the Marine Midland lies precisely in our capacity to decipher its image by “reading” its facade.

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At the end of the 1970s, Oriol Bohigas, too, reflected on the changing character of the American production of skyscrapers throughout the 1960s through the projects of Skidmore, Owings and Merrill. Bohigas argued that this transition towards pure prismatic volumes could never be explained in technological or functional terms alone. He characterized the formal investigation of crystalline structures as a “tense epidermic condition,” in contrast to corrugated faces, the image of structure common to the formal language of modern architecture. In both cases, Drexler and Bohigas suggested that in addition to focusing on the structural and organizational questions that dominated the technological discourse of the tall building, understanding its ever-changing image through the façade was of equal, if not greater, importance.

The aforementioned journals investigating “Skyscraperology:” Charles Jencks’s Skyscrapers, Skyprickers, Skycities (1980); the “Triumph and Failure of the Skyscraper” issue of Casabella edited by Carlo Guenzi (1976); the “Life and Death of the Skyscraper” volume of L’Architecture D’Aujourd’hui, edited by Bernard Huet (1975); and Vittorio Gregotti’s “Il Grattacielo” issue of Edilizia Moderna (1963), are a testament to a continued interest in the topic across three decades. In each instance, examinations of contemporary tall buildings are juxtaposed with historical texts and images that mine different episodes of its history. For example, a 1975 issue of L’Architecture D’Aujourd’hui features Francisco Mújica’s designs for a “City of Skyscrapers” from the 1930s (fig. 0.13), republished by Diana Agrest. Francisco Mújica’s book History of the Skyscraper (1930) is perhaps one the most emblematic of a history.

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of modern architecture examined through the lens of the skyscraper.³⁵ In his “history,” Mújica presents the history of modern architecture as a graph, where time takes the form of a vector open for realignment. The history of the skyscraper is “realigned,” producing an anachronistic narrative that critically questions the historiographical canon by (re)placing the origins of the skyscraper to Mesoamerican roots (fig. 0.14). With a sense of prophetic urgency, Mújica claimed to have had an archeological “revelation,” rediscovering the origins of the tall building as Pan-American and thus challenging the myth of the European avant-garde.³⁶ He writes:

The work of “revelation” should consist in a detailed and essentially graphic study of each of the most important monuments and archeological centers, carried on at the foot of the ruins by an architect. Up to now American monuments have practically been the exclusive dominion of archeologists, anthropologists, and historians, while the logical idea is that they are of just as much interest to architects…As sincere artists of America, why are we not aware that a modern American style may arise from the study of these mountains of stone built and carved with such ardor…³⁷

The formal and iconographical meaning of these mountains of stone became the archeological foundations for a new “American Renaissance,” on which Mújica based his own designs. This trans-historical “cut” across time thus not only enabled Mújica to develop an alternative version of the origins of the American skyscraper, but the realignment of its past enabled him to change its future.

³⁶ Mújica, “VERY IMPORTANT: In the present text the terms ‘America’ and ‘American’ do not refer to the United States of America, but to the entire American Continent.” Ibid.
Triggering a “correction” of the skyscraper’s offer a means to reformulate an emphasis on the centrality of the United States, rather than Europe, as the skyscraper’s site of origin (fig. 0.14). However anachronistic, the parallels Mújica identified between American skyscrapers shaped by the Set-Back Laws of 1916 and Mesoamerican pyramids, certainly triggered by the illustrations of Hugh Ferriss, corroborated his theory.

Methodologically, Mújica’s account belongs to historical theories written by architects and not academic historians—theories that offered eclectic genealogies that often presented (para)fictional narratives. These narratives emerged from questions rooted in contemporary practice and the desire to ground building practice within history.
The reinvention of the building typology through a rewriting of its history is symptomatic of a historical transition from a late modern to a postmodern condition which could be traced as far back as the 1930s, Mújica’s model of the historian’s agency to affect the present resonates with Reyner Banham’s description of the task of the historian.38 Using a similar analogy, Banham suggested that the historian’s “plotting” of the vector of time also incurred the possibility for a certain degree of deviation. Likewise, Mújica’s anachronistic readjustment was seen by Manfredo Tafuri as tactical as well as polemical: “the first illustrations in Mújica’s book are idea reconstructions of the Mexican pyramids of Papantla.

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and Teopantepec and that of Tikal, in Guatemala; has therefore a polemical significance. The “new” draws its guarantees of validity by fastening to the ‘primitive.’” As Tafuri implied, the virtue of Mújica’s technique was less in its historiographical clarification of the past, than in its provision of a polemical and political stance for the present. This critical historiographical reinterpretation of the contemporary skyscraper offered generative potential by “fastening” the project to a primitive past. The fact that Mújica's history ended with a series of his own designs demonstrated how these histories are inseparable from the author’s biases. Like Jencks’s “metaphorical equation,” Mújica’s graphs, produced fifty years earlier, fill the space of disjunction between historical investigation and contemporary design. In both cases, the ambition to revisit history as a generative tool for future design solutions is at play. These conceptual approaches—locating themselves somewhere between critical historiographical revisions of history and anachronistic collages of fictional histories—are characteristic of the discourse of “skyscraperology” in the 1970s.

Professional practice in the 1970s was driven by a renewed search for structure, with respect to the skyscraper’s history and typology. The four chapters in this dissertation demonstrate how a series of consecutive typological and morphological transitions in the composition of tall buildings responded directly and indirectly to a number of unresolved confrontations with the skyscraper’s polyvalent past. The first chapter describes how the possibility of reimagining the spatial order of the skyscraper gave way to a paradigmatic shift: the building’s interior structure and exterior curtain wall became synthesized into a single differentiated system along the building’s perimeter. This change deemed the curtain

This new organic conception of structuralism⁴⁰ in response to the material and conceptual “structure” as defined by Mies was advanced by one of his students and longtime collaborators, Myron Goldsmith. ⁴¹ Articulated in Goldsmith’s Master Thesis dating back to 1948, coupled with a number of Master Thesis projects under his direction at the Illinois Institute of Technology from 1961 to 1970, Goldsmith and his students proposed a new spatial order for the tall building, and aspects of their research would eventually be realized and integrated in building practice. Goldsmith’s own reconstruction of the history of the skyscraper through the rediscovery of an organicist lineage that dates back to concepts spearheaded by Root in Chicago in the 1870s and 1880s, proposed a historiographic revision of previous histories that had based this lineage on figures like Sullivan.

Goldsmith’s models for the tall building, characterized by a composite, complex and variegated structural cage, were featured in the exhibition 100 Years of Architecture in Chicago. Bringing together architects and historians, the exhibition reanimated the longstanding questions of structure and organicism that had dominated the discourse surrounding the Chicago School and its relationship to the development of the skyscraper for over a century. Although decades old, the historical debates regarding the Chicago School were reignited by the desire to reach a consensus on the origins and structure of the skyscraper’s history.

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⁴⁰ The term “structuralism” and its relationship to legibility is borrowed from Eric Fernie’s “Structuralism in the broadest sense can therefore be defined as the establishing and examining of the general and particular laws by which structures work. The structuralist extracts principles of classification from the confusion of individual messages. “Post-structuralism,” “Glossary of Concepts,” Art History and Its Methods: a Critical Anthology (London: Phaidon Press Ltd., 1995), 352.

⁴¹ Mies van der Rohe, “In the English language you call everything “structure.” In Europe we don’t. We call a shack a shack and not a structure. By structure we have a philosophical idea. The structure is the whole, from top to bottom, to the last detail – with the same ideas. That is what we call structure.” Published without title in Fnrblieht, vol. 1, no. 4 (1922), 122-124.
Whereas the New York-based historian Winston Weisman advocated for a chronological approach to understanding the origins and development of the skyscraper, the Chicago-based historians Carson J. Webster and Carl W. Condit advocated that its history should be structured using morphological and expressive criteria.42

Towards the middle of the decade, a figural transformation of the skyscraper resulted in the extreme simplification of the building’s volume. All signs of load-bearing structure were often replaced by abstract and scaleless patterns of mullions. This late-modern tendency described in my second chapter describes this change from extruded and corrugated column forms to gem-like prisms or “icebergs” characterized by their oblique edges. In these utopian configurations, the opacity of mirror was preferred over the transparency of glass, resulting in a total break between the interior and exterior. The resulting effects produced were phantasmagoric reflections and refractions of the building’s surrounding environment.

The second chapter of this dissertation focuses on the work of the architect Kevin Roche, also a student of Mies at IIT, who explored the possibilities of “crystallinism,” wherein the figure of the tall building dissolved in highly abstract forms and the optical effects of reflective glass. A number of Roche’s projects including the United Nations Plaza Complex in New York (1967 -1981) can be interpreted as a regression from Mies’s conception of “skin-and-bones” to an earlier condition of “skin-alone” characteristic of

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Mies’s projects of the 1920s. While Roche’s typological explorations dissolved the image of structure as a way to transcend the late modern structural model, they also witnessed the erasure of any discussion of structure in its history. Instead, the discourse surrounding this new generation of projects demonstrated a fascination with their phenomenological qualities. The 1979 exhibition *Transformations in Modern Architecture*, curated by Arthur Drexler at the Museum of Modern Art in New York and sponsored by The Pittsburgh Plate Glass Company, featured Roche’s United Nations Plaza project alongside a number of other glowing “mirror buildings,” and marked a fervent need to understand the spatial effects and socio-political implications of these fractured crystals. Whereas figures like Arthur Drexler and Francesco Dal Co located this radical process of abstraction as a descendent of the Miesian skyscrapers of the 1920s, the parallel rediscovery of Mújica’s Pan-American theories and Hugh Ferriss’ crystalline forms offered an alternative historical narrative with American origins for these contemporary instances of *Glasarchitektur*.

By the end of the 1970s, theoretical and historiographic debates that centered on a number of contemporary building projects changed the terms of the skyscraper’s historical examination. The third chapter analyzes how and why Philip Johnson’s AT&T Building in New York (1978-1984) became the largest and most controversial of these projects. As an

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43 Arthur Drexler, “Structuralist design in its purest form deals with what Mies van der Rohe called “skin and bones” architecture: a steel or concrete skeleton structure covered by a glass or metal skin. Although Mies’ own projects for glass skyscrapers in the twenties emphasized the skin and showed no structure at all, his American work increasingly concentrated on the bones until even the skin had its own external armature of metal mullions. […] Paradoxically, the latest (perhaps the final) stage of this architecture returns to the earlier preeminence of the skin, for which metal and glass cladding systems have been so refined as to communicate almost nothing. Of all transformations of formal and technical ideas this one is perhaps the most striking, having now come full circle to take up again one of the enduring fantasies of the twenties.” “Introduction,” *Transformations in Modern Architecture*, (New York: Museum of Modern Art; Boston: Distributed by New York Graphic Society, 1979), 11-12.

emblem of the arrival of postmodernism, questions surrounding the AT&T’s approach to “historicism” took center stage. Multiple historical readings sought to decipher the nature of its relationship to architectural history. While the AT&T could be rooted in an “antiquarian” conception of the past, in which history represents a utopian ideal in need of preservation and affirmation through historical reconstruction, it could also be interpreted as a critical gesture towards past forms in its eclectic juxtaposition and rearrangement of historical references. Johnson’s claim from decades earlier that one “cannot not know history,” delivered to an audience of students at the Architectural Association in London who were allegedly over preoccupied with technology, deepened the ambiguous relationship between these two modalities. This relationship would be addressed by Reyner Banham in his review of the built project as a “post post-Deco skyscraper.”

By 1980, the AT&T Building stood simultaneously as a monument and a tombstone to postmodernism in its guise as the final destination of the “Strada Novissima” exhibition at the inaugural Architectural Venice Biennale, whose curatorial theme was “The Presence of the Past.” If the previous two episodes of “structuralism” and “crystallinism” discussed in this dissertation signaled the emergence of late-modern alternatives to the Miesian canon, with respect to practice and their historical lineage, the AT&T Building’s extreme and ambiguous exaltation of historical form embodied the end of the debates surrounding postmodernism. The plurality inherent in the building’s legibility symbolized Johnson’s

45 Philip Johnson’s remark was made to students in a lecture at the Architectural Association School of Architecture, London, November 28th, 1960, who were allegedly too preoccupied with questions of technology and the work of Archigram and increasingly ignorant of the discipline’s history and figures like Sir John Soane whose house museum was around the corner from Bedford Square: “…as I have said in a rather contradictory fashion in one of my lectures, you cannot not know history.” “Informal Talk, Architectural Association,” foreword by Vincent Scully; introduction by Peter Eisenman, commentary by Robert A. M. Stern, Writings / Philip Johnson, (New York : Oxford University Press, 1979), 116.
perspective toward “historicism” as a conscious act of eclecticism. Rather than relativize historical form, this perspective signaled the generative potential found in a critical practice of historical reinterpretation. Upon its completion in 1984, the AT&T Building became the largest corporate commodification of historical form to date, a witness to the death of post-modernism as an American avant-garde position.

The end of the decade witnessed other changes that would also radically transform the typology of the skyscraper in programmatic and urban terms. John Portman’s Marriott Marquis Project in Times Square (1973-1985), described in the fourth chapter, was emblematic of the contradictions facing the skyscraper as the cornerstone for urban renewal across many American cities. Portman’s concept of “exploded space,” based on the analogy of an “exploded column,” evacuated the building’s interior, transforming it, instead, into a vast atrium space that aimed to transfuse urban life into the building.\(^{47}\) The project was delayed by a decade due to the fact that it was built on the rubble of a number of Broadway Theaters, which were seen as an impediment imposed by the historical fabric of the city to the much larger westward development of the Times Square area. Portman’s vision for the “city-as-a-skyscraper” stood in contrast to (and across the street from) the Office for Metropolitan Architecture’s “Hotel Sphinx” (1975-76), an example of Rem Koolhaas’s concept of the “skyscraper-as-city” that was modeled after the New York Athletic Club. Whereas Portman’s strategy was based on the obliteration of the historical urban fabric and the restaging of urban life within the space of the building’s atrium, “The Hotel Sphinx”

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\(^{47}\) John Portman & Associates, “The New York building’s spectacular atrium spaces, extending the full height of both retail and hotel levels, will demonstrate Mr. Portman’s concept of “exploded space.” His designs orchestrate space, always relating them to the human dimension.” “We want to inspire men with space, not overwhelm them.” New York Hotel Project Description; Bell & Stanton Inc., Collection of John Portman and Associates Archives (July 11\(^{th}\), 1973), 3.
embodied the heterogeneous nature of the city as the site for the “improbable.”  

Both projects offered visions of the future of urban space formed largely by their relationship to the tall building, and were interpreted through the lens of Raymond Hood’s “City under a Single Roof” and A.I. Pasternak’s “social condenser” of the 1920s. In both precedents, the skyscraper became the building block of a new vision for the city.  

Similarly, Portman’s and OMA’s contrasting visions of the skyscraper-as-city refocused questions concerning the typology’s relationship to its environment, and by extension, the larger question concerning ineffective models of practice.  

Exploring the contradictions inherent in the figure of the architect as having to mediate between the interests of production versus those of civic values, Tafuri argued for an expanded role of the architect to include planning as a way to control capitalist development.  

Portman’s ultimate turn away from the city and its history towards a more expanded role of the “architect as developer” resulted in one of the most challenging and emblematic episodes of the decade.

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48 The description of the city as the space for the “improbable” and the futile need to assert control over it by the utopian projects of the avant-garde is borrowed from Manfredo Tafuri’s description of the space of the city: “But the real space of the improbable is the city. The formlessness and chaos of the city is therefore to be redeemed by extracting from within it all of its progressive virtues. The necessity of a programmed control of the new forces released by technology was very clearly pointed out by the avant-garde movements, who immediately after discovered they were not capable of giving concrete form to this entreaty of Reason.”


51 Manfredo Tafuri, “Modern architecture has marked out its own fate by making itself, within an autonomous political strategy, the bearer of ideals of rationalization by which the working class is affected only in the second instance. […] For this reason it is useless to propose purely architectural alternatives. The search for an alternative within the structures that condition the very character of architectural design is indeed an obvious contradiction of terms. Reflection on architecture, inasmuch as it is criticism of the concrete “realized” ideology of architecture itself, cannot but go beyond this and arrive at a specific political dimension. Only at this point – that is after done away with any disciplinary ideology – is it permissible to take up the subject of the new roles of the technician, of the organizer of building activity, and of the planner, within the compass of the new forms of capitalism development.” “Notes in the Form of a Conclusion,” Architecture and Utopia, Ibid, 181-182.
In addition to these four parallel narratives, the dissertation traces the subject of “Skyscraperology” by following a “Manhattan cycle” of paintings by Madelon Vriesendorp, whose images appear in each of the chapters. Throughout the 1970s, Vriesendorp’s images were reproduced across a wide range of media that included illustrations for journals, books, and even construction industry trade calendars. Her work serves as icons that symbolize the themes of irony, regression and historical revival prevalent in the postmodern period. An acute observer of this period, Charles Jencks argued that if the skyscraper was akin to a “thought-experiment,” a specimen of technological progress that is inherently bound in its own ever-changing logic, Vriesendorp’s images were “thought-diagrams,” surreal visions that are one and the same with the theoretical questions of their time. Similarly just as Rem Koolhaas defined the skyscraper as the embodiment of “the double life of utopia” – both “Tower of Babel” and built monument “on the banks of the Hudson,” Vriesendorp’s images were the “conceptual cement [and] evidence” that serve to explore the potential of this parallel vision (fig. 0.15) (fig. 0.16).

52 Rem Koolhaas, “The three paintings [Apres l’amour (1975), Flagrant delit (Version II, 1975), Freud Unlimited (1975)] marked the space between the four chapters [of Delirious New York]. They were a kind of conceptual cement, the evidence of the delirium.” The World of Madelon Vriesendorp, Paintings / Postcards / Objects / Games (London: AA Publications, 2008), 264.
54 Charles Jencks, “Because of their humorous power Vriesendorp’s images soon became the “thought-diagrams” of the book [Delirious New York]. Like all effective icons they essentialised the basic idea, reduced into a few images that became so associated with the concepts as to be interchangeable: x=y.” “Madelon Seeing Through Objects,” The World of Madelon Vriesendorp, 19.
55 Rem Koolhaas, “And finally, in the very last episode, the Tower of Babel suddenly appears and some strongman actually finish it under a song of new hope, and as they complete the top, the Ruler (of the Olympus probably) runs off making a fool of himself while Mankind, suddenly understanding everything, finally takes its rightful place and right away begins its new life with new insights into everything,” Dostoyevsky, The Demons; “We take from you what we need and we hurl back in your face what we do not need… Stone by stone we shall remove the Alhambra, the Louvre and the Kremlin and build them anew on the banks of the Hudson.” “The Double Life of Utopia: The Skyscraper,” in Delirious New York, (New York: Oxford University Press, 1978), 67.
The emergence of Vriesendorp’s images across the pages of these very same journals that carried articles by Tafuri and other critics and architects add a third dimension to the rift between competing historical narratives and images of contemporary projects. Floating autonomously from these historical and contemporary investigations, Vriesendorp’s images reveal the skyscraper as a psychological object, one whose appeal transcends its technological and historical images and enters the realm of fantasy. Her surreal iconography suspended the brutal reality of the social, political and environmental challenges facing the American and European cities that had triggered this moment of historical retrospection in the 1970s. Addressed in the epilogue of this dissertation,

57 Charles Jencks, “Madelon listened to Rem’s narrative and pushed it a bit further into a different realm where it could be relished as a joke that everybody knew, the sub-Freudian realm of phallic skyscrapers and lighthouses as flashing dicks, the world of pop-psychology and postcards.” “Madelon Seeing Through Objects,” The World of Madelon Vriesendorp, Ibid., 20.
Vriesendorp’s images fill the space of disjunction between the images of projects and their competing historical narratives while providing an alternative vision for the future.

As the decade of “Skyscraperology” (1975-1985) will demonstrate, the skyscraper’s “double exposure” in history and building practice ultimately reformulated the terms of both. The desire to reimagine the typology as it transitioned from a late-modern to a postmodern model triggered the need for a retrospective view of the skyscraper, producing a rich and multifaceted history as an object of expression that emerged from the turn of the century. During this decade, the theoretical and historical contributions to the discourse of “skyscraperology” produced both critical historiographies—a form of what Tafuri

**Figure 0.16:** Madelon Vriesendorp, “Après l’Amour,” in Charles Jencks, *Skyscrapers, Skyprickers, Skycities* (London: Academy Editions, 1980), 59.
described as “operative criticism”\textsuperscript{58}—and anachronistic, historical fictions that provided momentarily relief from the challenges of contemporary architecture and city planning at the time. The four chapters of this dissertation focus on specific episodes in the history and practice of tall building as a means to understand how these tensions unfolded and collided throughout this nine-year period.

\textsuperscript{58} Manfredo Tafuri, “What is normally meant by operative criticism is an analysis of architecture (or of the arts in general) that, instead of an abstract survey, has as its objective the planning of a precise poetical tendency, anticipated in its structures and derived from historical analyses programatically distorted and finalized. By this definition operative criticism represents the meeting point of history and planning.” “Operative Criticism,” Theories and History of Architecture (New York: Harper and Row Publishers, 4th Edition, 1980 [New York : Harper & Row, 1976]),141.
Figure 0.17: “1969 – 1970,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused on professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.18: “1971 – 1974,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.19: “1974 – 1975,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.20: “1975 – 1976,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.21: “1976,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.22: “1976-1977,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.23: “1977,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.24: “1978 - 1979,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused on professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.25: “1980,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused on professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.26: “1981 - 1985,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
Figure 0.27: “2001 -,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.

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Figure 0.28: “2001 - ,” Timeline drawn by the author illustrating a selected bibliography that gives rise to the composite discourse of “Skyscraperology,” showing the contributions that focused of professional practice on the upper section of the page, and those that dealt with historical accounts on the lower half of the page.
CHAPTER I. STRUCTURALISM:
A new organic order in the prehistory of the tall building in the United States

Figure 1.1: Cover. Madelon Vriesendorp, The Arrival of the Pool (1974), Casabella, no. 418 (October, 1976).
In 1976, an issue of the Italian professional journal *Casabella* entitled “Triumph and Failure of the Skyscraper” featured an extraordinary image by Madelon Vriesendorp on its cover (fig. 1.1). Entitled *The Arrival of the Pool*, the image illustrated the appearance of the European architectural avant-garde to American shores after a forty-year trek across the Atlantic Ocean. Depicting a crew of architects-as-lifeguards sailing past the Statue of Liberty in a swimming pool functioning as a makeshift craft, Vriesendorp’s painting presented a paradoxical situation wherein the architects had to swim toward what they wished to leave behind. This curious representation of “reverse propulsion” alluded to the reversal of the European avant-garde’s expectations and aspirations upon their arrival to the new world. The promise surrounding the skyscrapers that gave the American metropolis its form quickly dissipated to be replaced by a reality far different than what they had initially imagined. According to Rem Koolhaas, “They had always dreamed of stainless-steel Chryslers and flying Empire States […] They had expected [Zeppelins] to hover over the Metropolis like a dense cloud drift of weightless whales.” Instead, it “was strange how familiar Manhattan was to them […] Had Communism reached America while they were crossing the Atlantic?”

This collision between the European avant-garde’s utopian vision of the future metropolis and the brutal actuality of its American realization is articulated in the image in other ways: the aforementioned pool filled with architects-as-lifeguards is set against a
crowded skyline dominated by the World Trade Center Towers—emblems of the systems of production shaping the American city. Like the ambiguous nature of their propulsion, the architects’ motives for their journey are also unclear. On the one hand, their effort to reach American shores and embrace its values of production seems oblivious to the civic tenets symbolized by the Statue of Liberty. On the other hand, it could be interpreted as a critical gesture toward these systems of production; architecture could perform as an instrument to save the city from itself.

The issue’s title “Triumph and Failure of the Skyscraper” thickens the plot. Since the turn of the century, skyscrapers have symbolized the promises of the avant-garde project. Yet as technical artifacts that have produced a much different reality in the contemporary city, they have also become the antithesis as instruments of the market. These aspects of the skyscraper’s inconsistency have often been associated with contrasting European and American viewpoints toward the tall building—as an ideological “idea” in the first instance, and a realized “fact” in the second. In the journal’s editorial column, Carlo Guenzi called for a deeper reflection on this opposition:

In this issue we include some findings related to the history and genesis of a symbol [The skyscraper]. The inherent contradictions in these do not turn us away from our interest in arriving at a useful historical reconstruction of its evolution… [Rather] this evolution should also be seen in relation to the questions of technology, not as an end in itself, but rather as a way to exorcise the type from these and connect it to more profound themes that avoid reducing it to the banality of its structural and constructive reasons…

Colin Rowe, “In Chicago it might be said that the frame was convincing as a fact but not as an idea, whereas in considering the European innovators of the Twenties one cannot suppress the supposition that the frame to them was much more often an essential idea before it was altogether reasonable fact.” Colin Rowe, “Chicago Frame,” Architectural Review, No.120 (November, 1956); Also republished in Alvin Boyarski, “Chicago Architecture,” Architectural Design, vol. 40 (December, 1970), 645.

Guenzi, “In questo numero sono presenti alcune di queste considerazione legate alla storia ed alla genesi di un simbolo. Ma le contraddizioni non deviamo il nostro interesse nei confronti di una utile ricostruzione storica dell’evoluzione di questo prodotto edilizio. Evoluzione che va vista in rapporto anche alla tecnologia utilizzata, proprio per esorcizzarla, in modo da non ridurla alla banalità delle ragioni statiche e costruttive, pur fondamento del primato, ma per connetterla piuttosto ad altre più profonde.” Ibid., 2.
Just as Vriesendorp’s image illustrates the double life of the architects/lifeguards, in which the conflict between ideology and reality can produce both complicit and critical responses to urban systems of production, Guenzi extended this contradiction to the form of the tall building itself.

Since the start of the decade, a search for alternative approaches to the tall building in light of the social, political and urban challenges facing the American city surfaced in the pages of American and European professional journals.9 In Chicago, professional publications in the early 1970s featured historiographical questions concerning the Chicago School and its role in the development of the tall building. The titles of several issues of Inland Architect indicate this was a controversial subject, both historiographically and typologically.”10 The debates were intensified by two central factors: first, questions that centered on the historical development of the skyscraper; and second, the “urban renewal” projects, of which mega-skyscrapers were a part, spurred in response to the blight of many American cities. One spread in Alvin Boyarsky’s issue of Architectural Design (1970) exalted the contradictions between “the neo-classicizing tendencies of the neo-Miesian School” and the urban challenges facing the typology (fig. 1.2) (fig. 1.3).11 The fact that this spread was followed by the republication of Colin Rowe’s “Chicago Frame” essay, written decades earlier, points to the inconclusive and unresolved nature of the discourse at that time.

Figure 1.2: Back [Left] and Front [Right] Covers, Alvin Boyarsky, “Chicago a la Carte, The City as Energy System,” *Architectural Design*, vol. XL (December, 1970). Both covers read in conjunction with one another make up the urban section of Chicago, from the underground to the tall buildings above. In this sense, the pages of Boyarsky’s issue of *Architectural Design* turn the discourse quite literally into the urban fabric.

Figure 1.3: Alvin Boyarsky, “Chicago a la Carte, The City as Energy System,” *Architectural Design*, vol. XL (December, 1970), 638-639.
The polemical tone of these journals was symptomatic of the period’s profound disciplinary retrospection. Following a dominant modernist generation whose end was signaled by Mies’s death in 1969, a search for a renewed concept of “structure” for tall buildings preoccupied professional practice. Mies had already recognized the multiple registers that exist in the mutable term, “structure:”

In the English language you call everything “structure.” In Europe we don’t. We call a shack a shack and not a structure. By structure we have a philosophical idea. The structure is the whole, from top to bottom, to the last detail – with the same ideas. That is what we call structure.  

Furthermore, he stated that “only skyscrapers under construction reveal the bold constructive thoughts.” Implicit in this claim is the possibility that “structure” can be understood as various conceptions of order—ranging from the material, such as literal, load-bearing construction, to the philosophical, which encompasses the more conceptual relationship between the parts and the whole that articulates a building’s expression and legibility. In the case of the skyscraper, the literal and conceptual meanings of the word “structure” are made more complex by the degree to which the building can be read, and the formal relationship between the building’s inner order and outer expression. Mies described the challenge of achieving structural transparency by pointing out that in the skyscraper, “with the raising of the walls, this impression [the constructive thought] is completely destroyed; [...] the necessary basis for artistic form-giving, is annihilated and

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13 Mies van der Rohe, “Only skyscrapers under construction reveal the bold constructive thoughts, and then the impression of the high-reaching steel skeletons is overpowering. With the raising of the walls, this impression is completely destroyed; the constructive thought, the necessary basis for artistic form-giving is annihilated and frequently smothered by a meaningless and trivial jumble of forms.” Published without title in *Fruhlicht*, vol. 1, no. 4 (1922), 122-124. Republished as “Skyscrapers” in Fritz Neumeyer, ed., Mark Jarzombek, trans., *The Artless Word. Mies van der Rohe on the Art of Building* (Cambridge, Mass.: MIT Press, 1991), 122.
frequently smothered by a meaningless and trivial jumble of forms.” In his striking description, the image of structure vanishes, leaving an interpretative space between “constructive thought” and built form. An inherent complexity arises in the relationship between order, legibility, and expression in which a state of total correspondence across the three registers is almost achievable, but impossible.

If the search for “structure” indicated a desire for material and conceptual order, “structuralism” can be defined, in its broadest sense, as a search for the organizational principles that ensure systemization in a work. Mies’s search for an organizational logic recognized the gap that exists between this “internal” order and its “external” communication, and searched for a more profound relationship that transcended both image and technology. Within the many histories of the skyscraper, a parallel form of historiographic “structuralism,” or a search for the general and particular laws that structure the writing of history across time can also be found. In this search for order through writing, buildings were replaced by words, challenging notions of periodic, technological progress. Revivals and debates concerned with the ever-changing legibility of typologies, often deemed chronological narratives obsolete. In lieu of tracking technological advancements across time as a linear progression, this form of history writing emerged as a rich and multifaceted field of anachronistic accounts. This discourse that searched for

\[14\] Mies van der Rohe, “With the raising of the walls, this impression is completely destroyed; the constructive thought, the necessary basis for artistic form-giving, is annihilated and frequently smothered by a meaningless and trivial jumble of forms.” Ibid.

\[15\] The term “structuralism” and its relationship to legibility is borrowed from Eric Fernie’s “Structuralism in the broadest sense can therefore be defined as the establishing and examining of the general and particular laws by which structures work. The structuralist extracts principles of classification from the confusion of individual messages. “Post-structuralism,” “Glossary of Concepts,” Art History and Its Methods: a Critical Anthology (London: Phaidon Press Ltd., 1995), 352.

\[16\] Eric Fernie, “Since “structuralists” are not interested in immediate or surface content they are not primarily concerned with the world at large, with what people actually say or with the making and using of things.” Art History and Its Methods, 352.
structure within the tall building thus expanded to one that sought to structure its many competing historical narratives.

In tandem with this aforementioned historiographical approach to “structuralism,” a paradigm shift in practice took place at the start of the 1970s, during which the schism between the building’s interior structure and exterior curtain wall became synthesized into a single system capable of changing along the building’s perimeter. Miesian “structuralism,” which sought for absolute consistency between the regular distribution of organization in the building’s interior and its exterior curtain wall, was reconsidered. A new concept of order emerged from the Miesian canon, one that proposed that a differentiated structural cage could be conceived for the tall building. Developed by Mies’s student and longtime collaborator Myron Goldsmith (fig. 1.4), this new concept of structure appeared in Goldsmith’s own master’s thesis (1953), under the direction of Mies and Ludwig Hilberseimer. It also appeared in a number of master’s theses (1964-1970) under Goldsmith’s direction at the Illinois Institute of Technology.¹⁷

The figure of Myron Goldsmith has played an important, yet under examined, role in the Miesian canon, as he contributed plural historical and theoretical perspectives to an otherwise regular structural formula. Goldsmith had a close career with Mies, as a student under his tutelage at IIT, an early collaborator in his office, and later, as a faculty member at IIT. Articulated through his involvement in the master’s theses projects at IIT, Goldsmith’s position offers a unique perspective from which to understand, in a more comprehensive manner, the transformation of the Miesian model—from the structurally isotropic formula

that characterized it throughout the 1950s, to a number of alternatives that responded to its obsolescence by the end of the 1970s. A close study of Goldsmith’s own master’s thesis and those of his students offers an extraordinary perspective of the tall building’s structural transformation in the two decades that preceded the 1970s. Featured in the 1976 issue of *Casabella* and in the Bicentennial exhibition *100 Years of Architecture in Chicago*, these projects looked to historical precedents from the turn of the century, suggesting that questions of structure and organicism have dominated the discourse surrounding the Chicago School for over a century.

Inside *Casabella*'s pages of the issue entitled the “Triumph and Failure of the Skyscraper,” Goldsmith illustrated the past and future of the skyscraper in a contribution entitled “Structure, Scale and Architecture” (fig. 1.5).\(^{18}\) The first half of Goldsmith’s timeline featured the load-bearing wall and steel frame construction of John Wellborn Root’s Monadnock Building (1889-91) and the reinforced concrete slab and column system of Mies’s Promontory Apartments (1948-49). The second half included Goldsmith’s own master’s thesis project at the Illinois Institute of Technology (1948-1953)\(^{19}\) and a set of prototypical, steel diagrid systems organized by height. As the building projects increased in height, a series of structural transformations took place, in which load-bearing walls incorporated reinforced concrete, steel frames and diagrid systems. Goldsmith’s timeline also represented an alternative typological lineage that pointed to the shared formal attributes amongst Root’s Monadnock Building, Mies’s Promontory Apartments, and his own master’s thesis project.

Goldsmith’s timeline represents an alternative history as it assembles a number of projects with similar formal and structural characteristics anachronistically. Unlike other histories of technology that have measured technological progress in terms of innovation, Goldsmith’s timeline proposed a history composed of technological breaks and dead-ends, a cyclical progression in which each phase marked the end of a period of technological development in order to give way to the next.

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Figure 1.5: Myron Goldsmith, “Monadnock Building, Burnham and Root, Chicago; Promontory Apartment Building, Mies; 86-Story Building,” “Struttura, Scala e Architettura,” *Casabella*, no.418 (October, 1976), 39.
As the tallest building of its type in its period, the Monadnock represented the climax of load-bearing masonry skyscraper construction in Chicago. The Promontory Apartment Tower was Mies’s tallest building in reinforced concrete, an exception within his lineage of steel frame high-rise projects to follow. Goldsmith’s master’s thesis anticipated the eighty-six stories, as the standard for building in reinforced concrete in the future. A number of prototypical structural strategies in steel that exceeded the height of the project were described in his thesis, as he imagined that towers could exceed one hundred stories. He established a connection to Mies’s “end of the reticulated frame” by suggesting that continuity could be maintained amongst masonry and reinforced concrete cases that varied in form as they rose. Goldsmith’s sequence pointed to a historical understanding of the skyscraper based on a correspondence between organicism and the calibration of structure—a new organic history that emerged “naturally,” “anonymously,” and anachronistically, producing alternative narratives.

Typologically, Goldsmith’s alternative history of tall-buildings signified a radical departure from the predominant Miesian principle of a regulated, structural framework. For Mies, “structure” was a philosophical idea that formed the basis for both form and order; every element of the building would follow the same proportional strategy. Modularity was privileged: in Mies’s scheme, the aggregation of components followed an isotropic rather than differential organization, resulting in repetition. Phyllis Lambert has described Mies’s sense of the organic as a form of consistency between the part to the whole:

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Later, talking about his work, Mies quoted an aphorism by Goethe: ‘It is neither core nor shell – it is all one.’ The interior and exterior of my buildings are one— you can’t divorce them. The outside takes care of the inside. And Mies’s sense of the organic evolved: In his inaugural address at the Armour Institute of Technology he would “emphasize the organic principle of order that makes the parts meaningful and measurable while determining their relationship to the whole.” At one of the Thursday evening dinners at his apartment in Chicago, Mies characterized to me his sense of the organic as distinct from Frank Lloyd Wright’s: Whereas Wright’s buildings grew from the soil like trees, Mies metaphorically demonstrated that for him it was the relation of the part to the whole, as a segment of the finger is related to the finger, the finger to the hand, the hand to the harm, and so forth.22

As Lambert describes, if the Miesian conception of “structure” sought a modular logic based on correspondence and recurrence where the “shell and core” are one, Goldsmith’s concept of “structural organicism” favored differentiation. In the case of the Monadnock building’s resemblance to natural form, its walls changed in profile and lost depth as the building gained height; in the Promontory, the piers became thinner as they rose. Its structure was isomorphic to its loadbearing performance, and changed in response to the forces acting upon it, rather than remaining isotropic in distribution.

This difference between isotropic and isomorphic principles of order can be seen in two early elevations of Mies’s Promontory Apartment Tower, not coincidentally drawn by Goldsmith while an apprentice in Mies’s office. In a scheme involving reinforced concrete (which was the version that was eventually built), the building’s exterior is articulated as a series of load-bearing, concrete, vertical piers, whose widths gradually diminish as they increase in height, to form equal bays ([Left] fig. 1.6). A row of ribbon windows resting on masonry spandrels is installed on the slab of each floor. In the elevation of a second “steel frame” version, piers are replaced by non-load-bearing, vertical, I-shaped columns that act as mullions, subdividing the surface of the façade evenly into twenty-four bays ([Right] fig.

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1.6. Whereas in the concrete version, the performance of structure is expressed by the reduction of overall weight as the building gains height, in the steel version, a hidden load-bearing structure replaces non-load-bearing elements that form the curtain wall.

The two strategies for the Promontory Apartments offer contrasting approaches to the articulation and expression of structural performance, recalling the differences between the deep load-bearing masonry wall of Root’s Monadnock Building (1889–91), and the impossibly thin curtain wall of Burnham and Atwood’s Reliance Building (1894-95). The Promontory’s exposed structure made of load-bearing piers introduced a model of “structural organicism” that integrated structural performance with the calibration of form: given the load-bearing nature of the building’s exterior, its changes in profile on a vertical axis articulated changes in structural forces. This isomorphism between the design of the piers and their structural performance resembled vegetal forms, much in the same way that a branch diminishes in section as its span increases. Yet the building’s approach to organismic was expressive and ornamental, since the magnitude of this change was not significant enough to affect the building’s load-bearing performance.

In the second drawing of the second Promontory design scheme, floating profiles placed in front of columns express their non-load-bearing character as they form the curtain wall. Regularity is emphasized, both with respect to the unvarying nature of the I-beams, and the even distribution of parts throughout. In its reticular order, the form aligns with the structural module but remains separate from the structural frame.
The I-beams that form the curtain wall merely resemble structure. The additional contrast between the horizontality of the exposed floor slabs on the side walls and the verticality of the curtain wall in the main façade exalts further the decorative nature of both of these patterns. In both instances the concrete and steel Promontory schemes use “self-referential signs”\(^{23}\) whereby the image of the building’s structural performance is expressed and

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\(^{23}\) The dual condition of expressing structure, yet gaining a certain degree of autonomy from it, was described as an abstraction, a “self-referential sign” in Peter Eisenman’s “Aspects of modernism: Maison Dom-ino and the Self-Referential Sign,” *Oppositions*, no.15-16 (Winter-Spring, 1979), 118-128.
exaggerated by the load-bearing structure, thus becoming the basis for its ornamental character. This produces two forms of abstraction in their legibility: In the first, there is a discernible change in the reinforced concrete piers, which represents a correspondence to its structural load with little substantial change in the structural performance of the building’s form; in the second instance, the regularity of the internal steel structure and the curtain wall are used to represent an isotropic distribution of structure.

When viewed alongside the technological history of the typology, both options represent contrasting themes. The steel “curtain wall” frame was understood as the first “true” example of curtain wall construction, resembling Burnham and Atwood’s Reliance Building—what that has been described as characteristic of the Chicago principle of translating structure into an aesthetic form “straightforwardly.” The image of regularity was understood as “transparent,” despite its status as a highly abstracted representation of order. In contrast, like Root’s Monadnock Building (1889–91), the reinforced-concrete load-bearing version of the Promontory Apartments can be understood as form of expression. The envelopes of both buildings articulated changes in load-bearing forces, from the tapering load-bearing wall of the Monadnock, to the gradual tapering of the Promontory piers.

In addition to Goldsmith’s contribution, the “Triumph and Failure of the Skyscraper” issue of *Casabella* featured historiographic and typological perspectives by prominent historians such as Carl W. Condit and professional practitioners such as Fazlur R. Khan. Their texts were illustrated with typological models that often contrasted their

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24 Grube, Pran, and Schulze, “[Mies’ Promontory] does not articulate the load-bearing frame behind it [producing] a structural transparency altogether consistent with Chicago principles of transforming technological devices straightforwardly into aesthetic form.” *100 Years of Architecture in Chicago*, 53.

theoretical perspectives while demonstrating the extraordinary confidence of the then-contemporary building projects. Condit’s historical contribution, “The Technological Triumph and Architectural Failure of the Contemporary Skyscraper,”⁶⁶ offered a chronology that examined the technological aspects of the typological narrative and its struggle to reconcile its massive scale with that of its urban surroundings. While recognizing its technological and typological achievements across a century of development, Condit attributed the failure of the skyscraper to a loss of ornamentation that led to an erosion of the tradition of the American “tall building.” The European avant-garde, he argued, had influenced American building in such a way that type transformed into an increasingly alienating and threatening urban element. As an example of the image of the skyscraper appearing in “double exposure,” where contemporary projects were published alongside historical and theoretical texts, the journal also included contemporary large scale high-rise projects such as the Fiat Tower in Paris built by Skidmore, Owings and Merrill, of which Goldsmith and Kahn were partners (fig. 1.7).

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Figure 1.7: “La Tour Fiat a Parigi,” *Casabella* no.418, (October, 1976), 54.
Prehistory

Goldsmith's prehistory of the American tall building, dating back to the turn of the century, centers on what critics described as the “Skyscraper Problem.”27 Louis H. Sullivan’s foundational article, “The Tall building Artistically Considered” (1896)28 was an early contribution to this debate. In his search for the function of form, Sullivan described “natural form” as a model from which one could develop “a comprehensive formula” to decipher “an outer semblance that tells us what they are.”29 In architectural terms, this translated to the relationship between the building’s exterior image and its inner logic and structure. Although Sullivan concluded that “form ever follows function,” the ambiguous nature of what was meant by the term “function” made it a complex concept.30 Similar to Mies’s exploration of the multiple meanings of “structure,” Sullivan formulated his dictum of “form ever follows function” in response to a number of competing theories about the meaning of form’s function. Some of these views, for example, suggested that the tall office building should resemble a “classical column,” refer to the mystical “trinities of nature and art,” function as a “logical statement,” and represent an “organic” image by pointing to the “vegetal kingdom” or a “pine tree.”31 The plurality of perspectives acknowledged by Sullivan


29 Sullivan, Kindergarten Chats, 207.

30 Sullivan, “It is the pervading law of all things organic, and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the heart, of the soul, that the life is recognizable in its expression, that form ever follows function.” Ibid., 208.

31 As part of establishing his theory “that form ever follows function,” Sullivan cites a number of competing views on what forms the basis for the legibility of the skyscraper: “Certain critics, and very thoughtful ones, have advanced the theory that the true prototype of the tall office building is the classical column […] Other theorists, assuming a mystical symbolism as a guide, quote the many trinities in nature and art […] three parts vertically, substantially as before but for different motives. Others, of purely intellectual temperament, hold that such a design should be in the nature of a logical statement […] Others, seeking examples and
suggests that rather than offer an affirmation, Sullivan's dictum was an open critical question: what "function" should [its] "form" "follow"?

Following Sullivan’s explorations, debates surrounding the legibility of the tall building have been inseparable from questions of style and ornament, and theories of organicism. Natural form was a loaded point of inspiration from which the legibility and structural order of built form, particularly that of the tall building and its expression, could be translated, both aesthetically and conceptually.\(^2\) Analogies drawn between natural forms and tall buildings have structured our understanding and description of the formal and organizational aspects of skyscrapers. As noted by Michel Foucault, the observation of natural history has a proportional relationship to our capacity to construct a language that structures it:

Natural history is nothing more than the nomination of the visible. [...] Each visibly distinct part of a plant or an animal is this describable in so far as four series of values are applicable to it [the form of the elements, the quantity of those elements, the manner in which they are distributed in space in relation to each other, and the relative magnitude of each element]. These four values affecting, and determining, any given element or organ are what botanists term its structure. By the structure of a plant’s parts we mean the composition and arrangement of the pieces that make up its body.\(^3\)

In suggesting a more synthetic relationship between natural history and language, Foucault points to analogies as an effective way to describe different forms and arrangements in nature, in which the “human body serves as a reservoir for models of visibility and acts as a

\(^2\) In addition to Sullivan and Semper, a number of theories have explored the basis for a “functional-organic” view of architecture that have served as references for historians writing about the tall building including Leopold, Eidlitz, *The Nature and Function of Art: more especially of architecture* (New York: Da Capo Press, 1977, [c1881]); and revisions in the 1950s including Edward Robert De Zarko, *Origins of Functionalist Theory* (New York, Columbia University Press, 1957); both references used by the Philadelphia based art historian Winston Weisman to frame this lineage.

spontaneous link between what one can see and what one can say.” Foucault suggests that the notion of “structure” both “limits and filters” the visible into a logical order, but also “transcribes it into language. The most typical comparison has been to envision the tall building in the image of a tree, a living form with a thick base, whose form tapers as it gains height. This analogy of organic form highlights issues pertaining to the structural and functional forces that give rise to architectural form, while questioning the hierarchical relationship of the building’s parts in relation to the whole. As Sullivan suggested, the question of organicism had as much to do with form, style, and ornamentation as it had to do with matters of organization and performance on structural, programmatic, and symbolic levels.

Included in Goldsmith’s timeline is the American architect, John Wellborn Root (1850 – 1891), a contemporary of Louis H. Sullivan (1856 – 1924), who was another key contributor to the debates regarding the skyscraper at the turn of the century. As a practitioner and a theorist, Root wrote extensively about the nature of style and ornamentation. Several years before Sullivan’s “The Tall Building Artistically Considered” (1896), Root had already translated portions of Gottfried Semper’s writings on style in a series of articles in the Chicago-based journal, The Inland Architect, and shared his own theories in a number of articles such as “Styles” (1887), “Architectural Ornamentation”

34 Foucault, “Forms and arrangements, on the other hand, must be described by other methods: either by identification with geometrical figures, or by analogies that must all be of the utmost clarity. In this way it becomes possible to describe fairly complex forms on the basis of their very visible resemblance to the human body, which serves as a sort of reservoir for models of visibility, and acts as a spontaneous link between what one can see and what one can say.” Ibid., 135.
In his search for a universal theory, Root formulated a Semperian thesis in which he argued that, “style is a good structural expression of its avowed theory of construction, and its decorative features carry to still further and finer completeness the same theory.” He described the need for “unity” between decoration and structure, one that “must spring from within the structure, not without it.”

Using the human body as an analogue, Root found the body’s “proportion and scale” to be “its most refined and significant expression;” an ideal balance could be found “of the relation of exterior expression to interior arrangement.” Structural unity and organicism appeared as determinants that could drive a project’s formal structure, while imbuing an image of structure based on stylized, ornamental motifs.

Root gave form to these structural organicist principles in his design for the Monadnock Building. Its profile was designed to resemble an Egyptian motif in the form of papyrus plant to draw similarities between the marshlands of the Nile and those in Chicago; its name was based after a well-known mountain. With its colossal load-bearing walls made of masonry, the Monadnock was the tallest masonry building ever constructed by 1890.

Admired by Mies, the Monadnock stood in dramatic contrast to the Reliance Building as

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37 Root, Inland Architect, Ibid., 55.
38 Ibid., 55
39 Root, “More than all the others, however, the human form must remain the supreme school for the study of form and proportion in its most refined and significant expression. Here as all artists have insisted, the methods of nature have their fullest revelation. This is the divinest design for any structure; this is the most pregnant essay on the much vexed questions of Proportion and Scale; here is a perfect solution of the relation of exterior expression to interior arrangement and here is a demonstration of the fact that the most upmost refinement may be combined to herculean strength.” Inland Architect, 100.
41 Hoffmann, The Architecture of John Wellborn Root, Ibid.
42 Upon his arrival to Chicago, Mies did not choose a single building as an “outstanding architectural example,” but he did point to the Monadnock as “a true expression of such vigor and force that I am at once proud and happy to make [Chicago] my home.” Joanna Merwood-Salisbury, “Upon his arrival a reporter for the
one of the earliest and most refined examples of curtain wall construction, a project Root had originally started in collaboration with Burnham and whose design was continued and finished by Burnham and Charles Atwood upon Root’s death in 1891 (fig. 1.8) (fig. 1.9).\(^{43}\)

While the deep walls of the Monadnock offered a traditional model for load-bearing construction, the Reliance was its diametrical opposite by embodying the potential of load-bearing frame construction. In the Reliance, load-bearing forces were distributed throughout the thinnest structural frame possible, transforming walls into non-loadbearing elements or curtain walls. The fact that both the Monadnock and Reliance buildings were contemporaneous is indicative of the plural attitudes that shaped the tall building at the start of the new century, a fascinating pair that would be the source of many historical debates that followed. Retrospectively, the differences between the Reliance and Monadnock projects demonstrate the diverse approaches to articulating an organicism of the skyscraper. The fact that the built version of the Promontory resembles the Monadnock, and both are named after land masses, reinforces this parallel between Root and Mies.\(^{44}\)

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\(^{43}\) Chicago Daily News asked the German master how he liked the architecture of the city. “I should not like to choose any one particular building in Chicago as an outstanding architectural example,” Mies apparently replied, “although I think the Monadnock block is a true expression of such vigor and force that I am at once proud and happy to make it my home here.” “Postscript, “The Architectonic Anticipation of the Future,” Chicago 1890: the Skyscraper and the Modern City (Chicago: University of Chicago Press, 2009), 136.

\(^{44}\) The first floor and basement of the Reliance Building were originally designed by John Root of the Burnham and Root architectural firm in 1890, and upon Root’s death in 1891, what remained of the building was demolished and the current building completed by Charles B. Atwood in 1895. Curiously, the Reliance Building is still attributed to Root. Hoffmann, The Architecture of John Wellborn Root, Ibid.

Curiously, the fact that both the Monadnock and Promontory names refer to land masses reinforces this parallel: the Monadnock refers to Mount Monadnock (or Grand Monadnock) a mountain in the New England state of New Hampshire: [http://en.wikipedia.org/wiki/Monadnock_Mountain](http://en.wikipedia.org/wiki/Monadnock_Mountain); The Promontory refers to “promontory,” a common term that refers to a prominent mass of land that overlooks lower-lying land or a body of water (where it may be called a peninsula or headland): [http://en.wikipedia.org/wiki/Promontory](http://en.wikipedia.org/wiki/Promontory)
Figure 1.8: Reliance Building, D.H. Burnham and Company, 1894–95, Chicago: “From the Editors: With this issue of the Prairie School Review we conclude the transcription of the Concora Symposium held at Northwestern University in 1969. It is fitting that we open these pages with a photograph of the reliance Building, still standing at the corner of State and Washington ion the heart of Chicago’s loop. No architect has ever superseded Charles Atwood in inventiveness and elegance in skyscraper design. Today’s masters owe much to this structure. It is now under consideration as an official Chicago Landmark Building – Let thoughtful men prevail.” “The Chicago School of Architecture: A Symposium – Part II, Structural Development,” The Prairie School Review, vol. XI, no. 2 (First Quarter, 1972), 4.
Figure 1.9: Monadnock Building, Burnham and Root, 1891, Chicago: “From the Editors: The Concora Symposium is over. Whether or not a decision was reached is problematical. But no matter, it brought thoughtful men and women together and stimulated all who participated. We have chosen to end this issue of The Prairie School Review with a photograph of the Monadnock Building which, until recently, was thought to be the highest masonry wall structure possible. In a way it was the end of an era. Today, architects and engineers are developing new masonry bearing wall techniques with modern materials which will far exceed the Monadnock, so perhaps it really was the beginning of something its designers never thought possible.” “The Chicago School of Architecture: A Symposium – Part II, Structural Development,” The Prairie School Review, vol. XI, no. 2 (First Quarter, 1972), 38.
The Reliance and Monadnock buildings were featured as the opening and closing pages of an issue of *The Prairie School Review*, which also contained the proceedings of a symposium on the “Chicago School Question” in 1969. In light of the extraordinary differences that shape the space between these two cotemporaneous projects, it was not surprising that they continued to be emblematic of the pluralism inherent in the Chicago School since the turn of the century. This was expressed in the extensive captions written by the editors of the journal: “Whether or not a decision was reached [with regards to this history] is problematical [B]ut no matter, it brought thoughtful men and women together and stimulated all who participated.”

Throughout the 1950s and the years leading up to the symposium, the historiographical debates concerning the Chicago School became synonymous with the history of the skyscraper. The origins and development of the Chicago School were topics up for debate: a number of proponents argued that Chicago was the birthplace of the American skyscraper, rather than New York. Figures in the debate included supporting voices like Carl W. Condit, dissenting voices like Winston Weisman, and reconciliatory positions offered by individuals like J. Carson Webster. Other contributions such as Colin Rowe’s “Chicago Frame” expanded the debate to include a comparison between American and European models (fig. 1.10).

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46 *The Prairie School Review*, Ibid.
50 Colin Rowe, *Architectural Review*, Ibid.
In “Chicago Frame,” Rowe explored the multiple perspectives of the structural frame in the development of the tall building, no longer understood as simply an empirical, structural form, but rather, as a complex spatial and conceptual element. The “frame” was an analogy for a system of order in which all the constituent parts were related and subordinated to a common ratio. Comparing the structural order of Louis Sullivan to that of Frank Lloyd Wright, Rowe identified divergent strands of organicism that emerged from various conceptions of structural order. Whereas Wright followed principles that demanded...
an “organic space,” one whose organicism worked holistically and could not be broken down into plans and elevations, Sullivan prioritized the expressiveness of the façade, leaving the interior plan and section generic. For Rowe, the plan was paramount, the site where each model proposed its own relational configuration between the parts as they formed the whole. It was “a generator of form” that produced an inextricable unity between the structure and the interior order, expressing personal and formal will. Taking this comparison one step further, Rowe suggested that although a separation between plan and elevation could exist, they could be brought into a dialectical union through the introduction of structure, one that “perforated” and “punctured” space rather than defined it. In this sense, Rowe proposed three kinds of organicism: Wright’s comprehensive notion of form where the plan, section, and structure were one and the same; Sullivan’s separation of form into elements that prioritized the façade and left the plan and structure as generic elements; and finally, the International Style, where the plan, elevation and structural frame of the project are separate yet can be brought into a dialectical relationship. Rowe’s “Chicago Frame” neatly captured the dichotomy that existed between tall buildings in history (“Chicago”) and building practice (“Frame”). The title “Chicago Frame” could be understood both as an exploration into a new conception of structural order in practice as well as a contested historiographical terrain in the history of the Chicago School.

Several years after “Chicago Frame” was published, the symposium entitled “The Chicago School of Architecture” gathered a number of historians to discuss these competing historical narratives and expand on the questions raised by Rowe a decade earlier. 51 Although the symposium’s original intent was to address the broader question of the possible existence of the Chicago School and its different phases of development, the

51 The Chicago School of Architecture conference took place at Northwestern University, Evanston Illinois, Spring, 1969.
discussion quickly focused on a number of unresolved historical questions surrounding the skyscraper. The proceedings of this symposium were published in two separate issues of the journal *The Prairie School Review*, edited by Webster and featuring contributions by Condit and Weisman. In the foreword of the first issue, Webster raised a number of historical questions with respect to the genealogy of projects produced by the Chicago School, as a means to evaluate contemporary practice. Contributing to a bibliography on the relationship between Chicago and New York in the development of the tall building, Condit of Northwestern University and Weisman of Penn State University delivered papers that outlined contrasting versions of the Chicago School genealogy. Webster noted that their contributions avoided falling into the trap of a “Sullivanian or Wrightian mystique,” as Rowe had done in “Chicago Frame.” Both Condit and Weisman engaged in a discussion that included other participants in the audience including the historians Henry-Russell Hitchcock, Allen Brooks and Sir John Summerson amongst others. Weisman focused his

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contribution on the question of methodology, arguing that historians were to blame for all of the confusion surrounding the subject:

For me the major issue is not with the men or monuments but with the historians who have written about them. To be brief, we are being led to believe, erroneously I think, that Chicago was the birth place of the skyscraper, the skeleton frame, and indeed, of modern architecture. These are bold and great claims which, I hold, cannot be substantiated. They are exaggerations, half-truths which, when accepted uncritically, distort history.  

For Weisman, the “true nature of architectural history in our time” offered a way to move forward into the future.  

In addition to the questions of historiographical methodology, Weisman’s contribution focused on the notion of “functionalism” as the base doctrine of the Chicago School. Citing Edward de Zurko’s Origins of Functionalism, he attributed the concept of functionalism to a wide range of sources including seventeenth century Europe, Lodoli in the eighteenth century and Viollet-Le-Duc in the nineteenth century. Leopold Eidlitz’s Nature and Function in Art was also introduced, a “functional-organic” view of architecture as the basis for a nineteenth century. Amongst this wide set of sources, Weisman argued that Louis Sullivan had arrived to the discourse late, yet did not mention Root’s writings on Semper, revealing Weisman’s own bias against a Chicago-based history. Advocating for a more pluralistic history, Weisman noted that a number of key works in this history were found outside of Chicago and that almost all of the major Chicago practitioners in the nineteenth century were originally from New England.

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56 Weisman, The Prairie School Review, Ibid.
59 Weisman, Ibid. 9.
60 Weisman, “John Root was from Atlanta, Georgia, educated in Europe and New York... Daniel Burnham was born in Henderson, New York... William Holabird was a New York starter... Martin Roche was a
Condit’s response traced a pluralistic chronology of achievements that formed an “axiomatic” progression by following the development of the I-beam truss and frame through a series of landmark projects. For Condit, the origins of the skyscraper could be understood both in technological and utilitarian ways, but also in morphological and expressive terms. Condit outlined two “streams:” an “Empirical – Functional-Utilitarian-Objective” approach determined by “practical requirements” and a “Plastic-Sculptural-Subjective-Self-Expressive” approach where, in the case of the tall building, the “expression of the curtain wall has a considerable emphasis on ornament.” Condit used the Reliance and Monadnock buildings as examples to illustrate his two streams, characterizing the first as “empirical-functional” and the second as “plastic and sculptural”. The Reliance embodied the maximum lightness and transparency achievable with the structural frame. Its gray corner columns with an open work webbing along with the whole floor framing system were proof of the technical terms required to achieve maximum functional performance with respect to light, interior space, the economy of construction, and fireproof construction. In contrast, The Monadnock had a load-bearing masonry wall on the exterior as the antithesis of a curtain wall. The perimeter of the load bearing masonry wall was buttressed in the building’s interior by two perpendicular diaphragm walls that acted as the bracing system. The exterior masonry wall gradually reduced its depth as it rose and was adjusted in profile to articulate the cornice and the base. For Condit, the Monadnock was a masterpiece that embodied a sense of stability and fluidity.

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Clevelander... Dankmar Adler was born in Germany...Sullivan, of course, was a Bostonian... Solon Beman was born in Brooklyn... Charles Frost was from Lewiston, Maine... Henry Cobb was born in Brookline, Massachusetts...” Ibid., 10.

62 Ibid., 9.
63 Ibid.
Ultimately, Condit argued that this history should be structured using technological and morphological (expressive) criteria (fig. 1.11) whereas Weisman dismissed both methods and advocated for a chronological approach as a way to understand the origins and development of the skyscraper (fig. 1.12).

A history of the skyscraper based on style is no more helpful and can be extremely confusing. Many scholars believe it incorrect to use the word style in connection with the use of historic architectural revivals. They prefer the term “mode” or “manner” because forms were borrowed from the past and had no deep organic associations with the modern era. To talk about the Greek, Roman or Egyptian revival as it relates to the skyscraper makes little sense although one may see occasionally a temple or pyramid terminating such a structure. The “French Empire” mode was quickly dispensed with during the early days of the tall business building, as was the “Queen Anne.” The “Richardsonian Romanesque” was practiced for only a few years during the last half of the century because it proved so burdensome, although it did seem suitable for the Tower Phase (V). The “Chinese” and “Saracenic” revivals apparently played no part in skyscraper evolution. The only historic formula to lend itself with some success a solution to the design problems presented by the growing skyscraper was the Gothic.

Although Condit’s criteria were deemed too reductive during the Chicago School symposium, Weisman also conceded that his own chronological methodology was ineffective given that “by 1900, so many kinds of skyscrapers were erected that it [was] difficult to distinguish the trees from the forest.”


**Figure 1.11:** Carl W. Condit’s personal outline of the three “main streams of modern movement: 1. European International; 2. Forms derived from new concrete; 3. American Currents” which in turn is further broken down into: “a. the “vertical tower;” b. Plastic, Subjective Approach; c. Structural Scientific Approach.” Undated personal lecture notes for the course “Chicago Building,” at Northwestern University; “History of Building Techniques, folder C17, box.5, CARL W. CONDIT (1942-1997) PAPERS, 1942-1997; Collection of Northwestern University Archives, Evanston, Illinois.

**Figure 1.12:** Winston Weisman, notes on the margins of an undated lecture transcript which reveals Weisman’s predilection for a chronological rather than a morphological historiographical approach, “Origins of the Skyscraper,” Winston Weisman Collection of Architectural Photographs, Series VII. Lectures and Writings, PR 073, box no. 92, folder no. 978, The New York Historical Society Department of Prints, Photographs, and Architectural Collections.
A year after “The Chicago School” symposium, Weisman did not concede. Instead, he wrote yet another revisionist historiographical account entitled, “A New View of Skyscraper History,” in which he proposed a loosely morphological, chronological and, at times, anachronistic narrative comprised of seven phases, some of which had not ended and were still in process.\(^{68}\) Weisman described the first four phases as having “terminal dates” and no longer in use: Phase I constituted the “pre-skyscraper phase” (1849–70); Phase II was a moment of the “early-skyscraper” (1869–70); Phase III marked the end of the “French Mansard mode,” which gave way to the “flat-roof-formula” (1878–); and Phase IV was characterized by the “tripartite-system” of base, shaft, and capital (1880s–). The last three phases were described as “still in use”: Phase V consisted of the “isolated tower” (first conceived in 1888, and later realized in 1894–95), the “mounted tower” like the Woolworth building (1911), and the “set-back tower” (New York’s zoning codes of 1916, onwards); Phase VI contributed the “set back” form; and Phase VII gave rise to the “multi-tower development” in a park-like setting, such as Rockefeller Center (1930s onwards). This structure of parallel temporal phases, some of which were still ongoing, resembled the structure of the tall building itself, where multiple periods are literally piled on top of one another, resulting in a state of constant transformation and yet the revival of some points to a recurring condition of anachronistic! Although an unpublished syllabi of a course Weisman taught years earlier at the University of Pennsylvania on “The History of the Skyscraper” in the spring semester of 1958 reveals a clearer chronological structure, the fact that he would describe some of these periods as still ongoing by 1970 points to the unresolved nature of the historiographical problem due to the recurrence of anachronistic revivals (fig. 1.13).


Chapter I: STRUCTURALISM. 84
Weisman wrote his account in response to Webster’s “The Skyscraper: Logical and Historical Considerations” from a decade earlier. Webster had offered a method of evaluation divided into a tripartite scheme of functional to expressive means: “Essential Characteristics,” “Necessary Means,” and “Favoring Conditions” (fig. 1.14). Under each of these schemes, Webster described a range of economic, social, technological, psychological and aesthetic conditions that constituted the design of the tall building. “Essential Characteristics” were “great height, arrangement, utmost space and light in each story,” and “Necessary Means” were “an adequate structural system […] the materials necessary for this system [and] passenger elevators.” “Favoring Conditions” were based on a number of factors: economics (the value of the land, labor and capital); sociability (the organization of work and enterprise); technological (the availability of tools and processes, and the development of plumbing, heating, etc.); psychological (the desires, conscious or unconscious, which a tall form can express) and aesthetic (the “liking for height,” or the preference for the effect of towers in contrast to lower buildings). Webster’s categories, clearly the basis from which Charles Jencks would devise his own over three decades later, challenged the assumption that the relationship between form and expression was limited to technology and expression, as had been the case with Condit, or morphology and stylistic periodization as was the case with Weisman. By describing the history of the skyscraper as an index of means that spanned from the technical and programmatic functions to an array of social, psychological and aesthetic terms, Webster broadened the historiographical formula (in the case of Jencks, “equation”) from the “technological” to the “psychological.”

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70 Webster, Ibid.
71 Ibid.
The rich pluralism inherent in this prehistory as demonstrated by the contributions of Sullivan and Root; Mies and Goldsmith; and Rowe, Condit and Weisman underscore the fertile nature of the discourse. At the same time, it challenged established methodologies that sought to structure these disparate theories into a coherent narrative.

**100 Years of Architecture in Chicago**

In 1976, and the same year of the *Casabella* issue that featured Goldsmith’s and Condit’s essays, an exhibition entitled the *100 Years of Architecture in Chicago, Continuity of Structure and Form* took place, which included contributions by Goldsmith and Condit along with a number of historical and contemporary high-rise projects. Curated by Oswald W. Grube, Peter C. Pran, and Franz Schulze, the exhibition was shown in two installments; first in Munich, in 1973, and later, at the Museum of Contemporary Art in Chicago, in 1976. In both occasions, and as it had been the case in “The Chicago School” symposium and the two issues of *The Prairie School Review*, the exhibitions paired these projects with historical narratives. The *100 Years of Architecture in Chicago* exhibition brought the historical debates face to face with a number of professional and academic projects developed at the Illinois Institute of Technology. One purpose of the exhibition articulated in the exhibition statement was to illustrate a century of continuity across three generations of the Chicago School. Reductively and clearly biased towards a Chicago-centered tradition, the

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74 The 1973 exhibition was entitled *100 Jahre Architektur in Chicago, Kontinuität von Struktur und Form / die Neue Sammlung*, and was exhibited in Die Neue Sammlung, the Bavarian State Museum of Applied Art (Munich, July 1973). In Chicago, the exhibition took place at the Museum of Contemporary Art, *100 Year of Chicago Architecture Exhibition* (May 1st to June 20th, 1976).


lineage included a first generation of “pioneers” from the turn of the century including Sullivan, Root and Atwood; the second generation examined the influence of Mies; and a third generation included the contemporary work of Skidmore, Owings and Merrill, under the direction of Bruce J. Graham and Myron Goldsmith. Unabashedly, the main objective of the exhibition was to establish “the major architectural direction in Chicago over the last 100 years, which has at its base the structural and rational approach to architecture, with the concepts of multi-functional general space, open plan and spatial continuity, modular building systems, and a highly developed aesthetic rational.”77 In addition to drawings and models of architectural projects, the exhibition catalogue also included historical perspectives aimed to corroborate what, in its first instance, was meant to be a linear historical narrative.78

In the first installment of the exhibition, the organization of its material followed a chronological order (fig.1.15). Projects were formatted onto similarly-sized vertical boards, and installed along the perimeter of the rooms. Time was presented as a serial progression from one board to the next, from one building to the next, from one decade to the next, without breaks or interruptions. In each project, boards were subdivided to illustrate the project graphically in the top three quarters, with corresponding text placed in the remaining lower quarter.

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77 Exhibition Statement, 100 Years of Chicago Architecture, 1.
78 Exhibition Statement, “The architectural achievements of the last 100 years in Chicago are equal to the finest historical architectural achievements of the earlier centuries. The many outstanding characteristics and qualities that distinguish the Chicago School of Architecture from others, make Chicago a unique historical source of contemporary architecture.” Peter C. von Seidlein and Franz Schulze, 100 Years of Architecture in Chicago, Continuity of Structure and Form, (Chicago: Follett, 1976), 3. Originally published in German under the title 100 [i.e. Hundert] Jahre Architektur in Chicago by Oswald W. Grube (1973).
Figure 1.15: 100 Jahre Architektur in Chicago, Kontinuität von Struktur und Form (Munich, July 1973), Collection Museum of Contemporary Art Archives, Chicago.
When placed side by side, the boards appeared like buildings, forming a continuous elevation across time with their textual descriptions as pediments. The resonance between the board’s format and the figures of the projects themselves became increasingly evident in the case of tall buildings, positioned vertically within the frame and grounded at their base, like the others, by a textual pediment. The identification between buildings and textual practices as forms of historiography is implicitly read in this arrangement. In some instances, the images included the portraits of significant architectural figures, including Daniel H. Burnham, Louis Sullivan, Frank Lloyd Wright and Mies van der Rohe. The portraits appeared periodically, signaling major moments within the continuous flow of time. Architects not only reinforced the continuity of historical time, but also became “proof” of its traditions, suggesting coherence within a singular historical narrative.

In contrast to its first installment, the format of the exhibition was dramatically transformed when reinstalled in Chicago (fig.1.16). What had been an even and regular order exploded into a constellation of images of varying sizes, placed on brightly colored walls. A small didactic label indicating the name and location of each project was the only reference offered. The scale and number of images varied for each project, some having more than others. Generally, each collection of images included an establishing shot, which was not always the most dominant image in size, accompanied by additional views. From a distance, the clusters of images appeared as anachronistic constellations that seemed to oscillate across time and space.
Figure 1.16: [Upper Slide] model and photographs of the “Sears Tower (1974), Wacker, Adams, Franklin and Jackson; Skidmore, Owings and Merrill;” [Lower Slide] Monadnock Building (1889-91, 1893), Burnham and Root (Northern Part), Holabird and Roche (Southern Part); Reliance Building (1894), Burnham & Co (Chief Architect: Charles B. Atwood; 100 Year of Chicago Architecture Exhibition, (May 1st to June 20th, 1976) Collection Museum of Contemporary Art, Chicago.
This explosion of drawings and photographs of buildings resulted in the disappearance of supporting historical texts and portraits, leaving only the names, dates and locations as the only form of identification. The exhibition’s historical progression, first presented as a continuous timeline, had now been ruptured into a collection of transhistorical and formal analogies. The fractured historical accounts written for the catalogue destabilized the original mission of the exhibition to arrive at a definitive historical narrative; instead, they described the inherent pluralism within the Chicago School and its tradition. In his contribution, Condit described this tradition as “broad enough to give each architect great latitude in the design of individual buildings . . . [yet] precise enough to give rise to a coherent body of work clearly expressing the philosophy from which it grew.” For Condit, a number of shared principles connected this “broad latitude:” a building had to satisfy all of the economic, utilitarian and environmental requirements; the architect and engineer would have to come together to design a structure and enclosing envelope that embodied an efficient relationship between them; and a building envelope had to “organically” grow out of the functional demands and the structural solution of building, by expressing these concerns in its exterior appearance. In this last instance, the ornamental system had to enhance, rather than obscure, this “organic form.”

The Tall Building: The Effects of Scale

A number of master’s theses from IIT, including Goldsmith’s own project *The Tall Building: The Effects of Scale* (1948-1953), produced under the direction of Mies, were included.

79 Condit, *100 Years of Architecture in Chicago*, 14.
80 Condit, Ibid.
81 Condit, “the last step in the process of design was the creation of an external form that was to grow organically out of the functional demands and the structural solution, to express these characteristics in its overall appearance, in the detailed pattern of its visible elevations, and in an ornamental system that enhanced rather than obscured this organic form.” Ibid.
in the *100 Years of Architecture in Chicago* exhibition. Myron Goldsmith’s master’s thesis project promised to find “a new structural type for tall buildings in reinforced concrete [where] structure and function have been analyzed to show their influence on the height of the building and their influence on the architectural expression.”82 The thesis sought to forge a dynamic interchange between “form and function,” and “height and architectural expression” (fig. 1.17).83 If, in Miesian form, “structural performance” and “architectural expression” aimed to be one and the same, Goldsmith’s thesis statement suggested a more open-ended relationship between its parts, wherein the form’s “structural performance” could be exaggerated to augment its “architectural expression.” This possibility pointed to a relative, rather than absolute set of relationships. If the Miesian order strove for absolute consistency, Goldsmith’s emphasis on “influence” enabled some of these factors to be expressed more dominantly than others. Goldsmith’s thesis placed “form and function” as equivalent to “height and architectural expression”, where the “form and function’s” structural performance became as important as its “architectural expression.” Whereas in Mies’s version of structural organicism, form and function were one and the same with their embodiment of structural performance and architectural expression, Goldsmith’s exploration transformed their seemingly objective correspondence into a subjective relationship based on “influence.” Iñaki Abalos and Juan Herreros have described this transformation as a decomposition of the reticular frame in which the relationship between form and architectural expression in the “Miesian Platonic-solid archetype” was replaced by a “stylized […] dissolution of the reticulated system” or an isotropic notion of order.84

83 Goldsmith, *The Tall Building*, Ibid., IV.
84 Abalos, Herreros, *Tower and Office*, 52.
Goldsmith included illustrations of Root’s Monadnock Building alongside other reinforced concrete frames that included Mies’s Promontory in a section of the thesis entitled “Structural Problems of the Tall Building” (fig. 1.18). Goldsmith described the Monadnock Building as having reached the height limit for a masonry building when its walls ranged from 6 feet in depth at its base to 30 inches at the top. Similarly, the Promontory was seen as having reached the practical limits of flexibility afforded to the

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85 Goldsmith, “Chapter II, Structural Problems of the Tall Building,” The Tall Building, 8.
86 Goldsmith, “its walls six feet thick at the base, [decreased] gradually through the upper stories to thirty inches in thickness.” Ibid., 8.
floor plan. He identified that in Mies’s building, the structural frame impinged on the interior. He observed: “the thickness of the floor construction may remain constant for every story, whereas the columns and girders must increase in the lower stories due to the increase of vertical and horizontal loads…[which] tends to interfere with the use and flexibility of the interior space.” In his analysis of the Monadnock and Promontory buildings, Goldsmith’s thesis aimed to find a synthesis between an empirical notion of structure and its subjective expression. The search for a synthesis between Mies and Root also represented an historical departure from the skyscraper’s dominant positivist narrative of technological progress, in which load-bearing walls preceded curtain walls.

Juxtaposed with other concrete skeleton structures from the turn of the century, Goldsmith’s master’s thesis proposed an “86 Story High-Rise” which would consist of a structural frame with a strong hierarchical relationship between primary and secondary systems. Eight large-scale, reinforced, concrete piers would taper upwards, to reduce their section in plan. Standing separately from the main body of the tower, the piers form an outer cage, which divides the building into five sections. This rigid macro-skeleton would provide support for six platforms. From each of these platforms, the intermediate floors would be supported by a secondary light steel frame system that could be either hung or rested from each of the transfer slabs in fifteen story groups. The elevation of the project revealed that seven floors would hang from the top of the upper transfer slab, with seven floors resting on the lower transfer slab for each section, producing an even distribution of tension and compression, while leaving each section’s middle floor devoid of columns.

87 Goldsmith, Ibid., 9.
88 Mies’s supervision of the project was indicative of his interest in this synthesis. Given Root’s extensive writings in the discourse of organicism at the turn of the century, Goldsmith’s The Tall Building Master’s Thesis shed light on Mies’s own understanding and contribution within this lineage.
Figure 1.18: By juxtaposing The Monadnock Building and two unnamed reinforced-concrete structural frames, Goldsmith illustrates the correspondence and transition between a masonry load-bearing structure into a reinforced-concrete skeleton, both as examples of differentiated structural systems. [Left] John Root, Monadnock Building, Chicago (1891) drawn by Myron Goldsmith, “Fig. 5. The Monadnock Building,” [Right] “Fig. 6. Concrete Skeleton,” The Tall Building: The Effects of Scale, Master Thesis Project Illinois Institute of Technology (June, 1953), 22, 23. Studies and Work with Mies van der Rohe, Goldsmith Master Thesis (1953), Myron Goldsmith Papers, 32-005T-071, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
In Goldsmith’s drawings, the building volume is rendered confidently against the horizon. The piers that form the building’s superstructure seem to impart structural stability through their gigantic scale, growing thicker in their lower and upper segments as they form the three-dimensional frame. In profile, each of the individual piers that form the overall frame appear to be in a state of tension. Yet upon closer inspection, the upper piers are rendered so thin as to almost disappear. The gradual “thinning” of the entire frame as the building gains height augments this state of ambiguity. A transformation takes place: by becoming increasingly insubstantial, the structure’s expression is reversed from stability to lightness. Rather than expressing the strength of reinforced concrete as a new material in its capacity to reach unprecedented heights, Goldsmith’s master’s thesis revealed a condition of weightlessness by rendering the structural frame as impossibly thin, dissolving structure altogether (fig. 1.19).

Goldsmith divided his project description into three sections: “Structure,” “Function,” and “Architecture.” “Structure” described the formal differentiation between and reduction in structural mass as the building increased in height; in Goldsmith’s high-rise, the “skeleton has columns fourteen feet by sixteen feet in cross sectional area at ground level and […] diminish in their sectional area throughout the total height of the building.”

In “Function,” he defined the virtue of this gradual reduction of structure and core as an increase in the floor area for programmatic needs. Lastly, “Architecture” focused on finding a synthesis between the previous two notions through the project’s visual expression. The “form of the superstructure expresses the fact that the loads diminish as the height of the building increases,” he wrote, and the “number and proportion of the super

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stories are decided by visual considerations.” By combining both structural and visual aspects, the project’s varying form became an irreducible form.

Figure 1.19: Myron Goldsmith, [Left] “Fig. 13. Proposed Building. Cross Section.” [Center] “Fig. 11. Proposed Building. Front Elevation,” [Right] “Fig. 10. Proposed Building. Plans at Different Levels.” The Tall Building: The Effects of Scale, Master Thesis Project Illinois Institute of Technology (June, 1953), 27, 28, 30. Studies and Work with Mies van der Rohe, Goldsmith Master Thesis (1953), Myron Goldsmith Papers, 32-005T-071, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.

Goldsmith revised and expanded the text of his master’s thesis project throughout the course of his career, exploring the concepts of “scale,” “magnitude” and the “effects of changing magnitude.” He transcribed and made reference to Galileo Galilei’s (1564 – 1642) seventh proposition to argue that scale had “a decisive influence on [the building’s] structure and function [in every] organism or artifact” (fig. 1.20). Goldsmith illustrated the changing scales in the relationship between a body and the forces that act upon it with a curve, marking the most efficient ratio. Citing Galileo, Goldsmith claimed that an “ultimate size for structures” existed, after which they became too small or too large to efficiently manage the gravitational forces upon them, unless the strength and nature of the material of

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92 Goldsmith, Casabella, Ibid.
which they are constituted had changed. Like Galileo, Goldsmith used the example of a prism, cylinder, and obelisk to illustrate this relationship.

Following Mies’s advice, Goldsmith transcribed numerous passages from D’Arcy Wentworth Thompson’s *On Growth and Form* onto notecards. Goldsmith would later recount that in Mies’s office “everybody was thinking about the skyscraper,” and that Thompson’s section on scale “[it] just made a huge impression…[one] could find distinct structures that would change what buildings look like.”

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**Figure 1.21:** Myron Goldsmith’s personal notes on D’Arcy Wentworth Thompson’s concept of Relative Magnitude in the changing sizes of bones, “Fig. 22,” “Early Papers and Drawings Student Records and Research Notes, c.1933-1956; Myron Goldsmith Papers, 32-01-006, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.

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96 Myron Goldsmith, “Thompson’s book clarified the problem of scale, that there was a whole theory about it, it clarified the ideas and put me in touch with someone else who thought about the problem.” *Oral History of Myron Goldsmith interviewed by Betty J. Blum*, Chicago Architects Oral History Project, Ernest R. Graham Study Center for Architectural Drawings, Department of Architecture, The Art Institute of Chicago (Chicago, 1990), 57.
Thompson proved to be a valuable reference to Goldsmith in his struggle to define the concept of “magnitude,” wherein he sought to describe the ratio between structural mass and overall volume as a relationship dependent on the scale of the form and the gravitational forces acting upon it. The correspondence of bone structure to body mass was used as an example to illustrate that “as the size of an animal increases the limbs tend to become thicker and shorter and the whole skeleton bulkier and heavier; bones make up some 8 percent of the body of a mouse or wren, 13 to 14 percent of goose or dog and 17 or 18 percent of the body of a man” (fig. 1.21) (fig. 1.22). As in the case of skeletons, the ratio of structural mass to overall volume and the shape of the form determined its structural efficiency.

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Applying this principle to vertical forms, Goldsmith drew upon the relationship between structural mass and overall volume as a logarithmic curve capable of illustrating areas of uniform structural resistance while reducing volume and surface area. Thompson described this relationship as the “problem of the tall tree” (fig. 1.23). He wrote,

But the tapering tree is but a special case of a wider problem. The oak does not grow so tall as the pine tree, but it carries a heavier load, and its boll, broad-based upon its spreading roots, shows a different contour. Smeaton took it for the pattern of his light house and Eiffel built his great tree of steel 1,000 feet high to a similar but stricter plan [where the profile] tends to follow a logarithmic curve giving equal strength throughout.


100 Ibid., 21.
The organicist analogy was translated to the form of a tree, as a differentiated form limited by its own weight.

Thompson’s concept of “relative magnitude,” or the possibility of form to respond to a set of changing gravitational forces that acted upon it, became a key reference for Goldsmith. The effects of scale impacted not only the structural mass but also the ratio of surface area to volume. Similarly, Goldsmith referenced the relationship between “scale” and “relative magnitude” to Thompson’s “Principle of Similitude,” in which he theorized the existence of a “dynamic similarity” between “the forces in action in a system” and the “masses, distances or other magnitudes involved” (fig. 1.24).101 From this principle, Goldsmith deduced that the relationship between form and its structural performance was not proportional, but rather, relative. The structural strength of form was not directly proportional to its size, but rather, followed a dynamic curve that changed exponentially as it responded to scalar shifts. The curve indicated that structural strength is relative to both structural mass and the ratio between surface area to volume; structural performance is influenced by the amount of surface area to overall volume; and an increase in structural mass would not necessarily produce more structurally-resistant form.

101 Myron Goldsmith’s personal notes: “D.W.T., p.25: […] In short, it often happens that of the forces in action in a system some vary as one power and some as another, of the masses, distances or other magnitudes involved; the “dimensions” remain the same in our equations of equilibrium, but the relative values alter with the scale.] This is known as the “Principle of Similitude”, or of dynamical similarity, and its consequences are of great importance.” Myron Goldsmith Papers, 32-01-006, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
Goldsmith illustrated the concept of “relative magnitude” through the example of an oil storage tank, by comparing two different curves that measured the relationship between the structure’s weight, volume, and the overall combined weight of the structure per gallon (fig. 1.25). In the first curve, a proportional relationship can be seen in the results generated from the comparison between the weight of the structure and the weight of the oil in gallons. An increase of liquid in the tank would result in an increase in total weight, producing a curve proportional to the increase in liquid. In the case of the second curve, an exponential relationship emerges in the ratio between the weights of the structure per gallon. The curve diminishes exponentially to achieve equilibrium after reaching a specific magnitude and volume, and the tank would have the capacity to hold a greater amount of liquid without exponentially increasing the physical volume of containment required.
Figure 1.25: Myron Goldsmith, “Fig. 4. Oil Storage Tanks.” The Tall Building: The Effects of Scale, Master Thesis Project Illinois Institute of Technology (June, 1953), 21. Studies and Work with Mies van der Rohe, Goldsmith Master Thesis (1953), Myron Goldsmith Papers, 32-005T-071, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
For Goldsmith, the “principle of similitude” was the correlation between the “physical forces [that] act directly on the surface of the body […] in proportion to its surface or area.”  

With respect to the problem of the tall building, the “principle of similitude” related the structural frame to the overall form and volume of the project. The “tapering” of the structural frame, reducing structural mass as the building gained in height, resulted in an increase in overall volume, while reducing overall mass and thus structural resistance. Using Oil Storage Tanks as an analogy translated into the form of an obelisk, the frame of the tall building could resemble the curve of its structural performance, and follow Thompson’s “principle of similitude.”

Goldsmith’s conclusion listed four main points: “1. Size of columns in lower stories; 2. Large rooms for meeting [as a] serious structural problem, 3. Concrete was chosen to illustrate principle of scale, 4. We have discovered certain maximum, minimum and optimum size.” The first two established the relationship between structural mass and volume, describing the increasing and decreasing scale of the structural system and its programmatic impact on the floor plan. The last two focused on the form’s expression, where the reinforced concrete could “illustrate” the principle of scale. Through the “principle of similitude,” the form of the project could offer a varying degree of structural performance, while simultaneously forming the basis for the building’s expression.

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Thompson’s concept of “reciprocal diagrams” further developed a method to arrive at this condition of similitude:

Working by the methods of graphic statics, the engineer’s task is in theory, one of great simplicity. He begins by drawing in outline the structure which he desires to erect; he calculates the stresses and bending-moments necessitated by the dimensions and load on the structure; he draws a new diagram representing these forces, and he designs and builds his fabric on the lines of this statical diagram.\textsuperscript{104}

As Thompson illustrates, in extreme functional cases such as a suspension bridge, this correlation is almost one to one. With respect to tall structures, Thompson pointed to the form of the Eiffel tower as illustrating a very close correspondence.

For Goldsmith, Thompson’s concept of “reciprocal diagrams” served to illustrate the relationship between the structural performance of form and its expression. Following Thompson’s concept of diagrammatic reciprocity, Goldsmith literally drew a number of graphs to illustrate the reciprocal relationships between structural performance (spans) and the resulting form (bridges) (fig. 1.26).\textsuperscript{105} They compared span versus weight in two different axes to indicate general maximum and minimum magnitudes. In Thomson’s case of the obelisk, the diagram or graph revealed that after a certain height, the amount of structural mass needed becomes too great for its form. Thompson’s “reciprocal diagrams” illustrated both the reciprocity between form and its structural function and diagrammed maximum and minimums of scale in this relationship.

\textsuperscript{104} Thompson, \textit{On Growth and Form}, 248-249.

\textsuperscript{105} Goldsmith, “Figure 2: Spans of Bridge Structures,” “Figure 3: Weights of Railroad Bridges,” “Figure 4: Oil Storage Tanks,” \textit{The Tall Building}, 19-21.
Figure 1.26: Myron Goldsmith, “Fig. 2. Spans of Bridge Structures.” *The Tall Building: The Effects of Scale*, Master Thesis Project Illinois Institute of Technology (June, 1953), 19. Studies and Work with Mies van der Rohe, Goldsmith Master Thesis (1953), Myron Goldsmith Papers, 32-005T-071, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
In addition to the aforementioned illustrations, Goldsmith included graphs; one, in particular, diagrammed a comparison of the span versus the overall weight of railway bridges (fig. 1.27). To show this disproportionate relationship, the graph’s curve grew steeper exponentially to reveal scalar thresholds. Goldsmith observed: “a one-hundred-fifty foot span structure weights four-hundred-thousand pounds whereas a six-hundred foot structure weights four-million-five-hundred-thousand pounds, thus representing an increase of four times in span in relation to an increase of eleven times in weight.”

106 Ibid., 6.
Having illustrated the correspondence between structural resistance and weight, volume and the efficient spans that resulted from it, Goldsmith translated these relationships to tall buildings. “The steel skeleton of multistory buildings exhibits a similar behavior,” he wrote. “An eight story building requires 0.99 pounds of structural steel per cubic foot of building volume while a seventy-five story building requires 2.22 pounds.”

The ratios between the weight of structure, as it related to the capacity to span, both in the case of bridges but also tall buildings, proved that “every structure has a maximum and minimum size [and] an optimum size may be found somewhere between these extremes.” Moreover, the “exact determination [of this optimum size] will be at its point of maximum efficiency.”

Thompson’s concept of “reciprocal diagrams” translated directly into Goldsmith’s desire for structural and scalar relationships in his master’s thesis. Other factors such as visual expression, however, had an equal effect upon Goldsmith’s determination of the structural form, perhaps as much as the calculation of optimal states. Using Thompson’s “effects of scale,” based “not on the thing itself, but in relation to its whole environment […] in conformity with the thing’s place in nature,” the relationship between the form of the tall building and that of natural form was seen by Goldsmith as analogous. Thompson’s tapering tree became the diagram for Goldsmith’s dissolving structural frame. “Objective” structural performance was fused with subjective, formal decisions that exaggerated mathematically derived decisions as a way to imbue them with expression and generate a formal character to the project. The gradual reduction of the structural mass in relation to a

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108 Ibid., 7.
109 Ibid.
110 Thompson, “The effect of scale depends not on a thing in itself, but in relation to its whole environment or milieu; it is in conformity with the thing’s ‘place in Nature,’ its field of action and reaction to the universe.” “On Magnitude, The Principle of Similitude,” *On Growth and Form*, Ibid., 17.
building’s verticality responded to a structural need to reach an optimum balance between a building’s height and weight, while articulating this relationship in an exaggerated manner. Similar to the Promontory Apartments in which the concrete piers gradually tapered to become slimmer in height, a project he drew for Mies, Goldsmith’s Master’s Thesis achieved an irreducible condition between structural performance and its expression, given that the behavior of structural form is determined by a complex set of variables which far exceed weight, span, and loads.

Goldsmith’s final claim that “a new structural system gives the possibility of a new architectural expression” was based on a synthesis between the “objective” and “subjective” realms. In response to Mies’s challenge that “one should attempt to give form to the new task out of the nature of this task,” architectural expression was not merely the representation of structural expression, for Goldsmith, but rather, architecture endowed with the architect’s abstract and subjective interpretation of the structure’s capacity for loadbearing.

As an engineer and an architect, Myron Goldsmith was often described as an “architechnologist” for his ability to “combine architecture, engineering and aesthetics, all functioning together.” “Architechnology,” or the search for synthesis between architecture, engineering and aesthetics, signaled an expanded understanding of the skyscraper’s form, one that could transcend its technological aspects and include its expressive and aesthetic properties. If, in Mies’s pedagogy, an “organic order” was defined

111 Goldsmith, “Chapter IV, Conclusions,” The Tall Building, 18.
113 “Betty J. Blum: Today is July 25, 1986, and I’m with Myron Goldsmith in his home in Wilmette, Illinois. Myron, I’ve read that when you were introduced by the President of the Royal institute of British Architects in 1966 you were introduced as an architechnologist. [architect and engineer]...” [...] “Myron Goldsmith: if we take that idea of it I guess what I have really tried to do is to combine architecture, engineering, and aesthetics, all functioning together. certainly I’ve been interested in the aesthetics of engineering as well as the technical solutions.” Oral History of Myron Goldsmith, Chicago Architects Oral History Project, The Ernest R. Graham Study Center for Architectural Drawings, (Chicago: The Art Institute of Chicago, 2003),1-2.
as the “essential significance and proper proportioning of the purposes and functions of the various parts as they relate to the whole,” Goldsmith’s thesis had achieved a new “structural organicism” between the parts as they related to the whole. But in this instance, rather than the parts remaining the same as they formed the whole, the relationship between the parts and the whole were changed. Similar to the tapering branches of a tree, Goldsmith saw the tall building as a “structural organism” whose formal variation became the basis for its expression.

Alongside Goldsmith’s own master’s thesis project, the 100 Years of Architecture in Chicago exhibition also included a number of his students’ theses including Mikio Sasaki’s A Tall Office Building (June, 1964) (fig. 1.28). As a steel frame counterpart to Goldsmith’s reinforced concrete project, Sasaki’s thesis proposed an “optimum column-diagonal truss tube” as a prototypical solution to exterior “X-brazing” of buildings between eighty and one hundred stories. In the exhibition catalogue, Sasaki’s project was described as a “structural concept [traceable] to the John Hancock Tower.” The diagonal brazing, Sasaki argued, would offset the premium cost of structure required to deal with the increased lateral loads of buildings of this height.


117 “The “optimum column-diagonal truss tube” system of exterior X-bracing in 80 to 100 story buildings – whose
Figure 1.28: Mikio Sasaki, “Figure 3,” [Plans]“Figure 7,” [Model] A Tall Office Building (June, 1964), 30 and 34. Advisor: Myron Goldsmith and Fazlur Kahn, Dept. of Arch, IIT; Myron Goldsmith Papers, Illinois Institute of Technology, Chicago, Student Theses and Drawings, 1950-1996, Graduate Papers and Theses, 32-182T-292, Collection Centre Canadien d'Architecture / Canadian Centre for Architecture, Montreal.
Sasaki wrote, “Without diagonals the dimensions of the columns and girders would be greatly increased, thereby increasing the volume of the building devoted to structure as well as increasing by about fifteen percent the weight of the structural steel.” Both projects established a legible hierarchy between primary and secondary structural systems, but diverged formally; whereas the first underwent a transformation as it gained height, the second remained the same throughout. Sasaki’s thesis foregrounded future projects like Skidmore, Owings and Merrill’s John Hancock Tower (1968), dominated by large cross-bracing on its facade.

A. G. Krishna Menon’s thesis project *A Ninety Story Apartment Building Using an Optimized Concrete Structure* (June, 1966) was also included in the *100 Years of Architecture in Chicago* exhibition (fig. 1.29). Described as “the precursor of the form of the Sears Tower,” the building’s structural system was composed of a reinforced concrete tubular frame complemented with two internal diaphragm walls. Three tubes worked in combination to form the overall bundled shape. Locating the load-bearing structure along the perimeter allowed for the floor plan to be almost uninterrupted, leaving a single column between the exterior wall and the interior core. On its exterior, windows that formed the grid pattern changed in response to the depth of the exterior ribs that formed the grid (fig. 1.30). This gradual, almost imperceptible scalar change in fenestration also represented a change in the building’s mass to volume ratio. As was the case in the previous examples, the structural mass versus its overall volume reduced as the building increased vertically. In the accompanying text, the project was described as “an attempt […] to reconcile the two aspects of the building expression: the architectural and the structural expression [where]

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the actual dimensions were aesthetically resolved [so that they] did not jeopardize the efficiency of the structure, for as structural engineers know, optimization of structural design presents a fairly wide range of possibilities that can be resolved visually or otherwise.”

As a precursor to Chestnut-Dewitt Apartments (1963) and the Brunswick Building (1966), projects whose design Goldsmith had been involved with at Skidmore, Owings and Merrill, it is significant that Menon’s method reconciled architectural and structural expression into a system resolved “visually.”

Although Goldsmith also claimed that “the number and proportions of the superstructures both in height and length are likewise, within structural limitations, decided by visual considerations,” Menon’s reconciliation redefined this “influence” as one based on aesthetic considerations that, in their intricacy, went far beyond the purely “visual.”


“Chestnut-De Witt Apartments (1963) 860 N. De Witt Street, Chicago; Skidmore, Owings and Merrill; Bruce J. Graham, design partner, Myron Goldsmith, senior designer, Fazlur Khan, structural engineer; Brunswick Building (1966) Dearborn and Washington Streets, Chicago; Skidmore, Owings and Merrill; Bruce J. Graham, design partner, Myron Goldsmith, senior designer, Fazlur Khan, structural engineer.” *100 Years of Architecture in Chicago*, 77-79.

Goldsmith, “The Architectural character of the building is a consequence of the decision to use a new structural system and give it expression. The superstructure carrying the major horizontal and vertical forces has been clearly identified from the minor structures which absorb local forces in the intermediate stories. The form of the superstructure expresses the fact that the loads diminish as the height increases. The proportions of the building as a whole are determined as far as the width is concerned by the core in relation to the office space, but the height and the length are proportioned visually. The number and proportions of the superstructures both in height and length are likewise, within structural limitations, decided by visual considerations.” *The Tall Building*, 14. Myron Goldsmith Papers, 32-01-006, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.

Figure 1.30: Elevation Detail, K. Menon, “Figure 2,” A Ninety Story Apartment Building Using an Optimized Concrete Structure (June, 1966), 19. Advisors: Myron Goldsmith and Fazlur Kahn; Myron Goldsmith Papers, Illinois Institute of Technology, Chicago, Student Theses and Drawings, 1950-1996, Graduate Papers and Theses, 32-181T-272, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
According to the exhibition catalog, this intricate shift in the scale of the structural and window grid developed “not for reasons of realistic construction techniques, but occur[ed] rather in several stages... a direct structural expression of the construction principle.”\footnote{124} The fact that these changes were derived by structural performance and as “expressions of the construction principles,” could be characterized, following Peter Eisenman, as another instance of the skyscraper as a “self-referential sign,” in which the legibility of architectural form was determined simultaneously by the performance of the structural system and the image of this performance.\footnote{125} As a self-referential sign, the expression of the structural performance in the pattern of windows was suppressed and made more abstract by its intricacy, shifting the building’s form away from its structural performance and towards a more conceptual figuration. From afar, the form of the building appeared to be a smooth monolithic volume whose surface was textured by a regular pattern, yet upon closer inspection, changes of scale in the openings of the surface caused a form of animation. The building’s loss of structural mass during its vertical movement through an almost unperecievable shift in scale of the window openings renewed the formal effect achieved by Goldsmith in his master’s thesis, but this time with a much higher degree of abstraction.

Also included in the 100 Years of Architecture in Chicago exhibition was An Ultra High Rise Concrete Office Building by Robin Lee Hodgkinson (June, 1968). Another master’s thesis under the direction of Myron Goldsmith, it embodied the double condition of the frame as a “self-referential sign,” one whose expression was at once literal and figural (fig. 1.31) (fig. 1.32). From afar, the form of the project revealed a hierarchy between primary and secondary systems of structure, despite the fact that they were collapsed into a single surface.

\footnote{124} Ibid.  
\footnote{125} Peter, Eisenman, Oppositions, Ibid.
Figure 1.31: Model and Elevations, Robin Lee Hodgkinson, “Figure 13,” An Ultra High Rise Concrete Office Building (June, 1968), 42, and 46. Master Thesis Project, Advisors: Myron Goldsmith and Fazlur Kahn, Dept. of Architecture, IIT; Myron Goldsmith Papers, Illinois Institute of Technology, Chicago Student Theses and Drawings, 1950-1996, Graduate Papers and Theses, 32-180T-255, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
Five equal sections were framed by large cross-braces, each composed of twenty-three stories in the form of a pattern of square openings. At a closer distance, the pattern of the secondary structural system gradually changed in scale with its increase in height (fig. 1.33). In this sense, both patterns revealed the “structure” and the “image of structure,” while the building’s surface forfeited a deep outer corrugation characteristic of a load-bearing reinforced concrete wall system, to transform itself into a surface without depth. Here “structure” and the “image of structure” coexist; the structural and formal expression of the building’s form became one. Both could be seen as patterns with varying degrees of intensity that suggest an oscillation between the “loadbearing structure” and its abstract image. The project’s conclusion is a testament to this double condition, one in which the building’s expression was described as a “structural architectural solution.”

Robin Lee Hodgkison suggested that the overall textural variation of the building, with the gradual increase of the diagonal lines towards the bottom, resulted in a structural architectural solution that a building of this size warrants.


Figure 1.32: Plans, Robin Lee Hodgkison, “Figure 6,” “Figure 7,” *An Ultra High Rise Concrete Office Building* (June, 1968), 34-36. Master Thesis Project, Advisors: Myron Goldsmith and Fazlur Kahn, Dept. of Architecture, IIT; Myron Goldsmith Papers, Illinois Institute of Technology, Chicago Student Theses and Drawings, 1950-1996, Graduate Papers and Theses, 32-180T-255, Collection Centre Canadien d’Architecture / Canadian Centre for Architecture, Montreal.
The student projects evidenced a gradual movement towards an abstraction of the “structural organicism” that had been the basis for the “architectural expression” in Goldsmith’s own thesis. Rather than concerning itself with legible transformation, “structural organicism” was transformed into a complex condition of formal change with such degree of intricacy as to become almost undecipherable. The image of the skyscraper that emerged from within the space of the exhibition was unresolved. As we have seen, the transformation from a linear to a non-linear conception of historical time in the space of the exhibition was symptomatic of the very questions that gave rise to the historiographical debates that surrounded the skyscraper.

It is clear that the changes from the first to the second installment of the exhibition revealed a search for a more pluralist narrative with respect to the history of the skyscraper, one that challenged and reformulated a linear notion of technological progress. If Goldsmith’s master’s thesis had already foregrounded this pluralist position, signaling a paradigm shift with respect to the structural order of the skyscraper from within the Miesian canon, the master’s theses that followed aimed to find an intermediate position. The separation between macro and micro scales of structure pointed to the reconciliation in the divisive order that had dominated the skyscraper since the turn of the century. That the student projects directed by Goldsmith did so under a process of abstraction that approximated themselves formally to the Miesian, Platonic, undifferentiated solid, signaled the gradual disappearance of structure. By the middle of the decade, the structural frame had all but disappeared in practice, giving way to glass volumes, wherein the structure of this new order could only be indicated by the flush subdivision of glass mullions.
CHAPTER II. CRYSTALLINISM:
From “Skin-and-Bones” to “Skin-Alone” – the Evanescence of the Mirror-Building

Figure 2.1: Front Cover, “Grattacielo: Casa dello Specchio,” Casabella, no. 457/458, vol.44 (April – May 1980).
The cover of the April/May 1980 issue of *Casabella* entitled “Skyscraper: House of Mirrors” featured an abstract image of Kevin Roche and John Dinkeloo’s United Nations Plaza. ¹ (fig. 2.1) Depicting the buildings’ elevations as two extruded volumes, the photograph’s composition featured the chiseled edges and subtle diagonal shifts of each building’s differentiated profiles. On the buildings’ glass surfaces appeared an image of clouds pixelated by a grid of mullions, at a scale almost impossible to decipher. This combination of a muted, overcast sky reflected onto the orderly grid of the tall buildings presented the skyscraper in a state of ambivalence, oscillating between the states of rigidity and ephemerality.

This impasse of abstraction was the result of a dramatic transformation in the production of skyscrapers in the second half of the 1970s, in which glass volumes replaced the representation of structure in the building envelope of a new breed of projects, referred to as “mirror-buildings” by Arthur Drexler. ² The skyscraper’s conventional, extruded column form had become splintered into faceted volumes with oblique edges. In contrast to the “structuralism” of the Chicago School, the search for “crystallinism,” or a condition where all signs of load-bearing structure were substituted by a scaleless pattern of mullions and the glass surface of the building became the focus of attention. Described by Ludwig Glaeser, the first director of the Mies Archive, as the material of all “things to come,” glass had acquired a metaphorical dimension that signified more than a mere technological

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² Arthur Drexler, “A special feature of this exhibition [Transformations in Modern Architecture] is a room dedicated to color transparencies of these mirror buildings, in which “substance dematerializes and objective technique culminates in the subjective contemplation of clouds and sunlight.” “Press-Preview, February 21, 1979; 11:00am – 3:00pm,” *Transformations in Modern Architecture* was on show at the Museum of Modern Art from February 23rd through April 24th, 1979, CUR 1250, Archives of the Museum of Modern Art.
improvement in construction. Kevin Roche examined the potential of glass through an investigation of “crystallinism,” an architecture that, according to Glaeser, sought to manipulate the immaterial qualities of glass to produce a new “geometric monumentality.”


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3 Ludwig Glaeser, “Glass as everyone knows is the stuff the dreams of modern architecture are made of. It is the metaphorical material of this era, not just a technological improvement in construction as in concrete over traditional masonry. Aware of the potential of glass, the first generation engaged in visionary exploitation that made it the one and only material of “all things to come.”” “Greenhouse Architecture, Notes on a Genesis of Form for Roche, Dinkeloo’s Recent Work,” *Architectural Forum*, vol. 140, no. 2, (March, 1974), 77.

4 Ludwig Glaeser, “Kevin Roche’s preference, however, tends clearly towards the angular, sharp edged forms that only glass can achieve with such perfection. […] Glass indeed provides the ideal material for an architecture that attempts a new geometric monumentality.” “Greenhouse Architecture, Notes on a Genesis of Form for Roche, Dinkeloo’s Recent Work,” *Architectural Forum*, Ibid., 80.


6 Kevin Roche: “We had developed the idea of the reflective glass in Detroit, in fact it was my idea, and I was looking at an issue of Time magazine and there was some guy with sun glasses on and we were doing a building […] and we thought why could you not do this with the building to have a shiny glass building which could reflect… and John [Dinkeloo] got interested in that idea and we pursued it and we found a little backyard guy out of Detroit Glass who managed to put laminate a reflective sheet and then of course, we went from there to Deere where we put the gold and the silver was used in Bell laboratories and it is still there […] and so that’s how Eero [Saarinen] and John [Dinkeloo] and I went to Toledo […] to show them this idea of reflecting glass.” Interview with the author, Roche and Partners, Hamden, Connecticut (June 1st, 2011).
A year before the issue of *Casabella* “Skyscraper – The house of Mirrors,” the exhibition “Transformations in Modern Architecture” at the Museum of Modern Art in New York had featured Roche and Dinkeloo’s United Nations Plaza project in a central room alongside a number of other “mirror-buildings.”

Curator Arthur Drexler characterized the projects in this space as achieving a similar phenomenon: “substance dematerializes and objective technique culminates in the subjective contemplation of clouds and sunlight.”

Encouraged by one of the exhibition’s underwriter, the Pittsburgh Plate Glass Company, the curatorial emphasis on reflective glass buildings was described by Drexler as both “designed to broaden the perspective in which current developments of architecture are viewed,” but also “a return to earlier emphasis on the building’s skin.”

As suggested by the exhibition’s title “Transformations in Modern Architecture,” if Drexler

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7 Arthur Drexler, “Utilizing tinted and reflecting glass, they [“mirror” buildings] communicate little or no information about themselves and carry architectural abstraction to its furthest point.” “Press-Preview, February 21, 1979; 11:00am – 3:00pm,” *Transformations*, Ibid., CUR 1250, Archives of the Museum of Modern Art.

8 Arthur Drexler, “A special feature of this exhibition is a room dedicated to color transparencies of these mirror buildings, in which “substance dematerializes and objective technique culminates in the subjective contemplation of clouds and sunlight.” *Transformations in Modern Architecture*, “Press-Preview, February 21, 1979; 11:00am – 3:00pm,” *Transformations in Modern Architecture*, Ibid., CUR 1250, Archives of the Museum of Modern Art.

9 Arthur Drexler’s correspondence with Lawrence P. Galanter, Public Relations of PPG Industries Inc. about the precise language to be used in the exhibition’s press releases reveals the extent to which Drexler was interested the spatial and phenomenological aspects of glass buildings, and PPG on using the exhibition to pitch their environmental performance. In the final draft of the press release, Drexler asked Galanter to remove the following sentence, symptomatic of Drexler’s struggle to resist the corporate interests behind PPG’s sponsoring of the exhibition: “Drexler said that high-performance tinted and reflective glass products provide beauty and are among the most energy-conserving surface-cladding materials for buildings.”


10 Arthur Drexler, “The exhibition is designed to broaden the perspective in which current developments in architecture are viewed,” Drexler said. “Structures sheathed with reflective glass are given extra emphasis because they represent some of the most important building of our time.” […] “Architects’ use of reflective glass represents a return to earlier emphasis on the building’s skin,” “Architecture Exhibit highlights Beauty of Reflective Glass Buildings,” Ibid., 2.

aimed to reflect upon the “pluralist” character of contemporary architecture, the emphasis on glass was also seen as symptomatic of a transformation of the Miesian canon:

It will be our purpose to sort out these developments and present them in the context of international architecture during the period 1960 to 1980. Among the most important aspects to be reviewed is the gradual transformation of the glass and steel architecture of Mies van der Rohe and the dozens of architects around the world who have followed his lead, from an architecture of “skin and bones” to an architecture seemingly made of skin alone – a skin of reflective glass with virtually no articulation of detail.12

In light of the exhibition, if Roche and Dinkeloo’s United Nations Plaza project represented a transformation that returned to past architectures whose emphasis was on the building’s skin; deciphering its complex figural as well as historical legibility would become the focus of the exhibition and the journal.

Theories of Spontaneous Revelation

The 1980 issue of *Casabella*, “Skyscraper – The house of Mirrors” explored the historiographical discourse of “crystallinism” and the development of the skyscraper by including a number of articles focused on its origins. Across the journal’s pages, *Casabella* editors Francesco Dal Co and Tomas Maldonado traced the evolution of the tall building in an effort to historically contextualize and thus decipher the abstraction of contemporary “mirror-building” projects.13 Paraphrasing Robert Venturi, Dal Co describes this history as full of “complexity and contradiction,” one whose complication began with a desire to refine technology transforming the exterior image of the tall building into a blank screen for

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11 Arthur Drexler, letter to Ms. Grace Voegler, “As I am sure that you are aware, for more than fifteen years now the philosophical assumptions guiding the modern movement in architecture have been challenged and fragmented. The present situation, often described as “pluralist,” reflects the loss of allegiance to a central and compelling body of ideas – but it also reflects a new sense of freedom to explore alternatives.” Administrative office, PPG Foundation, (March 7, 1978), CUR 1250 Museum of Modern Art Archives.
12 Arthur Drexler, letter to Ms. Grace Voegler, Ibid.
the reanimation of historical styles such that they became “tattooed all over.””

A case for the primacy of the building’s exterior articulated as a surface without depth open to multiple messages had already been made by Venturi’s own admission that “billboards are almost all right.” The “articulation of surface” had also been a category in Charles Jencks’s “metaphorical equation,” partly described as either “structural” or “skin-like” in its treatment. The emergence of open ended stylistic and historical appropriation fractured the coherence of historical periodization and effectively reduced the use of historical form as a means to produce a unique image rather than a vehicle to retrieve the past. If by his own admission an anthology of the history of the tall building is an “unrealizable task,” Dal Co’s anthology in the form of a “collage” of historical texts and materials is assembled deliberately to explore the structures that underlie its development but also to wonder why it is that the skyscraper is the architectural typology least sensitive to historiographical systematicity.

For Dal Co, the 1930s witnessed a shift from individualization towards “dematerialization,” and the transition from the single tower to the complex of towers, such as the Rockefeller Center. By the 1950s, Mies’s Seagram Building and Gordon Bunshaft’s Lever House had epitomized the abstract image of the contemporary skyscraper. Dal Co

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17 Dal Co, “Naturalmente e perlomeno velleitario definire antologia questa stringatissima rassegna, anche se e opportuno ricordare che un’antologia dedicata alla storia del grattacielo e, probabilmente, un programma irrealizzabile. [...] Ma quale “struttura” soggiace allo “sviluppo” del grattacielo? E per rimanere a noi piu vicini: non e proprio il grattacielo il tipo architettonico che si dimostra eno sensibile alle sistemazioni storiografiche?” Ibid., 56.

18 Dal Co, “The Rockefeller Center cancels out all traces of the decorative strategies of the twenties, designed to enhance the formal individuality of the skyscraper [...] the skyscraper underwent a slow but unarrestable process of dematerialization.” Ibid., 101.
argued that the unresolved relationship between the Lever House’s base and shaft produced a tension between “geometrical dryness” and “formal evanescence.” A similar tension was produced in the Seagram Building through the relationship between the tower’s form in contrast to its subtle reflections on the surface of the plaza’s pools, which transformed the building into a “shifting apparition.” Phyllis Lambert has recently traced the relationship between building and plaza in the Seagram as Mies’s effort to reconcile the relationship between the project and its environment:

[In the Seagram Building] Mies continued to bind building with site. He translated the union of house and garden into the union of building and greensward, building and podium, and plaza in the city, where the platforms became oases amid the rush of traffic in the city streets.

Echoing K. Michael Hays’s reading, Lambert expands the relationship between the building and the plaza as analogous to a clearing in the forest. According to Dal Co, both contexts illustrated a twofold process of “dematerialization,” which took place through the loss of transparency created by the reflections of the glass, along with the “subversive” organizational structure of the corporations that had commissioned these buildings.

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19 Ibid.
20 Ibid.
22 Lambert, “To critic Michael Hays, this was Mies’s great achievement: like a clearing in the forest, the platform had the potential “to open up a clearing of implacable silence in the chaos of the nervous metropolis.” Some years later Mies would explain the need for a relief from the city’s density: “There are no cities, in fact, any more … it goes on like a forest… that is the reason why we cannot have the old cities any more… that is gone forever… planned city and so on… We should think about the means… that we have to live in a jungle… and may be do well by that.” Building Seagram, Ibid. 155. In this passage Lambert cites her sources as follows: K. Michael Hays, “Critical Architecture: Between Culture and Form,” Perspecta 21(1984), 22. Hays otherwise essentially expanded on Manfredo Tafuri’s well-known reading of the Seagram Building as a “disenchanted” skyscraper, “silent,” and “asemantic.” See Manfredo Tafuri, Architecture and Utopia: Design and Capitalist Development (Cambridge, MA: MIT Press, 1976), trans. Barbara Luigia, La Penta (Bari, Italy: Giuseppe Laterza e Figli, 1975). Mies’s quotations are cited as: “Transcript of interview with John Peter, 1955, 14-15.
23 Francesco Dal Co, “The process of dematerializing the skyscraper, by now exclusively associated with the concept of contrasting specializations of power, indicates an about-turn in the approach of the relationship between building type and architectural design, even though it can, of course, be construed as a subversive act.” Ibid.
The same issue of *Casabella* included other contributions that centered specifically on the early history of the American skyscraper. Rosemarie Hagg Bletter’s essay, “A Possible History of the Skyscraper,” outlined the skyscraper’s development through the “Chicago” and “New York” debates.24 Bletter argued that a search for origins of the tall building was a question of methodology in the form of competing historical narratives written, as much as it was a question of buildings. Outlining the differences between Condit, Weisman and Webster as forming this written discourse, Bletter concluded that a definition of the skyscraper must be “generalized to produce the archetypal meaning” and thus supported the method offered by the Chicago-based historians Webster and Condit, where morphological and expressive characteristics were privileged over chronology by virtue of their broad generality. The journal also featured Montgomery Schuyler’s essay, “The Evolution of the Skyscraper” (1909), which described how improvements to elevator systems and fire-proofing in skyscrapers resulted in an increase in building height, along with the technological challenges that were brought forth by this development.25 A transformation thus took place from the utilitarian stacking of floors, reaching five to ten stories in the 1860s and 1870s, to lighter and taller monuments. Schuyler argued that this movement for technological self-improvement, driven by an individualistic impulse, found its disguise in a “push for the interest in public utility.”26 The challenge of reconciling the single building and its relationship to the environment became even more complicated by


26 Schuyler, *Casabella*, Ibid., 65.
the struggle to reconcile individual benefits against the welfare of the collective in a market-driven system.

Underscoring the technological aspects of this history, Col. W. A. Starrett’s contribution entitled, “The First Skyscraper,” focused on a number of technological innovations spanning from 1880 to 1890. Starrett’s review began with W.L.B. Jenney’s Home Insurance Company Building (1883) and Burnham and Root’s Rookery Building (1885-86), which perfected fireproofing through their all-steel column and I-beam structural frame, while Holabird and Roche’s Tacoma Building (1887) was the first to use non-load bearing, curtain walls. The builder of the Tacoma Building, George A. Fuller, revolutionized the building industry by implementing new management methods that allowed the process of construction to reach an industrial scale. Two years later, Burnham and Root’s Rand McNally Building (1889) possessed the first structural skeleton whose beams and columns were made of laminated sheets, a technique characteristic of bridge construction, while William Le Baron Jenney’s Leiter Building (1889) was the first structure to introduce load-bearing sheer-walls within the structural frame to gain further stability. Starrett’s narrative concluded with Burnham and

Root’s Masonic Temple (1890) (fig. 2.2) which reached twenty-one-stories, making it the world’s tallest building on floating foundations at the end of the decade. Giedion, has described Jenney’s Leiter Building (1879) as the first precursor of the modern all glass curtain wall where “the wide glass openings suggest the ‘Chicago windows’ of a later date.”

More recently, Phyllis Lambert has pointed to Burnham and Atwood’s Reliance Building (1894-95) as “the first skyscraper in which large-plate windows composed the greater part of building’s surface.”

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29 Lambert, Building Seagram, Ibid., 270.
To address questions related to the skyscraper’s morphology, legibility and environmental impact, *Casabella* included Louis H. Sullivan’s, “The High-Building Question” (1891), in which the Chicago architect proposed a plan to control the tall building’s relationship to its site and urban context. In this obscure text rediscovered by the Chicago historian Donald Hoffman in 1970, Sullivan outlined a setback principle aimed to reconcile private economic interests. Its goal was to maximize the building volume within a given site, with the more civic-minded interests of the surrounding urban fabric. Hoffman argued that this text demonstrated Sullivan’s concern for the urban dimension of the skyscraper and his seminal contribution to developing the setback principle. By imposing an imaginary limit to the building volume, Sullivan argued that the elevation should be limited in height to twice the width of the street. If the building height rose beyond this point, the footprint would have to be reduced by fifty percent.

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Further still, if the building volume reached twice the height of the street elevation, the footprint would have to be reduced by an additional fifty percent, resulting in a footprint equivalent at twenty-five percent of its original size. This systematic reduction of the plan resulted in a slimmer, telescopic form that would be more responsive to its urban surroundings and maximize the amount of natural light, thus proposing a more harmonious environmental relationship.

Sullivan elaborated on the “inception of the setback principle” by discussing Le Baron Jenney’s Manhattan Building (1889-1890) (fig. 2.3), rather than his own Schiller building (1891-1892) or the Old fellows Temple project (1891) he designed in collaboration with Dankmar Adler. Based on Jenney’s Manhattan Building, Sullivan devised his own utopian vision for a “setback skyscraper city” (fig. 2.4) made of a number of telescoping towers. Although Sullivan’s original text offered an empirical analysis of the aforementioned setback procedure, one can speculate that his “setback skyscraper city” would result in a skyline littered by a number of turrets, similar to the turrets in his Auditorium Building (1889), which ranged widely with respect to their use of historical orders and styles. Yet Sullivan did not address the eclecticism inherent in this urban utopia directly, nor did he specify the role that historical styles could play in determining the legibility of the final volume. In this way, the setback principle could respond to concerns pertaining to massing in relation to its context, but not to the building’s historical signification.

Hoffman’s rediscovery of Sullivan’s essay offered not only an important addition to the historical discourse on the skyscraper, but his identification of Jenney’s Manhattan Building as the moment of inception for Sullivan’s “set-back principle” also offered a significant revision to a contemporary understanding of its historical contextualization and development despite the fact that previous historians had overlooked this important text.

Hoffman, “And there Sullivan credited William le Baron Jenney and William B. Mundie with the initial conception of the setback: he captioned an illustration of their Manhattan Building of 1889-1891 as the “inception of the idea.” Casabella Ibid., 70.


35 Hoffman, “As a further illustration, Sullivan presented a vision of a setback skyscraper city, boldly ahead of its time. It stands as perhaps the most significant document from his entire career in testifying to his notions of urban planning.” Casabella, Ibid., 70.
Sullivan broadened what Sigfried Giedion described as an “anonymous development” by considering the urban dimensions of the tall building, a development that one could not foresee beyond the technological challenges of the individual building. Giedion noted the “significance of the Chicago School,” which, by the 1880s, “show[ed] with astonishing clarity the urge to use constructional discoveries expressively” and transformed “buildings which stood half-way between ‘neutral’ industrial constructions and the human residence, with its inescapable associations of feeling.” Curiously for Giedion, this represented the moment in which the gap between “construction and architecture” was first bridged.

Sullivan further expanded his ideas in his essay, “The Tall-Office Building Artistically Considered” (1896), wherein the tall office building was characterized by its “loftiness.” Published five years after, “The High Building Question,” Sullivan’s famous dictum of “form ever follows function” broadened the notion of the functional to relate to “all things human and all superhuman, of all true manifestations of the head, of the heart, of the soul.” To establish a trans-temporal dialogue with Sullivan, the issue of Casabella included Phillip Johnson’s 1956 text, “Is Sullivan the Father of Functionalism?” For Johnson, Sullivan’s maxim was neither “suited purpose,” nor “expressive of structure,” it

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36 Hoffman, “Condit, The Chicago School, p.91, errs in deducing that the Manhattan Building, with its strong cornice above the twelfth story, was originally only a twelve story building.” Casabella, Ibid.
37 Giedion, “The works concerned with the Chicago school in its development between 1883 and 1893 are for the most part “anonymous.”” Space, Time and Architecture, Ibid., 366-367.
38 Giedion, “the architecture of the Chicago School shows with astonishing clarity the urge to use constructional discoveries expressively that is a keynote in this period.” “Significance of the Chicago school of the Eighties,” Space, Time and Architecture, Ibid. 26.
39 Giedion, “Thus the gap between bare construction and architecture in the grand manner is bridged in the Chicago business buildings of the 1880s.” Ibid.
41 Sullivan, Kindergarten Chats and Other Writings, Ibid., 208
was instead based on the degree to which form was “organic.” Johnson’s criticism was revealing since it disclosed his own “functional” approach in which programmatic “purpose” and the formal expression of “structure” were privileged. Rather than seeing Sullivan as a “proto-modernist” concerned with objective “structure,” Johnson argued that Sullivan was interested in “design” as an act associated with a subjective notion of “ornament.” Hoffman and Johnson’s interpretations of Sullivan represented a turning point in the history of the skyscraper: at the moment when the tall building ceased to be “spontaneous” and “anonymous” to become “ornamental” and “authored,” the function of its form and its relationship to the urban context were questioned. Sullivan too regarded the development of the tall building in Chicago as “spontaneous,” which led him to transform what had been predominantly a linear and technological history into a more complex constellation of issues concerning its legibility.

Building from Sullivan’s setback principle, the need to decipher the relationship between the tall building and the city gave rise to New York’s Zoning Laws of 1916. In Casabella, Lewis Mumford’s essay, “American Architecture Today” (1928), considered the potential of New York’s setback law, alongside renderings by Hugh Ferriss that depicted the

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43 Johnson, “Some critics see a functionalism here which I fail to find. Sullivan said “form follows function,” but he went on to define it very differently from today’s architects, who mean either “suited to purpose” or expressive of structure.” Sullivan had a third meaning. An oak should look like an oak, a rose like a rose. Then Sullivan goes on to say what function means in a tall building. He felt it had a basic organic shape: “Is Sullivan the Father of Functionalism?” Writings, Ibid., 185.

44 Johnson, “No; Sullivan’s interest was not structure, but design; and indeed, more and more, in the ornament which covers his later buildings.” “Is Sullivan the Father of Functionalism?” Writings, Ibid.

45 Johnson, “We cannot escape the conclusion that Sullivan found a cornice inevitable simply because he was used to it and he liked it. That is a good reason, but let’s not call him a functionalist or a proto-modern for clinging to cornice.” Ibid.

46 The term “spontaneous” is used by Sullivan to describe the inception of the skyscraper: “In Chicago the tall office building would seem to have arisen “spontaneously,” in response to favoring physical conditions, and the economic pressure as then sanctified, combined with the daring of the promoters.” The Autobiography of an Idea, (New York: Press of the American Institute of Architects, 1926), and later published by Dover in 1956 for the occasion of the 100th anniversary of Sullivan’s birth (1856-1924), a date that was celebrated by Philip Johnson by writing his text “Is Sullivan the Father of Functionalism?” It is possible that Sullivan’s use of the term “spontaneous” had an influence over Giedion’s characterization of the development of the Chicago School as “anonymous” given that the first term can be read as without having an external cause or origin.
tall building in a “grandiose” manner. 47 Mumford called for a synthesis between the building’s character and Sullivan’s principles, which, he argued, were applicable to both a house and a tall building without exception. Although they controlled the building volume, New York’s Zoning Laws of 1916 did not impact the growing formal eclecticism of the skyscraper. Instead, they seemed to address the urban problems surrounding the tall building including light, air, overpopulation, traffic, and congestion, in contrast with utopian approaches that perceived the skyscraper as the formal solution for the problems faced by the American city.

As the density of American cities increased in the 1920s, the necessity for the tall building to integrate with its surroundings became an increasingly urgent and complex issue. In his 1923 essay, “Zoning and the Envelope of the Building,” Harvey W. Corbett pragmatically outlined the advantages and disadvantages of gradually sculpting the building’s volume according to the dictates of setback laws.48 Offering a step-by-step method, he outlined a number of rules that aimed to reconcile the building volume with its urban surroundings (fig. 2.5). As an illustration of New York’s Zoning Laws of 1916, Hugh Ferriss’s pyramidal renderings emerged from within the space between the pragmatic planning necessities of the present and the utopian visions of the future. On the one hand, they were the result of the pragmatic limits for the building envelope conforming to its urban and environmental context. On the other, these renderings described fantastical pyramidal forms that crystallized the utopian visions of a Metropolis of Tomorrow. Ferriss’ renderings resonated strongly with the formal and morphological qualities of the crystalline

oblique volumes that characterized the contemporary projects of the 1970s, making their republication remarkably timely.

Figure 2.5: Hugh Ferriss, Illustrations for Harvey W. Corbett, “Zoning and the Envelope of the Building,” *Pencil Points*, (April, 1923), 15-18.
Additionally, Corbett claimed that the resulting generic setback envelope was open to the articulation of any historical style desired, including “modernized classic lines,” “Gothic inspiration, or if one chose, one might leave the whole thing untouched.”

His pragmatic language flattened historical form from a structural concern to an ornamental characteristic limited to the surface treatment of the building volume. Hugh Ferriss echoed this analogy by calling the rendered pyramidal volumes “legal rather than architectural concepts” and raw clay “awaiting the hand of the sculptor.”

Ferriss claimed that it was up to the architect to reconcile the subjectivity of the sculptor with the objectivity of the planner. In this dichotomy between the aesthetic and the regulatory, historical styles would fall on the side of the sculptor’s subjective will, rather than the planner’s objective structure. The eclecticism of historical styles was seen as an open and interchangeable system of surface decoration, as opposed to a generative formula that could determine the building’s morphology.

In the flattening of historical forms into surface decoration, Corbett’s indifference to their stylistic treatment, coupled with Ferriss’s extraordinary renderings, gave rise to a number of unexpected historiographic narratives. A number of alternative histories emerged where the future was found in the primitive past, a past that Giedion referred to as “prehistorical.”

Giedion had already deemed the revival of historical forms and styles in the 1880s and 1890s as ostensible “curtains disguising what was behind them.” In this vein,

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49 Corbett, *Pencil Points*, Ibid.
51 For a detailed study on Giedion’s notion of primeval art as “pre-history,” or “a tremendously long period, far outside the range of our limited experiences with time.” *The Eternal Present. A contribution on Constancy and Change* vol. 1 (New York: Bollingen Foundation; distributed by Pantheon Books, 1962-64), 494.; refer to Spyros Papapetros “Beginnings or Origins—Beginnings and Endings: Sigfried Giedion’s (Pre) Historiography,” *Journal of Architectural Education*, vol. 65, no. 2 (March, 2012), 9-12.
52 Sigfried Giedion, “In the nineteenth century the means of production were mechanized, and unrestricted production became an end in itself, bringing disorder into human relations for a century. […] The facades of the last century [19th] were erected in many diverse shapes and styles, but these styles, as they were used, were
the design of John Wellborn Root’s Monadnock (1889-92) followed the profile of the Egyptian lotus plant. Root’s use of the papyrus plant referred to the marshlands of the Nile and Chicago. Similarly, in 1922, the Chicago based architect Paul Gerhardt submitted two Egyptian-themed entries to the Tribune Tower Competition (fig. 2.6); the first was in the shape of an obelisk, and a second where a column at the base of the first was greatly enlarged resulting in an Egyptian equivalent to Adolf Loos’s column. Paul Gerhardt and Adolf Loos’ anachronistic and regressive instincts that led them to return to Egyptian formal orders in their Chicago Tribune entries in 1922 would be followed by Francisco Mujica’s History of the Skyscraper eight in 1930. Mujica described his work as a “revelation,” a “graphical” study of the most important monuments, and as a means to locate a modern American style from the study of these “mountains of stone” (fig. 2.7).
Figure 2.6: Paul Gerhardt, “Plate Number 159-160,” The International Competition for a New Administration Building for the Chicago Tribune MCMXXII, (June, 1922).
Mújica’s anachronistic “revelation” of the origins of the tall building in Mesoamerica essentially synthesizes two of Giedion’s “three space conceptions,” as it appears to move from the “third” (characterizing twentieth century modernity) to the “first” (representing antiquity, mainly in Egypt). If the “third space conception” presented “architecture as both volume and interior space,” the “first space conception” considered “architecture as space-radiating volumes.” –an outward interplay of solid volumes in space that had essentially no interior, such as the Egyptian pyramids. In Mújica’s and Ferriss’s schemes, what had been modern skyscrapers as light and volumetric structural frames whose interest lied in the interplay between their interior volume and an intricate exterior curtain wall now had reverted across time to become closed crystalline objects without an interior. Yet by doing so, the same buildings transposed the design’s emphasis on the space in between the

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59 Sigiﬁed Giedion, “The ﬁrst space conception: architecture as space-radiating volumes. The three long periods of architectural development cannot be treated in the same proportion. The ﬁrst space conception was that of the ﬁrst high civilization: Mesopotamia and Egypt. […] The second space conception: architecture as interior space. […] The third space conception: architecture as both volume and interior space.” These were the subject of THE BEGINNINGS OF ARCHITECTURE.” “Introduction, The Three Space Conceptions in Architecture” [1-6] and “The Third Space Conception” [266-269], Architecture and the Phenomena of Transition, (Cambridge, Mass.: Harvard University Press, 1971), 3.

60 Giedion, Architecture and the Phenomena of Transition, Ibid., 3,5.
buildings. By becoming “mountains of stone” these pyramidal volumes became one and the same with the natural (or urban) environment that surrounded them. In this sense, both projects enact a double regression, both environmentally through their figuration and anachronistically through time and periodization.

In the case of Mújica, the “graphical” nature of trans-historical revision embodied not only a historian’s subjective (and at times anachronistic) conception of time, but also the monuments themselves, where their “modernistic” attributes lay precisely in their abstract decoration as an applied graphic. The “graphical” character of historical decoration, as not structural in the morphology of the project but rather a changing image on its surface, also resonates with Corbett’s description of the potential of Ferriss’s setback volumes, which could be articulated in any historical style deemed suitable. In an analysis of Mújica, Manfredo Tafuri argued that the “new” would draw its validity by fastening to the “primitive.”61 It would also reconfigure the past while justifying a new change for the future.

It is important to note that this alternative history, which traced a regression in American architecture to a “primitive” time, was a narrative fabricated within a European context. Eschewing any relationship to the architectural explorations of the European avant-garde, *Casabella’s* American genealogy offered an alternative to Paul Scheerbart’s *Glasarchitektur* of 1914, a utopian vision that Reyner Banham described as “the greatest […] concrete and tangible vision of the future environment of man.”62 In addition to Scheerbart’s close connection with Bruno Taut, to whom *Glasarchitektur* was dedicated,

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Banham mentions Scheerbart’s influence on the “Berlin Fantasists” which included Mies. The effect that Scheerbart and Taut had on Mies is well documented. Mies’s early skyscraper projects appeared with Taut’s drawings in the journal Frühlicht, edited by Taut. It was also in this issue where Mies described his interest in the spatial effects of glass and recognized that its use necessitated “new approaches.” By placing scale models of his early skyscraper designs in different environments and lighting conditions, Mies observed that “it is not an effect of light and shadow one wants to achieve but a rich interplay of light reflections.” The “cinematic” potential of these crystal structures became a fascination for Mies, articulated vis-à-vis their ability to “effect” and “play” with luminosity through reflection. Mies saw this exploration as a way “to avoid the danger of an effect of lifelessness that often occurs if one employs large glass panels.” The play with the spatial and material qualities of the crystalline volume produced the illusion that the crystal was full of life, flickering and irreducible from its surrounding environment. The potential in the play with

63 Banham, “The direct influence of Glasarchitektur on the work of the Berlin Fantasists (most of which was doomed to remain in paper, anyhow) can be seen with certainty only in the work of Bruno Taut, but the three years after the Armistice did produce a spate of projects for irregular glass towers – even from so grave a rationalist as Mies van Der Rohe, as witness his submission in the Freiderichstrasse competition, and its derivatives.” (1922), The Architecture of the Well-tempered Environment, Ibid., 130.


66 Mies van der Rohe, “The novel constructive principle of these buildings comes clearly into view if one employs glass for the no longer load-bearing exterior wall. The use of glass however necessitates new approaches.” “Skyscrapers,” Frühlicht, Ibid.

67 Rohe, “My experiments with a glass model helped me along the way and I soon recognized that by employing glass, it is not an effect of light and shadow one wants to achieve but a rich interplay of light reflections.” Ibid.


69 Rohe, Frühlicht, Ibid. 124; Neumeyer, Artless Word, 240.

70 Papapetros describes the animate qualities of Mies’s crystalline tower: “By recording the changes in the appearance and mood of his skyscraper at various times during the day, Mies seems to construct a scientific film about the behavior of his building, just as plant physiologists would do for the movements of a plant.
the animate qualities of glass lied in its capacity to produce the illusion of being one and the same with its surrounding environment. This illusion is achieved spatially through reflection, but also analogically when conceiving glass as a mineral from nature. His pragmatic explanation of the project as derived from the triangular lines embodies Mies’s desire to have its volume become responsive environmentally and in urban terms: “The building site was triangular; I tried to make full use of it. The depth of the site compelled me to split the fronts, so that the inner core received light.” Although Mies’s early skyscraper projects have often been read as embodying expressionistic ideas, their play with transparency and reflection as a function of a renewed understanding of their relationship to their environment was at the heart of their radical abstraction, one based on responsiveness rather than alienation.

While working on his second glass skyscraper project of 1922, Mies outlined three criteria as the rationale for the building’s curved profile: “the need to illuminate the interior, the effect of the building mass in the urban context, and finally the play of desired light reflection.” Mies’s experimentation with natural light can be read as an exploration into the possibility of transforming building volume into a “living” entity as a way to establish a more profound relationship the building volume with its environment. In this sense the project challenges a discreet “figure versus ground” relationship in favor of a condition where the figure has now become ground, glass has become environment. Bruno Taut’s

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72 Dietrich Neumann, “While Mies’s design certainly displays the influence of expressionistic ideas and its own brand of monumentalism, it transgresses these references by defining the building through transparency and reflection – ultimately negating traditional architectural form as such, and foreshadowing the most radical developments of the future.” “Friedrichstrasse Skyscraper Project, Berlin-Mitte, 1921,” *Mies in Berlin*, Ibid.
73 Rohe, “the curves were determined by the need to illuminate the interior, the effect of the building mass in the urban context, and finally the play of the desired light reflection.” Ibid.
crystal mountains rendered in *Alpine Architecture*⁷⁴ and Scheebart’s description of the transformation of the earth’s surface into glass in *Glasarchitektur*, “as though the Earth clad itself in jewelry of brilliants and enamel,” become compelling illustration of the potential of “crystallinism.”⁷⁵

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Figure 2.8: Cover of *G*, no.3 (June 1924), showing the elevation study for Mies’s Glass Skyscraper Project (1922)

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Similar to Hugh Ferriss’s multifaceted crystal buildings, the surfaces of Mies’s early crystalline structures multiplied their surroundings to produce kaleidoscopic spaces of refraction. Both the elevation of Mies’s glass skyscraper on the cover of the journal G, and Ferriss’s illustrations accompanying Corbett’s article in the journal Pencil Points, were published the same year and this concurrence reveals a point of connection between the American and European narratives.76 Resembling geological formations and represented in graphite and charcoal, the transparency of glass was petrified into images, rendered with its own mineral dust (fig. 2.8). Their shape and translucent opacity embodied a more complex relationship between their multifaceted forms and their surrounding urban context. Dal Co, Maldonado and Bletter focused on the American lineage of this history rather than following a European avant-garde lineage that spanned from glass to rock, or from Taut to Mies’s glass-architecture.77 Similar to the Miesian glass skyscrapers, this history led to Ferriss’s “Metropolis of Tomorrow,” built from, to quote Ferriss, “…buildings like crystals. Walls of translucent glass. Sheer glass blocks sheathing a steel grill. No Gothic branch: no Acanthus leaf: no recollection of the plant world. A mineral kingdom. Gleaming stalagmites. Forms as cold as ice” (fig. 2.9).78 Ferriss’s rendering of the city of Crystals provides a compelling illustration of the potential of “crystallinism” where building and environment have now been collapsed into a condition where natural and built environment have become one and the same.

76 Mies van der Rohe, drawing for the cover of G (1923); Ferriss, Pencil Points, Ibid., 15-18.
77 Reinforcing the dichotomy of these two parallel histories, Manfredo Tafuri examines the emergence of these crystals in the European avant-garde before his analysis of how these principles were eventually realized in American, suggesting the first as the origins of the second, in “The Disenchanted Mountain: The Skyscraper and the City,” The American City, Ibid.
78 Ferriss, The Metropolis of Tomorrow, Ibid., 124.
In another extraordinary act of anachronism, Ferris collapsed the primitive with the modern and rendered Cheops in Columbus Circle as an apparition, an image that reappeared in the 1970s (fig. 2.10). Through Ferriss’s rendering, Rem Koolhaas described

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the shock felt by Salvador Dalí upon learning that New York “was not a modern city.” Koolhaas suggested that Dalí’s alleged awakening was a revelatory experience “where all histories, doctrines, ideologies, once carefully separated by space and time, appear simultaneously, [and] the linearity of history is short circuited.” Dalí exclaimed, “New York, you are Egypt! But Egypt turned inside out […] she erects pyramids of slavery to death, and you erect pyramids of democracy with the vertical organ pipes of your skyscrapers all meeting at the point of infinity of liberty!” It is fitting that Koolhaas decided to illustrate this trans-temporal moment with a rendering by Ferriss of the Pyramid of Cheops, which he inserted against the New York City skyline to effectively extend the skyscraper’s Mesoamerican origins into Mesopotamia and obliterate a linear notion of history. Like Mújica, Koolhaas desired to move anachronistically across time to link the modern and the “primitive” with visions of pyramids alongside Dutch gable houses.

Koolhaas further expanded his anachronistic narrative by interpreting Ferriss’s setbacks as a “gigantic enlargement of the original Dutch gable house with the tower as an endless chimney.” Koolhaas traced their origins to Dutch vernacular architecture as a testament of the regenerative potential of Ferriss’s crystals. As a counterpart to Mújica’s “corrective” revision to the vector of time, Koolhaas described Ferriss’s volumes as “corrections” of the reactionary blueprints on which they are based. Although Ferriss’s images were renderings of projects designed by other architects, Koolhaas argued that “in

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81 Koolhaas, Architectural Design, Ibid.
82 Ibid.
83 Koolhaas, “(As a simple section reveals, each envelope is a gigantic enlargement of the original Dutch gable house with the tower as an endless chimney. The City of the Zoning Law – the Mega-Village – is a fantastic enlargement of the original New Amsterdam.)” “The Double Life of Utopia: The Skyscraper,” Delirious New York, Ibid., 108.
84 Koolhaas, “Ferriss’ delineations, even as they are intended to seduce clients for Manhattan architects – and through them, the larger population – are critiques of the projects that they pretend to embody, polemical “corrections” of the reactionary blueprints that they pretend to embody.” “Pilot,” Delirious New York, 113.
their calculated vagueness,” the vision Ferriss presented gained a popular life of its own such that “[his] drawings alone represent Manhattan architecture, regardless of the individual architect who designed each project.”

For Koolhaas, the “most important contribution to the theory of Manhattan [was] exactly the creation of an illuminated night.” The capacity of Ferriss’s iridescent volumes to be in a suspended state of light and darkness, transparency and translucency, produced, what Koolhaas termed, the Ferrissian Void: “a pitch black architectural womb that gives birth to the consecutive stages of the skyscraper in a sequence of sometimes overlapping pregnancies, and that promises to generate ever-new ones” (fig. 2.11).

Their resonance with primitive forms as a means to imagine the “metropolis of tomorrow” imbued Ferriss’s structures with the capability to draw from divergent histories. For Koolhaas, Ferriss’s volumes were “receptacles” whose virtue lay in their capacity to absorb foreign influences: “expressionism, Futurism, Constructivism, Surrealism, even Functionalism,” were all “effortlessly accommodated.” If Corbett discovered the possibility for these setback volumes to adopt a formal articulation that conforms to their environment while remain open to be articulated in any historical style desired (“modernized,” “gothic,” or even

85 Koolhaas, “That vision becomes increasingly popular with Manhattan’s inhabitants – to the point where Ferriss’ drawings alone represent Manhattan’s architecture, regardless of the individual architect who designed each project. In their calculated vagueness Ferriss’ images create exactly that “warmly appreciating and applauding audience that he has identified with his youth as the condition for the birth of a new Athens.” Ibid., p.113

86 Koolhaas, “Ferriss’ most important contribution to the theory of Manhattan is exactly the creation of an illuminated night inside of a cosmic container…” “Womb,” Ibid., p.117


88 Koolhaas, “The womb absorbs multiple impregnation by any number of alien and foreign influences – Expressionism, Futurism, Constructivism, Surrealism, even Functionalism – all are effortlessly accommodated in the expanding receptacle of Ferriss vision.” Ibid.
“untouched,” as neither modern nor pre-modern), Koolhaas identified their historiographical potential half a century later as “crude clay for architects” and historians.89

Figure 2.11: Hugh Ferriss, “This sketch was made with the fancy in mind that a number of such gigantic shapes were actually existing; that they were composed of clay; and that they were awaiting the hand of the sculptor.” “Crude Clay for architects,” The Metropolis of Tomorrow, (Princeton, NJ: Princeton Architectural Press, 1986), 83.; Reproduced by Rem Koolhaas, “Crude Clay for Architects:” Manhattan as “Ghost Town of the Future,” Ferriss’ first image of the Mega-Village. If the maximum masses which are permitted… were erected over all the block of a city, an impression not unlike that one opposite would be produced…”


89 Ferriss, “Indeed, the crude clay of the future city may be imagined as already standing. There must come architects who, using the technique of sculptors, will model the crude clay into the finished forms.” “Crude Clay for architects,” The Metropolis of Tomorrow, Ibid., 82.
Despite the “calculated vagueness” of Ferriss’s “envelopes,” he voiced a critical position against the application of historical styles onto building volumes and referred to this practice as a “reversion.”\(^{90}\) Like Mújica, Ferriss viewed primitively abstract pyramidal forms as inherently modern, and was dismayed that architects would desire “to fill this envelope with the same conventional forms with which they had always been occupied.”\(^{91}\) Ferriss warned that the application of a classical cornice at the edge of each setback would result in an accumulation of “one ‘classic’ building on top of another,” and described the transformation of the setback volume into buildings as a “mechanical procedure” from which architects piled “Parthenons upon skyscrapers.”\(^{92}\) Illustrated quite literally in a fictional urban landscape in *The Metropolis of Tomorrow*, Ferriss articulated this practice as “scarcely in sympathy with […] modern design” (fig.2.1).\(^{93}\) His image depicted the spatial consequences of historical revivalism. “Cutting” the building envelope into discreet and stacked volumes, each of which belonged to a different period and style, would produce an irreconcilable eclecticism—one that would also fracture the progression of history. Ferriss’s “classical” city of stacked Parthenons stands side by side to Mújica’s “pre-classical” city of Mesoamerican monuments as two “reversions” of the future in the classical and primitive past.

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\(^{90}\) Ferriss, “Reversion to Past Styles,” *The Metropolis of Tomorrow*, Ibid., 92.

\(^{91}\) Ibid.

\(^{92}\) Ibid.

\(^{93}\) Ibid.
Closing the historical texts in the “complexity and contradiction” section of Casabella, Dal Co included a contribution by Manfredo Tafuri which focused on the urban challenges facing the contemporary skyscraper at the end of the 1970s, particularly in light of a number of large urban renewal projects. Tafuri closed his text by offering a dire conclusion to the contemporary relationship between the latest generation of multi-tower skyscrapers and their urban surroundings:

The exasperation of the functional character of the WTC and the rhythmic 'cartesian skyscrapers' of the new Rockefeller Center expansion [along 6th avenue] complement one another: the crisis of an entire system, perfectly disguised behind a face that expresses casual confidence with which the crystallized golems of the American metropolis offer the public a place to see themselves as a reflection of their own anxieties and desperate need for certainty.  

Whereas the early development of “crystallinism” at the turn of the century had focused in reconciling the relationship between tower and environment across time by searching for a more profound state of organicism that shaped the narratives of Schuyler (technology), Sullivan (functionalism), and Corbett (zoning) as primary texts (with the contributions of Bletter, Hoffman, Johnson and Tafuri as secondary texts), by the end of the 1970s the sheer scale and sense of alienation exalted by these “crystallized golems” would become their biggest challenge. In an effort to overcome this challenge in professional practice, the issue of Casabella included a number of contemporary “mirror buildings” and featured Roche and Dinkeloo’s United Nations Plaza both on the cover and in a number of spreads that documented the different phases of the project. The historian Eeva-Liisa Pelkonen has

96 Tafuri, “l’esasperazione funzionale del wtc e le lame ritmiche dei ‘grattacieli cartesiani’ del nuovo Rockefeller Center si completano reciprocamente: la crisi di un intero sistema e perfettamente dissimulata sotto il volto della disinvolta sicurezza con cui il Golem cristallizzato della metropoli americana si offre a un pubblico posto in condizione di contemplare in esse il riflesso delle proprie angosce e del proprio disperato bisogno di certezze.” Ibid., 89. Translated by the author.  
pointed to the shift in focus from Saarinen to Roche as one that spans from the “formal and structural” aspects of architecture in the former to one of “social and economic issues” in the latter.\textsuperscript{98} A close analysis of the United Nation’s Plaza offers the potential to decipher the true nature of this generational shift emblematic in the work of Roche, described by Pelkonen as the promise of “architecture-as-environment.”\textsuperscript{99}

\textbf{United Nations Plaza: A Cake of Ice}

In Maldonado and Dal Co’s issue of \textit{Casabella}, the feature on the United Nations project opened with an extraordinary image of a faceted corner of the built project where the building appeared as a pyramidal form akin to the early stages of Ferriss’s volumetric operations (fig. 2.13). The extreme perspectival distortion in the picture exacerbated the building’s abstract formal qualities by obscuring any sense of the building’s scale. A triangular face produced by a diagonal cut of the building’s corner revealed the entire volume to be a “floating” pyramidal structure, rather than vertically oriented. Moreover, this suspended pyramid could also be read as the top of an obelisk whose volume filled the void left by the faceting of the corner. The ambiguity produced by this highly abstracted pyramidal form embodied the formal autonomy of the volume.

\textsuperscript{98} Eeva-Liisa Pelkonen, “Although Roche’s transition to independent work was smooth, times had changed. While Saarinen was in many ways a quintessential architect of the 1950s, an era of optimism and economic prosperity, Roche came into his own during the 1960s, a time marked by social and political turmoil. While Roche continued to practice in the same manner and in the same areas as his former boss, he was convinced that a completely new way of thinking was in order. Whereas Saarinen was interested mostly in the formal and structural dimension of architecture, Roche was engaged in social and economic issues.” “Kevin Roche, Architecture as Environment,” \textit{Kevin Roche, Architecture as Environment}, (New Haven: Yale University Press, 2011), 2.

\textsuperscript{99} Pelkonen, \textit{Kevin Roche, Architecture as Environment}, Ibid.
Roche and Dinkeloo’s United Nations Plaza project was developed in three phases. During the first phase (1967 to 1969), the first proposal from 1967 consisted of a complex composed of two buildings on a perpendicular axis. Sited by the east River, it would close Forty-Fourth Street and connect to the existing UN campus by a bridge running across First Avenue. A second proposal from 1969 enlarged the size of the first considerably by expanding the project to three forty-floor towers surrounding a colossal five-hundred foot high atrium, and a fourth, seven-hundred room hotel tower facing First-Avenue. The period

from 1970 to 1975 witnessed the design and construction of only this fourth tower. The United Nations Plaza One skyscraper was a four-hundred-and-ninety-six foot high, forty-story tower. It included twenty-six floors of office space in its lower section, and a thirteen-floor hotel in its upper section. A pool on the twenty-seventh floor marked the change from office to hotel, and an enclosed tennis court in the thirty-ninth floor topped off the building. Between 1979 and 1983, the third phase of the project saw the development and construction of a second tower, United Nations Plaza Two, which was equal in height to the first, but included twenty-eight floors of offices in its lower section and twelve floors of residences in its upper levels.

Throughout the three design and building phases, the architects sought to establish an ambiguous relationship between the minimalist building volumes and their surroundings. The tension in this relationship is implicit in Roche and Dinkeloo’s project description, in which the buildings were characterized as deriving from both inward and outward constraints. Internally, the building envelope was described as a “uniform grid which corresponds to both the office and hotel floor heights and emphasizes the strong minimalist structural form.” In relation to its context, they asserted “the shape of the building is derived, in part, from variations in use and the desire to establish a strong relationship with the adjacent low-rise buildings and the U.N. Secretariat.” The tension between the tall building and the urban environment was a strong concern for Roche, who, in the past, had polemically rejected the idea of the skyscraper as a typology that exacerbated this separation

100 Kevin Roche John Dinkeloo and Associates Project Description, “United Nations Development Corporation, New York, NY,” “1,150,000SF, 505 Feet High, 48,935 SF Site, 39/40 Stories, 12’-6” Fl/Fl Height, 9’-4” Fl/Fl Height, 8’-4” Fl/Clg Height, 30’-0” Lease Plan, 29,910 SF Office, 12,365 SF Hotel, 5’-0” Plan Module.” (1967); Phase I Building Project Number: 6904, Phase II, Building Project Number: 7910, as found in the Office Archives in Hamden, Connecticut. Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.

to serve maximum development and profit.\textsuperscript{102} Roche’s earlier project for the Ford Foundation was self-described as a manifesto \textit{against} the autonomy of the skyscraper.

Instead, it sought a more synthetic relationship with its environment:

\ldots unlike conventional New York office buildings, which isolate the occupants and store them in cubicles, depriving them a sense of their working community and limiting their physical environment to views of other similarly-stored inhabitants, this building [The Ford Foundation in New York] creates an appropriate environment for its occupants – a space that allows members of the Foundation staff to be aware of each other, to share their common aims and purposes, and which assists them in fostering a sense of working family. To achieve this, a high-rise solution was deliberately avoided.\textsuperscript{103}

As Pelkonen notes, if “Roche understands architecture as a part of a larger context, both man-made and natural, including symbolic systems and technological networks” the act of reconciling the tall building with its environment represents perhaps one the discipline’s most universal challenges in the face of such systems of organization and production.\textsuperscript{104} In the case of New York, Pelkonen argues that the urban grid results in two architectural prototypes, the tower and the park,\textsuperscript{105} two radical polarities which Roche aimed to synthesize.

\textsuperscript{102} Kevin Roche in an interview with the author: “I do not like them [skyscrapers] for that reason because they are not really buildings built for people they are buildings made for money that is the nature of capitalism.” Kevin Roche John Dinkeloo and Associates, Hamden, Connecticut (June 1\textsuperscript{st}, 2011)

\textsuperscript{103} Kevin Roche John Dinkeloo and Associates Project Description, “Ford Foundation, New York, NY,” Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.

\textsuperscript{104} Pelkonen, “As the subtitle of this book, “Architecture and Environment,” indicates, Roche understands architecture as part of a larger context, both man-made and natural, including symbolic systems and technological networks. His buildings are more than mere aesthetic objects. [...] One of Roche’s major contributions has been the introduction of research-based design methods that acknowledge the dynamic forces shaping the built environment of the post-industrial world.” Kevin Roche, \textit{Architecture as Environment}, Ibid., 9.

\textsuperscript{105} Pelkonen, “Manhattan has provided the ultimate testing ground for Roche’s ability to navigate complicated political and legal terrains through the design and planning process. [...] In addition, the city’s urban grid limits architectural imagination, in most cases, to two prototypes: the tower and the park. While the former acts, in Hubert Damisch’s description, and the “a priori limit of all architectural intentions as well as of all urbanist interventions [in America],” the park, particularly central Park, embodies the myth of arcadia amid the city’s dense urban fabric.” Ibid., 50-51.
Figure 2.14: Axonometric Drawings of early variations that lead up to Scheme (1967). Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
The early schemes of the United Nations Plaza project reveal a series of strategies that aimed to challenge the formal singularity of the tower to create as much open public space as possible. A number of early massing options explored different ways in which the built volume could be used to frame the street as a pedestrian concourse, while also integrating the leftover spaces as part of the complex (fig. 2.14). Various volumetric strategies were tested in an attempt to increasingly blur the figure of the building with its environment. In their initial schemes, the overall volume was brought lower and deeper, resulting in a series of open and closed atrium spaces that strongly resembled the strategy used at the Ford Foundation. Linear and meandering alleyways, separate courtyards, and a centralized atrium scheme emerged from this set.

From the massing studies, a proposal presented in 1967 introduced two parallel towers in a forty-five degree rotation from a north-south axis, with facades aligned diagonally from the east-west axis on Forty-Fourth Street (fig. 2.15). These towers were, in turn, surrounded by a ring of lower buildings that framed the space around them as open to the public. The massing of this early proposal not only responded to the surrounding fabric through the lower ring built around its perimeter and with a height that corresponded to the surrounding buildings; it also introduced a monumental and iconographic gesture in the body of the two twin towers. The monumentality of the towers was reinforced by their forty-five degree rotation from the pronounced north-south orientation of the Manhattan grid, which differentiated them from the rest of the city. They stood out as exceptional objects in the middle of Forty-Fourth Street, functioning as a gateway to the existing, monumental UN Complex.
Based on the 1967 scheme, their proposal from 1969 was more responsive to the surrounding urban fabric, while maintaining the monumentality of the existing UN complex. Considerably larger than the first, this second scheme collectively oriented three towers to the normative north-south-east-west orientation of the Manhattan grid, with a fourth tower positioned at a forty-five degree angle (fig. 2.16). In this scenario, the three towers formed a colossal atrium space in the interior of the block, in a forty-five degree rotation, such that Forty-Fourth Street would cut diagonally across it (fig. 2.17). At its base, the atrium space unified the complex with public concourses that traversed across multiple levels, while its
closed dome matched the height of the three surrounding buildings (fig. 2.18). At forty stories, the complex would remain just below the Secretariat’s five hundred feet mark. The fourth building, initially intended as a hotel, extended on the north side of the axis, defined by the now closed Forty-Fourth Street, reaching First Avenue. Establishing a relationship to the surrounding fabric through the alignment of their outer edges, the four buildings would produce a dramatic effect in the diagonally oriented center atrium. Their treatment of patterning using mullions and reflective glass was applauded by the New York Times critic Ada Louise Huxtable, who observed the plaza “[gave] the city back to itself in a kind of monumental architectural dissolve […] [it is] a giant trick with mirrors.”

The void of the atrium, made entirely of glass, functioned as a fifth volume to the complex, and reversed the figure-ground relationship between the buildings and their environment (fig. 2.19). The vast volume of the atrium appeared as a glowing figure surrounded by three buildings as the backdrop. In contrast to the figure-ground relationship depicted on the cover of Casabella, the elevations of the building volumes that framed the atrium became the interior walls of the atrium space. This atrium also represented a significant connection to the Ford Foundation Headquarters: the diagonal orientation of this fifth volume established a strong relationship to the secretariat, given that its footprint was located south of the complex’s center axis.

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Figure 2.16: Scheme (1969). Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
Figure 2.17: General Complex Model [Top] and Plan [Bottom], Scheme (1969). Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
Figure 2.18: General Complex Plans, Scheme (1969). Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
From 1970 to 1975, only one out of the four buildings was built, resulting in the United Nations Plaza One Building. Initially, the project faced strong opposition because of funding and the necessary relocation of a large number of residents in surrounding neighborhoods (fig. 2.20). The building was also opposed for its extensive use of reflective glass. Although Roche considered the reflective properties of the project a virtue, its effect was perceived at the time as alienating by the media as much as by the general public:

The complex will consist of four 40-story towers sheathed in glittering reflecting glass. It is the reflections in those surfaces, says the project announcement, which will relate the buildings to the surrounding neighborhood. Nonsense. It is that reflecting glass which, more than anything, will make the buildings epitomize and reveal some unhappy truths. Occupants will be able to look out through it although outsiders will not be able to see it. More importantly it will be a sheath symbolically sealing the UN personnel into impotence within a cake of ice.107

The challenge for the UN Plaza One project was to arrive at a “building which has some character without compromising the functioning of the building.”108 The architects carried out two strategies: According to Kevin Roche, “the first was to ‘cut’ the corners and explore the idea [of] zoning [in which] you could go so high before you had to set back from the adjoining building… and then go up some more and set back once more.”109 The second was, to quote Roche again, to “cover’

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108 Kevin Roche interview with the author, Hamden, Connecticut (June 1st, 2011).
109 Kevin Roche interview with the author, Ibid.
the form with the same grid of windows with a uniform combining element for the whole thing, [so] the building...became almost scale-less; it became a sculpture, a minimalist sculpture.”110 Roche’s procedure of “cutting” and “covering” reconciled the building volume with its surroundings and simultaneously produced a sculptural, structural object that stood in contrast from its environment (fig. 2.21). Similarly, his predilection for diagonal lines and edges set the volume in alignment with its immediate context, while at the same time, underscoring its formal autonomy (fig.2.22).111

Figure 2.21: United Nations Plaza One Building (1970-1975). Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.

110 Kevin Roche interview with author, “then the idea for enveloping expanded office space for the United Nation was supported by the Ford... then we developed a large project which caused a lot of ruckus because people living on these blocks were terrified... but nevertheless we did get a corner of the site and then the question was how could you do a building which has some character without compromising the functioning of the building... so two things we used the idea of the zoning we cut the corners and used the idea of the zooming you could only go so high before you had to set back from the adjoining building... and then go up some more and set back once more... so we used that idea as part of the form and then we covered the form with the same grid of window with a uniform combining element for the whole thing... the building in a way became almost scales it became a sculpture a minimalist sculpture...” Hamden, Connecticut (June 1st, 2011).

111 Ludwig Glaeser, “Kevin Roche’s preference however tends clearly towards the angular, sharp edged forms that only glass can achieve with such perfection.” “Greenhouse Architecture, Notes on a Genesis of Form for Roche, Dinkeloo’s Recent Work,” Architectural Forum, vol. 140, no. 2 (March, 1974), 80.
Figure 2.22: Skyline View of UN Tower One from the East River, *Casabella*, no. 457/458, vol.44 (April – May 1980), 55.
The figure of the UN Plaza One appears as a rectangular extrusion in plan, whose shape and layout was described by Pelkonen “as an index of the programmatic needs and contextual constraints.”\(^\text{112}\) Its eastern elevation reveals a number of diagonal shifts in profile, dividing the overall volume into three nearly equal segments. The development of the plan was driven by a search to determine the correct ratios to subdivide its floor area with regularity, in order to provide spaces for offices and a hotel. Leasable core-depth ratios and floor-to-floor heights could not be exclusively considered in terms of commercial space, given the hybrid nature of the building. A ratio between both programs: a depth of 60 feet and a “25 foot corridor and then 27.5 feet, or something like 28 feet in depth, is the ideal figure for a hotel when you take the bedroom and then the bathroom structurally.”\(^\text{113}\) A similar search for order took place through the building’s mullion grid.

\(^{112}\) Pelkonen, “The shape and layout of the first of the three buildings was an index of the programmatic needs and contextual constraints.” Ibid., 56.

\(^{113}\) Kevin Roche Interview with author, “[The mix of programs] was not too bad, we were able to make it work fairly well we had a depth of 60’ which gives you a 25’ corridor and then 27.5’ and 27.5 feet… or something like that and 28’ depth is the ideal figure for a hotel when you take the bedroom and then the bathroom structurally so it was really worked out so that it work 60’ depth so also fairly good for office space as well so
through structural grid tests that subdivided a number of polygonal plans, irrespective of their perimetral irregularity. Similar experimentation was conducted on the exterior glass facets. In both of these instances, planimetrically and volumetrically, a tension emerges between the decomposition of the form as a whole, and the search for its reintegration through the regular proportional system of a single mullion grid.

As for the building’s surface, Roche chose to pursue an abstract, minimalist image as it related to the United Nations complex, one that Pelkonen links to Rosalind Krauss’s “indexical dimension” of 1970s art, raising questions about the project’s agency and authorship. An alternative scheme was studied in which the elevation of the building was rendered in a horizontal pattern of red and blue stripes of colored glass, which represented the flags of the one hundred and two member states that comprised the United Nations (fig. 2.23). The proposal to color stripe the building’s elevation was dismissed, as it was interpreted to signify the colors of the American flag. It was replaced by a more abstract pattern fabricated in mirrored glass and aluminum mullions for reinforcement. Roche saw the potential for the optical qualities of glass and grids to animate the volume:

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114 Pelkonen, “Roche’s comments about the “minimalist sculptural leanings of the project can be linked to what Rosalind Krauss calls the “indexical” dimension of 1970s art, where the object “merely registers” the processes of making. This raises questions about agency and authorship, While Roche certainly shared minimalism’s critique of the Romantic ideal of the artist-creator, one must be reminded that he, like many other architects of his generation, still believed at least tentatively, in architecture’s transformative potential. One can detect this ambiguity in the glass skin: while the building’s massing could be understood as an index of building requirements, the skin gains a phantasmagoric, dreamlike quality that recalls the legacy of glass architecture.” Ibid., 57.

115 Kevin Roche, interview with author, “we did a study of 102 nations in the UN and found that the majority of them had red and blue in the flag and we thought that was interesting and we did red and blue stripes…but we had to get approval from the secretary general so I brought this thing in front of the director general and he thought that I was putting red white and blue stripes resembling the flag of the United States so he really got very nervous and he said that it was the ugliest building that he had ever seen and he just about threw me out…so we dropped that idea and went for a universal skin and that was interesting because it got some people to reject the building and then it caused some people to like it.” Hamden, Connecticut (June 1st, 2011).
The interesting thing about mirror is that it is very inexpensive, almost as inexpensive as paint. Most interior surfaces are static, unchanging; if painted, the paint remains the same until it fades. The marvelous thing that happens with mirror, if it is used in a certain way, is that it is constantly alive, constantly alive as one moves. It becomes a kinetic surface, a kinetic experience of light. It picks up reflections, sparkle, dark spots, a constant painting where the real world is reflected in a painterly way. A tremendous decorative effect from what exists, always changing, always moving.\textsuperscript{116}

As Ludwig Glaser notes, the movement of the mirrored clouds on the reflective glass was in the reverse direction of the real clouds, producing “another more subtle form of juxtaposition.”\textsuperscript{117} This reversal echoed the building’s figure-ground relationships and emphasized the sense that the building volume was in a constant state of animation. The abstract pattern of the mullion grid would exalt the oblique edges, at times reinforcing them in moments where both grid and edge align. The repetitive pattern brought attention to any changes to the overall volume, particularly in the few instances of overhangs or setbacks. The modulation of the building volume sought, according to Roche, to “find… in the realities of zoning, a sculptural form that did not violate these but in fact celebrated these” was reinforced by the ubiquity of the patterning system.\textsuperscript{118} A tension emerged between volumetric changes and this ruthlessly regular pattern; despite the figure’s changes in response to exterior zoning forces, the pattern in the curtain wall did not change, producing a marked contrast between building’s interior and exterior.

\textsuperscript{116} Kevin Roche, interview with Francesco Dal Co, “Kevin Roche on Designing and Building, a conversation with Francesco Dal Co,” Kevin Roche, (New York : Rizzoli, 1985), 85.
\textsuperscript{117} Ludwig Glaeser, “Another more subtle form of juxtaposition occurs when the reflective glass is used to mirror images such as clouds moving in reverse direction to the action of real clouds.” Architectural Forum, Ibid., 80.
\textsuperscript{118} Kevin Roche, interview with Francesco Dal Co, Kevin Roche, (New York : Rizzoli, 1985), Ibid.
Figure 2.24: United Nations Plaza One South [Left] and East [Right] Elevations. Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
Figure 2.25: United Nations Plaza One North [Left] and West [Right] Elevations. Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
Figure 2.26: United Nations Plaza One Office [Top] and Hotel [Bottom] Plans. Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
The volumetric calibrations of the overall mass and structure could be read as a search for a degree of reconciliation with the plaza’s immediate context, as the setbacks produced local alignments with neighboring buildings. While the glass surface reflected the space around it, the oblique setbacks chiseled the overall volume to align with its surroundings (fig. 2.24) (fig. 2.25). Similarly, the mullion grid offered a sense of modular dimensionality based on the scale of the hotel and office programs, and by doing so, represented the interior programs as an abstraction (fig. 2.26). In the space between transparency and reflection, outwardly in the local alignments of the setbacks and inwardly in the averaging of the mullion grid with respect to the sectional heights of the interior programs, the overall image of formal autonomy was deconstructed into a series of gestures that moved towards reconciliation rather than dematerialization. Although it was designed proportional to the loadbearing structure of the building, the three-by-five-foot pattern of the mullion grid purposefully did not express its structural capacity, which stood in opposition to the Miesian celebration of the absolute correspondence between the structural grid and the curtain wall. The pattern divided the elevation horizontally into three-foot horizontal bands that evenly subdivided the varying heights of the offices and hotel, which were twelve feet and nine feet, respectively (fig. 2.27). In this way, the three-foot horizontal bands functioned as a module that subdivided both programs regularly, without making any distinction between them despite their differentiating floor heights. In the interior, this subdivision produced two different conditions: On the office floor’s twelve-foot elevation,

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119 Iñaki Abalos and Juan Herreros, “For the first phase of United Nations Plaza (New York, 1969-1975), Kevin Roche and John Dinkeloo proposed an isotropic frame and reflective glass that together caused the building to become scaleless and the structural elements to disappear, thus imbuing the volume with an ambiguous, solid condition. The frame of the exterior is reduced to an inconspicuous, horizontally and vertically undifferentiated aluminum joint. This strategy paved the way for a more radical expression of the prism as a purely self-referential image, an effect heightened by the relationship between the two volumes of the U.N. Plaza complex.” *Tower and Office: From Modernist Theory to Contemporary Practice*, (Cambridge, Mass.: MIT Press, 2003), 119.
the subdivision of the curtain walls created four horizontal bands, whereby two bands of windows were flanked by a border of spandrels. In the case of the hotel’s nine-foot high interior elevation, the curtain wall was subdivided into three horizontal bands of which a ribbon window was similarly framed by spandrels. Floor to ceiling glass, acting as a full-height window, was transformed by the introduction of a lower and upper spandrel, along with solid walls clad in glass on their exterior, to produce a horizontal running window. This combination of transparent and solid sections of the wall shielded the occupants from view but also performed an environmental function by increasing the thermal mass and thus the thermal performance of the curtain wall.

From the exterior, both wall conditions were clad with reflective glass. Differences only existed in the thickness of the glass used, but this material distinction projected onto the isotropic order of the curtain wall a degree of differentiation, which served to reinforce the banding on the building’s surface: one inch thick glass was used in transparent areas, while a quarter inch thick glass was used in solid areas over the spandrels. The capacity for the curtain wall to be both homogeneous on its exterior and heterogeneous in its interior introduced a new kind of organism between the inside and the outside that is both transparent and opaque.
Figure 2.27: United Nations Plaza One Office [Top] and Hotel [Bottom] Elevation Details. Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.
The significant transformation of the curtain wall, from a vertical to a horizontal order, established a dynamic relationship between inside and outside. In lieu of a vertical, Miesian subdivision of the curtain wall, wherein mullions would be used to express the interior column grid, the subdivision moved horizontally in relation to the tower’s interior. This shift from a vertical to a horizontal banded order was a radical and unprecedented step that offered the surface its autonomy. Dal Co described the relationship between the interior order and exterior expression of the curtain wall as a critical “transgression,” one which retained a certain degree of transparency between the logic of the interior order and exterior image, while introducing, in its horizontality, an opacity that reinforced a sense of formal autonomy.

This complex relationship between inside and outside was reinforced by a number of additional elements. If the setback angles that articulated the exterior volume of the building were calibrated in relation to the zoning forces that surrounded the project, the subdivision of its exterior surface by a universal three-foot horizontal module expressed a unit derived from the interior programs. Curiously, the module that established the dimensions of the horizontal banding of the project was a divisible ratio of the actual floor-to-floor section heights, which signified a mathematical relationship between the pattern and the interior program. If the three-foot module derived from a universal scale was applicable to both programs, the pattern could be read as an expression of the spatial dimension of the floor heights.
Upon its completion, the UN Plaza was received with contention and confusion. It was perceived as “an environmental Chinese-Box… [whose] reflective surface continually mirrors the dense surrounding images of the neighborhood, and its walls slant in and out almost in response to the shape of other buildings nearby.”\(^\text{120}\) The faceted corner was seen as “pointing” diagonally across the street.\(^\text{121}\) The organicism of the project in relationship to its form and function was also understood to expand the form and function binary into a tripartite formula that included environment.\(^\text{122}\) The surface simulations produced by the project’s relationship to its environment were read as surpassing the realm of the “rational” or “purely cerebral,” and entering into the realm of the “emotional.”\(^\text{123}\) Echoing Roche’s intention to find an alternative structure from that of Mies, this emphasis on the environmental was described as leading to a new kind of “‘romanticism,’ a reinterpretation of the modernist vocabulary into something rich, lively and even sensual.”\(^\text{124}\) In the terms of Pelkonen’s “environmental architecture,” the project is ultimately a paradox “operating

\(^{120}\) Douglas Davis with Lester Sloan in LA, Joseph Cummings in Atlanta, and Mary Rourke in New York, “Roche-Dinkeloo’s UN plaza and Johnson-Burgee’s Houston buildings are chic and elegant. They radiate the meticulous wit of their makers. UN plaza is an environmental Chinese Box: its reflective surface continually mirrors the dense surrounding images of the neighborhood, and its walls slant in and out almost in response to the shape of other buildings nearby.” “Rise of the Come-Hither Look”, Newsweek, (January 17th, 1977), 86 – 87.

\(^{121}\) Davis “The Southwest corner is cut off from the twelfth floor down, making the structure seem to “point” across the street to the UN Church Center, which is exactly the height of the cut-out. “The glass,” says the 54-year old Roche, “is a legitimate skin in its own right. And it’s a handsome, permanent material, requiring relatively little maintenance.” Newsweek, Ibid.

\(^{122}\) William Marlin, “One of the modern axioms of the 20th century revolution in architecture has been that a building, like a news report, should “tell it like it is.” But Mr. Roche and Mr. Dinkeloo have been consistently successful in restructuring the rubrics of modern theory. […] The result is a nice, light look, the cavorting patterns of light and shadow, and most telling, the reflections of its exciting physical environment. For the axiom regarding the relationship of form and function which this building postulates as so few skyscrapers of the postwar period have, that a building being a format for function should suggest a warp-to-woof fit within the environmental fabric.”; “Beautiful, friendly skyscraper, One UN Plaza unites function, form and reflects environment.”; The Christian Science Monitor, (Friday, August 27th, 1976), 26.

\(^{123}\) Paul Goldberger, “Building on the Emotions, the new trend in architecture reflects a shift away from purely cerebral design.” New York Times Magazine, (September 20th, 1980).

\(^{124}\) Paul Goldberger, “So if there is any way in which we can summarize the impulse of the moment, it would be toward picturesqueness, sensuality, visual pleasure – a sense of romanticism, really. And that romanticism can be interpreted through modernist forms as much as through classicizing ones. The specific stylistic choices, then, are not as important right now as the way in which that style is used – as both A.T.&T. and the United Nations Plaza show.”; “Romanticism Is the New Motif In Architecture”, New York Times, (Sunday, October 23rd, 1983), 1,35.
between two economies: a layout and massing dominated by the real estate logic of numbers and square footage and a skin delivering visual effects as part of the system of cultural symbols and signs.\footnote{125} It is because of this contradictory state of environmental mediation that Pelkonen claims that it is tempting to see Roche as a “proto-Koolhaas,” “that is as somebody who fully engages “Manhattanism” both as an idea and as a condition marked by congestion born out of the tension between the economic forces and typological limitations.”\footnote{126} And yet, in the middle of the struggle between the external forces of development and planning, and the internal programmatic and typological constraints that give rise to the project lies the curtain wall. A surface of glass that both exalts and at times negates the presence of these forces, externally and internally, transforming its facade into a kaleidoscopic surface that oscillates between transparency and opacity, environment and abstraction.

**United Nations Plaza Two**

During the period from 1976 to 1983, the United Nations Plaza Two was built directly behind the first tower, between Forty-Fourth and Forty-Fifth Streets. Both towers shared a concourse that connected their lobbies at ground level, and reached the same height (fig. 2.28). The two towers were also equally subdivided into two programs, office space and residential, although in the second it primarily consisted of apartments rather than a hotel (fig. 2.29). As a vestige of the first scheme, the volume of the second building introduced a diagonal facade with a southeast orientation—the same orientation of the original atrium facing the Secretariat. The interstitial void between the towers was not

\footnote{125} Pelkonen, Ibid., 58.  
\footnote{126} Pelkonen, “It is indeed tempting to think of Roche as a “proto-Koolhaas,” that is, as somebody who fully engages “Manhattanism” both as an idea and as a condition marked by congestion born out of the tension between the economic forces and typological limitations. As Koolhaas discusses in his book *Delirious New York*, published in 1978, the condition has given rise to unpredictable, often quite fantastic, spatial and programmatic juxtapositions in the city.” Ibid., 51.
occupied by an atrium, but rather, left as a narrow, vertical space in which two oblique mirrored planes reflected the other infinitely. This narrow gap between both towers recalls Johnson’s Pennzoil Building, a project described by Charles Jencks as a “double-whole” or “one building split into two implying a third trapezoid in the space in between.”\textsuperscript{127} Similarly, Jencks would refer to the oscillating reflection between the UN towers as an “oxymoron” that translates into a “late-modern” sense of “soft-hardness.”\textsuperscript{128}

\textbf{Figure 2.28:} General Ground Floor-plan and Axonometric View, UN Plaza Two Scheme, (1976-83), Eeva-Liisa Pelkonen, \textit{Kevin Roche: Architecture as Environment}, (New Haven, Conn.: Yale University Press: In association with Yale School of Architecture, 2011), 205.

The second building was clad in a mullion pattern identical to the first. From most vantage points, given their proximity and similarity in surface treatment, both volumes seemed to merge and be understood as one. As part of a pair, the second building was

\textsuperscript{127} Jencks, \textit{Skyscrapers, Skyscrapers, Skycities}, Ibid., 70.

\textsuperscript{128} Charles Jencks, “Reflections of one building on another, of passing clouds, dissolve the surface and give another oxymoronic contradiction, “soft-hardness.” \textit{Skyscrapers}, Ibid.
 understood in relationship to the first tower. Reinhold Martin has described the 
“doubling effect” between both towers as operating in a manner similar to Walter 
Benjamin’s “reproduction without an original” (fig. 2.30).

![Figure 2.29: Office [Top] and Hotel [Bottom] Plans, UN Plaza Two (1976-83), Kevin Roche, John Dinkeloo and Associates Archive; Collection of the Kevin Roche John Dinkeloo and Associates Records, M.S. 1884, Manuscript and Archives, Yale University Library.](image)

129 Kevin Roche interview with the author, “The second building had to face the question of how did it relate to the first one, in fact the second building does not belong to the same world.” Hamden, Connecticut (June 1st, 2011).

130 A “doubling” that leaves no original, as explained by Reinhold Martin in his description of both buildings: “The massing of each tower builds up toward a climactic street corner, where in plan the chamfered volume of one tower stands juxtaposed sharply against the square corner of the other. Like Pennzoil Place (and like PPG’s facades), these two buildings reflect one another as, to borrow again from Walter Benjamin, “reproduction without original.” “Materiality, Mirrors,” Utopia’s Ghost, Architecture and Postmodernism, Again (Minneapolis: University of Minnesota Press, 2010), 119-120.
Roche described Van Alen’s Chrysler Building and Hood’s Daily News Building as precursors to the UN project. According to Roche, the Chrysler was a “very strong …abstract form, which did not have to do with its layout, …zoning, or… structure; it was just structural form. …the Daily News was just a pragmatic accommodation of
programmatic functions.”

It is important to note that both examples offered different strategies of abstraction. Whereas the Chrysler’s form was discreet—a purely iconographical profile that is autonomous from its program and all that surrounds it—the Daily News was a mediated figure that found coherence in the legibility of the pattern applied to its elevation.

In reviewing Roche and Dinkeloo’s work, Vincent Scully has offered two analogs: the “thruway” and the “Crystal Palace.” With the UN Complex belonging to the second, Scully contrasted the concept of a greenhouse with that of Mies’s early skyscraper projects. He described the distinction as “contained shapes” versus a “hollow environment of glass.” For Scully, it is precisely in this “hollowness” where the work can be understood, “instinctively embodying something which has no body at all, but in which the real operating force of modern society lays: its massive depersonalized groupings, its vast computerized abstractions, and the essential emptiness of its presidential chair.” The strength of Roche and Dinkeloo’s work can be found in its capacity not just to reflect these realities, “but to comment on them through a curiously impeccable set of expressive forms,

131 Kevin Roche interview with the author, “well, here is an interesting fact, the Chrysler Building was a very strong form statement as opposed to the Empire state building, which was not as successful, but the Chrysler building was a very iconic building and that was in a sense established as a form as an abstract form which did not have to do with its layout or with zoning or with structure, it was just sculptural form, it was just form whereas the Daily News building was just pragmatic accommodation of programmatic functions so you have already before one gets into all of this stuff in your period you have this happening as precedents.” Hamden, Connecticut (June 1st, 2011).


133 Scully, “That Attempt [to combine the concept of greenhouse with that of street] was carried further in the firm’s project for the United Nations Office Building in New York. Now it is the Mies of the glass skyscraper projects of 1919-21 who is recalled. But where Mies’ glass towers were contained shapes, though super-scaled, the Roche-Dinkeloo complex would have become a proliferating hollow environment of glass, consuming vast areas of urban space, stepping across its own interior streets and roofing them over to create a new greenhouse-city…” The Architectural Forum, Ibid., 23-24.

134 Ibid., p.24
to find visual symbols for them, and to make them emotionally unforgettable [...] toward some increased respect for the particular.”

It is in the desire to give body to this “hollowness” which we can also understand as the non-corporeal organizational complex, where the UN Complex sought to regain its presence. The animation of its building volume through an oscillating transparency and translucency was described by Dal Co as possibly the “most emblematic expression of authority and infringement of authority.” In this critical act of simultaneous expression and the infringement of authority embodied through representation and reflection, Dal Co proposed the strategy of “emptying” it of content, as architecture’s only choice in the face of escaping “the powers that control its existence.” The resulting “evanescence,” both literally in the projects, and critically for the discipline, points to a critical stance that oscillates between compliance and non-compliance, signification and abstraction.

Exploring the pervasiveness of mirrored glass in contemporary architecture, Diana Agrest’s article, “Architecture of Mirror / Mirror of Architecture” (1984), describes this parallel effect as a vanishing of the “perception of representation and figuration in an historical sense.” For Agrest, the legibility of the figure “not as metaphoric representation but as literal reflection” dissolved the building into “pure images of messages without a code.” In this shift from the representational to the literal, Agrest argued that Expressionism is replaced by Surrealism: “instead of the building cutting itself against the...
sky, building and sky are now one, as in Magritte’s landscapes of surreality” (fig. 2.31). This shift from a representation based on recognizable historical and disciplinary codes, to a literal recombination of reflections as found images, fractured the representational codes that formed the object’s reading. Agrest’s interpretation provides an alternative strategy from which to decipher the project’s legibility, vis-à-vis the states of fragmentation and discontinuity characteristic of postmodernism.

Figure 2.31: Rene Magritte, “Le Pays des Miracles,” in Diana Agrest, “Architecture of Mirror / Mirror of Architecture,” Oppositions, no. 26 (Spring 1984), 154.

140 Ibid. p.154
The 1979 exhibition, *Transformations in Modern Architecture*, at the Museum of Modern Art, which featured Roche’s UN Plaza One and the widespread emergence of ‘mirror-buildings’ as assembled the projects in a large central space, along with two, smaller, adjacent spaces.\(^{141}\) In the main space, the perimeter walls were filled with photographs of projects arranged along four horizontal bands that gradually tapered outwards to follow the viewer’s perspective as they reached the ground. Along these bands, the photographs were distributed along a strict modular grid (10”x12”) which served to give the disparate images of building fragments an organizational structure (fig. 2.32). Some photographs displayed entire projects while others focused on smaller sections. In the photographs, some projects appeared small, taking over a single module of approximately ten inches in height by twelve inches in width, while others appeared larger occupying several units at times vertically and at others horizontally. The variation of scale across the different photographs determined by the number of grid units enhanced some projects by enlarging their size, while others disappeared in the backdrop amongst a field of images. Divided into broad categories: “sculptural form,” “structure,” “elements,” and “vernacular,” the four hundred and six photographs in the exhibition were, according to Drexler, “chosen because they seem to capture the essential idea [of “pluralism”], whether in whole or in part.”\(^{142}\) Drexler framed this emerging “pluralism” as an undeveloped form of tolerance freed from a deterministic search for “meaning”\(^{143}\) and not yet mature enough to become a “style:”

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\(^{141}\) *Transformations in Modern Architecture* was on show at the Museum of Modern Art from February 23rd through April 24th, 1979, CUR 1250, Archives of the Museum of Modern Art.


\(^{143}\) Pelkonen, “The question of meaning took center stage in the 1979 MoMA exhibition *Transformations in Modern Architecture*, in which Roche’s corporate works were prominently featured. […] Making a case that liberal pluralism was trumping the dogmas associated with modernism (for example, form follows function), Drexler showed how many buildings designed in the 1960s and early 1970s referred endlessly to other
The odor of “good taste” can often be dispelled by the introduction of “meaning,” as long as meaning is retrieved from formerly unacceptable sources (the archaic, the modern and streamlined, and the more domestic forms of the inept). But as the demand for meaning increases, new – or old – sources of supply must be found. This has helped to change the import of “historicizing,” formerly inadmissible but now a new frontier of meaning. Like historicizing, “eclecticism” is the beneficiary of a separate and in this case prior rehabilitation. It is the aesthetic counterpart of “pluralism,” which is now understood as a socially desirable and positive form of tolerance. But tolerance is a dangerous word because it implies a dominant position from which lesser manifestations may be patronized. Thus the new pluralism will encounter its defeat, when the time comes for reintegration, under the tutelage of a single intolerant purpose. Meanwhile the accumulating examples of coherent alternative views may yet rehabilitate the word “style.”

The center of the exhibition was occupied by a dark space, shaped by this perimeter wall that followed a trapezoidal arrangement in plan (fig. 2.3) (fig. 2.34). Here, Roche’s United Nations Plaza One joined a collection of other glowing crystal structures displayed in color images mounted on light boxes that seemed to float against the dark surfaces of the walls inside a space much like Koolhaas’s “Ferrissian Void” (fig. 2.35). The grid imposed on the images in the perimetric walls sought to develop an implicit order across an endless field of projects that had now disappeared in the darkness of the background walls. What once was an organizational construct that served to organize what otherwise would be perceived as a constellation of disparate images, had now dissolved in this central space, exalting Drexler’s thesis of pluralism further.

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144 Drexler, Transformations in Modern Architecture, Ibid. 5.
145 Rem Koolhaas, “Ferriss’ most important contribution to the theory of Manhattan is exactly the creation of an illuminated night inside a cosmic container, the murky Ferrissian Void a pitch black architectural womb that gives birth to the consecutive stages of the skyscraper in a sequence of sometimes overlapping pregnancies, and that promises to generate ever-new ones.” “Womb,” Delirious New York, Ibid., 117.
The exhibition centered on these “mirror-buildings” because they were the most enigmatic and communicated “little or no information about themselves and carry architectural abstraction to its furthest point.”¹⁴⁶ Their muted legibility resonated with Drexler’s concept of “pluralism” as freed from style and authorship as a form of meaning. In Drexler’s correspondence with the Pittsburg Plate Glass Company, he suggested that “the philosophical assumptions guiding the modern movement in architecture have been challenged and fragmented,” resulting in a new sense of freedom in the exploration for alternatives.¹⁴⁷

¹⁴⁶ Arthur Drexler, “Utilizing tinted and reflecting glass, they communicate little or no information about themselves and carry architectural abstraction to its fullest point.”; “Press Preview”, Ibid., p.2
¹⁴⁷ Arthur Drexler, letter to Ms. Grace Voegler, Ibid.
The purpose of the exhibition was to identify a number of “transformations” in order to “sort out these developments and present them in the context of international architecture during the period from 1960 to 1980.”\textsuperscript{148} The gradual transformation from a Miesian architecture of “skin-and-bones” to one of “skin-alone” was described by Drexler as the most important “transformation” (fig. 2.36) (fig. 2.37).\textsuperscript{149}

\textsuperscript{148} Drexler, letter to Ms. Grace Voegler, Ibid.
\textsuperscript{149} Drexler, letter to Ms. Grace Voegler, Ibid.
Figure 2.34: Reconstruction of the plan of the “Structure: Glass Skins” room drawn by the author from pencil drawings used for the installation of the exhibition, *Transformations in Modern Architecture*, CUR 1250 Museum of Modern Art Archives.
Paradoxically, in search of a narrative that could give meaning to and historicize this “transformation,” Drexler identified formal continuities between Mies’s study for a glass skyscraper (1922) and Eero Saarinen’s Bell Telephone Laboratories (1957-62) (fig. 2.37) (fig. 2.38). In both projects, the opacity and reflectivity of glass, rather than its transparency, underscored the “primacy of surface,” resulting in a complete dissolution of structure. For Mies, this interest was evinced through the animate play of reflections on the skyscraper’s curved surface, whereas in the case of Bell Laboratories, Eero Saarinen (with Kevin Roche and John Dinkeloo) transformed tinted and mirrored glass to achieve a “degree of abstraction that is without precedent.” The lineage traced by Dal Co in Casabella, which ranged from Johnson and Burgee’s Pennzoil Place in Houston (date), Pei and Cobb’s John Hancock’s Tower in Boston (date), and Roche and Dinkleloo’s United Nation’s Plaza in New York, also appeared in Drexler’s collection of crystal forms. This degree of abstraction was, for Drexler, the result of a consistent treatment to surface that privileged regularity and repetition. He viewed the relationship between these crystalline prisms and their surroundings as accidental, a “calculated technique with accidents of light,” which established a connection between the surface of the glass and its environment. Yet their capacity to reflect their surrounding context was also alienating, or, to cite Drexler, “as unsociable as a conversation with someone wearing mirrored sunglasses.” The abstraction of these projects lay in their inability to reconcile the relationship between human and environmental registers. The loss of the first was driven by the spectacular affects achieved by the second.

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150 Drexler, “It has taken almost 50 years for architecture to return to Mies’ earlier notions of the primacy of surface, and this time the object is to conceal rather than reveal.”; “Structure: Glass Skins”, Transformations, 72.
151 Ibid.
152 Ibid.
This disassociation was further exacerbated by the specificity of each building’s surface in contrast to its seemingly arbitrary form,\(^\text{153}\) resulting in an enigmatic reading that Drexler left undeciphered.

Like the explosion of rational and extruded building volumes that defined Miesian Modernism, the narrative of these glass structures could not be easily explained. “When systems fail,”\(^\text{154}\) Drexler explained of modernism, “[when] unifying thought and diagrams no longer seem adequate for the task set for them, attention shifts as one sinks beneath the waves and reaches for the life belt or a raft or a stick of wood. Attention shifts to fragments,

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\(^{153}\) Drexler, “...clover leaves, lozenges and ovoids, parallelograms, pyramids, cylinders and cubes proliferate and are for the most part arbitrary. But is there something wrong with being arbitrary? Or is it only that extreme precision – objectivity in its technological dress – implies a loftier purpose than the making of curious shapes?” “Structure: Glass Skins”, *Transformations* Ibid., 85.

\(^{154}\) This shift from late-modern to post-modern pluralism is traced in Felicity D. Scott, “When Systems Fail: Arthur Drexler and the Postmodern Turn,” “Building Codes,” *Perspecta*, no. 35, (December, 2004), 134-153.
to some isolated element useful in design.”¹⁵⁵ The decision to not fabricate a united narrative that could bring coherence and order to all of these projects in the exhibition was clearly a conscious curatorial stance taken by Drexler, and noted as a tactical position by Reyner Banham in his review of the exhibition: “this not coming to a point is programmatic – it might be what the show was all about.”¹⁵⁶ In light of its kaleidoscopic nature, Drexler’s incohesive narrative was now spatialized as the rigidly crystalline plan of the exhibition’s central space (fig. 2.36). Vertical tall buildings could be seen floating next to horizontal slabs. Expressionistic and highly figural configurations floated side by side with more generic rectangular volumes. Urban surroundings were featured as much as rural landscapes. The only consistent thread across the majority of the images was the presence of an overcast sky, both in the upper sections of the photographs as well as on the surface of the buildings themselves. The only consistent spatial affect between all of these images of projects regardless of their shape and surroundings was the illusive disappearance of their figure and its replacement by an endless sky.

¹⁵⁵ Arthur Drexler, sound recordings of a lecture on *Transformations in Modern Architecture*, held at MoMa, (April 10, 1979), CUR 1250 Museum of Modern Art Archives.
Both Drexler’s *Transformations* and Dal Co’s issue of *Casabella* strived to better understand the radical process of abstraction that had transformed the tall building into a crystal. These crystalline buildings, characterized by the regulating order of their mullion grids and the transitive spatial simulations produced by their glass surfaces created a paradoxical condition. On the one hand, their minimalist forms wrapped in a homogeneous surface of glass was derived from complex combinations of programs such as the office, hotel, and diplomatic residences in the case of Roche’s UN project. On the other, their
form was also the complex result of environmental and planning constraints such as setback and air-rights protocols. Reading their form as a process of mediation between both of these factors suspended the notion of style and authorship as primary “forms of meaning,” focusing instead on a new type of analysis that placed emphasis on programmatic and planning constraints. Coupled with the suspension of received meaning, the spectacular phenomenological affects produced by the building’s curtain walls exalted their sense of autonomy even further.

The autonomy of Roche’s crystalline United Nations project challenges the relationship to its environment. While its figure supposedly descends from planning, programmatic and typological constraints, it responds to these environmental constraints only selectively and “accidentally.” By chiseling out each of its faces the project’s “crystallinism” splinters in multiple ways. On the one hand it can be understood as the next logical phase of the modern project, where the technology of the all-glass curtain wall has done away with structure. On the other, it can be understood as a radical act of regression, the result of an Expressionistic impulse that brought to life the “crystallinism” of the 1920s. Ultimately, it would be the unresolved tension between the disappearance of meaning and authorship replaced by the programmatic tropes of technique and “formal evanescence” that endows the project’s crystallinism with a renewed sense of agency and (what Mújica might describe as) “revelation.”

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CHAPTER III. HISTORICISM:
“The Presence of the Past” and the Sacrifice of “History as Knowledge”

Figure 3.1: Cover, “Uses and Abuses of History,” The Architectural Review, vol. CLXXVI. No. 1050 (August, 1984)
Not since Raymond Hood’s Gothic entry for the Chicago Tribune Tower Competition (1922) has a historicist skyscraper raised as much controversy as Philip Johnson’s AT&T Building (1978-1984).1 Johnson’s circulation of the renderings and models of the project was met with immediate interest, to become, according to Tom Wolf, the “most famous unbuilt building of the 1970s.”2 On the year of its completion, Johnson’s Madison Avenue building was featured on the cover of the Architectural Review, and accompanied by the caption, “Uses and Abuses of History”.3 The cover’s image positioned the AT&T Building alongside two adjacent buildings in a diagonal view that cut transversally across the Manhattan grid and across time (fig. 3.1). The Crown Building (1921), a twenty-five-story French Renaissance tower with a highly ornate, pitched Mansard roof, stood in the foreground of the image. Built by the industrialist August Heckscher in 1921, the project was originally called the Heckscher Building, an early office tower shaped by the setback zoning provisions of 1916, styled after the French Renaissance, and first home to the Museum of Modern Art.4

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2 Tom Wolf, “By 1978, the evidence that Venturi was winning the battle of the compounds was decisive. Philip Johnson released renderings and models of his new corporate headquarters for AT&T, to be constructed in Madison Avenue in New York. It became the most famous unbuilt building of the 1970s.” “Silver-White, Silver-Gray,” From Bauhaus to Our House, (London: Picador in association with Jonathan Cape, 1993), 109.

3 “This AR is focused on the theme of history and its uses and abuses in today’s design.” “Uses and Abuses of History,” The Architectural Review, vol. CLXXVI, no. 1050 (August, 1984), 11.

Intricately decorative, it symbolized the Neo-Classical revival period for the skyscraper of the twenties and thirties. In the center of the image, the razor sharp edge of the Trump Tower (1983), a fifty-eight story dark bronze crystalline structure, divided the cover in two. On the right side, the AT&T Building appeared as the then-contemporary reincarnation of its revivalist predecessors. The juxtaposition of these three towers on the cover raises a number of questions with respect to the AT&T Building: Was the building’s assertion of its historical revivalism an act of preservation or the product of Johnson’s “antiquarian” conception of the past that reaffirmed historical form? Or conversely, was the tower the result of his critical perspective of history, one in which past forms can be rearranged at will to give rise to a new future shaped by “eclecticism”?

The Uses and Abuses of History

As the cover of The Architectural Review suggests, the end of the 1970s witnessed a paradigm shift with respect to the image of the skyscraper. In contrast to the use of irreducible, reflective glass alternatives that had dominated the skyscraper’s production throughout the 1960s and 1970s, the form of the skyscraper became disjointed at the end of the decade. Historical forms that emerged during this time were once again divided into the tripartite structure of base, middle, and top, much as they had been in the 1920s. As historicist columns, their configuration could be articulated using a wide range of historical styles, which promoted eclecticism. Emerging from this period, the AT&T Building’s followed this composite formula, producing a tension between its stylistic fragmentation and its formal coherence as a whole. Its morphological pluralism augmented the desire for historians and theorists to decipher its historiographical origins and reconcile its form as a

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5 Designed by Der Scutt for Swanke, Hayden Connell, the Trump Tower was completed on the 30th of November 1983. “Trump Tower,” New York Skyscrapers, (New York: Prestel, 2009), 142-144. Der Scutt was a collaborator of Philip Johnson for a year after which he transferred and received his Master’s degree in Architecture from Yale University. Both the Heckscher Building and the Trump Tower are connected to Philip Johnson, the first being the first home of the Museum of Modern Art, and the second having been designed by a past collaborator of Johnson.
historical narrative. Yet beyond the formal pluralism offered by this approach, this flagrant and sudden revival of past styles raised for historians and theorists at the time, questions about the nature of its historicism and the relationship of history to the present. Was this historicism “archeological,” that is, a reaffirmation of a neoclassical conception of antiquity? Or was it “analytical,” a reconstitution of past models in dialogue with the present? Deciphering whether this historicism was a present-day imitation of historical form, or alternatively, a practice of translation, became key concerns at the center of historiographical debates in the late 1970s.

In a previously unpublished description of the project, Johnson described the AT&T Building’s “striking difference from the usual glass-sheathed, flat-topped boxes of our newer cities” whose influences included the “work of McKim, Mead and White and by the skyscraper designs of Raymond Hood.” Drawing relationships between the present and the past, Johnson claimed that the AT&T Building’s form had “more reminiscence,” “more history,” and “more beauty of material.” As an act of revival based on “reminiscence,” the AT&T Building was not simply a product of historicism, as an imitative practice, but it also became an interpretative, autobiographical artifact that resulted from Johnson’s own particular conception of history.

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6 Barry Bergdoll explores similar questions surrounding the nature of historicism in the eighteenth century through a detailed study of the debates following the aftermath of Heinrich Hubsch’s (1795-1863) “In Welchem Styl Sollen Wir Bauen [In what style should we build]?” “Hubsch was but one, albeit a very early, nineteenth-century theorist who understood the present’s dialectical relationship with the past. It was not a question of freeing oneself from history, a course that would have been as disjunctive as imitating a mythical past. Architecture, like history itself, was a societal process of change and accommodation. In positioning a non-imitative, structurally rational response, Hubsch sought rather to ground architecture firmly in the historical process, to map out the means whereby the architect could act appropriately.” “Archaeology vs. History: Heinrich Hubsch’s Critique of Neoclassicism and the Beginnings of Historicism in German Architectural Theory,” Oxford Art Journal, vol. 5, no.2, (Oxford, UK: Oxford University Press. 1983), 12.


The title of the issue of The Architectural Review, “Uses and Abuses of History,” paraphrases Friedrich Nietzsche’s essay “On the Uses and Disadvantages of History for Life,” which outlines different perspectives on the role of history in the present. In his critique of humanism, Nietzsche proposes several alternatives to a singular and objective concept of history. He challenges the idea that history descends from an objective notion of “knowledge,” arguing rather that it emerges from within the multifaceted nature of the subjective. He outlines three “species” of history:

In “monumental history,” time flows in a continuous process of transformation; out of this continuum, various exceptional moments emerge. By using the analogy of an endless chain, in which each link represents a “monumental” moment frozen in time, the present is in a constant state of transformation interconnected with the events of the past, and thus an ever-changing present. In “antiquarian history,” there is no time and the present exists autonomously from the past based on the received notions of the familiar. Nietzsche illustrates this conception of history with the image of an antiquarian and his native city, one that is the only one he knows and has never left. Without time, the history of his city becomes that of the antiquarian himself, suspended in a constant state of an eternal present.

As a way to mediate between the previous two, Nietzsche proposes “critical history” as a third model from which to understand history in the present. In this conception, moments of temporal rupture serve to establish differences between the present and the past, highlighting certain moments but also forgetting others, dissolving certain moments in

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11 Nietzsche, Ibid., 68.
12 Ibid., 72-73.
13 Nietzsche, “Its walls, its towered gate, its rules and regulations, its holidays” become an “illuminated diary of his youth.” Ibid., 73.
the past as a way to move forward into the future. Dialogue between the present and the past hinges on one’s courage to “condemn” or forget certain parts of history as a way to embrace and remember others. Nietzsche warns of the dangers of not condemning, and not forgetting the past, leading to a state of “oversaturation” and cynicism.\textsuperscript{14}

Ironically, the postmodernism critique of the modernist rejection of history could be interpreted instead, as a pretext for the condemnation of its own modernist history. If denouncing the immediate past for the rejection of its history became a way to enter into dialogue with a more distant past, “forgetting” the present’s immediate past was symptomatic of the need for a more complex and critical dialogue with history in the present. Johnson would allude to the AT&T Building’s relationship to history as one that retrieved a “deeper” past:

The AT&T Corporate Headquarters as befits the headquarters of a huge corporation is a dignified design influenced by the [18]90’s work of McKim, Mead and White and by the skyscraper designs of Raymond Hood of the [19]20’s. The design shows a striking difference from the usual glass-sheathed, flat-topped boxes of our newer cities. There is \textit{more reminiscence}, there is \textit{more history}, there is \textit{more beauty of material} – in this case, rose-grey granite. Sixty percent of the lot is left free for the use of the public since this is being built in a crowded part of Manhattan. Also, as befitting Madison Avenue, there is a shop-lined arcade reminiscent of Milan.\textsuperscript{15}

In the process of deciphering Johnson’s use and/or abuse of history, Nietzsche’s three conceptions are instrumental to establishing an analytical framework that can serve to shed light on Johnson’s overall attitude towards history. Was the project a “monument” that embodied Johnson’s conception of history as a reaffirmation of certain neoclassical forms of the past? Was it an act of “preservation” specific to the locality of New York City—the work of an “antiquarian” for whom the history of his city is that of his own? Or was the AT&T Building the result of a “critical” conception of history in the present as an open

\textsuperscript{14} Ibid., 83.
\textsuperscript{15} Johnson, “On the Design of AT&T,” Ibid.
dialogue, wherein the act of reminiscence would enable one to remember (use) but also forget (abuse) the past?

At the AT&T Building's base, the footprint extends the street into the building as a colonnade and plaza that takes up three-quarters of the overall lot. The colonnade faces east towards Madison Avenue, but is also accessible from the north and south, or Fifty-fifth and Fifty-sixth Streets respectively. At street level, the footprint of the building dissolves, transforming into a series of gigantic columns that shape a seventy-foot high central lobby with a bank of four elevators at its back. Behind lies a narrow, long galleria that connects Fifty-fifth to Fifty-sixth Street, supported by shops and kiosks at its western edge (fig. 3.2).

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In the issue of *The Architectural Review*, Reyner Banham reviewed the AT&T Building, calling it a “post post-déco skyscraper.” His moniker made reference to Michael Graves’s Portland Public Services Building (1980-1982) completed two years earlier, which was alleged by Charles Jencks to have ushered in the “post-modern classical style.” Described by Jencks as “diagrammatic and two dimensional,” Graves’s Portland Public Services Building was the largest corporate office to be built employing a strategy of historical precedent and eclecticism. Banham saw the project as a “post-déco cube,” hence the AT&T Building’s “post post-déco” epithet. Through his colorful description of how Graves’s cube was dethroned and delisted by *Women’s Wear Daily*, Banham found confirmation of Johnson’s status as a leading postmodern figure in popular culture, as its “arbiter of taste, regulator of gossip, [and] confidant of power.” By deeming the project a “post post-déco skyscraper,” Banham inferred a process of transformation rather than imitation at work for Johnson, one that not only transformed the Art Deco skyscrapers of the 1920s, but also its “postmodern” contemporaries in the 1970s. It is in this double condition of “post-post” that Banham’s interpretation of Johnson’s conception of history as “critical,” rather than “monumental” or “antiquarian,” begins to come into focus.

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19 Jencks, “No doubt, as critics contend, it is diagrammatic and two-dimensional, but this is partly because of its extremely low cost – something like fifty dollars per square foot.” “The Values of Post-Modernism,” Ibid.
20 Banham, “Before AT&T’s distinctive silhouette was any more than a steel outline against the sky, the media abandoned it and ran across the continent to drool over Michel Graves’ Post-Déco cube in Portland, Oregon. But time and the media have their revenges, and AT&T was barely clad in its handsome granite skin before *Women’s Wear Daily* announced that Michael Graves was *Out* and printed a X over his picture.” *The Architectural Review*, Ibid., 25.
The simile most often used to describe the AT&T Building is the Chippendale highboy, making the case that this skyscraper is essentially a kitsch object.

Building is essentially no different from that of Graves’s (considerably cheaper) Portland Building, completed in 1982. The problem with both is not that they are too heavily detailed, but that they are not articulated enough. Certainly, there is more in the way of traditional surface ornamentation on both these structures than has been seen on most American public buildings since the end of World War II, but the comparatively meager amount of it (when compared with the average Beaux-Arts-influenced tall building of 75 years ago) indicates that a permanent break with the pre-Modernist past has indeed occurred.

One of the arguments of the apologists of Post-Modernism has been that the familiar elements of Classical architecture—the columns, pediments, arches and moldings—are understood by the general public much more so than has ever been the case with Modernism’s reductive vocabulary. But can the highly abstracted ornament on Post-Modernist buildings really be read with the ease of comprehension that they propose? Not if the examples put forth are the Portland Building (with its cartoon-like oversimplifications and curious juxtapositions of scale) or the AT&T Building (with its ungainly proportions and neoclassical jests). The most important portion of the AT&T Building, as is the case with any skyscraper, is its shaft, here accounting for 29 of the tower’s 37 stories. In this design, Johnson and Burgee have tried to reverse the role of...
At ground level, Banham viewed that the public experienced a “transformational scene, evoking – nostalgically, if you insist – other and older loggias and undercrofts and *passagen.*”\(^{21}\) This space imbued with “nostalgia” or “reminiscence” was the project’s most innovative contribution for Banham. Curiously, at the point where the AT&T Building seemed the most “antiquarian,” he argued that it made “its most innovative contribution to the urban quality of Manhattan,” by opening up an unprecedented amount of its footprint to the public space of the street.\(^{22}\) Banham marveled at the contradiction between how “resoundingly” the building met the ground with its “solid granitic legs” and the footprint’s extension to the street, by drawing parallels between the cavernous space of the colonnade and atrium, and the Hypostyle Hall of Ammon at Karnak with its a series of immense columns (fig. 3.3).\(^{23}\)

Sigfried Giedion described this juxtaposition between a sense of solidity projected by the columns and the monumental vastness of the interior of the Hypostyle Hall as an ostensible collapse between solid and void. Colossally scaled columns whose diameters appear to be larger than the intervals between them caused such an illusion.\(^{24}\) Because of their size and proximity with one another, the space between the columns seemed to vanish, turning the interior into a solid wall surface, rather than a row of columns.\(^{25}\) In spatial and

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\(^{22}\) Ibid., 27.
\(^{23}\) Banham, “What no model or drawing could properly show, for instance, was how resoundingly the building comes down to the ground on its solid granitic legs, while actually enclosing much less ground level space than it is customary.” Ibid., 25.; This parallel between the AT&T’s colonnade and Karnak was also drawn by Martin Miller, “Above left, colonnade in one of the AT&T Building’s plazas,” “Above right, Hypostyle Hall, Temple of Ammon, Karnak (Egypt), ca. 1480 B.C.,” “High Ruse, Part I,” *Art in America,* vol.72, no.8 (September, 1984), 158.
\(^{25}\) Giedion, “This hall is, in fact, a monumentally conceived passageway. Its 134 thick-set columns seem actually to banish space, for the intervals between them are smaller than their diameters.” “Hypostyle Halls,” Ibid., 15. Alois Riegl had also explored this effect of spatial evacuation in the Hypostyle Hall: “In spite of the considerable physical expansion spatial impression was thus suppressed to the point of elimination and in its
figural terms, the simultaneity of the monumental space of the interior and the material solidity of the external form is an instance of Giedion's “first conception of space,” in which buildings (such as pyramids) are seen as closed, material entities that radiate space outwards without a functional interior. In a similar way, Johnson’s reconstitution of past historical forms evoked connections to Mesopotamia and Egypt, the very places in which Giedion discovered “the beginnings of architecture.”

In the same manner as Giedion’s “first conception of space,” Banham noted that Johnson’s building lacked a functional interior. The transition between the building’s base and the middle reveals a bare and ruthlessly unarticulated wall surface that wraps the sky lobby and four additional floors, leaving only the large central arch and circular window recessed into it (fig. 3.4). The bareness of this transition previews what is to come above it in the building’s thirty floors of relentless repetition. The middle portion of the AT&T Building stacks thirty floors, each almost 20,000 square feet in area, subdivided into a rectangular grid of approximately 18 feet by 18 feet. Each floor is distributed into nine bays wide and six bays deep where the two outer most bays on the long side are divided in half (fig. 3.5). Banham described this middle section as “filler,” lacking “even the glittery richness of a well-detailed curtain wall […] too much blank un-detailed granite.”

The rhythm of the window widths was left too far above the order of the colonnade, making it impossible for

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26 Banham, “Some detailing in this vast stone apron was eliminated at the behest of the clients, it appears, but these were not visual elements that would connect the spacing of the mullions above to that of the piers below. As it is, only the long beards of damp below each tier of windows in wet weather establish any connection (another hint that the detailing is too sparse hereabouts). […] The office floors of AT&T appear to be perfectly all right, a professional but humdrum interior that is honestly reflected in the humdrum exterior. What is wrong with them is that you wouldn’t know you were in the AT&T building! Not only because they are humdrum, but because they lack the most striking feature of the more public or more prestigious floors below (public) or above (prestigious)…” The Architectural Review, Ibid., 26.
one to draw a relationship across the order in the top and bottom, or even remember what formed the middle.  

Banham’s account of the project, however, sharply contrasted the analysis offered by the historian William Curtis. Curtis’s contribution to the same issue of The Architectural Review focused on deciphering the project’s classicism (or historicism), which he placed somewhere between principles and pastiche. For Curtis, a “principled” classicism synthesized modern and ancient forms to arrive at an organic and “indivisible” unity that made it impossible to conceive any part independently of the whole. Conversely, a

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27 Henry-Russell Hitchcock is reported as saying that the shaft of the AT&T Building is “like a good speech, fine in the beginning and at the end – but you can’t remember what happened in the middle.” Colin Amery, “Johnson’s Cookie Cutter Modern,” Architect’s Journal, no. 177 (February 16, 1983), 53.


29 Curtis, “Few indeed are the buildings in which idea, form and technique are so fused into an indivisible unity that it becomes impossible to remove any one element without destroying both its individual significance
“postmodern” or “macaronic” classicism drew upon disparate sources, and when brought together by the technique of bricolage, each part could function autonomously.\(^{30}\)

In the space between these two forms of historicism, Curtis saw Johnson’s project as “not classical enough” and assessed Johnson’s understanding of historical form as shallow.\(^{31}\) He argued that it could achieve more depth and reconcile the autonomous parts of the building by aligning more rigorously and organically with a classical historical narrative. Curtis’s historiographical aspiration to situate the project from a holistic

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\(^{30}\) Curtis, “Post-modern Classicism does not single out any particular moment in the Classical tradition for revival; on the contrary it revels in the promiscuous possibilities offered by modern air travel and colored slides: all periods are game and a technique of Bricolage is often used to stick the references together.” “Principles vs. Pastiche,” Ibid., 14.

\(^{31}\) Curtis, “Ironically Johnson has remained too restricted by his version of the Modernist straitjacket, and is not classical enough. A difficulty of skyscraper design is maintaining unity and human scale when seen close or far away. Moldings and protrusions have their uses to introduce multiple rhythms and a certain relief and texture.” Ibid., 15.
“monumental” perspective stood in sharp contrast to Banham’s acceptance of the building’s formal and historical pluralism. Unlike Curtis, Banham accepted the instrumentality of the project’s fragmentation of parts (base, middle, and top), which ultimately allowed for a certain degree of independence in his own analysis of each component. Rather than follow Curtis’s “archeological” search to unify the project with a classical, historical narrative, Banham identified the methodological virtues of the AT&T Building’s historical recombination. Similarly, Johnson’s dialogue with historical form as a practice of recombination sought to assemble a new and unprecedented form that could exceed the sum of its parts, with “more reminiscence,” “more history,” and “more beauty of material.”

Banham’s admiration for the “granitic” character of the project also challenged Curtis’s condemnation of its superficiality, which he attributed to Johnson’s “amoral” stance towards history. Although the building’s surface was a curtain wall, it is made of an unusually thick layer of granite that at times reaches a remarkable five inches in depth. For Curtis, the building’s surfaces were “well groomed in granite but shallow in expression.”

Curtis used this juxtaposition of material depth with conceptual frivolity as the basis for establishing a critique of Johnson’s incapacity for historical interpretation; rather than offer a “principled” interpretation of history, Johnson was interested in “outward appearance only.” For Curtis, the evacuation of the project’s interiority—which took place literally in the project’s emphasis of exterior form and historiographically in the architect’s “shallow” focus on the exterior—resonates with the vanishing space of the Hypostyle Hall at Karnak.

33 Curtis, “[…] the glibness of Johnson’s amoral stance with some precision […] without depth of content, a work of true formal power becomes impossible.” The Architectural Review, 15.
34 Ibid.
35 “This AR is focused on the theme of history and its uses and abuses in today’s design. Here, and on pp.39-47, William Curtis argues that he Post-Modern Classicists, far from reinterpreting history as effectively as they claim, have succeeded in capturing outward appearance only.” The Architectural Review, Ibid., 11.
Yet rather than exploring this paradoxical, spatial juxtaposition in terms of the building’s space and depth, Curtis’s circumscribed dichotomy of “principled” and “post-modern” classicism measured the project against an imagined, organic, classical ideal. Moreover, Curtis’s critique of the building is conflated with that of a critique of the person, in this case Johnson.

Given Johnson’s past collaboration with Mies in the design and construction of the Seagram Building, it was no surprise that Progressive Architecture included an article that compared both projects in 1984 (fig. 3.6).\footnote{36} Analyzed in drawing form by Dennis Wedlick, a collaborator at Johnson and Burgee’s office, the outward appearance of both projects seemed to express “very different design intentions in the expression of the curtain wall,” and yet, they remained similar “in plan, steel construction, number of floors, and overall shape; and […] lavish budgets.” Morphologically, both projects followed a tripartite order, recessed at ground level and featuring slender skeletons as “bodies,” but the Seagram was left without a crown. Informally, the similarities between the projects were crystallized by Diana Agrest who declared, “the AT&T is really just the Seagram in drag.”\footnote{38} Similarities also existed on urban terms, as both projects were conversant with their respective contexts. In the case of the Seagram, the introduction of the plaza enabled the project to stand back from the hard edge of Park Avenue. As for the AT&T Building, the dramatic opening of its footprint at ground level represented a welcoming contribution to its urban surroundings. Both the Seagram plaza and the AT&T Building’s colonnade were gestures that attempted to reconcile the relationship between the tower and city.


\footnote{37} Wedlick, “AT& T Building,” Ibid., 74

\footnote{38} As told to the author in an informal conversation about the project, symptomatic of the popular belief that the two projects are more similar than they are different.
The Seagram Building and the AT&T headquarters, built 25 years apart, reveal very different design intentions in the expression of the curtain wall. Both are office towers, similar in plan, steel construction, number of floors, and overall shape, and both were given limited budgets. The ground level of each tower is rectilinear, with the base columns revealing the slenderness of the steel skeleton. Upon this skeleton, the curtain wall—defined by budget and load-bearing considerations—took very different forms. The Seagram building used an elaborate and carefully balanced system of structural components. The AT&T has a seemingly continuous skin of dark granite, the play of light upon forms and textures giving it its richness.

The Seagram Building: At the typical office floor (fig. 2), the pattern of standard bronze mullions is established, inlaid with floor-to-ceiling glass alternating with bronze panels. At the base (fig. 3), the system continues, but it slenders, allowing a sense of continuity from plan to lobby. At the crown (fig. 1), the mullion system is slightly adjusted and inlaid with bronze louvers surrounding the mechanical floors. At the spine—later walls of cement-green marble panels become the infill.

The AT&T Headquarters: At the typical office floor (fig. 5), granite panels vary in thickness (2 inches and 5 inches), with 6-inch square and 10-inch square mullions, width, and height. Concealed joint pattern is achieved by using both real and false joints. Mullions and panels are anchored to steel tubes supported triangulated at the floor slab. At the base (fig. 6), granite skin continues while backup surfaces vary (masonry, steel, and concrete), and various combinations of doors, plates, and angles are used. To achieve "punched" windows, granite thickness and shape are varied. At the crown (fig. 4), the mass appears still greater, but so still composed of granite faces, suspended on projecting steel parapet.

Figure 3.6: AT&T Building and Seagram Building Comparison, “AT&T Headquarters,” “Special Issue: Johnson / Burgee,” Progressive Architecture, no. 2 (February, 1984), 74.
Despite these affinities, the articulation of each curtain wall projected two distinct images: one of steel and glass, and the other primarily of corbelled stone. In the Seagram Building, the pattern in the elevation is dominated by standardized, bronze “H” section profiles that have been applied to the surface, which remain consistent throughout the body of the building. Glass, bronze louvers, and bronze or green marble panels fill the space between these profiles. The only significant variation of depth between the wall panels that form the building envelope was due to the thickness of these materials. It is here that Wedlick demonstrated a crucial oversight: given that the Seagram’s core is cladded in marble closely approximating the cladding of the AT&T, their material similarities could have brought the projects in closer dialogue.

Despite the fact that the elevations for both buildings are effectively curtain walls, which is made particularly clear in the way that both projects address the ground plane when viewed from street level, the ratio of solid versus open wall surface is much higher in the AT&T Building; this creates an impression of greater solidity and depth. The pink, Connecticut granite used in the AT&T’s curtain varies in depth from the substructure of steel tubes on which it is hung. Its spandrels of stone range in thickness depending on their placement below the windows at two inches, or the solid vertical piers at five inches. Rather than the regular order of “H” section profiles that evenly subdivide the perimeter of the Seagram, the AT&T Building introduces wider panels between sets of four windows and three mullions. But this sense imparted by the AT&T Building’s elevation is paradoxical when considering the depth of its mullions. Up close, the elevation appears to be engraved, rather than a stacked, load-bearing, corbelled wall. Its granite panels have joints engraved in their surface to resemble corbelled masonry blocks and they increase in depth, similar to the cladded pediment. Originally, the granite mullions between the openings were to be round.
in section; however, in the finished project, they were realized as quarter-rounds in the top floors only. In contrast to the unprecedented amount of granite assembled in the curtain—13,000 tons to be exact—the granite’s engraving produces a contradictory condition of thinness.

Beyond the aforementioned differences in the order and image of the elevations of both projects, a closer look at their morphology reveals more fundamental contrasts. Whereas the Seagram Building can be understood as a unified prism, a complete and irreducible form that is further emphasized by its location behind an urban plaza, the tripartite structure of the AT&T Building is reducible into distinct parts: While the base of building responds to the street and triggers many readings independent of its body, the top responds to the scale of the urban skyline and produces another set of readings independent of the base and middle. Both the base and the top can be experienced by the gaze of two different viewers—one from the street and a second from the rooftop of a neighboring building—but never simultaneously. The AT&T Building’s location along an edge of Madison Avenue also prevents it from being seen in its entirety; Madison Avenue acts more like a canyon than a broad avenue such as Park Avenue, the location of the Seagram Building.

Enhanced by its surrounding urban density, the AT&T Building’s differences with the Seagram Building become even more irreconcilable. Whereas the Seagram accentuates what was described, in the first chapter, as a structural organicism that aims for consistency between the parts and whole (or between a building’s structural order and exterior image), the AT&T Building reveals a sense of fragmentation augmented by the total break between the interior order and exterior image. By introducing a tripartite morphology, Johnson inherently entered into dialogue with the Miesian convention of the irreducible prism. Yet rather than an offer an outright rejection of Mies, the fragmentation of the Miesian body...
becomes an act of “critical” (re)interpretation of the project’s immediate history and of classical historical form.

In the comparison of both projects in Progressive Architecture, the simplistic reduction to two differing curtain walls flattened the understanding of their difference to two exterior images. If the Seagram projected an image of structural transparency, the AT&T Building concealed its structure behind a seemingly load-bearing curtain wall of granite; images of the AT&T Building under construction reveal the steel diagonal grid at the base of the building before it was hidden by the curtain wall. Charles Jencks described the difference in legibility of both forms as analogous to advertising. He argued that if it is true that: “in the earlier tradition of Madison Avenue, that appearances are the truth, that advertisement is based on fact,” a contemporary audience is “quite sophisticated and has a taste for ironic double meaning; in this respect the [AT&T] building’s naivety is more nineteenth century than it is Post-Modern.” For Jencks, the AT&T Building missed an opportunity to play with an increasing complexity of “double entendre.” Jencks used a photograph of the project during its construction that revealed the missing keystone at the center of the primary arch at its base (fig. 3.7), and read the non-load-bearing nature of the wall and arch as a naïve gesture, rather than a parody alluding to the ironic double meaning of the missing cornerstone.

An alternative reading to Jencks’s desire for expressing a state of “double coding” could have accepted the project at face value. In this scenario, the necessity to express the framework of the curtain wall could have been exchanged for an exploration of the

39 Jencks, “Wrestling with the Mega-Build, Revivalist Classicism”: “What is at stake here has little to do with the Modernist goal of structural honesty; rather it concerns the questions of representation and consciousness. It implies, as in the earlier tradition of Madison Avenue, that appearances are the truth, that advertisement is based on fact; a slightly anachronistic position today when so many ads enjoy the double entendre of conveying both fantasy and the artifice behind it. An audience brought up on advertisement is now quite sophisticated and has a taste for ironic double meaning; in this respect the building’s naivety is more nineteenth century than it is Post-Modern.” Post-Modernism, Ibid.232.
40 Jencks, Ibid.
paradoxical and dramatic sense of impossible “thinness,” a condition produced by the continuity of the wall in contrast to the material capacity of a corbelled granite surface. Rather than exposing the steel framework that held together the curtain wall, the expressive delicacy of the etched seam lines on the building’s granite blocks would have provided a different, less obvious form of double reading. Jencks could have argued for a “double coding” produced by the proportions of the elevation’s etched corbelling and the curtain wall’s colossal thickness. The fact that Johnson decided against the overt expression of the granite as a curtain wall, by displaying its steel framework from behind or by removing the keystone from the main arch in the entry way, gives the project a more abstract but equally paradoxical double reading.

Jencks’s interpretation of the project as a nineteenth century form of expression displaced the AT&T Building from its present context into another era. In the contrast drawn to a contemporary postmodern condition where the image of the building should have conveyed a “double-entendre” (or fantasy and artifice), the AT&T Building was read as foreign to the present in its lack of communicating “double-meaning.” The project cannot be understood in terms of Nietzsche’s model of “monumental history,” as an ever-evolving historical form, nor as the product of “antiquarian history” or the reconstruction of New York’s past. Rather, by reformulating a new condition in the present that enters into dialogue with the past, the building engages “critical history” to transform both its environment and the understanding of its history.
This “critical” relationship between the AT&T Building and its larger urban context was enacted in several ways. The project, according to Banham, “opened the form of the skyscraper to re-interpretation rather than historical rules […] [It is] indeed a piece of truly critical regionalism, recognizing the power of what is almost a native vernacular by now, but refusing to be bullied into accepting it at face value.”\textsuperscript{41} For Banham, the pediment, in particular, marked a unique contribution to the skyline; it was both characteristic of Manhattan skyscrapers yet different. Although most of the polemics surrounding the interpretation of Classical references are centered on the accuracy of the historical form of the pediment itself, Banham argued that the motivation for introducing it was not a historical gesture, but rather an urban one.\textsuperscript{42} As a “broken” Neo-Classical pediment rising thirty feet above the last floor, the crown of the building was the site of rupture for Johnson, and an opportunity to address the urban and typological traditions of the “flat-topped boxes of our newer cities” (fig. 3.8).\textsuperscript{43} In this sense, the project’s historicism is not imitative in nature but rather interpretative, offering variety from within an established orthodoxy.

\textsuperscript{41} Banham, “By giving AT&T a cresting that New York did not already know, Johnson gave notice that the tops of skyscrapers will not be subject to historical rules but are open for reinterpretation. As a local Manhattan gesture, it is indeed a piece of \textit{truly critical regionalism}, recognizing the power of what is almost a native vernacular by now, but refusing to be bullied into accepting it at face value.” \textit{The Architectural Review}, 27.

\textsuperscript{42} Banham, “All kinds of ingenious arguments have been advanced to explain that ‘Chippendale High-boy’ format, and they all contain some element of plausibility, no doubt. Yet none address the issue of why is not a regular Neo-Classical pediment since, in the present state of the New York skyline, even that simple flat triangle would have been distinctive enough to satisfy his client’s craving for \textit{architectural identity} – at a time when the largest divestiture in American business history was about to demolish AT&T’s \textit{corporate identity}.” Ibid.

By engaging both the street and the skyline, the AT&T Building revives a tripartite order characteristic of Manhattan skyscrapers. The project’s fragmented morphology, in which the individual parts function independently to resist a unified reading, was consistent with the perception of the Chippendale crown as belonging only to the skyline and because of the overall scale of the building, imperceptible from the street. Banham described New York’s acceptance of the AT&T Building particularly because of its unique top, although he pointed out that the broken pediment was, in fact, “Baroque, not Neo-Classical in usage.”

If “Neo-Classical” here refers to the revival of an ideal, “Baroque” points to the AT&T Building’s form as a reinterpretation into something less classical and more theatrical.

Banham pointed out that historically, the building was the result of a “Manhattan history of architecture,” a “monument (or tombstone)” for the International Style, from its inception at the Museum of Modern Art in 1932. As a product of the city’s history, the building was inseparable from it, and, in turn, the history of the city was inseparable from Johnson’s. The image of the project as a parochial joke resonated with Johnson’s satirical disposition, manifested in a long history of controversial statements that often hinged on word play and double entendre.

In an unpublished manuscript of a lecture entitled “Monuments for the Masses” (1972) delivered in Chicago over a decade prior to the completion of the AT&T Building,

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45 For a comparison between Classicism and the Baroque, please refer to Bruno Zevi’s comparison between Borromini and Bernini where the first is concerned with perfecting and abstract notion of “proportion” and the second with abolishing it through a “theatrical, scenographic manner.” “Architecture 1967: Progress or Regression?” Man and His World / Terre de Hommes, The Noranda Lecture /Expo 67; reprinted in Andrea Oppenheimer Dean, Bruno Zevi on Modern Architecture, (New York : Rizzoli, 1983), 147.

46 Banham, “[the AT&T was] above all, a commentary or product of the specifically Manhattan history of architecture, a monument (or tombstone) to the whole period since Johnson, with Henry-Russell Hitchcock and Alfred H. Barr, devised the exhibition with which the Museum of Modern Art opened in 1932 and gave the world the phrase ‘The International Style.’” The Architectural Review, Ibid.
Johnson described the word “monument” as a “bad” word and the semantics of the word “monumentality” as “funny.”

He told the audience: “monumentality in architecture spells wasted space, wasted money, pompous facades, empty central courts, forced axial symmetry, false stone veneer.” Although deemed by Banham as an “insider’s Manhattan one-line Jest,” the image of the AT&T Building was also suggestively open, waiting to be read either as ridiculing the modern “flat-top boxes” that were increasingly invading the skyline, or as a self-deprecating mockery of Manhattan’s own Romantic historicism by reenacting the historicist revivalism of the 1920s and 1930s that had so strongly shaped its characteristic skyline. Banham warned that although at first glance the “AT&T Building’s witticisms and ironies are expressly superficial,” it was a work to be taken seriously, particularly in Manhattan. Banham’s warning of the project’s seriousness in light of Manhattan’s history also suggested a double standard that existed for European avant-garde projects and their American counterparts. The juxtaposition between the seemingly ironic “superficialities” of its image and the substantial depth of the granite that gave it form only deepened the sense of paradox and double meaning.

Citing Johnson, Banham observed:

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47 Philip Johnson, “I have chosen the ‘bad’ word ‘monument’ intentionally to stress the attitude behind architecture as an art with its own reason to exist as against the attitude that architecture is a servant technique for aims outside of itself. The semantics of the word ‘monumentality’ is funny. It is never used in common parlance except in a pejorative sense.” “Monuments for the Masses,” 3. Transcript of “The Chicago Chapter AIA Annual Meeting and Graham Lecture, December 15, 1972” Collection, Philip Johnson Papers, 1908-2002, bulk 1925-1998, Accession No. 980060, Collection of the Getty Research Institute, Research Library Archives.

48 Johnson, “To me the drive for monumentality is as inbred as the desire for food and sex, regardless of how we denigrate it. [...] Monumentality in architecture spells wasted space, wasted money, pompous facades, empty central courts, forced axial symmetry, false stone veneer – whatever crime against the modern canon one chooses to ascribe to it.” “Monuments for the Masses,” Ibid., 2-3.

49 Banham, “This may help to explain the confusing fact that whereas the AT&T Building’s witticisms and ironies are expressly superficial, it is a work that – in Manhattan – one must take very seriously indeed.” The Architectural Review, Ibid., 25.

50 Banham, “After all, even its literal superficialities, the surfaces of its envelope, are made neither of plastic, wall board, stucco, anodized aluminum, enameled refrigerator-doors, nor any other standard Post-Modern stuff. Instead they are made of two to four inches of good Connecticut granite so well installed that Tom Wolf’s canard about Modern architecture having destroyed building craftsmanship can now go back in the trash-can where he presumably found it.” Ibid.
This vertebrae-busting return to the *status quo* (or nearly so) of 1930 is proper and (in a not very oblique way) programmatic, for Johnson has defined his position of the AT&T as thus:

‘...it seems to me the most viable history, if there is any in New York, is McKim, Meade & White. I tried to re-establish two interesting eras. The 20s when you had masonry skyscrapers with windows in them, and the 90s with their Classical cornices, which we are no longer allowed. So I went a little astray and broke the pediment, which has its humorous aspects, but you’ll know it’s our building.”

In deciphering the differences between “principles” and “pastiche” as introduced by Curtis, a second juxtaposition between “parody” and “pastiche” posited by theorist Fredrik Jameson is useful. If both are imitations of a particular and idiosyncratic style, Jameson argues, postmodern culture has witnessed the loss of parodic satire, giving way to a condition of “pastiche as blank parody,” in which language, flattened by the literalness of its message, loses the capacity for double coding. Johnson’s oscillation between irony and seriousness, in addition to the many interpretations of the AT&T Building, challenged its legibility as “pastiche.” Although the AT&T Building’s satirical anachronism set up the expectation to be read as an ironic break with the present through the use of historical forms from the past, Banham saw it as the result of a “vertebrae-busting” return to “pre-modern traditions,” pointing to the “masonry skyscrapers with windows in them” of the 1920s, and the “classical cornices” of the 1890s. Johnson conceded that breaking the pediment had “its humorous aspects,” although he was quite serious about the unmistakable


53 Jameson, “In this situation parody finds itself without a vocation; it has lived, and that strange new thing pastiche slowly comes to take its place. Pastiche is, like parody, the imitation of a peculiar or unique, idiosyncratic style, the wearing of a linguistic mask, speech in a dead language. [...] Pastiche is thus blank parody, a statue with blind eyeballs: it is to parody what that other interesting and historically original modern thing, the practice of a kind of blank irony, is to what Wayne Booth calls the ‘stable ironies’ of the eighteenth century.” “The Cultural Logic of Late Capitalism,” *Postmodernism*, Ibid., 17.

recognition that it was his design.\textsuperscript{55} Although at first glance the broken pediment seemed strangely familiar, the abstraction inherent in its gestural simplicity complicated its legibility as a double condition of being both unique and yet somehow familiar. The broken pediment’s ambiguity also stood between a “use” of a recognizable historical form and its “abuse,” or, a form of interpretation through exaggeration, with parody filling the space between. Banham’s attribution of Johnson’s “vertebrae-busting” return to historical form as a programmatic concern underlines the interpretative rather than imitative character of the project.

As a “media-event,” the project’s broken pediment was the part of the whole that triggered the most images and alternative readings.\textsuperscript{56} According to Banham, Johnson had always been a Neo-Classicist, both in his “Modernist” and “Classicist” periods; but this still did not explain why the pediment had been broken, which turned it into a Baroque rather than Neo-Classical element.\textsuperscript{57} For Banham, Hans Hollein’s collage of a gigantic Rolls-Royce radiator in the skyline of Manhattan would have given the effect of the pediment had it not been broken (fig. 3.9).\textsuperscript{58} Exploring the pediment’s iconographic ambiguity, Charles Jencks called it a “piece of divergent symbolic reference” that suggested: “a grandfather clock, a Neoclassical icon based on Ledoux from which smoke rings would be blown (the mechanical equipment is behind the pediment and, when the temperature is right, clouds of vapor emerge), a gravestone and the front end of a Rolls-Royce or Lincoln Continental” (fig. 3.9).\textsuperscript{59} Similarly, the space created by the vast expanse of the colonnade at the base

\textsuperscript{55} Banham quoting Johnson in \textit{ALA Journal}, Ibid., 26.
\textsuperscript{56} Charles Jencks, “Philip Johnson and John Burgee, AT&T Building, New York, 1978-1983”: “This media-event of Post-Modernism has become, in the event, a wonderful urban landmark when seen from a distance. The pink granite sheathing is also a welcome change from its repetitive neighbors.” \textit{The Language of Post-Modern Architecture}, 6th ed., (New York: Rizzoli, 1991), 133.
\textsuperscript{57} Banham, “But that cannot directly be the reason why the cresting of AT&T is in the form of a broken pediment since that is a Baroque, not Neo-Classical, usage.” \textit{The Architectural Review}, Ibid., 27; Zevi “Architecture 1967: Progress or Regression?” \textit{Bruno Zevi on Modern Architecture}, Ibid., 147.
\textsuperscript{58} Reyner Banham, “Uses and Abuses of History,” p.27
\textsuperscript{59} Jencks, \textit{Post-Modernism}, Ibid., 231.
recalled “more sacred building types: the Pazzi Chapel by Brunelleschi, and San Andrea in Mantua by Alberti […] an Egyptian Hypostyle Hall [and] a rather gloomy version of Milan’s Galleria.”

Johnson himself described two periods as historical references for the project: “one is the classical revival of the [18]90s; the other is the 1920s, which was really started and almost finished by The Chicago Tribune Competition.” With respect to its context, Johnson described the AT&T as “very New York […] concerned with the bottom and top […] and the middle part which is more of a Gothicized skyscraper, emphasizing the verticals with the spandrel set in.” In this sense, the fragmentation of the building into parts allowed for “an eclecticism [that] extends to any period, both present and past” in the form

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60 Ibid.
62 Johnson, LANUS, Ibid.
of a field of autonomous and partially understood images. Johnson’s capacity to coherently operate in this field of autonomous references has in the past been described as “syncretic,” far exceeding the references that he was willing to disclose.64

In terms of the project’s legibility, the morphological, ornamental, and iconographic fragmentation of the AT&T Building augmented the desire of the historian and theorist to reformulate it into a coherent whole. In turn, the more fractured the body becomes formally, the more intense the desire to historically reconstruct it under the guise of a single narrative. In a previously unpublished paper entitled “The Shape of the Office Building” (1976), Johnson had already described the process of breaking apart the volume of the tall office building through “tearing” and “gouging” as a way to “un-dumb” the “dumb” cubic prism form:

Since 1967 there has been occasion in our office to design a series of office buildings, high-rise as well as low-rise, all of which have certain similarities in design which interested us then and still do. Up-ended cigar boxes were beginning to bore, sweeping shapes did not satisfy. And yet masonry walls with holes or pyramidal perfume bottle types, of 30s inspiration, seem a dead end revivalism.
… cubic play with silhouettes and massing as the main attractions…
…“gouging” volumes as opposed to the piling of elements is obvious; “gouges” from the top as well as side and under. It’s a picturesque effect.
…granite skin which is “torn” in the front… “tear” [that] leaves the granite skin hanging at the corners only to be restated as the skin of a free standing elevator… A super dumb cubic building is made un-dumb… the complexity of the design exceeds the simple ways to achieve it.”65

Johnson’s claims outline a design methodology based on rupture and fragmentation that can add complexity to the simplicity inherent in the design of the office-building prism.

63 Jencks, “Since Johnson’s eclecticism extends to any period, both present and past, it is bound to produce by its inherent variety a strong set of images that are only partially understood. In effect the multiple languages themselves manufacture the meanings.” Post-Modernism, Ibid., 231.
64 Filler, “Philip Johnson’s talent has always been essentially syncretic, to an extent that far exceeds the influences he has been willing to admit in his disclosures of the sources of his work since his now famous confessional article on his Glass House.” Art in America, Ibid., 159.
In the case of the AT&T Building, rather than cutting into an all-reflective glass crystal, Johnson fractured the whole through an abstracted historical form that triggers a multitude of references. The autonomy of the parts (base, middle, and top) triggers numerous readings in which their forms are compared to historical or formal references independently. Although these disparate readings may address the specific origins of each component, they remain unable to make sense of the whole form of the building; similarly, Banham’s formal analysis of the base, middle, and top spoke less to the coherence of the whole form than to its fragmentation. The different historical references themselves—from the Hypostyle Hall in Karnak, to the Queen Anne highboy, and even Robert Venturi’s house for his mother—reinforce the challenge in understanding the whole project as a coherent historicist artifact, but rather an act of anachronism (fig. 3.10). Denise Scott Brown joins the debate both to welcome Johnson to the “Post-Modernist” movement, but to also to claim authorship of the broken pediment (fig. 3.11):

“Fantasy is sometimes prophecy. When, in 1968, Robert Venturi and I invented a mythical Motel Monticello,/* [Learning From Las Vegas, MIT Press] whose sign we wrote, was “a silhouette of an enormous Chippendale highboy,” we did not expect to see, within 10 years, this highboy proposed for the façade of a Madison Avenue corporate edifice in the Radical Eclectic Style. Ten years is not a short while in architectural history. Philip Johnson, the architect of AT&T’s new highboy headquarters, points out that architectural styles have, in the past, flowered with “incredibly rapidity.” However, the last dozen years have brought changes in architecture that, when compared with the 40 years before them, justify such paradoxical juxtapositions as “radical” and “eclectic. […] The controversy lies in part where the irony lies, in the fact that Philip Johnson, 72 years old, one of the world’s most prominent architects, survivor of, and for 40 years ardent propagandist for Modern architecture, has joined the vanguard of the “Post-Modernist” movement.”

In line with Jencks’ interpretation, Scott-Brown concludes however that the AT&T “reveals self-indulgence, not symbolic intent.”67 Based on Riegl’s original interpretation, if Giedion’s viewed the Hypostyle Hall as an expression of the abhorrence of space, the AT&T Building

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67 Scott Brown, Saturday Review, Ibid., 58.

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could be understood as Johnson’s own aversion to imitative historical form, or, at the very least, the attribution of a legible and coherent narrative to historical form. It is precisely in this model of historical form as an open text to be read in a multitude of ways where Johnson’s interpretative (rather than imitative) understanding of history can be located.

Figure 3.10: Martin Miller, “Robert Venturi’s house for his mother, Chestnut Hill, Pennsylvania, 1964,” “Queen Anne highboy, ca. 1775 (Philadelphia),” “The Treasury, Petra, Jordan, 2nd Century A.D.,” “High Ruse, Part I,” *Art in America*, vol.72, no.8 (September, 1984), 159.
Johnson made this challenge more difficult two decades earlier when he made the contradictory claim that, “you cannot not know history.” Lecturing to students at the Architectural Association on the occasion of his visit to Bath, England, Johnson offered the remark in the context of describing the challenges of building a modern project within the historical context of the city, particularly Bath’s famous Crescent. On the one hand, an initial reading of the claim could be interpreted as a simple call for the necessity of knowledge, and more specifically, the status of “history as know(ledge).” It follows then, that the AT&T Building could be understood as a monument to historical connoisseurship; the historicism of the project lies precisely in its accuracy and correspondence with respect to its replication of historical forms. On the other hand, “you can (not) not know history” could point to the futility of ever fully knowing history. In this reading, the notion of “history as knowledge” is sacrificed by the impossibility to “know” it fully, leaving remembrance and reminiscence as the only means by which it can be understood.

Reminiscence as the mental act of selective memory requires forgetting as much as recollecting certain aspects of what has transpired in order to understand one’s present relationship to the past. Nietzsche’s warning of the necessity to “condemn” or forget certain parts of the past as a way to avoid a potential “oversaturation” of history becomes a progressive means. A “critical” conception of history aligned with the second reading of Johnson’s statement allows the AT&T Building to be read as a “tombstone” to the notion of “history as knowledge.” This critical perspective was affirmed in Johnson’s description of

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68 Philip Johnson, “Modern Architecture is going to pot, and this makes it difficult to talk about. I was in Bath yesterday and today, visiting the new American museum down there. It does seem an oddity. Have you ever been there? […] How can you do modern work when you see the old Bath around you? How can you do a housing project after you have seen the Crescent? We do not have that problem in America. There, history is so unimportant – as Henry Ford said. But you have it here, and, as I have said in a rather contradictory fashion in one of my lectures, you cannot not know history.” “Informal Talk, Architectural Association,” Lecture, Architectural Association School of Architecture, London, November 28th, 1960. Writings / Philip Johnson, foreword by Vincent Scully; introduction by Peter Eisenman, commentary by Robert A. M. Stern, (New York: Oxford University Press, 1979), 107.
the project’s search for “more reminiscence” and “more history,” and like the project itself, Johnson’s paradoxical statement oscillates between the ambiguity that emerges from the necessity to “know” history and the impossibility of ever fully “knowing” history. As a product of “divergent symbolic reference,” the AT&T Building embodied Johnson’s ambivalent perspective towards history by evoking a multiplicity of historical references, thus refuting the possibility of a single historical reading.  

Beyond the interpretations triggered by the abstraction of historical form, what remains is the capacity for the project to trigger a series of “divergent” readings that make its historiographical understanding increasingly more complex.

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70 Jencks, “If the top is an effective piece of divergent symbolic reference, then so too is the base although most meanings evoke sacred building types: the Pazzi Chapel by Brunelleschi, and San Andrea in Mantua by Alberti.” Post-Modernism, Ibid., 231
U.S. Architects, Doing Their Own Thing

From his early days at the Museum of Modern Art in New York, Johnson was interested in and committed to deciphering the history and evolution of the skyscraper, which he understood as a typology rather than as a style. In the year prior to “The International Style” exhibition, Johnson wrote about the possible “Skyscraper School of Modern Architecture,” and outlined the elements that constitute the American “skyscraper style.”71 Using T. E. Tallmadge’s claim that the skyscraper “is far and away the most important architectural achievement of America,” Johnson hypothesized that the American skyscraper had founded a “new style of architecture” at the start of the 1930s.72 “Comparisons to nature” (organicism), “integrity and expressive ‘drive’ and ‘lift,’” “honesty [in the expression] of construction,” “verticalism,” “pyramiding,” “restrained ornament,” “emphasis on mass,” and “bigness” were among the aesthetic and structural principles that constituted this “new style.”73 Engaged in the polemics of this contested (new) history, Johnson clarified that the story of the American skyscraper was not one of “revolt” but rather of finding “adequate expression” and a “consistent attitude with the question of ornament.”74


72 Philip Johnson quoting Tallmadge in “Skyscraper of Modern Architecture.” “The skyscraper is far and away the most important architectural achievement of America, her great gift to the art of building. […] T. E. Tallmadge in Architecture in America has written an opinion shared by professors and public, architects and laymen. Indeed so characteristic of current architectural criticism is Tallmadge’s statement, that there may be said to exist a school of opinion which believes the skyscraper has founded a new style of architecture.” Thomas E. Tallmadge, The Story of Architecture in America, (New York: W.W. Norton & Company, Inc., 1936). Writings / Philip Johnson, Ibid., 569.

73 Johnson, Writings / Philip Johnson, Ibid.

74 Philip Johnson, “The story of the American skyscraper design is not the story of revolt and founding of a new architecture. A new scale in engineering, perhaps, but not a new aesthetic style. A style must have a consistent attitude on the question of ornament. If a fundamentally new method of construction is introduced, that construction should receive adequate expression. In addition, a style must be worthy of continuing at least a decade; yet already an essentially new kind of skyscraper is emerging.” “Skyscraper of Modern Architecture.” Writings / Philip Johnson, Ibid., 42.
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One year after *The International Style* exhibition, Johnson installed a small exhibition entitled *How Our Skyscrapers Evolved* (1933), composed primarily of three architectural models that illustrated the technological progress of the tall building across sixty years (fig. 3.12). The transition between load-bearing masonry wall and all-steel skeleton frame construction was charted across the models. If Johnson’s “Skyscraper School of Modern Architecture” served to establish the aesthetic criteria from which the formal features of the skyscraper could be understood as giving rise to a new aesthetical style, the exhibition outlined its technological progression. Johnson did not shy away from debate at this early stage in his

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career as the reception of his small exhibition proved to be very controversial, leading a journalist to colorfully declare that based on the historical lineage Johnson had established, Johnson was “destined to die young” for having given the term “skyscraper” to Chicago (fig. 3.13).

In this way, Johnson was interested in the skyscraper as a historicist model as much as in the history of the skyscraper itself. Interestingly, his early perspective towards the evolution of the skyscraper before “The International Style” exhibition was technologically oriented, rather than image based; this prompted him to concede its typological origins to Chicago, a heretic act when made in the context of New York. Both this early text and exhibition reveal Johnson’s concern for and participation in this contested historiography; the
exhibition’s controversial reception, however fierce in tone, would pale in comparison to the reception of the AT&T Building four decades later.

The polemics surrounding the AT&T Building’s reception erupted well before its completion. The controversy surrounding the project was crystallized in a dramatic cover of *Time* magazine, which showed Johnson defiantly holding an effigy of the AT&T Building under the exclamatory title, “U.S. Architects, Doing Their Own Thing” (fig.3.14). The image and title positioned Johnson as either the dissenting leader of a rebellion, or alternatively, the leading figure of the establishment—the “Dean of American Architecture”—in the face of change. The article’s author Robert Hughes defined “doing their own thing” as the largest “revision of opinion about buildings” since the 1930s. If, for Hughes, the 1970s had signaled the decade that Modernism died, the “receding tide of orthodoxy has left all manner of different organisms exposed on the reef.”

On the cover, the figure of Johnson appeared sharply delineated against his surroundings. The dark and muted western edge of Sixth Avenue, with the relentless and unarticulated repetition of the Time & Life, Exxon, and McGraw-Hill Buildings, heightened the contrast between these colossal extruded prisms and the articulated profile of Johnson’s design. Foreground and background appeared in a state of reflection and refraction, and were magnified by the effect of shadows, which appeared to be that of the AT&T model cast onto the full-scale buildings.

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77 Heather Burke, “Philip C. Johnson, the dean of U.S. architecture who defined American modernism with his designs of the Glass House and the ‘Chippendale’ roof of the AT&T corporate headquarters, has died. He was 98.” “Philip Johnson, Dean of U.S. Architecture, Dies at 98,” *Bloomberg News*, (January 26, 2005).
78 Hughes, “the largest revision of opinion about buildings – what they mean, what they do, how they should look – since the first third of our century.” *Time*, Ibid., 52.
79 Ibid,
Figure 3.14: Front Cover, Robert Hughes, “U.S. Architects, Doing Their Own Thing, Philip Johnson,” *Time*, vol. 113, no. 2 (January 8, 1979).
The difference between the form of the AT&T Building and the sharp, western edge of Sixth Avenue signaled the radical departure from what had been the unarticulated norm for skyscraper construction during the 1920s and 1930s, and later reanimated in the 1950s and 1960s. Similar to the cover of The Architectural Review, the contrast between the model of the AT&T Building and its predecessors was heightened by the tension between the image’s foreground and background. Yet in this situation, Philip Johnson found himself curiously in the middle. Surrounded by towers, Johnson became a skyscraper himself, defiantly towering over the viewer’s perspective, his gaze confirming his high status and the AT&T Building as the new image of big business.\(^{80}\) The heading “doing their own thing” only exacerbated the ambiguous temporality of this yet-to-be built monument (or tombstone) to postmodernism, as the title raised more questions than answers.

While Robert Hughes’s contribution to Time focused on what remained from the “receding tide of orthodoxy,” Charles Jencks described the contemporary postmodern scene as a “new wave” that would soon turn into a “flood.”\(^{81}\) For Jencks, the emergence of postmodernism was a “wider social protest against modernization, against the destruction of local culture by the combined forces of rationalization, bureaucracy, large-scale development and, it is true, the Modern International Style.”\(^{82}\) Remarkably, the AT&T Building turned the values of this emerging counter culture on its head. As a colossal monument to the combined forces of “rationalization, bureaucracy, and large-scale development,” the project raised the question of whether postmodernism was, in fact, dead

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81 Jencks, “The ‘new wave’ became a flood, in which I well remember getting wet. On 31 March 1978, at precisely 7.46 am several architectural students from Yale University burst into my hotel room and thrust a copy of the New York Times in my face. On the front page was a photo of Johnson’s new foray into Post-Modernism and, inside, an article by Paul Goldberger proclaiming to be the ‘first monument’ of the movement. The students enquired of this monolith (from one perspective it looks funereal) ‘Is Post-Modernism Dead?’, “The Post-Modern Movement in Architecture,” Post-Modernism, 29.

82 Ibid.
and co-opted as the image of one of the largest corporations on earth.\textsuperscript{83} By the time the building was completed, the AT&T Corporation was indeed one of the largest corporations in the world and Philip Johnson one of the most successful and highest grossing corporate architects of all time (fig. 3.14).\textsuperscript{84} The paradox that emerged from these two realities was striking, as it raised the question of whether the AT&T Building embodied the end of Johnson’s International Style modernism, or if it represented the end of a postmodern culture co-opted by corporate power.

In response to this question, Robert Hughes declared the end of modernism as “particularly clear,” by listing a number of alternative practices and practitioners that were quite literally “doing their own thing.”\textsuperscript{85} Amongst these different factions, for the most part made up by the Greys and the Whites, there was no consensus, “common style,” or “uniting ideology,” only the term “post-modernism,” understood as the end of a tradition. Johnson emerged from this polyvalent landscape seen as “the nearest man Post-modernism has to a serious partner.”\textsuperscript{86} Whereas the majority of the projects that constituted this new trend were small in scale, Johnson was the only architect to transform the historicist metaphors of postmodernism into corporate structures at the unprecedented scale of the yet-to-be-built

\textsuperscript{83} For an analysis of Philip Johnson’s “network power” in relation to the AT&T Building as a commission for the largest corporation on earth see Kazys Varnelis, “Given the turn against postmodernism in the academy during the 1990s, AT&T has been singularly undervalued in Johnson’s oeuvre, a mistake not only because it is Johnson’s best postmodern work, but because it is also essential for a broader understanding of networks and Johnson’s role in them.” “Philip Johnson’s Empire: Network Power and the AT&T Building,” Philip Johnson. The Constancy of Change, Ibid., 126.

\textsuperscript{84} Craig Unger, “The making of any skyscraper is an extraordinary undertaking, involving as it does tortuous journeys through the corridors of real estate, city planning, architecture, construction and labor. The 195 Broadway Corporation is not a well-known name in those precincts, but it is enormously powerful nonetheless. A wholly owned subsidiary of A.T.&T., it is the building arm of the largest corporation in the world. […] Its newest project was to be even more ambitious […] in the words of A.T.&T.’s then chairman, John deButts, it was to be ‘the world’s greatest skyscraper for the world’s greatest corporation.’” “Tower of Power, The Extraordinary Saga of the A.T.&T. Building” New York Times, (November 15, 1982), 42.

\textsuperscript{85} Hughes, “At one taxonomy extreme is California’s Frank Gehry, 49 […] And at the other extreme lie […] Richard Meier, 44; and Charles Gwathmey, 40. […] In between […] Cesar Pelli, 42, Robert Venturi, 53; Charles Moore, 53, and Robert Stern, 39; Hugh Hardy; [and] Stanley Tigerman, 48.” “Doing Their Own Thing, U.S. architects: goodbye to glass boxes and all that,” Robert Hughes; “US Architects, Doing Their Own Thing,” Cover Story, Time, Ibid.,52.

\textsuperscript{86} Ibid.
The reception of the project spanned widely, from ardent support to caricature and rejection.

In support of the project, Paul Goldberger, critic of the New York Times, declared the AT&T Building as “the most provocative and daring skyscraper proposed for New York since the Chrysler Building… and the first major monument of Post-Modernism” (fig. 3.15). Critical of the project, Michael Sorkin writing for the Village Voice deemed the project as “architecture of appliqué… the Seagram Building with ears.” Amongst a wide ranging cacophony of voices in support and condemnation, Hughes found the AT&T Building as the embodiment of a return from “Modernism” to “Manhattanism: […] That fantasy-laden Promethean language of shaped towers that produced the great monuments of the 20s and 30s: Rockefeller Center, Empire State, the Chrysler Building.”

89 Hughes, “As the architect Rem Koolhaas has argued in his brilliantly suggestive book, Delirious New York (Oxford, 1978) these were the definitive fantasy-structures of American capital, the cathedrals of a ‘culture of congestion’ that finds its apogee in the 1,244 blocks of Manhattan island. No glass slab could hope to be as rich in imagery as the work of an architect like Raymond Hood, chief architect of Rockefeller Center, designer of the old McGraw-Hill Building and the Chicago Tribune Tower. This point was not lost on Johnson. Fantasy veiled as history: such is the message of the AT&T. In the process, Hood is appropriated to the recipe.” “US Architects, Doing Their Own Thing,” Ibid., 59.
Figure 3.15: Cover, “A Major Monument to Post-Modernism,” New York Times (March 31, 1978), 1.
In the alleged return from the “Modernism” of the 1950s and 1960s to the “Manhattanism” of the 1920s and 30s, the AT&T Building’s postmodern classicism was grounded in an earlier modernity of Manhattan. In Philip Johnson and Henry-Russell Hitchcock’s book _The International Style_, Hood & Fouilhoux’s McGraw-Hill Building in New York (1931) and Howe & Lescaze’s Philadelphia Saving Fund Society in Philadelphia (1931) were the only “monuments” representing the American skyscraper. Through these projects, Johnson and Hitchcock highlighted the challenge of finding a non-historical and non-ornamented modern image of the American skyscraper. For Johnson, this translated into the desire to reconcile the crown within the tripartite order of the McGraw-Hill Building, whereas the crown was seen as “an illogical and unhappy break in the general system of regularity that weights down the whole design.” Even in this early example, the freedom of the parts afforded by the tripartite order of the whole represented a challenge for the modern canon.

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90 Henry-Russell Hitchcock and Philip Johnson; with a new foreword by Philip Johnson “For the international style already exists in the present; it is not merely something the future may hold in store. Architecture is always a set of actual monuments, not a vague corpus of theory.” “Introduction: The Idea of Style,” 37, “Illustrations,” _The International Style_, (New York : W.W. Norton, 1996), 162-165.

91 Hitchcock and Johnson, _The International Style_, Ibid., 162.
The City of the Captive Globe

In order to contextualize the revivalist monumentality of the AT&T Building as grounded in the tradition of New York, the Office for Metropolitan Architecture’s “City of the Captive Globe” (1972) serves as a fictional, historiographical model that “captures” the return to New York’s eclectic modernism of the 1920s and 1930s (fig. 3.16). Taking the form of a heterogeneous skyline dotted by historical styles coexisting with the more modern International Styles, without being mutually exclusive, the “City of the Captive Globe” embodied “Manhattanism” by revealing an alternative historicism latent within each block, wherein each emerges as autonomous from the next, simultaneously kept apart and held together by the urban grid. The grid, defined as “the capital secret,” held together “1500 identical places that are indistinguishable from each other on the ground and rely therefore on architectural pyrotechnics to distinguish themselves from each other and to establish an identity.”⁹² Within this grid, each block was an autonomous island, or “miniature states with their own laws, conventions, ‘folklore’ – all in the certainty that the unity of the archipelago can only be expressed and reinforced through the maximum heterogeneity.”⁹³ In this “system of solitudes,” each ‘Skyscraper’ becomes a “lighthouse of such island that tries to lure the Metropolitan public to the harbor of its interior.”⁹⁴

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⁹³ Koolhaas, Architectural Design, Ibid., p.331
⁹⁴ Koolhaas, “(It is typical for Manhattan’s quasi pragmatic dissimulations that these metaphors were also realized on a literal level: many skyscrapers were originally equipped with searchlights – resulting in a cacophony of supposedly ‘correct’ destinations. With the advent of the zeppelin, these landlocked beacons could finally capture the colossal airships as the definitive concretization of the metaphor.)” Ibid.
At first glance, the “City of the Captive Globe” could be read as an urban manifesto devoid of ideological content precisely because of its sheer heterogeneity of ideologies. According to Koolhaas, “Many of New York’s Skyscrapers had in fact ideological ambitions… Futurism, Constructivism, Expressionism, Surrealism, Socialist Realism… where they live ‘incognito’ so to speak coexisted with the Grid as if they had always intended as each other’s necessary complement without any tempering of their truculence.” In this tension between ideology and pluralism, the existence of both conditions could only take place if there was a break between the interior and the exterior. In this rupture, the exterior became devoid of meaning and ideology. Only then its sheer size and autonomy can make these skyscrapers “monuments,” symbolizing nothing but their own existence and thus becoming “an automonument.”

In the relationship between the skyscraper and the city, the “automonument” emerged only after having reached a certain scale and magnitude. This heightened state represents a “radically, morally traumatic break with the conventions of symbolism” since it possess none: “it merely is itself and through sheer volume cannot avoid being a symbol – an empty one available for meaning as a billboard is for advertising. It is a solipsism celebrating only the fact of its disproportionate existence, the shamelessness of its own process of creation. This monument of the 20th century is the Automonument, and its purest manifestation is the skyscraper.”

95 Ibid., 332.
96 Koolhaas, “Inside, though, there ‘rages’ a deliberately skin-deep form of interior design, whose contiguous iconographic transfigurations accommodate the volatile changes in manner, fashions and values which is the essence of the Metropolis.” Ibid.
97 Rem Koolhaas, “Automonument. Beyond a certain critical mass, each structure becomes a monument, or at least raises that expectation through its size alone, even if the sum or the nature of the individual activities it accommodates does not deserve a monumental expression.” “The Double Life of Utopia: The Skyscraper,” Delirious New York, a Retroactive Manifesto for Manhattan, (New York : Monacelli Press, 1994), 101.
98 Koolhaas, Delirious New York, Ibid., 100.
Within the autonomous space between the interior and exterior lays the difference between the emergence of the Manhattan skyscraper in a capitalist system of production, and its derivation from European avant-garde formal codes. Kenneth Frampton interpreted this double condition as the sign of a “crisis in meaning.”\(^9\) The “City of the Captive Globe” pointed to the crisis of a single meaning or ideology by which “Manhattanism” could be ruled. Frampton further defined the “crisis of meaning” as a “flight from history,” one in which the “… mind distressed by the absence of significance ransacks the intellect in search of a new lexicon.”\(^10\) The generative and analytical potential of the “City of the Captive Globe” for the architect and/or historian falls precisely in this “flight” where the state of “crisis” signifies an escape from the burdens of a single ideology and the embrace of a heterogeneous landscape where multiple ideologies can coexist. This “flight” from history can also be understood as an embrace of history, in which certain parts have to be forgotten to once again emerge. As an alternative to Frampton’s “crisis,” the “City of the Captive Globe” embraced “critical history” as a historical perspective that in its “flight” reformulated the past to produce a new future. The transformation of the “monument” into the “automonument”—an artifact of its time interpreted as an artifact of the past—ultimately represents the constancy of change across time and the futility of reconciling the present with monumental time. It is through this paradoxical condition the image of the AT&T Building is able to exist, neither fully of its time nor of another. In a state of abstraction, it takes the form of “approximation and generalities” that can only produce “historical effects in themselves” or a proliferation of different readings whose only true effect is to set it apart, symbolizing nothing in and of itself.

\(^10\) Frampton: “It seeks, above all, the lost image of the city: for the metropolis of the 19th century – no dissipated, or for that of the 20th century – aborted at birth.” *Architectural Design*, Ibid., 317.
Similar to the kaleidoscopic proliferation of images in the “City of the Captive Globe,” the cover of the 1978 exhibition catalogue for Philip Johnson: Processes at the Institute of Urban Studies featured a compelling set of variations (fig. 3.17). The front elevation of the AT&T Building appears as a series of twelve different elevations; slight variations take place in the distribution of window openings and height. The “Chippendale Top,” or broken pediment, remains the most consistent feature across the images, by establishing a symmetrical alignment that centers the arched entry way and colonnade in each elevation and enhances the vertical proportion. While some elevations indicate depth, others appear almost flat; some are fluted vertically, while others are banded horizontally. Some delineate and occupy the base of the pediment, while in other images the volume of the building extends upwards to form the broken pediment. Johnson’s pencil markings on the variations of the broken pediment can be seen on some of the images, notions which Michael Sorkin referred to as “hieroglyphs.”

In contrast to the “processes” named by the exhibition, the progression of the elevations can be read as a single process of typological adjustment through which the scale and proportions of the façade are calibrated to conform to a set of historical conventions. This progression can also be read in an opposite manner as a process of divergence from an ideal historical norm, one based on the notion of proportion as relative and open for interpretation. This ambiguity resonates with Johnson’s relationship to history: were these variations in search of historical and stylistic precision? Or did they express a desire to

102 Sorkin, “In the recent show, several office blueprints seem to have been included only because of the presence on them of a small pencil hieroglyph or two by the master. Rumor has it that so infrequent are Johnson’s sallies with the pencil that those working in his office scurry to squirrel away any scribble that falls from his desk against the day when they may become valuable. And they will become valuable because they are Johnson’s. The unremarkable, inept drawings symbolize the work as a whole, as well as the genius behind it: Johnson, with his demon flair for public relations, has always managed to cajole observers into confounding the work with the man. Johnson doesn’t so much design, he signs, a Louis Vuitton among architects. With a building like AT&T, though, we’re the ones who get stuck with the baggage.” “Philip Johnsons: the Master Builder as a Self-Made Man,” Village Voice, Ibid., 62.
illustrate the potential of an eclectic strategy, one that opened up the design of the building to the mixture historical form?

As its title indicates, the exhibition catalogue *Philip Johnson: Processes* becomes instrumental in exploring the historiographical lineage of Johnson’s Glass House (1949) and the AT&T Building (1978-1984), in addition to Johnson’s attitude towards history. Raj Ahuja, a former partner of Johnson / Burgee, confirmed that although Johnson was asked to produce a number of alternatives to the broken pediment, he managed to convince John De Butts to build the original scheme by modeling others reflected in the catalog cover. Rather than exploring a systematic logic for producing variation, the alternative elevations illustrating the cover of *Philip Johnson: Processes* do not contribute to our understanding of its shape but rather are drawn to reaffirm its original shape. This is a process of formal reaffirmation that can be argued to apply to Johnson’s work as a whole and in this instance highlight the complexity as well as the evasiveness of the project’s formal and historical sources. Usually architects selectively eliminate or purposely hide preliminary drawings with alternative solutions to produce a highly edited “history” of their projects; here such retroactively edited history is produced by addition and further production instead of the elimination of previously produced work. The contributions in the catalogue considered both of these projects as historiographical artifacts – as well as Johnson himself. In the introduction, Frampton described Johnson as a “historical individual rather than an individual

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103 Raj Ahuja, the third partner of Johnson and Burgee, in an interview with the author, describing how upon the request of the AT&T chairman, a number of alternatives were considered although Johnson convinced them of the original project he had presented: “I was going to tell you that the only thing the chairman of AT&T I think told him […] Having seen the first one. [John De Butts, the Chairman of AT&T] [Johnson] said, “Of course. My god, we have all these alternates. We can do anything you want.” And so he asked a model maker if he had more to show, and he did the sketches exactly what he was doing. And Joe in the model shop got all this different materials and did a model for the shaft and then this hat on top and then different alternates. I don’t know the number. Johnson took it in his shopping bag. That was the way he carried all his, in a shopping bag. And John [Burgee] and Philip, I think they both went to see the chairman of AT&T and showed him all these alternates. […]But these alternates were done at the request of AT&T. […] But he succeeded in convincing them. […]No, this was – as far as I know, this was his first sketch[…] Everything else was done because he was asked to include – propose alternates and show them alternates.” Ahuja and Partners Office, New York, December, 2010.
existing in history.” Avoiding the narrow and ineffective categorizations of “modern” and “postmodern,” Frampton put an emphasis on “process,” wherein a more comprehensive understanding of the concepts behind these projects could be derived from viewing them as the products of a process of transformation.

In another contribution to the catalogue, the theorist Craig Owens returned to Nietzsche’s categories of “monumental,” “antiquarian” and “critical history” as the conceptual framework from which to analyze both the AT&T Building and Johnson’s approach to historical form. Rather than using Nietzsche’s three historical categories directly, Owens focused his historiographical analysis to two approaches: “historicist” and “genealogical,” arguing that Johnson’s perspective could be found in between the two. Whereas the “historicist” approach was revivalist in nature, the “genealogical” approach was based on an “associative, mnemonic relationship to the past” that explored temporal and formal relationships amongst historical forms and between the past and present. The term “genealogy,” borrowed from Foucault and Nietzsche, was a critique of a “history” made up of “immutable forms which precede it and shape its course.” Rather than understanding one’s relationship to history based on the continuation of received “historically constituted figures,” the genealogical approach aimed to construct a field of monuments and relationships through which the understanding of history in the present

106 Owens, “Historicism – a legacy from the nineteenth century and usually associated with the various revival styles which that century produced – has recently been re-proposed as a viable mode of architectural practice.” Philip Johnson: Processes, 3.
107 Ibid.
could be transformed. It was an ahistorical field not limited by whether a source is old or new, original or derivative. Whether something conforms to or deviates from a pre-established type is less important than the relationships or functions established by its referentiality. The genealogical approach suspended the question of “originality” to instead, focus on the relationships that emerge across a system of references. Operating within this historical field of precedents, Owens argued that Johnson undermined the concept of “similarity,” wherein the precedents become analogue models that operate through function rather than through “resemblance.”

In lieu of seeing the AT&T Building as a product of “critical history” emerging from a dialogue among the associations within the genealogical filed of references, Owens deemed the project a “preservative” act based on a passive “assembly of historical forms.” The project took the form of an “antiquarian spirit” whose “moral imperative” was imposed by its urban surroundings. Owens concluded that the New York tradition of McKim, Mead, and White, and Raymond Hood narrowed the historical field into one of “reproduction” and “preservation.”

Although the project was, in fact, a “Very New York Building,” the rich, referential ambiguity of the AT&T Building that triggered countless of readings and associations made it a different kind of monument: its historiographical case could not entirely be closed by rendering it as the product of an “antiquarian” or “historicist” approach to history. Even though the project reintroduced the tripartite formula characteristic of the skyscraper of the 1920s and 1930s in New York, it also remained distinct from them precisely through its use

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110 Ibid.
111 Ibid., 7.
112 Ibid., 10.
113 Ibid.
114 Nietzsche as quoted by Foucault, “The antiquarian is careful to preserve what survives from ancient days, and will reproduce the conditions of his own upbringing for those who come after him: he thus does life a service. The history of the town becomes the history of himself…” Language, Counter Memory, Practice, 162.
of an open field of historical references. Moreover, the project’s inherent fragmentation, in terms of its image and morphologically, radically resisted being rooted to a single historicist narrative. The project’s “divergent” legibility dislodged its relationship to its context in an “antiquarian” sense, to align it with a critical conception of history, which finds discontinuities in historical reference as generative possibilities for transformation. Moreover, if the AT&T Building had been the result of an “antiquarian” conception of history, its tripartite morphology and form would not have raised controversy; it is likely that it would have been understood as relevant to New York’s long tradition of skyscraper design.

Johnson’s “divergent” practice of assembling historical references comes further into focus through Michel Foucault’s interpretation of Nietzsche’s three conceptions of history. Foucault offers three historiographical alternatives that question Nietzsche’s three categories of history. As an interpretation of Nietzsche’s “monumental” history, Foucault proposes a “parodic” history, one that challenges the theme of history as based on realism and “reminiscence.” As an alternative to “antiquarian” history, Foucault offers “dissociative” history, directed against identity, which opposes history as a given continuity in the form of tradition. Finally, as an alternative to “critical” history, Foucault proposes a “sacrificial” history directed against truth, by opposing history as empirical “knowledge,” or history as the sacrifice of knowledge.¹¹⁵

With regard to Foucault’s alternatives, it is perhaps through the reinterpretation of Nietzsche’s “antiquarian” history that the AT&T Building can be best understood. Foucault argued for the use of history as a “systemic disassociation of identity” in which the received biases of the historian are brought into question by the plurality of the “countless”

¹¹⁵ Foucault, Language, Counter-Memory, Practice, Ibid., 160.
readings that intersect and compete within the artifact itself.\(^{116}\) This process of “disassociation” is not one that breaks with the past, but rather critically “disassociates” the received historical meanings carried forth across time and finds new and unprecedented ones in order to transform the present. In contrast to a passive notion of “antiquarianism,” Foucault’s “(dis)associative” history was shaped by a conscious effort to question identity as fixed by a single historical reference. The term “(dis)associative” implies both “association” and its opposite, pointing to the necessity for critical mediation in the form of degrees of association, in which a complete break (dis) or replication (association) cannot take place.

In this way, Owens’s reading of the AT&T Building as “antiquarian” can be challenged through “disassociative” history. Johnson’s project was not an artifact of stable continuity that only embodied its context, but rather, one that emerged from its context as plural, historical references. The AT&T Building is a historiographical artifact in tension, whose identity “disassociates” itself from its context by reformulating its own historical codes from within. It reshapes its environment by making a unique contribution to the skyline through the reanimation of New York’s own historical forms. Moreover, if, for the historian, historical “disassociation” can be understood as a means to critically challenge the biases of historical forms, Foucault’s interpretation of Nietzsche’s “critical history” suggests that critical history is the “sacrifice of knowledge” for the sake of its reinterpretation. Perhaps it is through the lens of “critical history”—understood as the “sacrifice of knowledge” which “disassociates” it from its received codes in order to be reformulated—where the image of the AT&T Building can come into focus. Rather than focusing on precise origins and sources, the pluralism inherent in the building’s legibility triggers many readings and interpretations, which becomes the true measure of Johnson’s engagement with history. Similarly, by embracing history from within, Johnson’s “eclecticism”

\(^{116}\) Ibid.
acknowledges the generative potential of historical form in the present and its capacity to reformulate the future.

The Presence of the Past

Although there had been architecture exhibits in the past as part of the Venice Biennale, the first Venice Biennale of Architecture as a separate entity marked the onset of 1980s. The exhibition featured the AT&T Building and paid homage to Johnson as a “guest of honor,” referring to him as a “historic personage” who symbolized the “presence of the past”. In a section dedicated to Johnson in the exhibition catalogue, Emilio Battisti juxtaposed Johnson’s cover of Time with two images of the architect behind reflections of the Glass House; they were accompanied by the caption; “at the beginning of the sixties to declare with no regrets the sterilization and death of a by now immobilized movement”.117 Battisti compared Johnson to Moses on Mount Sinai holding the “Tablets of the Law,” the architect, declared a message which twenty years prior had been just a theoretical proposition but today had become an “imperious commandment”: “You cannot not know History.”118 The main exhibition spaces of the Biennale were located within the Venetian Arsenal, a complex of Byzantine shipyards and large armories dating as far back as 1100. Within the complex, one of the armories became the site for the “Strada Novissima,” a large shed space divided into ten bays connected by a central corridor lined with Doric masonry columns (fig. 3.18). Twenty architects were invited to design façades that would turn this corridor into a street along which they could also exhibit their work. The elevations that

118 Battisti, “From this pulpit Johnson, at the age of 73, dominates an inevitably cowed audience with his lean figure, staring through his severe, black rimmed glasses at each potential interlocutor and displaying the silvery model balanced on his left arm as if it were the tablets of the law. He throws out a message that was formulated twenty years ago as a theoretical proposition and is now a precise, imperious commandment that almost seems to paraphrase the introduction of the ten commandments: ‘You cannot not know History.’” The Presence of the Past, Ibid.
formed the street were built by crews of the emblematic Italian film studio Cinecittà, which underscored the theatricality of the façades as historical reconstructions.\textsuperscript{119}

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure3.18}
\end{figure}

\textsuperscript{119} Paolo Portoghesi, “It is not by chance that the ‘Strada Novissima’ was realized by the Organization for the Administration of Cinema in the laboratories of Cinecittà. Since its birth, cinema has been the factory of the imaginary, and for many generations it was the only possible access to an aspect of life exorcized from the other sectors of human life.” “The End of Prohibitionism,” \textit{The Presence of the Past}, Ibid., 12.
The “Strada Novissima” was designed to give each of the participants the chance to give form to this condition of the “presence of the past;” defined by Paolo Portoghesi, the curator, as “the role that has now returned to take on the reflection of history as an active basis for planning,” it presented an opportunity to formalize the relationship between contemporary work and the question of history. This proposition became a conceptual and literal mediation between present and past, given that each elevation stood framed by the prominent columns of the Arsenale itself, fragments of the past that inevitably mediated the design of most of the elevations. At the end of the corridor, the culmination of the “Strada Novissima” took the form of a model of the AT&T Building on a pedestal (fig. 3.20) with its iconic broken pediment painted like a giant shadow onto the surface of the wall behind it (fig. 3.19).

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120 “Strada Novissima,” The Presence of the Past, Ibid., 38.
Figure 3.20: The “Project for the AT&T Building,”, ARCHITECTURE 1980, The Presence of the Past, Venice Biennale, (New York: Rizzoli, 1980), 67.
The Austrian architect Hans Hollein designed one of the most striking projects amongst the elevations in the “Strada Novissima” (fig. 3.21). In addition to incorporating the two columns of the Arsenale into his composition as a gesture of reintegration with the existing historical fabric, Hollein introduced four additional columns to form his façade, each representing a different theme: a tree trunk, Adolf Loos’s Chicago Tribune Competition Entry from 1922, half a stone column suspended from a cable to form the entrance, and a column resembling an evergreen tree whose foliage had been trimmed to mimic the column’s shape (fig. 3.22). The six columns signaled that the past was composed of a variety of monuments. Hollein described the “Presence of the Past” as “an architecture of memories, memories not only in the sense of architectural history, but memories of one’s cultural heritage and one’s past – manifesting themselves in quotations, transformations and metaphors.”

As with Johnson’s “reminiscence,” the architectural project became irreducible from one’s own recollection and personal history. Hollein reconciled the present with the past with “the idea of the columns (continuing the already existing columns).”

His “archeological fragments” represented his own personal past; in particular, his “antiquarian” reference to Loos was a nod to his own experience through the figure of the Austrian architect displaced in Chicago. Hollein’s concern was “as much with history” as with [his] “own history,” for him the “column – as Loos has clearly understood – presents itself.”

122 Hollein, The Presence of the Past, Ibid.
123 Hollein, “As I have done this so often (in real streets), I rather decided to continue (the past) on the idea of the columns (continuing the already existing columns).” Ibid.
124 Hollein, “My work of today incorporates – consciously – the presence of the past in terms of a continued (sometimes fragmentary) re-elaboration of earlier work and ideas. I am concerned with as much with history as with my own history.” Ibid.
Figure 3.21: Strada Novissima, Elevation design by Hans Hollein, ARCHITECTURE 1980, The Presence of the Past, Venice Biennale, (New York: Rizzoli, 1980), 43.
Figure 3.22: Adolf Loos’ Entry to the Chicago Tribune Competition (1922), “Plate no.196,” *Chicago Tribune Tower Competition*, (New York: Rizzoli, 1981).
The parallels between the AT&T Building and Adolf Loos’s Chicago Tribune Competition Entry can be read as analogues of the Classical historicism inherent in the tripartite order of the columnar form. Both are autonomous historical fragments and anachronistic artifacts that mark contrasts between their context and the present. In both structures, their fragmented forms stand in contrast to the surrounding modern city, which is the essence of “monuments.”\(^\text{125}\) The form of the column translated into a monument shifts in legibility from a representation of its structural function to the function of historical representation, making reference to a moment in the past that will forever remain in contrast with the present. As eternal “monuments,” both Loos’s Column and Johnson’s AT&T Building are archetypes of recognizable typological forms that cut across time; they are uprooted, scaled, transformed and transcend conventional classification.\(^\text{126}\) In the case of Loos, autonomy and fragmentation answered the challenge of how “to erect the most beautiful and distinctive office building in the world,” as an act of “critical history.”\(^\text{127}\) Referring to both a “monument” and newspaper column, Loos described his column as a universal form that could transcend fleeting contemporary fashions.\(^\text{128}\)

The materiality of both projects was meant to augment a sense of shock. In the case of Loos, the fluting of the Doric column was to be finished in highly polished granite intended to “stun and cause a sensation in our modern blasé era.”\(^\text{129}\) Not simply applied decoration, the striking “black, polished granite”\(^\text{130}\) was intended to demonstrate its relationship to antiquity and to demonstrate Loos’s doctrine of material beauty replacing


\(^{126}\) Adolf Loos, “In producing this design the author constantly bore in mind the demand in the prospectus ‘to erect the most beautiful and Column (1923),’ On Architecture. The Chicago Tribune Tower On Architecture (Riverside, Calif. : Ariadne Press, 2002 [c.1923]), 171.


\(^{128}\) Ibid.

\(^{129}\) Tournikiotis, Adolf Loos, Ibid., 196.

\(^{130}\) Ibid., 170.
ornamentation, an effect exalted by the use of a single material alone. Likewise, the AT&T Building’s pink Connecticut granite signaled the “triumph of the image-making process.”\textsuperscript{131} Rather than creating a contradiction, the shallow nature of the project’s gesture, in contrast to the unprecedented depth of its curtain wall, functioned together to make the reading of the building doubly controversial.

On the wall of the “Strada Novissima” that featured the model of the AT&T Building, a shadow of its broken pediment was painted on the surface to enlarge its most characteristic feature to the scale of the exhibition space. In addition to the colossal shadow, the wall included a number of framed drawings by Philip Johnson, furthering the sense of homage. If the architecture of the “Strada Novissima” pointed to the “presence of the past” in the present, the spatial procession quite literally led to and “elevated” the AT&T Building as the most significant “monument” of the period, and to Johnson as the patriarch of this movement. Of course this almost religious ascension would not come without polemic.

In his benediction to Johnson, Christian Norberg-Schulz argued that the phenomenon of postmodern architecture had a chance to become “authentic architecture” if it could find a synthesis of “temporal complexity and general typology.”\textsuperscript{132} For Norberg-Schulz, this synthesis of the temporal and universal was, after all, the “true objective” of the modern movement. He thus proposed that the phenomenon of postmodernism was not a


\textsuperscript{132} Christian Norberg-Schulz, “My theoretical presentation suggests, when related to the phenomena of postmodernism, that the new architecture ought to aim at a synthesis of temporal complexity and general typology. If this happens, it becomes an authentic architecture. And thus fulfills the true objective of modern architecture.” “The Biennale in Venice, meaning and prospect,” GA Document, No. 3, Winter, 1981, p.12; “Modern architecture is alive. Its basic aim has always been to heal the split between thought and feeling, which implies the creation of places which allow for human orientation. […] Today we are able to distinguish between the true contributions to this end, and the abstract, ‘functional’ planning which is responsible for the destruction of our environment. We also understand that rationalism and materialism are forms of human alienation, and that an authentic architecture rather presupposes a return ‘to the things themselves,’ that is, a poetic approach to reality.” “Towards an Authentic Architecture,” The Presence of the Past, Ibid., .29.
rupture, but rather, a continuing development entering a phase of reintegration.\(^{133}\) The potential of this synthesis was “to heal the split between thought and feeling,” to achieve an “authentic architecture [that] presupposes a return ‘to the things themselves,’ that is, a poetic approach to reality.”\(^{134}\)

Similarly, the Italian historian Bruno Zevi argued against this perceived rupture: the modern movement was still quite alive. Evinced through “populism, academy and mannerism,” it was much more pluralistic and inclusive from the onset than how it was characterized.\(^{135}\) In response to Philip Johnson’s declaration that “modern architecture is dead,” Zevi offered the retort, “when you are dead, you are not in crisis.”\(^{136}\) Assuming modern architecture was dead, what was the cause of the discourse surrounding its crisis? In response to his own question, “Where is Modern Architecture Going?” Zevi argued for the complexity of architecture’s relationship to society and the environment at large, claiming that “it would not have made any difference if, instead of curtain wall towers and slabs, pseudo-Palladian towers of the AT&T kind, designed by the Johnson/Burgee office, had been built.”\(^{137}\) Zevi offered two options to move forward, one that preserves historical form and introduces new projects within it through a strategy of “dissonance,” and a second that aims to simply make our environments as modern as possible.\(^{138}\) Both offer a preservationist perspective towards historical form that falls within the tired dichotomies of the “old” versus the “new.”

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\(^{133}\) Ibid.

\(^{134}\) Ibid.


\(^{136}\) Zevi, “When Philip Johnson first proclaimed, around 1962, that ‘modern architecture was dead,’ he thought that, free from its puritan consistency, ‘we could have a lot of fun.’ It was a masochist illusion. Nobody is having fun, in spite of all attempts to kill modern architecture which stubbornly refuses to die. Piles of books, special issues of magazines and essays on the crisis of the modern movement have appeared during the last two decades. The only prove that this movement is quite alive. When you are dead, you are not in crisis.” *G.A.*, Ibid., 4.

\(^{137}\) Ibid, 5.

\(^{138}\) Zevi, “Though we no longer have the illusion that architects can control the entire environment, we must continue to fight on two levels: preserving the past and enlivening it with dissonant insertions, like the Pompidou Center in Paris, and building new environments as modern as possible.” Ibid., 5-8.
As a way to move beyond the impasse inherent in the tired dichotomies between “modern vs. post-modern” and “break vs. continuity” that dominated Norberg-Schultz and Zevi’s contributions, Kenneth Frampton offered an alternative view of a possible relationship between the history of architecture and the postmodern condition, which reconciled postmodernism with the cultural complexity of the Modern Movement. For Frampton, the widespread “eclectic method” was out of step with a contemporary condition marked by “disenchantment.” As a way forward, Frampton called for “history” as the “material” for “logical and constructive operations […] utilizable for the socialization of aesthetic experience […] which makes it possible to think and make others think through architecture.” In this sense, history is a generative “material” in need of mediation, which after all has always existed. Similarly to Norberg-Schulz’s observations that a reconciliation between historical form and the complexities of the present could be found in the continuous transformation of typology, Frampton suggested that the “presence of the past” had to be examined from within the social and civic codes that exist behind the formal and aesthetic systems. The legibility of the “presence of the past” would be reduced to images of the past unless social, political, and cultural codes were understood. Frampton’s critique of this historical view was that it “repeated” rather than “reinterpreted” historical forms into the present.

In 1984, the year of the AT&T Building’s completion, Madelon Vriesendorp painted a striking scene of temporal continuity entitled “The Birthday Party AKA 10 Ans Après L’Amour” (fig. 3.23). In the foreground, Graves’s Portland Public Services Building joined the AT&T Building in blowing out four lit candles on a cake in the shape of a broken

140 Frampton, GA, Ibid., 14.
141 Ibid.
142 Ibid.
classical column. Alongside their postmodern counterparts, the Empire State Building and the Chrysler Building stood proudly, reaffirming their origins in the eclecticism of the 1930s. Above, the elevations of the “Strada Novissima” were rendered as string decorations, flattened and inverted, adding a festive and carnivalesque tone to the celebration. In the background, a villa by Venturi Scott Brown, joined two other historicist projects by Philip Johnson. A traffic cone and curtain blowing in the wind complete the celebratory scenery in sharp contrast to a featureless urban, industrial landscape framed by the ribbon window at the rear. As the main protagonist of the image, the AT&T Building was peered behind a carnival mask four years after its debut at the Venice Biennale.
Vriesendorp’s remarkable party scene marked several moments in time. As described by the image’s title, this celebration marked the ten-year anniversary of her own painting of “Après L’Amour,” a scene that crystallized “The Double Life of Utopia: the Skyscraper” in *Delirious New York*, in which the Empire Estate Building and the Chrysler Building were first seen in bed.\(^{144}\) Through its ambiguous temporality, the image highlights the continuity of time and celebrates Banham’s double reading of the AT&T Building as a monument (or tombstone), simultaneously marking the birth and death of postmodernism and modernism. As the largest example of “post-modern classicism” to date, Johnson’s AT&T Building marked the end of “modernism.” As the headquarters of the AT&T, the largest corporation on earth, the project also marked the end of “post-modern classicism” through its co-option by the corporate establishment.

If, for William Curtis, the AT&T Building’s “post-modern classicism” raised questions about the differences between “principles” and “pastiche,” the carnival mask nods to Fredric Jameson’s comparison between “parody” and “pastiche.” For Jameson, “parody” was “the imitation of a peculiar or unique idiosyncratic style, or the wearing of a linguistic mask”; “pastiche” was “blank parody, a statue with blind eyeballs.”\(^{145}\) In its masked guise, the AT&T Building became the only project whose double meaning confirms its “parodic” state. Curiously, even Jameson claimed that the end of “parody” and the emergence of “pastiche” had become one of the qualities of the postmodern condition, in which “parody


\(^{145}\) Fredric Jameson, “In this situation parody finds itself without a vocation; it has lived, and that strange new thing called pastiche slowly comes to take its place. Pastiche is, like parody, the imitation of a peculiar or unique, idiosyncratic style, the wearing of a linguistic mask, speech in a dead language. But it is a neutral practice such as mimicry, without any of parody’s ulterior motives, amputated of the satiric impulse, devoid of laughter and of any conviction that alongside the abnormal tongue you have momentarily borrowed, some healthy linguistic normality still exists. Pastiche is thus blank parody, a statue with blind eyeballs: it is to parody what that other interesting and historically original modern thing, the practice of a kind of blank irony, is to what Wayne Booth calls the ‘stable ironies’ of the eighteenth century.” “The Cultural Logic of Late Capitalism,” *Postmodernism, or The Cultural Logic of Late Capitalism*, (Durham: Duke University Press, 1991), 17.
[...] has lived and that strange new thing called pastiche comes slowly to take its place.”

As the only remaining project exhibiting “parody” through its mask, the AT&T Building can be understood as a relic of a postmodern condition that has slowly been replaced by “pastiche” in the case of the other projects. The moving curtain suggests the whole scene is a stage of monuments in a state of slow transformation, soon to give rise to the next. The stark contrast between the decimated industrial landscape on the horizon and the foreground’s “monuments” uprooted from their respective urban and temporal contexts, challenges the viewer to decide whether this celebration marks their life or their death.

Vriesendorp’s image was published as the cover of the journal Design Quarterly in 1984, the same issue featured a contribution by Rem Koolhaas entitled “Foundation of Amnesia” where he argued for a more comprehensive understanding of the modern project’s relationship to the urban context and in more general terms to history. Five years earlier, Koolhaas had already challenged the notion of the distinction between “modernism” and tradition in a text entitled “The Future’s Past,” shortly after publishing the first editions of Delirious New York in 1979. In “The Future’s Past,” Koolhaas examined this distinction by redefining modernism’s relationship with history, both in Moscow and New York. Arguing that contemporary battle lines had been drawn by two distinct factions: European “rationalists” and American “postmodernists,” the reemergence of a

146 Jameson, Postmodernism, Ibid.
149 Koolhaas, “The house of Industry (Leonidov, Moscow), the Downtown Athletic Club (New York), Green City (Melnikov, Moscow) and Radio City Music Hall (Samuel ‘Roxy’ Rothafel, New York) reveal the conceptual core of what is now called – usually with a sneer – Modern Architecture. All manifest an ambition to conquer a new territory. Their creators – Leonidov, Melnikov, and the rest – shunned traditional architecture with its passive reliance on dignified urban decors as a means of generating dignified culture.” The Wilson Quarterly, Ibid., 139.
150 Koolhaas, “At this moment, however, a persistent if unspoken coalition of the two major architectural avant-gardes – the Rationalists in Europe and the Post-Modernists in America, both of them susceptible to a misguided ‘historicism’ in their designs – threatens this 50 year old Architecture of Congestion with deliberate extinction. […] Doric columns, pediments, moldings, piazzas – all are making their prodigal return.” Ibid., 140.
“misguided historicism” in American not only threatened the present, but jeopardized the future. The double meaning of the article’s title, “The Future’s Past,” suggested either an ambiguous condition of continuity or break in our relationship to the past. Would the present expand on the “claims staked out in the 1920s for an activist profession with a capability, and indeed a responsibility, for redesigning the human environment,” and continue the project of the future started in the past? Or would it alternatively see the past as its future?

By 1984, the stakes could not be higher. Koolhaas argued that the criticisms attributed to modern architecture – both its alleged lack of complementarity to the existing city and to the needs of its people – were unsubstantiated. These criticisms were based on a “solid foundation of amnesia.” 151 Koolhaas pointed to Rockefeller Center as it focused not on the imitations of established styles but rather, on the “use of innovative materials, programmatic enrichments and planned contextual relationships,” which indeed contributed to urban life. 152 The concept of “amnesia” became instrumental in shedding light on the contemporary need to establish a relationship between the present and the past. Koolhaas’s theory of “amnesia” aligned with Nietzsche’s observation that both memory and the passing of time are based upon the act of forgetting. 153 Whereas Koolhaas diagnosed amnesia as the problem that lay at the heart of the postmodern search for a relationship between the present and the past, for Johnson, “reminiscence,” or the act of both remembering and forgetting, marked the way in which this relationship could be bridged. In Johnson’s “double act” of knowing and forgetting, of “cannot and cannot not” knowing history, a true

151 Koolhaas, Design Quarterly, Ibid., 5.
152 Ibid., 11.
153 Friedrich Nietzsche: “Forgetting is essential to action of any kind, just as not only light but darkness too is essential for the life of everything organic […] it is impossible to live without memory, and to live happily moreover, as the animal demonstrates; but it is altogether impossible to live at all without forgetting […] there is a degree of sleeplessness, of rumination, of the historical sense, which is harmful and ultimately fatal to the living thing, whether this living thing be a man or a people or a culture.” “On the uses and Disadvantages of history for Life,” Un timely Meditations, Ibid., 62.
position of mediation between the past and present can be located, along with the potential
to construct a new future. As for the AT&T Building today, it stands firmly contextualized
in the skyscraper tradition of the 1930s, reminiscent of projects like the Empire State
Building and the Chrysler Building, while its more immediate, tumultuous past of the 1970s
has been forgotten.154

154 Michael Greenhalgh, “Today, because everything can be made to slot into place when provided with a
historical context, we can place the AT&T firmly in the tradition of skyscrapers such as the Empire State or
the Chrysler Building, even if for some the pedimental motif is hard to swallow.” “Post-modernism and
CHAPTER IV. CAPITALISM:
“La Nuit Américaine” and the Double Life of the Skyscraper in the Imagined City

Figure 4.1: Cover, “The Life and Death of the Skyscraper,” L’Architecture D’Aujourd’Hui, no.178, (March – April, 1975).
In May of 1975, the cover of the journal *L’Architecture D’Aujourd’Hui* featured a dramatic reproduction of Erastus Salisbury Field’s *The Historical Monument of the American Republic* (1867-1876) to illustrate an even more dramatic title: “The Life and Death of the Skyscraper” (fig. 4.1). At first glance, *The Historical Monument* represents a triumphant trajectory of two and a half centuries of the American nation in the form of ten monumental towers rising victoriously towards the sky. Appearing as a grand narrative of civic and collective achievement, the towers trace the history of the nation from its early days of the colonies represented at the bases of the buildings to the most advanced technological feats achieved a century later: locomotives and iron-truss bridges, shown encircling the towers’ tops. From base to top, historical episodes are chronicled in 130 simulated relief panels, arranged vertically, giving rise to the body of the towers and the history they signify. Grandiose and in seemingly continuous vertical growth, this proverbial history culminates in the vision of a millennial Memorial Hall, as confirmation of the nation’s divine providence.2

Upon closer examination, *The Historical Monument* reveals a more torturous path from settlement to the centennial.3 Rather than depicting scenes of triumph, Field chose ones of tragedy and violence to underscore a dramatically tormented perspective from which to illustrate this history. Massacres such as at Jamestown (1622) and Roanoke (1836) are displayed anachronistically across the towers alongside depictions of the Mexican-American War (1846–1848) and King Philip’s War (1675–1678). Acts of racial violence and

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2 Paul Staiti, “The narrative reads as a ritualistic tale in which the country’s diverse, sectional history culminates in the vision of a millennial Zion – a crowning telos – in the shape of Memorial Hall.” “Ideology and Rhetoric in Erastus Salisbury Field’s *The Historical Monument of the American Republic*,” *Winterthur Portfolio*, vol. 27, no. 1 (Spring, 1992), 29-41.

3 Staiti, *Winterthur Portfolio*, Ibid., 32.
savagery prevalent during the Civil War join moments of tragedy such as Lincoln’s assassination, alongside imagined tragedies such as the overthrow of the Statue of Liberty. In the space between the triumphant monumentality projected by the collection of towers of Babel and the catastrophic calamity of episodes engraved on their surface emerges a multifaceted history whose dissonance is amplified by the journal’s title: “The Life and Death of the Skyscraper.”

As the journal’s editor, Bernard Huet translated the complex history depicted in *The Historical Monument* into its equivalent narrative for the skyscraper, whose American inception coincided with the painting’s creation. In the translation from “towers-as-history” to a “history-of-towers,” he suggested that the skyscraper can be understood as triumphantly alive, a “privileged product[s] in the domination of space.” At the same time, this “product” was witnessing its death, having played a decisive role in the “rupture of the relationship between the typology and its urban morphology.” Huet predicted that the skyscraper’s death would also bring about the “crisis of the modern city” when its colossal scale and technical complexity would reach a tipping point. Initially focused on questions of structure, legibility and history, the discourse increasingly focused on the irreconcilability between the skyscraper and the city.

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6 Ibid.
A year before “Life and Death,” Bernard Huet edited a previous issue of
*L’Architecture D’Aujourd’Hui* that also featured an extraordinary image on its cover: *The Ecstasy of Mrs. Caligary* (1974) (fig. 4.2).\(^7\) Painted by Madelon Vriesendorp, the image shows a
dramatic scene where the buildings of Manhattan appear to have toppled the Statue of Liberty, whose name is changed to the victimized heroine played by the Dutch actress Lil Dagover in the film *The Cabinet of Dr. Caligari* (1920). Mrs. Caligary floats helplessly
witnessing the passing of time: from the glacial period symbolized by floating icebergs to a
present where these crystalline ice forms of prehistory have been replaced by a cluster of
contemporary skyscrapers. Whereas in its first incarnation, the image of the Statue of
Liberty represented a celebration of the American Declaration of Independence, two
hundred years later, her torch and *tabula ansata* evoking the law had now been shattered,
seen floating away along the passage of time. If Salisbury’s *The Historical Monument* suggested
a history where the skyscraper was understood as an American achievement born out of the
first centennial of the nation, Vriesendorp’s *Ecstasy of Mrs. Caligary* pointed to its inherently
indomitable spirit, celebrating the birth of “Manhattanism” almost exactly a century after
Salisbury in 1976, the year of the nation’s Bicentennial. In Huet’s conception of “Life and
Death,” the differences between American and European ideology function as a lens
through which to understand what has come to define the skyscraper, and Huet furthered
the plot by shifting its focus specifically to New York.

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In the face of an increasingly disjointed relationship between the skyscraper and the city, Huet argued that the existing models of professional practice had also progressively become more autonomous. American architects had fallen prey to two separate consumer systems: one entirely “based upon the market value of construction” and the other based on an art market that served the “speculative enjoyment of the collector or museum.”

While John Portman, Philip Johnson and Kevin Roche were alleged to operate within the “commercial market,” where “the architect is completely immersed in the system of production and only finds a way out through exalting its limitations and excesses of absurdity,” figures like Peter Eisenman, John Hejduk and Robert Stern served the “art-collector market,” in their remove from practice and concern for the search for “a language emptied of all substance through the production of paper architecture or unique luxury objects.” Symptomatic of the impasse that arises from these two irreconcilable positions of “commercial” and “paper” architecture, Huet argued the discipline was undergoing a long “Nuit Américaine” and condemned to perpetually question the terms of its own existence.

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8 Huet, “La Nuit Américaine,” L’Architecture D’Aujourd’Hui, no. 176, Ibid., XXXVII.
10 Ibid.
11 Ibid. p. XXXVII.
“La Nuit Américaine”

Ferrand: I’d like you to tell him that the auto accident we’re shooting tomorrow will be done en nuit américaine.
Julie: What does that mean - nuit américaine?
Ferrand: It’s When you shoot a night scene, but in broad daylight. You know, by putting a filter in front of the lens.
Julie: Oh, “day for night.” It’s called “day for night” in English.
Ferrand: Is that so? Oh Good!”

Huet borrowed the phrase “Nuit Américaine” from Francois Truffaut’s legendary film of the same title. Translated as “Day for Night,” Truffaut’s film was a “movie about film-making” where he played himself as a movie director. Truffaut came to the idea of a film-about-a-film after finding an existing film set that replicated a Parisian street, including buildings, sidewalks, cafes, and the city’s characteristic subway entrances (fig. 4.3). Intrigued by the way the set reproduced the space of the city, Truffaut explored the many perspectives that were produced by it, both in front and behind the camera, and in particular, where urban life could be seen “wrong side out.” Whether creating the simulacrum of nighttime with daylight, a “film within the filming of a film,” or mimicking a city within a film set blurred the line between reality and simulation in order to augment the “intoxicating” effect of both.

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14 Truffaut, “Intrigued by the sight, I began taking a different route to my destination each day, in order to view the square from as many angles as possible. The more I looked, the more interesting the set grew. In fact, it soon appeared most beautiful of all when viewed ‘wrong side out.’ It was then, I think, the idea hit me. A desire which had been playing around vaguely in the back of my mind for many years suddenly became crystallized: I would shoot a film about shooting a film – a movie about film making” Ibid., viii.
15 Truffaut, Ibid., xii.
Truffaut’s exploration into the ambiguous terrain of the real and the imaginary selected the space of the city as its environment. The film follows a tortuous plot where the director must deal with the practical problems that emerge amongst the actors, both on and off screen. Likewise, by “playing” himself, Truffaut explores the role of the director as operating simultaneously on and off camera. Both positions are paradoxically written into the plot and thus “imagined,” as a way to create an alternative position. Just as “Day for Night” blurred the distinction, Huet transposed the difference onto two models of practice: one based on “realism” (in relation to market forces), and the other based on the “imaginary” (understood through the autonomy of “paper architecture”). Huet used this collapse of real and imaginary to find an alternative position for architectural practice that could operate from within the terms of the commercial market, but capable of “demystifying,” of gaining a more critical perspective of the market’s limits.

Huet’s radicalization of the models of practice into two extremes aimed to break the firm distinction between the commercial and collector’s markets by opening the possibility
of an alternative, third position that could operate from within the terms of the previous two. Polarization offered a means to assess the respective practices’ efficacy in coming to terms with the skyscraper and its disconnection from the urban environment. Cautioning the “American experience as a warning,” Huet acknowledged that finding a way out of this urban and now disciplinary impasse would not be so clear. Had a radical process of urban densification transformed the skyscraper into an indomitable artifact, and had its control moved beyond the reach of the discipline? Or alternatively, was the increasing autonomy of the skyscraper the result of the discipline’s ineffective response to the uncontrollable densification of the city?

As a way to decipher the paradoxical relationship between the skyscraper and the city, along with the discipline’s capacity to assert control over this relationship, Huet turned to history to find alternative positions from which to move forward. He republished “three prophetic texts” from the 1920s that predicted different forms of congestion as a positive urban phenomenon (fig. 4.4). In the first “prophecy,” Raymond Unwin (1863-1940) outlined a model based on horizontal growth patterns of circulation and population. As an English urbanist and proponent of the Garden City movement in England, Unwin became an important influence on the housing policies of the New Deal, arguing against the vertical densification of the city.

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16 Huet, L’Architecture D’Aujourd’Hui, no. 176, Ibid. XXXVII.
19 Unwin, L’Architecture D’Aujourd’Hui, Ibid.
In Huet’s second selection, the Russian Constructivist A. L. Pasternak offered a contrasting perspective in which skyscrapers were conceived as “social condensers” that could transform Soviet society in a vertical manner. These “social condensers” were not to be dispersed but rather consolidated into “single point[s].” This translated into a massive form whose gradated, programmatic stratification made possible a hybrid mix of occupations: the skyscraper was the future of the Soviet city. In turn, these colossal vertical forms could occur anywhere, both in administrative centers and the more residential periphery. A third “prophecy” synthesized the previous two: Raymond Hood’s (1880–1934) proposed “City under a Single Roof,” in which “all the movement that contributes to congestion—horizontally across the surface of the earth—is replaced by vertical movement

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21 Pasternak, L’Architecture D’Aujourd’Hui, Ibid.
22 Ibid.
inside buildings.” Immense “Unit Buildings” three blocks in scale would be occupied by “whole industries […] united into interdependent developments with clubs, hotels, stores, apartments and even theaters.” Because of their scale, the buildings could absorb all pedestrian and vehicular traffic, interiorizing what had been external urban life as a strategy for decongestion. Cutting transversally across time, Huet’s republication of these three contrasting “scenes of the world to come” resonated with the uncertainties of the present and its search for a vision that could mitigate a future of urban density.

In addition to these three visions of the future, Manfredo Tafuri offered a chronology spanning from 1918 to 1974 that aimed to elucidate the present condition. Tafuri argued that the only way to understand the American skyscraper was by studying “what is not,” or its European counterpart. He challenged the assumption that skyscrapers resulting from market forces worked against the grain of a collective project. Tafuri argued that it was actually the instrumentality of an economic policy in the form of a repeatable structure that would give rise to the skyscraper as collective project: the skyscraper resulted from more than market forces and was a structural part of the processes of production. Production, after all, was a collective American project, and the skyscraper was both an instrumental part of this process and its expression.

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25 The expression “scenes of the world to come” refers to Jean Louis Cohen’s exploration into the broad spectrum of European avant-garde interpretations of the American Skyscraper from the turn of the century to the 1930s in “Europe Interprets the Skyscraper,” Scenes of the world to come : European architecture and the American challenge, 1893-1960, (Paris: Flammarion ; [Montréal]: Canadian Centre for Architecture, 1995), 105-135.


27 Tafuri, “The author proposes that perhaps the best way to understand what the American Skyscraper is not, would be to study the ways in which European culture tried to assimilate and translate this paradox of urban life into its own terms. [English Summary];” L’Architecture D’Aujourd’Hui, no.178, 1.
In its early American incarnations, there was little separation between the skyscraper and larger systems of production. These projects were simply vertical extrusions of floors as a way to maximize the available area that could be constructed on a lot as lofty buildings. Over time, the relationship between the skyscraper and city became more complex than just the “multiplying” of lots; it was driven by a system of signs, of “messages of immediate assimilation” aimed to capture the “distracted perception” of the public through “visual and economic shocks.”

The mechanical reproducibility of the skyscraper as a multiplier of available area was transformed into an increasingly more complex object through its ability to transmit messages. Tafuri attributed the sense of increasing alienation between the skyscraper and the city to increased opacity and diminished legibility. He described a “collective assassination” that had taken place in America, a catharsis in which the skyscraper emerged as the equivalent of the European cathedral. A symbol of collective faith was replaced by a symbol of profit, a “violent act” of “purification” for the “communitarian spirit,” which exchanged the spire for the tower. The “Cathedral of Commerce” had ceased to be a metaphor and had become a reality. Tafuri pointed to the pages of the early, European avant-garde projects and journals such as G, Frühlicht and Wendingen as suppliers of this vision of catharsis, and by the 1930s, some of these European visions had already been realized in the American city.

For Tafuri, the decades of the 1940s and 1950s witnessed a speculative process that resulted in “anachronistic gigantism.” Large-scale projects had reached such colossal proportions that questions began to emerge with respect to their urban character. Although the ambition of these projects was to intensify the city from within, to create cities-within-a-

28 Ibid., 3.
29 Ibid.
30 Ibid.
city, they paradoxically produced isolated spaces of disconnection. Large projects augmented the intensity of the urban morphology through the concentration of commercial programs at street level; mixed-use and sheer size became the solution out of the eclectic impasse of the 1920s, characterized by “anachronistic giants” such as the Chrysler and Empire State Buildings. Like Rockefeller Center, these new “super-objects” had the capacity to bring together a high concentration of social services, residences, offices, and leisure programs, by turning them into gigantic social gestures intensely collective in spirit. The sunken-plaza, roof-garden, commercial concourse, Fifth Avenue promenade, along with an interrupted city grid, became strategies within a new “manifesto” of land-use (fig. 4.5).

For Tafuri, this new era of “super-objects” ushered in a multitude of urban and administrative problems created by their dependency on and domination by corporations, which brought into question their value as urban “solutions.” On the one hand, the densification of commercial programs infused the urban fabric with increasing population levels and vitality. On the other, the increased scale of these buildings caused a sense of widespread alienation that stood beyond the legislative perspective of the public planning authorities. While projects developed during the 1950s such as Skidmore, Owings and Merrill’s Chase Manhattan Bank for David Rockefeller infused unimaginable capital and square-footage into declining areas of the city, they did so through considerable public subsidy and at the expense of their adverse impact on their immediate surroundings.31

31 At the time of its opening in 1961, the Chase Manhattan Bank Tower commissioned by David Rockefeller and designed by Gordon Bunshaft of Skidmore, Owings and Merrill, was the most expensive office tower ever built: “Just open for business, it was, at 813 feet, the sixth tallest building in the city (and the world); at 2,239,530 feet of gross area, the biggest commercial structure completed in more than 25 years, and the largest banking operation ever assembled under one roof; at $138 million, the largest total investment in a building of its type.” “The Chase, Portrait of a Giant,” *Architectural Forum*, vol. 115, no. 1 (July, 1961), 69-96.
The 1960s also witnessed the transformation of these “super-objects” into a new breed of “super-skyscrapers”; these “crystalline golems” represented a last phase of typological evolution but also final rupture in the skyscraper’s relationship with its urban surroundings. Projects such as the World Trade Center Towers and the westward expansion of Rockefeller Center along Sixth Avenue exemplified this last generation: as “suspended forms” under a conspicuous spell of “reductionism,” they evoked a sense of

32 Tafuri, L’Architecture D’Aujourd’hui, Ibid.
alienation and “absence.” \textsuperscript{33} Having reached an unprecedented scale, the projects produced an image of enlargement and deformation that offered a false and disconcerting sense of assurance to the public. For Tafuri, the radical abstraction of these projects embodied a sense of atemporal presence, a “suspension of time,” and autonomy from any periodic or even stylistic specificity. The muted image of these large-scale projects produced a metropolitan public desperately in search of certainty, only to find their anxieties reflected in the opacity of the curtain-wall surfaces that cladded these colossal monoliths. \textsuperscript{34}

Rockefeller Center, for Tafuri, signaled the ultimate “disenchanted mountain” of the 1930s, followed by the emergence of the “disenchanted city” in the form of urban renewal projects that reshaped the American urban landscape in the 1960s. \textsuperscript{35} A loss of balance between the decentralization of residential programs and the concentration of administrative offices gave way to the multi-block “super-skyscraper.” As a singular event, the scale and magnitude of the “super-skyscraper” sought both domination of the skyline and a break from the urban environment. With the emergence of these “super-skyscrapers,” Tafuri concluded that “the relationship between skyscraper and city ha[d] definitively been broken,” giving rise to an “anti-urban paradox.” While containing every part of the city within their interior, their autonomous forms negated the very urban fabric that surrounded them. \textsuperscript{36} This programmatic concentration was intensified in unprecedented ways: the surrounding public life was paradoxically evacuated and interiorized within the autonomous

\textsuperscript{33} Ibid.
\textsuperscript{34} Mafredo Tafuri, “With the John Hancock Building and the World Trade Center, as already noted, skyscrapers again became exceptional events that enclose the paradox of the metropolis within themselves. But these are events that, through their presuming to attain the value of a totality, reveal a desperation shared by intellectuals and businessmen alike – the desperation of one who sees himself impotent to control, with his antiquated instruments, the enigmatic course of the indomitable White Whale.” “The Disenchanted Mountain: The Skyscraper and the City,” The American City, From the Civil War to the New Deal, (Cambridge, Mass.: MIT Press, 1979), [389-503] 503. Originally published in Italian as La Città Americana dalla Guerra Civile al New Deal, (Rome: Guis, Laterza&Figli, Spa, 1973).
\textsuperscript{35} Tafuri, L'Architecture D'Aujourd'Hui, Ibid., 503.
\textsuperscript{36} Ibid.
form. The skyscraper had now become the product of an ideology of production whose scale and alienating image embodied a vacuous message from an ever more abstract and complex system of corporate organization. This last generation of skyscrapers was thusly perceived as alienating and a threat to the very urban fabric that given rise to them.

**Times Square: Portman’s City-as-Hotel**

John Portman sought to reconcile Tafuri’s divide between the large-scale skyscraper and the city by zooming outwards and understanding the project as part of a much larger urban network:

> “And I’m not about objects. I’m about – I’m holistic. I’m going to think about the whole thing, not only the thing and where it is but then everything […] I mean… that extra dimension. See, everything we have done is … I have not wanted to do just a building. I wanted to make a [contribution] – I think man’s greatest reward comes from contribution. What does that mean? How do you—what do you contribute? Do you contribute money, contribute time? Can you contribute a circumstance that is way bigger than any of that and longer lasting? So significance, having some significant thing and that’s what was driving me at Times Square, all these places really.”

Without sacrificing scale, Portman challenged the concept of a single building through the strategy of a complex, a network of interconnected buildings capable of integrating better with the surrounding urban fabric. Rather than exalting the image of the mega-skyscraper as a single, abstract object, Portman’s strategy drew upon Rockefeller Center, a complex of buildings interconnected by a public concourse made of lobbies, underground passages and plazas to which each building would connect. Rather than approaching buildings as objects, the search for a more holistic contribution to the city was driven by Portman’s concept of “environmental architecture,” one that would expand the definition of the discipline as

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37 John Portman, interview with the author, John Portman and Associates Offices (Atlanta, December 6th, 2011).
38 John Portman and Jonathan Barnett, “It is time for a new definition of architecture and of the architect’s role in society. For many years the profession gained its sense of purpose and direction by creating an architecture that would incorporate and express the technology of our time. That battle for modern architecture has now been won. The most important issue today is the design of the environment. Architects
well as redefine the terms of practice. In contrast with Roche’s notion of “environmental architecture” where the building reflected of the volumetric intricacies of its immediate surroundings, Portman’s reference to environment points to a comprehensive redesign of nature and built form into a new synthetic condition that is neither.

Dissolving the figure of the discreet skyscraper into a complex of interconnected atrium buildings effectively reversed their figure-ground relationship with the surrounding fabric through dispersion, resulting in more urban continuity and the promise of making a

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Figure 4.6: Diana Agrest, “Le ciel est la limite,” “John Portman, Hyatt Regency Hotel, San Francisco, (1973),” *L’Architecture D’Aujourd’Hui*, no.178 (March – April, 1975), 63.

more unified contribution. Portman’s commitment to devoting disproportionate amounts of built area to interiorized, public space threaded together many buildings into a complex, and in turn, the complex became the surrounding city. These vast areas of public space stood within and yet outside of the conventional formulas of “commercial architecture” as described by Bernard Huet. They were both filled by large amounts of retail and disproportionately large for circulation purposes (fig. 4.6).

These vast environments of interiorized urban life also operated along the boundary between the artificial and the real, in the sense of Truffaut’s stage sets. In bridging the gap between their public interiors and the space of the city, the atriums and concourse spaces reproduced the “real” space of the city as “imaginary,” interiorized public spaces, which brought their reality and artificiality into view. As with Truffaut, “demystifying” the urban space of the city into the artificial space of the concourse highlighted the “intoxicating” (inebriating) and “demystifying” possibility of recreating the spatial qualities of the city and the understanding of space as reconstruction:

At least a hundred times during the shooting I was asked, “But aren’t you afraid of “demystifying” (demystifying, one might almost say!) a craft you love so much?” I answered each time with a question of my own: An aviator can easily explain all that he knows about piloting a plane – and yet will he ever succeed in “demystifying” the intoxicating rapture of flying? […] Day for Night revolves around one central question: “Are films superior to life?” It gives no definite answer. For there can be none. No more than there can be to that other equally persistent question: “Are books superior to films?”

Tafuri’s reading of Rockefeller Center as the last “disenchanted mountain” reemerges in Portman’s complexes as demystification; the difference between Rockefeller Center and Portman’s interiors hinged on the capacity for the latter to reconstruct the sense of urban alienation that had allegedly caused the death of the typology halfway through the 1970s.

39 Truffaut, Day for Night, Ibid., vii.
Portman’s interiors promised a new, mixed-use programmatic formula that would also transform the typology from within. By introducing interconnected atrium spaces, the typology of the high-rise building would be transformed by hollowing out its inner core. Outwardly, the project was understood as a node within a much larger urban network, which Portman called a “coordinate unit.”40 Inwardly, the building’s section would be radically opened in order to bring urban programs deep into the interior. Portman found in the atrium a liminal architectural form that allowed fusion of exterior and interior environments into a seamless urban condition.

Frank Lloyd Wright served as a model for an “organic” architecture, one that Portman defined as working through to find that “kernel of truth” that defines a problem and “spinning outwards” to find a solution.41 The atrium of Wright’s Solomon R. Guggenheim Museum in New York (1959) was an example this organic architecture, “spinning outwardly” spatially and conceptually to become much more than an urban interior. Within its space, Portman found himself “leaning on the rail and looking around, at the building, at all the other people. People have never looked more interesting. Their movements are graceful, their stops and starts intriguing, the profile of their figures sharp and unique. Some are seen from the waist up, others in full figure, those on the ground floor from a rare vantage point – all appearing abstractly free.”42 Portman translated

40 Portman, “I have come to the conclusion that cities should be designed in a cellular pattern whose scale is the distance that an individual will walk before he thinks of wheels.” “The coordinate unit,” “Part 2: Architecture as a social art,” The Architect as Developer, Ibid., 131.
41 Portman, “When architects begin to study a new situation, they confront a mass of irrelevancy and confusion. They must work their way through to that kernel of truth that defines the problem in a clear and concise way. Then they can start spinning outward from this definition, evolving a solution that has an appropriateness derived from the unique qualities of the problem at hand. […] Frank Lloyd Wright was describing such a process when he wrote about “organic” architecture.” “An Architecture for the People and not for Things,” Ibid., 60.
42 John Portman, “Wright gives people something else to do when they have had their fill of paintings. Whenever I go to the Guggenheim, I first feel again that great sense of elation one gets upon entering. I walk up the ramp, enjoying certain paintings, finding new interest in many I had seen before. But after a time I find myself leaning on the rail and looking around. A lot of other people are doing the same thing – leaning
Wright’s atrium into a concept of “shared space,” into a generative diagram for a number of projects of increasing scale and complexity.\(^\text{43}\)

The Atlanta Regency Hyatt (1967), developed as an expansion of the Atlanta Merchandise Mart (1960), was Portman’s first experiment in using this concept. Rather than relocating the Mart to the suburbs as had been planned by the Atlanta municipal authorities, Portman proposed to leave it in the city center, housing it within an existing garage structure. Benefiting from the population brought by the Mart, the Regency Hyatt would expand from it, as an alternative model to the road-side hotel at the periphery of the city. In response to the urban blight plaguing the American inner city, the atrium would be a catalyst for the revitalization of urban life. In its first iteration, the Hyatt’s atrium resuscitated all of the amenities that had fallen prey to the process of urban decay, such as restaurants, cafes, clubs, gardens, and public plazas. The overwhelming success both of the Merchandise Mart (coinciding with a surge in airline traffic and economic activity) and the Regency Hyatt (as a new model for a downtown hotel) was remarkable, where extensions had to be planned for each much sooner than ever expected. The meteoric success of these early experiments, coupled with the fact that Portman took part in the development of both projects, gave him the means and confidence to apply his formulas across a number of sites.

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on the rail and looking around, at the building, at all the other people. People have never looked more interesting. Their movements are graceful, their stops and starts intriguing, the profile of their figures sharp and unique. Some are seen from the waist up, others in full figure, those on the ground floor from a rare vantage point – all appearing abstractly free.” “New View on the Guggenheim,” “Letters to the Editor,” Architectural Review, (November, 1961), 8. Collection of John Portman & Associates Archives, Atlanta.

\(^\text{Portman, “The whole concept of shared space is based on the human desire for a release from confinement. If more than one thing is happening in a space, if you can look out from one area and be conscious of other activities going on, it gives you a sense of spiritual freedom.” “Shared Space,” The Architect as Developer, Ibid., 117.}\)
Shortly after the completion of the Atlanta Regency Hyatt, Portman began working on a similar hotel project for Times Square in New York (fig. 4.7). The scale would be larger, and instead of being linked to a Merchandise Mart, the hotel would serve a much larger convention center to be built along the east side of Manhattan. The plans for Portman’s Times Square Hotel were formally announced by New York City mayor John V. Lindsay on July 11, 1973. The press release described a “2,020-room, $150 million, convention Hotel on the west side of Broadway between 45th and 46th Streets.”\(^{44}\) The fifty-four-story hotel would be “New York’s tallest in number of stories [618 feet above street level] and second largest in number of guest rooms.”\(^{45}\) The project was originally scheduled to start construction in 1974 with a completion date in 1977. Mayor Lindsay praised the project for its contribution to the revitalization of Times Square and exclaimed: “Welcome, John Portman, to New York City.”\(^{46}\)

Portman had not been the first to work on the Times Square site. Peter Sharp, the site’s developer, at the urging of Jacqueline T. Robertson, the director of the Mayor’s Office of Midtown Planning and Development, had previously assembled a team that brought Robert Venturi and the New York-based Emery Roth and Sons, specialists in New York high-rise construction (fig. 4.8). Venturi described the drama of Times Square as more “Byzantine” than “Baroque”\(^{47}\) and saw it as a two-dimensional space of ornamentation made of symbols, light, and movement.\(^{48}\) Rather than the interiority of the building,

\(^{45}\) John Portman and Assoc., “Press-Release,” Ibid.
\(^{46}\) “Statement by John V. Lindsay, Mayor, City of New York,” “Hotel Project in New York,” Ibid., 4.
\(^{48}\) Venturi, “Times Square is not dramatic space but dramatic decoration. It is two-dimensional, decorated by symbols, light and movement. […] The project suggested a “decorated shed, a traditional Times Square configuration rather than the mega-structural bridges, balconies, and spaces that have been proposed for the area.” Learning From Las Vegas, Ibid.
Venturi’s focus was thus on surface ornamentation, to take the form of a “decorated shed.” As for the project’s interior, Venturi saw the Art-Deco surfaces of Rockefeller Center as more appropriate than the “beton brut forms of Piranesian carceri.” Although Portman also accepted that “Times Square is only skin deep,” a surface strategy based on two-dimensional decoration made of signs was not enough.49

49 Venturi, “The model for the interiors will be the art Deco surfaces in Rockefeller Center rather than the beton brut forms of Piranesian carceri. Schubert’s Alley will be a brilliant tunnel pulsating with color and images.” Learning from Las Vegas, Ibid.

50 Paul Goldberger, “Curiously, Portman’s way of responding to the essence of Times Square is almost the opposite of Venturi’s earlier scheme. Venturi had emphasized the signs and surface decoration of existing

Figure 4.8: Robert Venturi “A Development on Times Square, New York, [In association with emery Roth and Sons] (1970),” Learning From Las Vegas, (Cambridge, Mass.: MIT Press, 1977), 158.
Venturi’s “decorated shed” contrasted Portman’s deep “total space.” The two-dimensional space of the sign contrasted the three-dimensional space of the concourse as an endless and interiorized environment. 51 Both represented abstractions of urban surroundings, albeit differently. In both, however, the contact between the interior and exterior was lost. In the case of Venturi, there was no interior. The “decorated-shed” proposed “systems of space and structure [that] are directly at the service of the program, and [where] ornament is applied independently of them.”52 Venturi removed all of the physiognomic features of the building-volume in exchange for a surface whose only characteristic was message, its presence as mercurial as the changing signs of Times Square. The “decorated-shed” flattened its spatial dimension to the depth of the building envelope; its only interiority lay within the images and messages of the signage.

In the case of Portman, the abstraction of the surrounding urban space operated differently. Exterior, urban life was extended and interiorized through an atrium space whose limits seemed endless.53 In contrast to the two-dimensional space of the sign, this new kind of urban interior was formulated on a three-dimensional premise that prevented

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52 Robert Venturi, Denise Scott-Brown, Steven Izenour, “Part II: Ugly and Ordinary Architecture, or the Decorated Shed,” “Some Definitions Using the Comparative Method,” “2. Where systems of space and structure are directly at the service of program, and ornament is applied independently of them. This we call the decorated shed.” Learning From Las Vegas, Ibid., 87.

53 John Portman in an interview with the author, “So I opened up the bottom and let the space go all the way through. Took Schubert Alley and ran it through from street to street in back but expanding the space and then take people up to the eighth floor. And then from the eighth floor down, the ballrooms and all that stuff and then from there up it was the rooms. And so people could come down and they could sit under the trees and have a drink, and they come out of all this congestion, and I’m adding substance. I’m adding a new form of space, and that’s what was exciting about it.” John Portman and Associates Offices, Atlanta (December 6, 2011).
one from deciphering its limits. Paul Goldberger, the architecture critic for *The New York Times*, described the spatial paradox that existed in the endless extension of this new kind of urban interior, becoming more and more disconnected from the urban exterior, where “the notion of bringing the city indoors has come at some cost to the city outdoors.” The atrium is “bringing the urban experience of the city at large into the building itself,” and all that remains is an “imagined city,” a “make-believe metropolis” that abstractly represents its capacity to approximate the space of the city itself.

In planning the use of the Times Square site, Portman described in the original press releases for the project how he “tried to capture the feeling of New York [as a vertical city]” (fig. 4.9). The massing of the building expressed “two structures – a hotel on top of a shopping complex” unified by the internal atrium spaces. In urban terms, Portman argued that one could “no longer think in terms of single buildings [but rather of] the larger environment.” In the project’s description, this environmental strategy to dissolve the building’s singular volume translated into “spectacular atrium spaces, extending the full height of both retail and hotel levels,” demonstrating his concept of “exploded space.”

54 Paul Goldberger, “The orientation here [of The Bonaventure Hotel in Los Angeles] is to the skyline on the one hand, and to the interior on the other – the notion of bringing the city indoors has come at some cost to the city outdoors.” “John Portman: Imagined Cities.” *Global Architecture*, no. 57, (1981), 3.
55 Goldberger, “It was not until Portman’s Hyatt Regency that a new program was conceived – the program of bringing the urban experience of the city at large into the building itself.” *Global Architecture*, Ibid., 1.
56 “In planning the use of the site, we tried to capture the feeling of New York. It is a vertical city, and our building responds to that.” “Architect’s Concept,” Bell & Stanton Inc. and John Portman and Assoc. (1973), 3. Hotel Project in New York, Collection of John Portman & Associates Archives, Atlanta.
57 John Portman and Assoc., “In a sense, we have built two structures – a hotel on top of a shopping complex. That is expressed in the building’s exterior. A person inside the building will feel a unity between the two elements. The central atrium would provide a spatial link between the retail and guest room functions.” “Architect’s Concept,” Bell & Stanton Inc. and John Portman and Assoc. (1973), 3. Hotel Project in New York, Collection of John Portman & Associates Archives, Atlanta.
58 Portman, “The city is where it’s happening […] We must provide an exciting and inspiring environment for people who work and live downtown.” “To achieve this, we can no longer think in terms of single buildings in the central city. We must deal with the larger environment. The answer lies in building coordinated centers that provide for man’s need for beauty as well as his need for shelter.” *The Architect as Developer*, Ibid., 2-3.
59 Portman, “The New York building’s spectacular atrium spaces, extending the full height of both retail and hotel levels, will demonstrate Mr. Portman’s concept of ‘exploded space.’ His designs orchestrate space, always relating them to the human dimension.” Ibid., 3.
Figure 4.9: Exterior Rendering, Hotel Project in New York, (1973). Collection of John Portman & Associates Archives, Atlanta.
Portman’s concept of “exploded space” (fig. 4.10) was based on his diagram of the “exploded column”; as part of the process that obliterated the building’s figure, its volume would quite literally explode around a colossal, interior open space where different kinds of public occupation could take place. Portman originally developed this spatial strategy in the open columns for his own house in Atlanta (fig. 4.11). Circular in plan and arranged at regular intervals, these vertical spaces set the structural rhythm of the house while at the same time offering different functions from within. At times they served as small functional rooms, while at others, they were points of vertical circulation housing a stair. He described them as an organizational device endowed with a certain degree of indeterminacy: “when all the doors are open, the house becomes a pavilion; when the doors are closed, we have clearly defined areas for individual privacy, for children, for adults, and for entertaining.”\(^6^0\) Defining the rooms of the house around a regular grid of these vertical and variable “hollow columns,” the whole composition gained a degree of open-endedness. The columns serve as connectors, transforming the whole house into a single space, or conversely as dividers, discreetly subdividing the space of the whole into different rooms.

\(^6^0\) Portman, *RIBA Journal*, Ibid., 509.
Figure 4.11: John Portman, “Floor plans of Portman house in Atlanta [...] The house can become a single large pavilion for a party or be divided into separate units for privacy.” “An architecture for people and not for things.” The Architect as Developer, (New York: McGraw-Hill, 1976), 63.
Portman’s hotel project occupied a full block on the west side of Broadway between Forty-fifth and Forty-sixth Streets. Portman proposed two parallel wings running east and west with a vast central atrium space between them. Shubert’s Alley would run between Forty-fifth and Forty-sixth Streets, bringing vehicular traffic deep into the site and providing access to five levels of underground parking for 400 cars. At street level and facing Broadway, there would be a bronzed-glass-enclosed sidewalk café seating two hundred and forty people on stadium-like stepped levels along with two escalators that would bring pedestrians up to an interim lobby. A 1,500-seat theater would sit below street level, its access facing Forty-fifth Street. As part of the building’s thirteen-story base, seven of the first nine floors would be dedicated to retail shops, services, and specialty restaurants “on successively recessed balconies facing a lower atrium.”61 On the ninth floor, a terrace would extend the width of the hotel north to south, with ribbon windows allowing natural light to penetrate deep into the plan. At this level, a bridge would link the terrace to a revolving cocktail lounge seating one hundred and twenty patrons and extending out from the building to overlook Broadway. The tenth floor would be occupied by an exhibition hall; the eleventh and twelfth floors would include a balconied ballroom and twenty-six meeting rooms with movable walls to become an extension of the ballroom during special occasions.62 At the top of the base, the thirteenth floor would include the registration lobby, a coffee shop, an entertainment lounge, cocktail lounge, stand-up bar, an outdoor terrace

62 John Portman and Assoc., “An exhibition hall, on the 10th floor, will provide 24,504 square feet of display space.” [...] “A balconied ballroom on the 11th and 12th floors will seat 3,000 for dinner or 4,000 for a meeting. There will be 26 meeting rooms on the two ballroom levels. Most of these will have movable walls that can become part of the expanded ballroom.” Bell & Stanton Inc. (1973). Collection of John Portman & Associates Archives, Atlanta. Ibid.
and an additional cocktail lounge on a podium. A mezzanine level over the registration lobby would also include a gourmet restaurant, a bar and a nightclub.

Above the lobby, thirty-five floors of guest rooms would open onto balconied corridors around a vast atrium. Atop this atrium a two-level, revolving cocktail lounge and restaurant would provide the capstone for the volume, enclosed within a bronzed-glass penthouse. The dimensions of the atriums would modulate by a series of trussed spans between the north and south wings, five floors in depth, with skylights introducing natural light into the immense space. The atrium space would feature an exposed core containing twelve, glass-cab elevators serving as a “kinetic sculpture as they move up and down the atrium.” These elevators would emerge into the open base in the lower atrium from a pool of water, and again into the upper atrium from a second pool.

Portman described the experience of riding the elevators up the vast lobby space as a spatial and visual “explosion.” The verticality and compression of the diminishing space of the atrium’s section paradoxically turn the experience into a spatial “implosion” as well. Traveling upwards, the space of the atrium is dramatically compressed as the open corridors that lead to the rooms come closer and closer to the path of the elevator column. Traveling vertiginously downwards, this sensation is reversed exposing one to a sense of spatial

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63 John Portman and Assoc., “At the registration lobby, on the 13th floor, there will be a sidewalk cafe, a coffee shop, an entertainment lounge, a cocktail lounge and a stand-up bar. Additional seating for the sidewalk cafe will be available in seasonal weather on an outdoor terrace at that level. Also in the lobby will be a pedestal-mounted cocktail lounge.” Bell & Stanton Inc. (1973. Collection of John Portman & Associates Archives, Atlanta. Ibid., 5.

64 John Portman and Assoc., “Twelve glass-cab guests elevators will rise along a pillar exposed to the atrium through tubes from the street level plaza until they emerge into the open from the base of a pool in the lower atrium. Then, just before the arrive at the 13th floor registration lobby, they will enter another set of tubes and come into the open again at a second pool […] The 12 illuminated glass elevator cabs will serve as kinetic sculpture as they move up and down through the atrium in both the retail and hotel areas.” Bell & Stanton Inc. (1973). Collection of John Portman & Associates Archives, Atlanta. Ibid., 7.

65 John Portman interview with the author, “So in order to do that – and that’s like 200 feet wide having parallel these things and then using five floors as structural trusses to span between these and then splitting them up so that the eastern sunlight could come in to light this thing. So I mean you’d ride up on the elevators and you look out over, but it was an explosion, a visual explosion.” John Portman and Associates Offices, Atlanta (December 6, 2011).
“explosion” as the space of the atrium enlarges dramatically. The paradoxical simultaneous sense of spatial “explosion” and “implosion” also extends to the building’s massing. Whereas the process of hollowing out the building’s core into the open space of the atrium can be understood as “exploding” the core (as an “exploded column”), the discovery of the interior space of a tapering atrium gives one the sense of an “implosion.” This sense of spatial evacuation is furthered by the muffling of sounds that results from being within such a colossal space.

In sharp contrast to the long list of programs that give life to the building’s interior, the tower’s exterior takes an abstract and monolithic form. Two slim and stark slabs, rectangular in plan, align their long edges facing north and south towards Forty-fifth and Forty-sixth Streets respectively. Because the east side of the site faces Times Square obliquely, the two slabs slide parallel to one another with the southern volume being slightly larger than its northern counterpart. The subtle asymmetry of the two slabs, produced by their different lengths in plan, responds to the diagonal eastern edge of Broadway’s oblique intersection with Forty-fifth and Forty-sixth Streets. Similar to the diagonal shifts driven by different site alignments in Kevin Roche’s United Nations Plaza complex, the sliding of the two slabs by Portman responds to the diagonal edge of the site as it faces Broadway. Whereas Roche’s site alignments were made complex by the illusion of continuity created by the reflection of the surrounding environment onto the building’s surface, Portman’s volumes offer a different kind of illusion of continuity by “hovering” over the street’s edge. The recessing of the entrances at street level transform the colossal volumes into floating masses under which the public is meant to enter.
The thirteen-story base of the building is treated as an almost unarticulated, solid plinth on its north and south faces. On these faces, a number of large, a-scalar openings follow a staggered pattern that hints to sectional changes in the lower retail and conference floors below. Above the plinth, the upper facades are articulated as thirty-five-story horizontal grills in which the glazing plane for the hotel room windows is recessed, increasing the depth of these horizontal lines. Acting as bridges, several volumes span across both slabs at different heights. These cross-volumes produce a number of setbacks in the upper section that become planted terraces and inversely a number of overhangs in the lower section that extend over the street. Each of these bridges is five floors in height and rests on a series of trusses exposing their cross-bracing.

Facing Broadway, the space between the slabs produces an extraordinary canyon-like form, which is furthered by the blank facades on either side. Three additional, bronze-glazed volumes animate the frontal elevation: a rectangular pavilion at street level, a hanging half-drum towards the upper section of the base, and a cube on top of the entire structure that houses the rotating restaurant and lounge. A refined game of asymmetry is at play in the overall arrangement of the parts. This includes differences between the edge slabs, as discussed, but also the play of the pavilion at street level mirrored at top, and the overhangs in the lower sections translated into set-backs in the upper bridging volumes.
Figure 4.12: Upper atrium rendering, Hotel Project in New York, (July 11th, 1973). Collection of John Portman & Associates Archives, Atlanta.
Figure 4.13: Lower atrium rendering Hotel Project in New York, (July 11th, 1973). Collection of John Portman & Associates Archives, Atlanta.
The project description defined the atrium as a “controlled environment which also created a sense of closeness with nature and the soaring dimensions of New York’s skyline.”\(^6^6\) Within it, many elements would come together to provide a dynamic sense of order: “gliding elevator cabs, large sculptures, sidewalk cafes, pools, trees, and planters with hanging greenery.”\(^6^7\) For Portman, even people moving through would add to this kinetic sense of space, a “moving sculpture.” The total effect was to create a “self-contained pedestrian village – one that will respond to all of the things man loves in nature as well as meet the needs of the particular situation.”\(^6^8\) In renderings of these spaces, a sense of loss of scale dominates the images of the upper and lower atriums (fig. 4.12) (fig. 4.13). Although both atriums are anchored by the column of elevators that glide past the different levels, it is impossible to get a sense of the full extent of the space. The open balconies that serve as the corridors for both the shops and hotel rooms appear more like exterior street elevations than interior corridors. The sense of vertical compression that exists in both spaces resonates strongly with the vertical canyons created by New York avenues.

A minor change in the height of the floors differentiates the lower from the upper atrium, where the lower retail floors have a higher floor-to-ceiling section height than that of the hotel floors. This subtle change in section exaggerates the perception of the upper

\(^6^6\) John Portman and Assoc., “Architect’s Concept,” “Our studies showed, first of all, we would have to create a totally self-contained convention hotel. It would have to meet all of the needs of a person coming to New York to attend a large convention – legitimate theater, shopping, gourmet dining and night life. Of course, it would have first-class meeting and exhibition spaces. We felt that if we could offer all of these with a controlled environment which also created a sense of closeness with nature and the soaring dimensions of New York’s skyline, we would have a truly new experience for our guests.” Bell & Stanton Inc. (1973). Collection of John Portman & Associates Archives, Atlanta. Ibid. 2.

\(^6^7\) John Portman and Assoc., “Architect’s Concept,” “Within the atrium, we have created many elements which man wants together with a sense of order. In addition to the gliding elevator cabs, there will be large sculptures, sidewalk cafes, pools, trees, and planters with hanging greenery. Even people moving on the balconies of the guest room floors will create a kind of moving sculpture.” Bell & Stanton Inc. (1973). Collection of John Portman & Associates Archives, Atlanta. Ibid. 4.

\(^6^8\) John Portman and Assoc., “Architect’s Concept,” “The total effect, we hope, is to create a self-contained pedestrian village – one that will respond to all of the things man loves in nature as well as meet the needs of the particular situation. That, in essence is the concept of this building – a sound solution to the problem it represented and one that is uplifting to the spirit of the men and women who go there.” Bell & Stanton Inc. (1973). Collection of John Portman & Associates Archives, Atlanta. Ibid., 5.
atrium’s verticality, increasing the perceived number of floors and thus dramatically increasing the sense of height and perspectival depth of the overall space. This sense is further exaggerated by the elevator columns and by the colossal trusses that cross the upper atrium, each of which serves as a bridge supporting six floors. As these trusses change location in section as the atrium rises, meeting the north and south wings at different locations, large glazed surfaces emerge spanning between them. The resulting set-back arrangement of the balconies is more characteristic of the building volumes that resulted from New York’s set-back laws of 1916. As with the parallels previously drawn from Kevin Roche and Phillip Johnson’s crystalline projects’ strong figural relationship to Hugh Ferris’s charcoal renderings of the 1916 Set Back Laws, the receding volumes in Portman’s project seem to embody the forces exerted by the urban context upon the building’s form. In the upper atrium, balconies are seen gradually receding, sculpting the space of the atrium vertically. In the lower atrium, the dark ceiling populated with lights is rendered as if a dark and starry night sky.

In both atrium spaces, vegetation and water become dominant features that provide a whole range of muffled sound and lighting effects to animate the space subtly. For Portman, vegetation and water are kinetic elements that augment the life of a space. Curiously, it is the different types of vegetation that reveal a sense of scale within the space more than the floor heights or even people. The systematic and highly regulated distribution of the vegetation, particularly as it hangs from the balconies, gives the space a strange sense of artificiality. The space is not read as natural, or artificial, but rather a play between both. The ubiquitous presence of water, vegetation, and in some cases birds, or at least their sound, turns the atriums into forest-like spaces that follow the logic of foliage, clearings, and meadows. In the juxtaposition of these natural elements and the geometrical built forms, a
new kind of synthetic landscape emerges. The organic and the inorganic ostensibly fuse into a field of geological formations, rocks with moss growing on their surfaces. Portman describes this effect of “Artificial nature [as] treelike columns rising from the lake at renaissance Center; shimmering glass beads for a chandelier that create an effect not unlike a waterfall; hanging Lucite geometric shapes, part icicle and part vine.” It is in the resemblance, or ostensible mimicry, of organic and inorganic materials, where vegetation and water fuse into a new synthetic whole, which Portman believed to be “indigenous” to human nature. Ultimately for Portman, all manmade architecture results in an “artificial environment” and using elements from nature served to create a “psychological union” between man and the built environment.

Regardless of the presence of natural elements, the scene stands frozen in time, projecting an eerie image that seems to belong to a future where humans coexist with plant and wildlife in an interiorized, controlled environment as the last remnants of a post-apocalyptic age. This dystopian view brought about by the general abstraction of each layer that forms the space, where vegetation is highly regulated into abstract pattern formations, contrasts with Portman’s optimistic descriptions of the space. For Portman, the

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70 John Portman interview with the author, “Well, I – we’re all creatures of nature. I’m nature and I’m indigenous to nature. I love flowers. I love plants. I love water, all forms of water and not just me. The human being indigenously because he’s part of all that. He responds to all that like the log fire, okay. [0:32:00] And I try to use water on every opportunity legitimately, but it’s played with this whole nature thing. Our built environment, it’s a question of taking a constructed environment and having it wed to nature. And it comes together and nature becomes an integral part of it. It’s not I built this damn thing and now, hey, put a fountain over here.” John Portman and Associates Offices, Atlanta (December 6, 2011).
71 John Portman in an interview with Inaki Abalos and Juan Hererro, “All manmade architecture is an artificial environment. Speaking in urban terms the creation of grand volumes of space inside or outside gives a sense of relaxation from the sense of confinement and congestion. Our enlarged ‘artificial environments’ are a product of the new technology that has become available, allowing for lighting, heating, cooling and building of great areas in buildings in such a way that could not have been possible in the past. Using the elements from nature creates a psychological union between man and the built environment.” Arquitectura, vol.73, no.290 (January, 1992), 105.
72 Reinhold Martin, “a pastoral [condition] the rise of the Portmanesque atrium is therefore more like the sprouting of a new nature from amidst the empty shells of warehouses, factories, and other such leftover equipment from the first machine age.” “Money and Meaning: The case of John Portman,” Hunch, The Berlage Institute Report on Architecture, Urbanism, and Landscape, no. 12 (2009), 40.
combination of natural and artificial light into an ambiguous state of “ambient light” was an important design element augmenting the overall sense of artificiality of the space. Mixing natural and artificial light into an “ambient” condition was to enhance the atmospheric qualities of the space, yet resulted in a condition that is neither daytime nor nighttime.

As a translation of the reality of urban life into an interiorized equivalent, Portman’s image of the atrium emerges as an artificial and fragmented abstraction of the built and natural environment. The space between the real and the abstract coincides with Truffaut’s “Nuit Américaine.” The duality projected in the film’s plot, simultaneously moving across individual scenes that convincingly replicate urban life and across the breaks that reveal the layers of cinematographic staging behind each scene, crystallizes the sense of abstraction and artificiality inherent in Portman’s space. With Truffaut, the plot reveals and holds the fragmentation of the stage into different scenes together, allowing travel back and forth between the illusion of the film as reality and the reality of the film as staging an illusion; Truffaut’s stage fragments by the staging of each individual scene, by oscillating between the illusion of Parisian urban life and the behind-the-scenes realities that threaten the realization of the perception of that illusion. As in Truffaut’s exposed cinematographic staging of urban life, Portman’s atrium is composed of disparate programmatic, natural, and artificial elements that become individual reflections of urban life, but as a whole add up to a fragmented space that is imbued with a sense of a muffled artificiality and alienation. If Huet and Tafuri warned of the alienating effects of the modern city, particularly as its forms grow in density

73 John Portman, “...light – both natural and artificial light – is one of the least understood and one of the most important elements in the design of any building. The ambient light in a space change the whole personality of an environment. The play of natural light is always moving and changing because of the weather or the time of the year. The architect must design with an understanding of the effects that different light quantities and qualities have on a space and the resulting effect on the human being. Most structures are used both day and night, and artificial light becomes a necessity.” “Light, Colors and Materials,” The Architect as Developer, Ibid., 85.
and abstraction, these same concerns would eventually come to haunt the space of the atrium, and by extension the reception of Portman’s project.

**Imagined Cities**

The reception of Portman’s project in Times Square experienced three different phases, the general attitude ranging from enthusiasm to skepticism. The first phase included the commission and development of the initial design up to 1973; the second phase surrounded a design variation of the first scheme and a period when the project was stopped due to a contentious planning process lasting until 1980; the third and final phase included another round of minor design adjustments, leading to the project’s completion in 1984. Each of these phases had to overcome extraordinary opposition to the project brought about by the demolition of three Broadway theaters: the Bijou, Helen Hayes, and Morosco, as well as the five hundred-room Piccadilly Hotel, which produced a contentious legal fight that lasted well over a decade and reached the U.S. Supreme Court.

At the start, the project’s commission came directly from New York City’s Mayor Lindsay through the Office of Midtown Planning and Development. The hotel project was to be an urban catalyst for a decaying Times Square. In the early days, Mayor Lindsay declared enthusiastically that the project “is a concept of what a city ought to be.” Portman cited St. Peter’s Square in Rome, Copenhagen’s Tivoli Gardens, and the atrium of the Guggenheim Museum in New York as models for the project, transcending the scale of the building and focusing on a broader idea of environment.75

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75 Portman quoted as saying: “we should start weaving a fabric to create a new kind of urban environment.” *Newsweek*, Ibid.
Portman believed that in order for architects to work at an urban scale, it was crucial to also have a stake in controlling the financial and management side of real estate. His role as an architect and developer was beginning to gain acceptance by the American Institute of Architects, a body that had cautioned against this double role in the past. The hotel project initially garnered wide support including from Philip Johnson, who previously had declared

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76 “For such grand schemes, Portman believes he must not only design the buildings but ensure their total development. “I am an architect first,” he says. “But I believe in doing real estate, promoting, financing and management because they control the end result.” This dual role has earned him the enmity of some fellow architects, who see a conflict of interest between the purity of architecture and the profit motives of a developer.” *Newsweek*, Ibid.

77 “But the American Institute of Architects, which once cautioned its members against “any financial interests [that] could compromise professional judgment,” recently issued a booklet on the architect as developer.” Ibid.
that Portman had proven that it was good business to “waste space,” certainly a complement on Johnson’s part. In focusing on creating a broader environment, Portman saw the Times Square area as two-dimensional and in need of depth. In an appraisal of the proposed project, The New York Times architecture critic Ada Louise Huxtable described Portman’s strategy of the atrium positively as breaking with “design taboos of conventional speculative construction,” spatially “exploding” what had previously been considered as “wasted space.” Architecturally, she viewed the project as structurally ingenious and flamboyant—a much needed change from the conspicuous dullness of the new theaters being built in the theater district.

By 1974, hesitation from New York’s financial institutions to fund Portman’s project began to slow things down. With a new mayor and change of director of the Office of Midtown Planning and Development, the project’s future became intertwined with a $200 million dollar convention center project on Manhattan’s west side and their prospects as urban catalysts to attract enough investment for both projects (fig. 4.14). Although Portman’s hotel was seen as “the key to bringing back Times Square” by John E Zuccotti, New York’s chief planner and the closest advisor to Mayor Abraham D. Beame, the city’s ongoing financial hardships jeopardized the realization of both projects. Halfway through

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78 Philip Johnson quoted “is good business to “waste space” […] the jury is still out on whether he’s a great designer, but he gets things up, he gets people into his buildings and, more important, his buildings work.” “The Portman Style,” Newsweek, (July 23, 1973), Ibid.

79 John Portman, “Times Square today is only surface. There is nothing behind the skin. We will give it depth, make it multi-faceted, yet retain the ambiance.” as quoted in James Brady “New York Intelligencer,” New York, (April 30th, 1973), 83.


81 Huxtable, Ibid.

82 Ada Louise Huxtable, “The future of Times Square seems to depend on one large, tide turning project: the $160-million hotel planned by the Atlanta architect-entrepreneur John Portman [and its ability to] attract the middle class tourism and to be an environmental catalyst [that] would provide an essential stability for Times Square” now depended on “a $200-million convention center proposed for a riverfront site a few blocks west.” “More Bad News About Times Square,” “Architecture View,” The New York Times, (February 9th, 1975).
1975, sources of both private and public funding continued to remain unresolved. Facing a severe budget shortfall, the city instructed the sponsors of the Convention Center to look for independent sources of funding in order to avoid having the city’s treasury use public money to subsidize the project, and in turn gave the green light for the revitalization of Times Square.

The city’s financial decline had also plagued its theaters. Where there had been two hundred and sixty-four productions during the 1926-1927 season, Broadway only managed to mount fifty-eight in 1972-1973. As a symptom of this decline, the total number of legitimate Broadway theaters had dropped from sixty-two in the 1930s to thirty-eight in the 1970s. By 1975, the city found itself on the brink of insolvency, forcing Portman and the other investors to abandon the Times Square project. The project’s resurrection would have to wait until late-1977 or early-1978, but a different Broadway awaited Portman upon his return. Although the Hotel project had been granted approval by the city, local community boards were not yet on board. By 1978, the Uniform Land Use Review Procedure had become law, requiring the community board to review Portman’s project even though it already had gained the city’s approval. In addition, the management of the Piccadilly Hotel sued Mayor Koch, the Board of Estimate, the State Urban Development Corporation (UDC) and Portman. The suit primarily maintained that the Board of Estimate

85 Micky Steinberg, Portman’s longtime partner and person in charge of the project for Portman & Associates, in an interview with the author, “but you know, before we could even get started – and we had developed it and we got started looking for financing… we had a lot of it, but New York went broke, se we stopped working on it. We put it in the drawer […] New York went broke and then Lindsay was out.” John Portman and Associates, (Atlanta, December 8, 2011). “But in 1975, with the economy in a recession and the city on the brink of financial disaster, Portman and the other investors pulled out, and the project was abandoned, or so it seemed.” “Fight Emerges Over Portman Hotel Project, Portman History,” The Atlanta Constitution, (Tuesday, September 20th, 1977), 1.
86 “But in 1975, with the economy in a recession and the city on the brink of financial disaster, Portman and the other investors pulled out, and the project was abandoned, or so it seemed.” “Fight Emerges Over Portman Hotel Project, Portman History,” The Atlanta Constitution, Ibid., 1.
illegally authorized the city to enter into an agreement with the UDC under which the UDC could condemn any property as “blighted.” The unveiling of the Westside Convention Center on December of 1979, spanning from Thirty-fourth to Thirty-ninth Streets between Eleventh and Twelfth Avenue, began to turn the tide (fig. 4.15). By that time, the Midtown Planning Office listed over thirty-eight projects, from street paving to major construction, ushering a wave of renewed optimism for the development of Times Square.

Figure 4.15: Photomontage, “A view of Manhattan’s West-Side midtown area showing the location of the new Convention Center along the Hudson River and the 2000-Room Portman Hotel and 1500-seat legitimate theater project. The Portman Project would be the first construction in the City’s program to rejuvenate the Times Square Area.” “Manning, Selvage & Lee, Inc., Press Release, July 7th, 1980,” Collection of John Portman & Associates Archives, Atlanta.

87 “Fight Emerges Over Portman Hotel Project, Portman History,” The Atlanta Constitution, Ibid.
88 Ada Louise Huxtable, “Although the funding of the Portman Hotel is still hanging in the balance, neither Portman nor the city has given up. The Midtown Planning Office lists 38 actual and possible projects from street paving to major construction. Enough has begun to happen in the area, in investment terms, to have sparked major redevelopment proposals. And these schemes do not appear, with builders expressing interest in them, unless there is a reasonable expectation of success and profit.” “Redeveloping New York,” “Architecture View,” The New York Times (December 23rd, 1979), 31-32.
Figure 4.16: “This is a model of the Portman Times Square Project which includes a 200-room hotel and 1500-seat legitimate theater.” “Manning, Selvage & Lee, Inc., Press Release, July 7th, 1980,” Collection of John Portman & Associates Archives, Atlanta.
Figure 4.17: Section of the Project showing the theater above street level, (1980). Collection of John Portman & Associates Archives, Atlanta.
In June of 1980, a second scheme for the project was presented that included a number of changes from the original (fig. 4.16). The most significant was in the lower section of the project, moving the theater from below to above ground level, filling what had been a separate, lower atrium surrounded by retail (fig. 4.17). This change in the section was reflected on the outside by the removal of a glazed, sidewalk café pavilion and the opening of the entire street front to pedestrian traffic along the Broadway frontage. Above street level, a billboard of approximately ten stories in height was introduced, tilted in plan to follow Broadway perpendicularly (4.18). A system of covered escalators would bring pedestrians up from street level to the theater. The top of the billboard was framed by moving letters advertising the theater’s shows in lights, closer to Broadway’s traditional signage. By July of 1980, the project had successfully appeared before numerous community and city boards; its estimated price had also almost doubled from the initial $150 million to $260 million.⁸⁹

¹⁸⁹ The press release included the following public appearances before a community, city and board of estimate: twelve public appearances before Community Board No. 5, culminating in a “Presentation of design changes and franchise items to full Board. Approved.” On July 18, 1979; three “Appearances and Public Hearings before the City Planning Commission” leading to a “Public hearing and approval of zoning modifications and franchise item.” On June 27, 1979; five “Appearances and Public Hearing Before Board of Estimate” resulting in five approvals for special permits, U.D.C. lease, U.D.A.G application, zoning modification and franchise item; and two other public hearings by the “Office of Economic Development on U.D.A.G. application and permit to “City of New York Environmental Protection Agency.” This list of appearances and approvals also reveals is a period of pause after 1973, and the project’s revival halfway through 1978. “Times Square Hotel Record of Approvals by Public Bodies,” Manning, Selvage & Lee, Inc., July, 1980; John Portman and Associates Archives, Atlanta; “Fact Sheet, Times Square Hotel,” “Total development cost: $260,000,000,” “Manning, Selvage & Lee, Inc., Press Release, July 7th, 1980,” “Collection of John Portman & Associates Archives, Atlanta.”
Opposition to the project jointly reemerged, demands intensifying that the three legitimate theaters on the site, the Helen Hayes, the Morosco, and the Bijou, be saved along with the Piccadilly Hotel, whose modest room-rates were not commensurate with the Portman project. Paul Goldberger’s initial enthusiasm began to waver, questioning whether an outdated “bulldoze-and-rebuild” strategy that belonged to the 1950s was better than more modest urban renewal solutions taking place in the 1980s.\(^9\) In urban terms,

Goldberger expressed support for the project.\textsuperscript{91} But as a building, he was opposed to the hardline exterior treatment standing in stark contrast to the colors and textures of Times Square.\textsuperscript{92} With respect to the demolition of existing structures, Goldberger described the life of a city as one of tradeoffs, where sacrifices in the present are worthwhile long term.\textsuperscript{93} At the start of the new decade, and with “all approvals granted,” the editorial board of \textit{The New York Times} endorsed the project “without reservations.”\textsuperscript{94}

In the fall of 1981, a feature on the front page of the \textit{Wall Street Journal} described Portman as an “activist architect,” the “nation’s most successful architect-developer.”\textsuperscript{95} The story announced that after eight years of delay Portman was about to begin construction of “his most ambitious project” to date, a fifty-four-story, $300 million hotel-theater complex in New York City’s Times Square.\textsuperscript{96} Philip Johnson was quoted stating that although Portman was not “a top designer,” he did have an “innate ability to get things done.”\textsuperscript{97} This contrasted with Tom Wolfe who declared that Portman hotels more than any other had succeeded in “establishing the look of downtown, or urban glamour, in the 1970s and

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\textsuperscript{91} Goldberger, “Times Square […] is a neighborhood in need of the kind of major help that this large-scale work can provide [being] one of the few parts of Manhattan in which more high-rise construction is not going to cause an intolerable increase in density.” \textit{The New York Times}, Ibid.

\textsuperscript{92} Goldberger, “…for all of the liveliness and activity planned for the inside, Mr. Portman had offered not much more than a set of harsh concrete forms for the outside [which] clearly reduced the appropriateness of this design for a place so based on surfaces vibrant with color and texture as is Times Square […] signs, lights, movement, energy, this is not the place for formal gestures.” Ibid.

\textsuperscript{93} Goldberger, “the life of the city is one of tradeoffs, and it seems not unreasonable to assume that in this case the tradeoff will be worthwhile [where] the evidence seems to suggest that the Portman hotel will make a sufficient impact in this part of town so that the loss will not be in vain.” Ibid.

\textsuperscript{94} Editorial, “All approvals have been granted, including a Federal Urban Development Action Grant, and the sponsors hope construction can start next year. It is in the city’s interest that their hopes are realized. In a built up urban center, however, new ideas are birthed in controversy. To make room for the new hotel, which in effect would replace the fabled Astor in Times Square, two legitimate theaters and the changeling would be demolished. That is regrettable, even though the loss would be partially offset by a new theater in the hotel. […] The threat to the theater and its people comes not from the decay of the area that surrounds them. Nothing would do more to strengthen the district than a luxury hotel in their midst. Treasuring a living theater, we wish the new hotel success, without reservations.” \textit{The Portman Hotel, Without Reservations}, “The New York Times,” (Thursday, July 17, 1980).


\textsuperscript{96} Goolrick, \textit{Wall Street Journal}, Ibid.

\textsuperscript{97} Ibid.
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Joining the increasing chorus of dissenting voices Wolfe compared him to a modern day Lapidus:

John Portman, meantime, has become the Lapidus of today. His enormous Babylonian ziggurat hotels, with their thirty story atriums and hanging gardens and crystal elevators, have succeeded, more than any other sort of architecture, in establishing the look of Downtown, of Urban Glamour in the 1970s and 1980s. But within the university compounds – it is not so much that he is attacked… as that he does not exist. He is invisible. He takes on the uncertain contours of the folk architect. He becomes a highly commercial (and therefore unredeemable) version of Simon Rodia, who built the Watts Towers. What was a Hyatt Atrium Ziggurat, anyway, but a Watts Tower production with the assistance of mortgage brokers and automatic elevators.

Michael Sorkin, writing for the Village Voice, deemed Portman’s project simply as an “assault on a mythic center.” Sorkin argued that Portman’s dramatically large atrium coupled with pools, fountains, patterned pavement, and a “profusion of potted plants” all added up to a paradoxically anti-urban condition. He concluded that for all of the project’s extravagance and flash, rather than belonging to New York, the project spoke of a “tradition of sameness” that only belonged in Portman’s head, crystallizing the project’s sense of alienation with respect to both its interiors and relationship to its urban surroundings.

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98 Goolrick, Wall Street Journal, Ibid.
101 Sorkin, “…buildings, which practically scream their aspirations to urbanity, are virtually without a sense of urbanism.” The Wall Street Journal, Ibid.
102 Sorkin, “…instead of a building which adds to the fantasy of the skyline, it is a scale-less box. Instead of making a statement that reflects New York and the city’s tradition, it speaks of an architecture of sameness […] For all of its extravagance and flash, the hotel is not about Times square, [but rather] sits in a landscape somewhere in John Portman’s head.” Ibid.

Chapter IV: CAPITALISM. 320
In the fall of 1982, John Portman was photographed standing defiantly over a pile of rubble in the Times Square site for a feature in *Forbes* (fig. 4.19).¹⁰³ The image shows him triumphing over what appears to be a decimated landscape of urban destruction. A quote in the caption below the image displayed an attitude of contempt towards the urban historical context: “I am not interested in building little buildings here and there.”¹⁰⁴ In the middle ground, an irregular row of New York, turn-of-the-century masonry buildings appears as if

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¹⁰³ Jane Carmichael, “Disneylands for adults, John Portman freely admits he’s building for the man in the street Maybe that’s why he’s making so much money.” “Profiles,” *Forbes*, (September 27, 1982), 125-126.

condemned to demolition, hastily clad with billboards and signs, as the only hint to the Times Square location. In the background, a row of stark abstract prisms that form the expansion of Rockefeller Center along Sixth Avenue encroach upon their predecessors, dominating the skyline without a clear sense of scale or relationship to their immediate context. Demolition debris fills half of the image. While one of personal triumph for Portman, the image is also one of incongruity, of Portman’s relationship to the surroundings.

Exceeding three times its initial price, the project reached a total cost of approximately $450 million by the time of its completion in the fall of 1985 (fig. 4.20). Its opening announced enthusiastically that Broadway had turned the corner and become an area of explosive growth both economically and culturally.105 The final built scheme proposed yet another round of minor adjustments (fig. 4.21). It reduced the scale of the billboard and introduced an angled portal that similarly to the sign aligned parallel with Broadway, for pedestrian access at the structure’s base (fig. 4.22). The elevation along Forty-sixth street also introduced a detached arch marking the entrance to Schubert’s alley, the driveway for vehicular traffic. In the final version, the exposed Vierendeel trusses forming the bridges across the north and south slabs were concealed behind the glazing and wall. In the final section, the large atrium stopped at the level of the main lobby, with the smaller and lower lobbies kept as separate floors corresponding to the levels of the theater, ballroom, and conference rooms (fig. 4.23).

105 John Portman & Associates, “Sings that the social and economic impact has already been felt everywhere, as evidenced by the scores of rehabilitations and renovations now under way which are giving the entire area a new look and feel. ‘There is no question that the Broadway area has turned the corner,’ said Thomas Reese, Manager for the New York Marriott Marquis, which has a $450 million stake on the future by selecting Broadway as the site for its 1,877 rooms. ‘Times Square is an area of explosive growth as well as economic and cultural resurgence because people feel optimistic about the future here.’” “The ‘New’ Broadway Now Evident in New York City,” “Burson – Marsteller, Press-Release,” (New York, September 9th, 1985) Collection of John Portman & Associates Archives, Atlanta.
Figure 4.21: Model of a preliminary scheme showing the Broadway Street elevation (1980). Collection of John Portman & Associates Archives, Atlanta.
Figure 4.22: Model of the Final built scheme showing the Broadway Street elevation, (1985). Collection of John Portman & Associates Archives, Atlanta.
Figure 4.23: Rendered Sectional Perspective of the Final project, “New York is about to get another spectacular landmark,” (1985). Collection of John Portman & Associates Archives, Atlanta.
In his final appraisal, days before the opening, Paul Goldberger described the project as imbued with a sense of fiction and isolation. He saw Portman’s projects as “islands unto themselves – alternative, enclosed, private urban experiences, not real ones.”

The question of authenticity gave way to the paradox of an extraordinary infusion of programs occupying the space of the atrium and a general sense of their urban disconnection. Goldberger projected this disconnect as symptomatic of the isolation of Portman himself. This final appraisal of the project contrasted Goldberger’s previous descriptions, where the promise of these vast urban interiors could be reconciled with and comparable to the space of the metropolis. Goldberger’s dissent was additionally based on the fact that the design of the project remained more or less the same throughout the decade. In an earlier review of the Atlanta Regency Hyatt, Goldberger spoke positively about the space of the atrium as an interesting space of tension and ambiguity, creating a sense of being inside and outside all at once. Goldberger noted that Portman’s “imagined city” had become a reality, an environment that came closer to replicating the urban space of the city unlike any other before; although the more that Portman’s “imagined city” was read as a function of its approximation to the space of the “real city,” the more isolated and autonomous it became. Rather than as a replica, the project needed to be evaluated in

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106 Paul Goldberger, “As a result, Portman buildings tend to be islands unto themselves – alternative, enclosed, private urban experiences, not real ones. It is not surprise that hotels like the Marriott, have a canned, packaged quality – for what they provide is a kind of canned, packaged urban experience, a suburban mall turned vertical. The Marriott seems to exist for people who would never think of walking the sidewalks of Manhattan.” “The Marriott Marquis: Edsel in Times Square?” The New York Times, (Saturday, August 31st, 1985), 25 and 44.

107 Goldberger, “Mr. Portman speaks frequently of the need for ‘people places’ and urban activity, but he seems, unfortunately, to believe that the only activity that means anything is what goes inside of his own buildings.” The New York Times, Ibid.

108 Paul Goldberger, “both civic space and an interior room [that] creates a kind of tension which is probably not unnoticed by the hotel’s visitors; in fact, it gives us that ambiguousness – that sense of being at once both inside and outside – that gives the atrium much of its value as an architectural experience.” “John Portman,” Global Architecture, A.D.A. EDITA, (Tokyo, 1974), 2.

109 Paul Goldberger, “The atrium in Detroit serves not only as a central space for the hotel, but also as a kind of central square for the entire complex, and this additional function, far from adding a level of complexity,
terms that transcended its perceived one-to-one comparative relationship to the space of the city, but also the terms of an “imagined” space autonomous from the city. Goldberger’s final assessment fell short in not devising these new terms with which Portman’s space could be critically understood neither as replica nor as “imagined.” Ultimately, Portman’s urban interiors were intended neither to be a reconstruction of the street nor an interior public space autonomous from it, but rather a hybrid of both. Portman’s interiors moved strangely between a sense of familiarity (in the activities filling them) and one of strangeness (in the monumentality and abstraction of the space as a whole). At the scale of the body, outdoor seating coexisted with fountains and vegetation, reflecting a familiar scale. At the scale of the whole, this familiarity became radically transformed by colossal spaces whose impossible sections were filled with columns and escalators of unimaginable vertical proportions. It is in the irreconcilable tension between these scales, finally, where the virtue of Portman’s interiors lies, as neither replication of the urban street nor as an abstract cathedral monumentalizing the public space of the lobby. Much like in Truffaut’s “Nuit Américaine” where the space of the film moves in and out of the space of the city, Portman’s interiors oscillated between a recreation of an urban exterior and its abstraction across both familiar and unfamiliar scales.

 seems to have clarified the entire project. The larger scale and the greater separation between towers makes this five-towered arrangement clearer than at Los Angeles, but more important, the imagined city, the make-believe metropolis of Portman’s earlier hotel atriums this time has become a real city. It is the true center piece of a whole urban place of its own now. At Detroit, all that Portman has been aspiring comes together – it is inward-turning still, but this time it is closer to being a true city than ever before.” Global Architecture, Ibid., 5.
The Sphinx’s Hotel

Madelon Vriesendorp’s depiction of *The Ecstasy of Mrs. Caligary* resonated with the tension created by the familiar and unfamiliar scale of Portman’s spaces in the face of a future caught between “real” and “imaginary” visions of the future of the city.\(^{110}\) A Statue of Liberty embodying what had become of the “imaginary” values of a social contract that could control the growth of the city finds itself toppled by a bundle of skyscrapers as the schizophrenic and unstoppable result of the “real” forces of production. In addition to Vriesendorp’s illustration of this struggle, Huet’s second issue of *L’Architecture D’Aujourd’Hui* included the first ever published text of “Delirious New York” by Rem Koolhaas.\(^{111}\) In it, “Manhattanism” emerged as the “melting-pot” of all the “‘-isms’ […] Futurism, Expressionism, Surrealism, Dadaism, Fascism, Marxism, Modernism, etc.…”\(^{112}\) The issue also included a contribution by Tafuri offering a more in-depth look at New York as the “capital of the twentieth century” and its models of practice.\(^{113}\) Vriesendorp’s cover crystallized both the emancipation of the skyscraper from the mechanisms that controlled urban planning in the 1920s and 1930s and its new-found freedom rediscovered “retroactively” half a century later in the 1970s, a time not coincidentally in which the skyscraper’s autonomy from the city had once again become radicalized. If Vriesendorp’s image served to capture the surrender of Lady Liberty and all of her civic tenants to the market forces of production as the birth of “Manhattanism,” it also served to evaluate the present condition in the 1970s. The untamed growth and brutality of the American city of

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the 1920s and 1930s had long captivated the European avant-garde, functioning as the basis from which to mythologize the future of the European city through visions of its American counterpart. Vriesendorp’s image reignited these visions in the 1970s precisely at the moment when Koolhaas and Tafuri fell captive to the indomitable nature of the American city.

Koolhaas’s “Delirious New York” was an ode to this renewed captivation. As a “retroactive manifesto,” it unearthed a record of New York in the 1920s and 1930s in which European avant-garde ideologies anchored their buildings. This new-found freedom in the double life of the skyscraper as both a “cathedral of commerce” and an incarnation of European avant-garde ideology gave way to proposals such as “The City of the Captive Globe.” As a historiographical field of operation, “The City of the Captive Globe” superimposed what had been two parallel narratives into one, finding European avant-garde ideology as the basis for the skyscrapers of New York. Within the terms of the logic of “Manhattanism,” and developed during the year that separates both issues of L’Architecture D’Aujourd’Hui, Koolhaas and Elia and Zoe Zenghelis’ project for The Hotel-Sphinx (1975-76) emerged as an “idealized project capable of being realized, but also a conceptual model” (fig. 4.2). It proposed a luxury hotel as a model for mass housing with leisure and sports facilities in a single structure.

115 This process of ideological translation has been described by Hubert Damisch as more analogous to “translation,” “displacement” and “transference:” Hubert Damisch, “Manhattan Transference,” Skyline: the Narcissistic City, (Stanford, Calif.: Stanford University Press, 2001), 100-101.
The Hotel-Sphinx uniquely synthesized the differing ideologies behind A.L. Pasternak’s European model of “social condensers” and Raymond Hood’s American model of the “City under a Single Roof.” Both ideologies could be found within the “many religions” that


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coexist in “The City of the Captive Globe,” in the form of Leodinov’s Ministry of Heavy Industry (1933) and Hood’s own RCA Building in Rockefeller Center (1933).\textsuperscript{118}

In “The City of the Captive Globe,” Leodinov’s Ministry of Heavy Industry was defined as “an early example of a modern architecture that constructs a viable relationship with history.”\textsuperscript{119} In contrast, Rockefeller Center was ideologically split by several impositions. Rationalism and spectacle came together; “the first Manhattan skyscraper planned according to the principles of European functionalism [is] contradicted by the irrational spectacles [of] the high kicking Rockettes in the purple glare of the synthetic.”\textsuperscript{120}

As a synthesis between Leodinov’s Ministry of Heavy Industry, and the RCA Building, The Hotel-Sphinx inherited and engaged in all of the ideological contradictions of its predecessors. Just as Leodinov’s Ministry forged a relationship with its historical and urban context, The Hotel-Sphinx similarly brought together the rationalism behind the design of the RCA tower and the spectacle exhibited in the shows of Radio City Music Hall. Kenneth Frampton describes this double image as “equally critical of the positivistic constraints of both capitalism and communism.”\textsuperscript{121} In addition, The Hotel-Sphinx found the Waldorf-Astoria as a third precursor within the constellation of ideologies operating in “The City of the Captive Globe.” Belying its abstract and muted exterior, the inside is raging.\textsuperscript{122}

\begin{footnotesize}
\begin{enumerate}
\item Koolhaas, “…cluster of three towers [that] explicitly engages the iconographies of the local context – the golden domes, St. Basil’s cathedral, the Kremlin walls, Lenin’s mausoleum – in an early example of a modern architecture that constructs a viable relationship with history.” “Ivan Leodinov’s Ministry of Heavy Industry,” \textit{Architectural Design}, Ibid.
\item Koolhaas, “RCA Building, Rockefeller Center, 1933,” \textit{Architectural Design}, Ibid.
\item Kenneth Frampton, “Two or Three Things I know about them: a note on Manhattanism,” “OMA,” \textit{Architectural Design}, Ibid., 315-317.
\item Koolhaas, “…a deliberately skin-deep form of interior design, whose continuous iconographic transfigurations accommodate the volatile changes in manner, fashions and values which is the essence of the Metropolis,” “The Waldorf-Astoria Hotel,” “The City of the Captive Globe, 1972,” “OMA,” \textit{Architectural Design}, Ibid., 338.
\end{enumerate}
\end{footnotesize}
Situated across the street from Portman’s project, The Hotel-Sphinx proposed a new typology of urban form for a unique urban condition on a triangular site that results from the intersection between Forty-seventh Street and Broadway. The ground and mezzanine level are occupied by sidewalk activities inside a large lobby whose entrance faces Times Square on Forty-seventh Street. This lobby also connects to the subway network. Similar to Portman’s hotel, the legs of the Sphinx align themselves with the tapering edges of Broadway and Seventh Avenue, containing escalators that ascend to a large foyer that serves theaters, auditoriums, ballrooms, conference and banquet rooms, and a restaurant that shapes the Sphinx’s wings. The roof of the restaurant is an outdoor playground and garden that serves the public as well as residents. Above the wings rises the body of the Sphinx, occupied by a whole array of disparate programs. The tail rises in the shape of twin towers occupied by studio apartments that sit on the base of an office space with its own roof garden. The neck and head of The Hotel Sphinx face Times Square, occupied by social activities and clubs for the residents. Some spaces are headquarters for trade groups and serve the different professions of the inhabitants who can use the “ideological billboard construction” covering the face of the tower to project their own messages out to Times Square in hopes of overpowering the commercial signs and symbols that already exist.

123 Koolhaas, “…any imaginable number of living types: hotel bedrooms and services suites for transient population alternate with apartments for different life-styles [that] culminate in villas with private gardens.”
124 Ibid.
As a contemporary version of the New York Athletic Club that Koolhaas had previously examined in *Delirious New York*, the head of the Sphinx is dedicated to "sensual activities of physical culture and relaxation," with an indoor/outdoor swimming pool as its main feature (fig. 4.25). The indoor section is surrounded by four stories of locker rooms and showers separated by a colossal glass-brick wall. A large, four-story window looks south to the Empire State Building and World Trade Center Towers, which rule the skyline. In the outdoor part of the pool, one can swim to the edge, experiencing weightlessness where the water meets the clouds, or to a small beach for sunbathing. The ceiling is an artificial sky, a planetarium on which to observe celestial movements as well as "imaginative speculations."  

As in the Statue of Liberty, the Crown of the Sphinx is occupied in a whole variety of improvised programs. The bar is imagined as a sickle-shaped mezzanine that peers inwardly to the planetarium and outwardly to the skyline of Manhattan, with thorn-like

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126 Koolhaas, Zenghelis, “…in addition to demonstrating the movements of the heavenly bodies, can also be programmed to project imaginative speculations from the audiences.” *Architectural Design*, Ibid., 340.

127 Koolhaas, Zenghelis, “…at cocktail time patrons can make bold speculations on their surrounding world or they can step out onto the viewing balconies, which project over the city to provide exhilarating experiences of the more immediate world of the Metropolis.” Ibid.
protrusions that are a “focus for intoxication.”

Below the pool are a gym, steam-bath saunas and massage parlors for residents’ relaxation, and a lounge with an indoor/outdoor restaurant. The Sphinx’s head is “anatomically” supported by hydraulic jacks to raise or lower it according to the degree of exhilaration of its activities, capable of rotating and change view (fig. 4.2).

The Hotel Sphinx functioned as a microcosm of the city in the form of an agglomerated metaphor of urban life: the skyscraper as “hotel-city.” The metaphor of hotel-city can be read as quite literally, consistent with all of the characteristic forms of urban inhabitation: the base of the Sphinx contains the public amenities of the urban street as lobbies connected to the network of public transportation; the body of the Sphinx is filled by the different forms of life and work that occupy a city’s inhabitants; the head of the Sphinx is devoted to all forms of collective urban life and leisure, including night clubs, bars, gyms, saunas, and planetariums. Independent from one another, these programs are just received forms of urban inhabitation. Yet together, they are transformed into new and unprecedented extensions of one another. As a heterogeneous whole, The Hotel Sphinx proposes a parallel reality in which each form of urban inhabitation is destabilized ideologically and augmented – not only spatially, but also physically, sensually and viscerally. Ideologically, The Hotel Sphinx unifies disparate forms of communal and private inhabitation, from transient housing to luxury villas with private gardens. It also includes all forms of collective and professional clubs and offices, and represents this unlikely mixture on the exterior as “ideological billboard construction,” transplanting Lissitsky’s Lenin Stand.

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128 Ibid.
129 Rem Koolhaas, Elia Zenghelis, “…to look in whatever direction is demanded by the surrounding metropolitan pressures.” “Head of the Sphinx, 1976,” Ibid.
130 Heinrich Klotz, “Zoe and Elia Zenghelis’s contribution depicts a ‘hotel-city’ in the shape of a sphinx, whose head contains a planetarium dome. These stories remind us that Koolhaas began his career as a filmmaker and a screen writer.” Heinrich Klotz The History of Postmodern Architecture, (Cambridge, Mass.: MIT Press, 1988), 312
A full spectrum of leisure activities augments the artificial nature of both inhabitation and professional association.

The mythical Sphinx was a lion with the wings of a great bird and the face of a woman. The Sphinx was infamously dangerous, promising death to those unable to answer her riddles. In its extraordinary mythical hybridity and anachronism, the image of the Sphinx belongs neither to the present nor to an immediate past. Its temporality is rather eternal, crystallizing the passing of time in its contrast with her eternal present. Sigfried Gideon studied the mythical hybridity of the Sphinx on both figural and temporal terms. \(^{131}\)

Figurally, the Sphinx combined the body of a lion with a human head; this hybrid body “hewn out from the living rock” resulted in a “sculptured mountain.” \(^{132}\) In effect, the figure of the Sphinx was part of a pre-architectonic condition that preceded the pyramids; not yet a free standing volume, it was the result of carving the mountain’s surface. Following the first of Gideon’s three conceptions of space, the body of the Sphinx emerges from the “hollowing” of the mountain-side as a found geological form, “hollowed out of the rock like a sunken relief,” \(^{133}\) as a “space-radiating” volume devoid of an interior. \(^{134}\) The figural hybridity of sculpture and mountain (or solid and void) as a primitive condition in which the free standing form recedes, also describes the geological nature of the crystalline volumes of Ferriss’s renderings as translated into mountains of glass in Kevin Roche’s United Nations Complex. In these glass mountains, the surface both reinforces and negates the figure of the

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\(^{131}\) Siegfried Gideon, “The Sphinx, a lion with a human head, was hewn out from the living rock: an enormous boulder remaining within the stone quarry excavated for building the pyramid. It is a sculpture mountain. Even so, it is not really a freestanding sculpture, since it is surrounded on three sides by the rock walls of the quarry. It is curious to note that this most colossal sculpture of Egypt is actually hollowed out of the rock like a sunken relief.” “The Sphinx,” “Part II: The Eggshells of Pre-History,” The Beginnings of Architecture, (Princeton, NJ: Princeton University Press, 1964), 70.


\(^{133}\) Gideon, “The Sphinx,” Ibid.

\(^{134}\) Sigfried Giedion, “The first space conception: architecture as space-radiating volumes. […] The first space conception was that of the first high civilizations: Mesopotamia and Egypt. These were the subjects of THE BEGINNINGS OF ARCHITECTURE.” “The Three Space Conceptions in Architecture,” Architecture and the Phenomena of Transition, The Three Space Conceptions in Architecture, (Cambridge, Mass., Harvard University Press, 1971), 15.
building mass through the contradictory play of oblique, razor-sharp profiles and surface reflections. Portman’s spatial indeterminacy of “exploding” and “imploding” the interior space of the building mass also aligns with the hybrid figure-ground condition of the Sphinx. If the body of the Sphinx was shaped by the excavation of the mountain to produce surface relief, the body of Portman’s interiors emerged from the seemingly impossible operation of “hollowing” out the building’s core.

In the case of The Sphinx Hotel, figural hybridity points to the project’s programmatic improbability. Its iconography too comes in and out of focus; certain features are recognizable, such as the legs, tail, and crown, while others become more diffused as the activities inside become externalized features. Programmatic interior scenes animate its exterior, dissolving the line that separates the two. The Hotel Sphinx is both autonomous from its urban context and inseparable from it. This indeterminacy extends outwards into environment, as parks and planetarium, but also inwards, where urban exteriors are brought deep within. The Sphinx Hotel is a renewed version of the Downtown Athletic Club, the skyscraper as a “Social Condenser.” But this time the many forms of intercourse spill out into its surroundings. If the Downtown Athletic Club interiorized the heterogeneity of metropolitan life, where “each of the Club’s floors is a separate installment of an infinitely unpredictable intrigue,” The Hotel Sphinx reverses this “complete surrender to the definite instability of life in the Metropolis.”

136 Koolhaas, “Such an architecture is an aleatory form of ‘planning’ life itself: in the fantastic juxtaposition of its activities, each of the Club’s floors is a separate installment of an infinitely unpredictable intrigue that extols the complete surrender to the definitive instability of life in the Metropolis.” “Definitive Instability: The Downtown Athletic Club,” *Delirious New York*, Ibid., 157.
between stories,” but rather a seamless continuity across a wide range of different forms of urban life, giving rise to a decipherable figure.

If The Hotel Sphinx can be understood to be a “hotel-city,” a model based on a set of different modes of urban occupation, representing a microcosm of the indomitable space of the city, then John Portman’s hotel in Times Square can be understood as the “city-hotel,” a model based on taming these differences into the smooth and congruous space of the atrium, where the destabilized city is normalized. This inversion echoes Truffaut’s cinematic technique of “Day for Night” and his fascination with revealing a behind-the-scenes perspective from the “wrong side out.” Just as The Hotel Sphinx functions as the aggregation of many fictional stories brought together to form a synthetic whole, Portman’s is an unlikely whole assembled from familiar parts. In this sense, Portman follows Truffaut’s strategy of “using as a starting point a film-in-progress, a fictional story which would, at the same time, furnish a maximum of factual information.” The promise of Portman’s atrium was to produce a space of “fiction” that could transcend the normality of the different parts. Ultimately though, its abstraction at the scale of the whole produced a strange sense of alienation from the city, rather than a space of resemblance to the city. Whereas Truffaut threaded together a narrative of fiction out of “factual” moments that resembled real life, Portman’s fictional abstractions of the different facets that for him constituted the urban space of the city added to a space that was neither a reproduction nor a complete abstraction, but simultaneously both.

137 Koolhaas, “SCHISM: There is to be no seepage of symbolism between floors. In fact, the schizoid arrangement of thematic planes implies an architectural strategy for planning the interior of the Skyscraper, which has become autonomous through the lobotomy: the Vertical Schism, a systematic exploitation of the deliberate disconnection between stories.” “The Double Life of Utopia: The Skyscraper.” Delirious New York, Ibid., 105.
138 Truffaut, Day for Night, Ibid., vii.
139 Ibid., ix.


Skyscraper-as-City/City-as-Skyscraper

Manfredo Tafuri summarized the “experience of the seventies” as caught between the “imaginary” utopian visions of the avant-garde’s “reformism of radical architecture” and the realism of the “technocratic demands of planning today.”¹⁴⁰ In the space left between lies a “principle of estrangement,” a “distancing” that governs contemporary architecture.”¹⁴¹ As a way out of Huet’s dichotomy of to the predominant models of practice into a “critical” model serving a collector’s market and “commercial” model serving the structures of development, Tafuri’s concept of estrangement pointed to the necessity for architectural practice to gain distance from itself by rejecting its autonomous functionality. Putting forth a historical critique, Tafuri argued that a return to a unitary and utopian avant-garde ideological model that resists both of the contemporary models of practice represented an evasion from reality.¹⁴² Surrendering to a model of practice based purely on production was equally not the answer. In search of an alternative position from within the terms that drive both extremes, Tafuri borrowed a metaphor from Martin Heidegger, describing the two models as parallel lines that meet in the horizon at an “intersection that they themselves did not produce.”¹⁴³ Rather than demarcating the limit of our perspective

¹⁴⁰ Manfredo Tafuri, Francesco Dal Co, “‘Kein Ding wo das Wort gebricht’ (Let nothing be where the word is lacking): a line from Stefan George to be kept in mind in understanding a final discussion of contemporary architecture. What remains to be done is clear. The separate histories we have traced have only occasionally, and then accidentally, proved to be not only contemporaneous but also similar. Profound differences separate the utopias of the avant-garde from the reformist or radical architecture or the technocratic demands of planning today.” “Chapter VI, The Experience of the Seventies,” Modern Architecture (New York: Electa/Rizzoli, 1986), 391.

¹⁴¹ Tafuri, Dal Co, Modern Architecture, Ibid.

¹⁴² Tafuri, Dal Co, “This is how it is today with many architects who are striving to update and champion anew the lesson of the modern movement. Intrinsic to such a definition is, as we have seen, a significance that can only be moral: those who have theorized about the traits of the movement in order to write its history have, necessarily, exalted its prophetic role, ideological charge, and utopian quality [...] But in the return to such a conception are laid down the premises for what is nothing less than an evasion, a flight from present fact.” Ibid.

¹⁴³ Ibid., p.391
on the horizon, the space of this intersection can be understood as the “improbable” space of the city.  

Similarly, Portman also saw architecture’s challenges within the space of the city. It is through form within this urban space where the discipline’s necessity for a “multidimensional” expansion of practice could emerge: “architecture as private art, as visual curiosity or primarily for the appreciation of other architects risks making the profession irrelevant to the dreams and aspirations of the society it seeks to serve.” For Portman, a direct engagement with the commercial, political and social terms that constitute urban space was the path both through and towards an alternative position. Unfortunately, the spaces that resulted could neither replicate the “real” city nor construct an “imagined” alternative that served as a more critical counterpart.

Outlining those who were interested in the reformulation of the space of the contemporary city, Tafuri grouped Portman with architects who focused on the problem of the isolation of the skyscraper. Placing Kevin Roche and John Dinkeloo’s Ford Foundation project of 1967 as the counterpart to Portman’s Atlanta Hyatt Hotel of the same year, Tafuri described the artificiality of “nature” in the former as “no less false” than the “welfare that the architects resort to as justification,” which is no less the case in

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145 John Portman, “The challenge to architecture in our cities and in incorporating technology into our lives is to create environments that encourage human interaction, promote society’s integration, and exalt men and women as the masters rather than the servants of machines. We must practice architecture as a multidimensional activity that addresses mankind’s physical, intellectual, spiritual and psychological needs.” “The Architect and The American Dream,” The American Dream, A Collection of Essays, (Atlanta: Georgia Institute of Technology ASC/AIA, 1983), 60.

146 Portman, “This exposure to the commercial, political and social realities of the evolution of the built environment cannot be substituted for an equal emphasis on art, for architecture divorced from art loses its soul. But this added dimension offers the path into the world of decision making.” The American Dream, Ibid., 61.

147 Manfredo Tafuri, Francesco Dal Co, Modern Architecture, Ibid., 400.
Portman’s atriums, where the urbanization of interiors never quite comes to reflect the indomitable spirit of the metropolis, but is rather a refraction of fragments of urban life.

Although dense and heterogeneous, the interiors are never really as rich and diverse as the city itself. The result of this “inside-out mirror image” in the form of a “distorted reflection” is ultimately an architectural mirror whose image aims to tame the wild nature of its counterpart, rather than replacing it all together. The atrium has become an abstraction that no longer needs the city since it has become its “replica.” Koolhaas would later describe the urban challenges facing the city when its public spaces are internalized (replicated) in the space of the atrium:

The new atrium became a replica as inclusive as downtown itself, an ersatz downtown. Downtown buildings are no longer complementary; they don’t need each other; they become hostile; they compete. Downtown disintegrates into multiple downtowns, a cluster of autonomies. The more ambitious these autonomies, the more they undermine the real downtown – its messy conditions, its complexities, its irregularities, its densities, its ethnicities. With atriums as their private mini-centers, buildings no longer depend on specific locations. They can be anywhere. And if they can be anywhere, why should they be downtown? …That was Portman’s paradox.

For Koolhaas, rather than “light and air – the outside into the center,” Portman’s atrium has become its “opposite: a container of artificiality that allows its occupants to avoid daylight forever – a hermetic interior, sealed against the real.”

148 Reinhold Martin, “This is how the classic Portmanesque hotel atrium works – as a sort of social condenser, a privatized public realm that, nevertheless, is dedicated to social interaction, albeit of a highly circumscribed variety. In other words, the whole point of opening up these large, complex, and expensive voids on the interior of massive downtown developments like Peachtree Center was not so much to negate or to refuse the city but to reproduce it, as a distorted reflection, a kind of inside-out mirror image of the urban public realm or civic center. Think of Rockefeller Center, turned inside out.” “Money and Meaning: the Case of John Portman,” “Bureaucracy,” Hunch; Ibid., 39.


150 Koolhaas, “John Portman is also responsible for single-handedly perfecting a device that spread from Atlanta to the rest of America, and from America to the rest of the world (even Europe): he (re)invented the atrium. Since the Romans, the atrium had been a hole in a house or a building that injects light and air – the
Curiously, “The City of the Captive Globe” did include one “plot” (urban block) where “architecture [is] reproducing itself, generated by an unstoppable impulse of continuous transformation, reinterpretation, and regeneration.” Similar to Truffaut’s “film within a film” (fig. 4.27) the translation from the tameless “real” space of the city into that of the outside – into the center; in Portman’s hands it became the opposite: a container of artificiality that allows its occupants to avoid daylight forever – a hermetic interior, sealed against the real. Actually, the evacuation of the center implied by the atrium, the subsequent covering of the hole, the mostly cellular accommodation of its perimeter – hotel rooms, office cubicles – make it a modern panopticon: the cube hollowed out to create an invasive, all-inclusive, revealing transparency in which everyone becomes everyone else’s guard – architectural equivalent of Sartre’s No Exit, “Hell is other people…” Downtown becomes an accumulation of voided panopticons inviting their own voluntary prisoners: the center as a prison system.”

151 Koolhaas, “Architecture in the process of reproducing itself: perhaps this was a subconscious portrait of O.M. Ungers’ architecture that is generated by an unstoppable impulse of continuous transformation, reinterpretation and regeneration.” Architectural Design Profiles, Ibid., 332.
“imaginary-city” creates a third, autonomous space whose potential lies between the “reality” of Portman’s “city-as-skyscraper” and the “imaginary” space of the Sphinx as “skyscraper-as-city”.

Today, the physical presence of Portman’s Marriott Marquis in Times Square has all but disappeared behind flashing signs and people lining up in the atrium to catch a show in its theater. Although the space of the atrium has never fully replicated or replaced the space of the city, the project’s disappearance into what constitutes a new Times Square is a testament to its success in reconciling the space between the skyscraper and the city. Today, Koolhaas’ prophecy has become real: we live in “an invasive, all-inclusive, revealing transparency in which everyone becomes everyone else’s guard,”\textsuperscript{152} As in Truffaut’s film about a film, perhaps the virtue of Portman’s project lies in our understanding of it as an early archetype that no longer was based on dichotomies of “interior vs. exterior,” “natural vs. artificial,” but rather operated through degrees of interiority and artificiality. In the face of the “imaginary” dissolution of these dichotomies brought about by social media, perhaps this project can serve as an analogue from which to begin to translate this virtual condition into a new spatial “reality” where the potential to transform the city lies.

\textsuperscript{152} Koolhaas, \textit{S, M, L, XL}, Ibid., 841.

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EPILOGUE. SKYSCRAPEROLOGY:
A Decade of Ecstasy, Delirium and “Erotic Aftermath”

The decade of “skyscraperology,” from 1974 to 1985, witnessed a radical transformation of architectural historiography and profound changes in tall building practice unmatched since the turn of the century. During this time, a general wave of disillusionment of the positivism inherent in the technological project of modernism triggered the search for alternatives to the image and order of the Miesian tower. By extension, a number of questions that centered on the history of the skyscraper in parallel to its transformations in practice came to the fore. Exploring the historiography of modern architecture, the historian Panayotis Tournikiotis has recently argued that the “morphological” transformation of the architectural project across time has served as a conceptual structure from which to construct historical “genealogies.”1 Beyond the different interpretations of the architectural project, Tournikiotis argues that the “partiality” of these “genealogies” is a function of the “identification of the historian with the protagonists in his history: Pevsner with Gropius, Giedion with Gropius and Le Corbusier, Zevi with Wright, Collins with Perret…”2 Although the historical questions that confronted the tall building during the decade of “skyscraperology” were in part driven by the need to understand a typological transformation occurring in practice; theoretically, the relationship between historians and architects was more complex, problematized by the interchangeability of their roles: architects constructing (anti-)historical theories of tall buildings (Sullivan, Root, Müjica,

1 Panayotis Tournikiotis, “With the exception of Collins and Tafuri, who operate on a different plane of historical analysis, the morphological description of modern architecture is a rule by which all the histories abode, making it possible for the author to define a set of distinguishing marks that function as stereotypes, to put together a list of exemplary buildings that are the “brand images” of the modern movement, and to praise the work and the spirit of one, two, three, or four masters who discovered the fundamental principles of modern architecture” “Modern Architecture and the Writing of Histories,” The Historiography of Modern Architecture, (Cambridge, Mass.: Massachusetts Institute of Technology, 1999), 223.
2 Tournikiotis, The Historiography of Modern Architecture, Ibid.
Gregotti, Goldsmith, Johnson) and theorists essentially redesigning the same history just like architects (Ferriss, Jencks, Vriesendorp). As a result of this interchangeable practice, the emerging discourse did not try to reconstruct each of these roles, historian, architect, theorist, but rather exploited their instability. Mújica’s graphs and Jencks’s equations served both to realign the past but also decipher a new future. As a collateral effect of the reflexive/projective character of these “revelations” (Mújica) or “formulas” (Jencks), a linear history was transformed into a discourse that was at times historicist and at others anachronist in nature. In addition to this explosion of received historical narratives, the conventional medium in which these histories were disseminated changed as well: professional journals were transformed by the publication of historical writings, and conversely, received historical narratives are challenged (and even exploded) as they are translated in the space of exhibitions.

Throughout the decade, the four episodes that framed each of the chapters occurred more or less chronologically. If Myron Goldsmith transformed the Miesian reticulated structure by reviving a differentiated “structuralism” based on the organicist theories of D’Arcy Thompson and the Semperian writings advanced by Root; the eventual disappearance of the image of structure altogether in the opaque reflection of Roche’s “crystallinism” signaled a second paradigm shift. If Mies had already observed that “with the raising of the walls, this impression [of bold constructive thoughts] is completely destroyed;” “crystallinism” replaced the image of structure with that of environment. Moreover, the parallel historiography that sought to contextualize “crystallinism” as

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3 In describing the differences between an early period of modern historiography, (“operative” perspective) and a late period (“derogative demarche”); Tournikiotis also argues that in addition to a change in historical perspective, there is also a shift in the position of the historian, from “founder” to “constructor” of their subject, a coming together of the role of the historian and the architect, The Historiography of Modern Architecture. Ibid., 225.

4 Mies van der Rohe, Published without title in Frühlicht, vol. 1, no. 4 (1922), 122-124.
descendent from American rather than European roots deepened the opacity of the tall-building’s image. In contrast to the condition of “crystallinism,” the end of the 1970s saw a different kind of “reflection” on the surface of the skyscraper, one where “historicism” replaced the image of the environment. As seen in Johnson’s AT&T building, the image of the skyscraper reconstructs itself through a “reflection” of the past. At the turn of the decade, the question of “historicism” transformed the tall building both in terms of its image, but also with regards to its relationship to the urban surroundings. If Tafuri had described the “confrontation with the city” as “the ultimate test [for] theoretical hypotheses,” the resistance of the existing urban fabric to the forces of “capitalism” gave way to the transformation of the tall building once again. Whereas Johnson reconceived the form of the skyscrapers by rethinking its relationship to history, Portman pursued a similar reconstruction but this time between the building and the city. The challenge raised by the historical urban fabric upon the planning forces of “capitalism” forced Portman’s building-as-city to reconceive the atrium typology that had been so successful in Atlanta into a new interiorized urban space for Times Square.

As a fundamental part of the expanded nature of the historiographical discourse, this epilogue offers an overview of this decade through the paintings of Madelon Vriesendorp. As emblems for the discourse of “skyscraperology,” her images are themselves the product of an operative historiography that assumes the form of an art practice. Centered on the iconography of the skyscraper, they follow the chronological limits of this dissertation from 1975 to 1984. In their articulation of the issues and historical themes of “skyscraperology,” Vriesendorp’s images synthesized building projects into a series of surrealist scenes that historiographically challenged the present with the complexity of the

historical past. Scenes of ecstasy, chaos, cannibalism, delirium or docile domesticity were enacted through the anthropomorphic animation of monuments from the immediate or ancient past. The Statue of Liberty (1886), for example, is seduced and eventually trampled by the Manhattan of the 1920s and ’30s. Two lovers played by the Chrysler Building and Empire State Building are caught in the act by a towering Rockefeller Center as an analogy to the promiscuity of the architects in the 1920s and 1930s. The recurring myth of the European avant-garde’s redemptive migration to the United States is recreated with the anticlimactic arrival of a curious floating pool at Manhattan’s shores after a forty-year journey. Marking the decade’s closing, the AT&T Building, the offspring of that initial affair between the Empire (1931) and the Chrysler Buildings (1930), celebrates its birthday, suggesting both the life and death of postmodernism, while affirming the repetitive nature of history’s cycles. While in some instances, past paintings are appropriated, Vriesendorp’s metaphoric transposition across disciplines to the discourse of architecture transforms our understanding of the narrative and history’s relationship to buildings. Because of their extraordinary visual acuity and graphic sensibility, Vriesendorp’s series of skyscraper paintings appeared on the covers of and featured inside numerous professional journals and books; even a diary for the building trades featured side by side to OMA’s early projects [see figures 5.1 – 5.5]. These images circulated widely, transforming their original meaning in a

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10 Vriesendorp, “Raft of the Medusa (Detail from Welfare Palace Hotel),” (1975), Ibid., 33A, B.
11 This building trades calendar is Vriesendorp’s earliest and most complete monograph of a series devoted to Manhattan, and perhaps one of OMA’s earliest monographs since it preceded the publication of the issue of Architectural Design Profiles no. 5 (1977) and Delirious New York. Remarkably, as illustrations for all twelve months, this calendar showed Vriesendorp’s paintings side by side to OMA’s early projects such as The City of the Captive Globe (Undated) or The Hotel Sphinx (1975-1976).
mediated process akin to “Chinese whispers.”\textsuperscript{12} In these different formats, Vriesendorp’s images were positioned alongside various historical and professional narratives that served as the foundations for the discourse of “skyscraperology.” Vriesendorp’s images are described as simultaneously conceptual and realizable “projects” transforming the received conventions behind the writing of historical narratives and contemporary building practice, and transforming the media in which these appear.\textsuperscript{13} Vriesendorp viewed the space of these images as one in which “different acknowledgements [references]” were brought together as “an idea.”\textsuperscript{14} Koolhaas described the functioning of Vriesendorp’s visions of the real and imaginary as a type of “conceptual cement” for the discourse, one that bound theory and practice together as one.\textsuperscript{15} Sequentially, Vriesendorp’s images witnessed the birth of the Office of Metropolitan Architecture; they also helped to develop the narrative of Koolhaas’s \textit{Delirious New York}. 

\textsuperscript{12} Madelon Vriesendorp in conversation with Beatriz Colomina “[BC]: What do you mean like the whispering game? [MV]: Chinese whispers. You know when you whisper something to someone and they whisper it on to the next person and on and on until at the end it has turned into something completely different.” \textit{The World of Madelon Vriesendorp}, Ibid., 54.

\textsuperscript{13} Kenneth Frampton, “As Illuminated by Breton, the highly ambivalent production of OMA laminates distinctly into two different layers of meaning, whose consequence I would argue, must vary to the degree that they emerge from the “illusion” of painting or the “reality” of architecture. On the one hand, the highly hermetic sublimation of the unconscious and on the other, the direct projection of a hedonistic world whose meaning – as form – would coincide, if built, with the actual fulfillment of desire.” “Two or three things I know about them: a note on Manhattanism,” \textit{Architectural Design Profiles}, Ibid., 317.

\textsuperscript{14} Madelon Vriesendorp, interview with the author, (London, July 27th, 2011).

\textsuperscript{15} Rem Koolhaas in conversation with Shumon Basar and Stephan Truby, “The text [\textit{Delirious New York}] was not written then. I had discovered the paranoid-critical method in London when I was a student. I wrote a thesis on it for Charles Jencks when I was very ill (which helped, since a fever makes you susceptible to all kinds of truths). When we came back from New York to London in 1976, Maddie completed some of the paintings. They were the same substance represented by different means and provided an essential complement […] May be I suggested one or two additions, but I didn’t have that kind of influence on her. The three paintings marked the space between the four chapters. They were a kind of conceptual cement, the evidence for the delirium.” “Worrying Kindness and Ultimate Wisdom, On the Act of Generosity,” \textit{The World of Madelon Vriesendorp}, Ibid., 264.
Vriesendorp’s *The Arrival of the Pool* (1974) illustrates the arrival of the European avant-garde to the new brave world of the United States, saving and bringing order to its architecture. Rather than arriving in the 1920s and 1930s, the image trans-historically links the arrival of Mies and Le Corbusier with that of Koolhaas, Vriesendorp, Zenghelis, Tafuri, Frampton, and even Jencks in the 1970s. In this scene of paradoxes, the myth of the American city as the place where the European avant-garde project is realized. The realities of the first are contrasted with the utopian aspirations of the second. As the image shows, upon their arrival, any utopic sensibility is eradicated by the familiar vision of Manhattan.

Was the American city the realization of the European avant-garde project? Or conversely was it its nemesis, devoid of ideology and based purely on systems of production driven by the market?

In 1977, Vriesendorp’s *Raft of Medusa* (1975) was published as the cover for a monograph dedicated to the work of the Office of Metropolitan Architecture in *Architectural Design* (fig. 5.6). Vriesendorp’s painting was a representation of a “gigantic three dimensional Raft of the Medusa executed in plastic (with a small area equipped for dancing),” originally a fragment of OMA’s *Welfare Palace Hotel* project located at the tip of the East River’s New Welfare Island. Both in painted and sculptural form, the *Raft of the Medusa* reproduced a well-known oil painting by the French Romantic painter Théodore Géricault (1791–1824) with the same title (*Le Radeau de la Méduse*). The original scene

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16 Rem Koolhaas, “Arrival of the Floating Pool: after 40 years of crossing the Atlantic, the architects/lifeguards reach their destination. But they hardly notice it: due to the particular form of locomotion of the pool – its reaction to their own displacement in the water – they have to swim toward what they want to get away from and away from where they want to go.” “New York, 1976;” *Delirious New York: a Retrospective Manifesto for Manhattan*, (New York: Monacelli Press, 1994), 309.


18 Koolhaas, “It was strange how familiar Manhattan was to them […] Had Communism reached America while they were crossing the Atlantic?” Ibid.


chronicles the madness that ensued on a raft full of survivors after the sinking of the ship Medusa off the coast of Mauritania, where they descend into cannibalism moments before being found and rescued.

Figure 5.6: Front Cover: “The Raft of the Medusa, detail, Madelon Vriesendorp. Gericault’s painting translated into a three dimensional plastic sculpture, 40m square in plan, floats in the East River between Manhattan and Welfare Island. After the shipwreck in the Mediterranean of the Medusa — a military vessel — the soldiers/castaways were left on their raft only with barrels of wine, guns and ammunition. In a premature and drunken panic they began to cannibalize each other on the second day of their journey. Saved on the 7th day of the shipwreck, they could easily have survived without eating anything at all. This monumental expression of “loss of nerve” corresponds to the premature panic and loss of nerve about the Metropolis in the present moment of the 20th Century.” “OMA,” Architectural Design Profiles, vol. 47, no. 5, (1977).
The original act of premature barbarism of the ship’s survivors is reinterpreted by Koolhaas, through Vriesendorp’s image, as a “monumental expression to the ‘loss of nerve’ and premature panic in the capacity of the architect’s capacity to reimagine the metropolis in the twentieth century, and the implicit retreat into camps of though barbarically fighting for control from within an autonomous and isolated discipline represented by a floating raft.” Simultaneously a fragment of a project and a historical reproduction, Vriesendorp’s *Raft of Medusa* illustrates this anxious perception about the future of the American metropolis and its practitioners, particularly from the perspective of an architectural discipline that would find itself increasingly more ineffective in exerting its control.

In what is OMA’s first special issue of *Architectural Design*, Kenneth Frampton described the work as embodying a “crisis in architectural meaning.” For Frampton, the work “defies interpretation or accurate description” because it oscillates between a “conscious/unconscious duality” between an “allegorical narrative and iconographic myth.” It is from within this duality that the work of OMA offers an alternative critical image of reality, one that for Frampton challenges the “positivistic constraints of both capitalism and communism.” It is precisely in its ability to be read both as an allegory and a myth that points to the space that Vriesendorp’s images occupy and where the virtue of OMA’s early work lies. Read as conceptual allegories that bring to life the complexities of the weight of the passing of time and history upon the present, Vriesendorp’s fictional

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22 Editorial description of Kenneth Frampton’s contribution, “Kenneth Frampton observes in the work of OMA the crisis in architectural meaning – particularly with respect to the metropolis. Their work defies interpretation or accurate description, because it is readable both at the level of allegorical narrative and iconographic myth.” *Architectural Design Profiles*, Ibid., 315.

23 “Their work defies interpretation or accurate description, because it is readable both at the level of allegorical narrative and iconographic myth. The components of this conscious / unconscious duality, argues Frampton, are both activated from the very core of existence by desire.” Ibid.

24 “Frampton continues, is ambivalent – their work, in architectural terms, exists not to question it, but to fulfill it. In doing so, he concludes, OMA presents an image of an alternative reality of radical potential – and one which is equally critical of the positivistic constraints of both capitalism and communism.” “Two or Three Things I know about them: a note on Manhattanism,” Ibid.
vision of the Raft of Medusa provides an alternative reality where the brutality of the past becomes a way to challenge the contemporary condition.

Hubert Damisch has recently argued that if Rem Koolhaas set out to write his “retrospective manifesto” in Delirious New York as a historian, it would be not only “with retrospective ends, but also with critical and even polemical ones.” Damisch argues that Koolhaas’s ambition to reconstruct a forgotten history of American modernism at the start of the twentieth century was not just a passive exercise of historical rediscovery; it was a gesture to prevent collective amnesia and to “(re)establish the architect as the subject of a history of which he had been dispossessed as the result of a repression whose object was part of the culture of modernity.” Koolhaas challenges the postmodern assumption that the modern project emerged autonomously from history, and in the process of critically reaffirming modernity’s commitment to history (and the city), he rediscovers a whole series of forgotten histories of American modernism that had been left out of the canon.

In Delirious New York, Vriesendorp’s images expand the theoretical medium as a set of allegorical visions that are inextricably connected to urban myths, to, in turn, create new myths that reconstruct both the future and the present. Just as Damisch argued that

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25 Hubert Damisch, “If Rem Koolhaas set out to write the retrospective manifesto of Manhattan (and of Manhattanism), this was not only as a historian, with retrospective ends but also with critical and even polemical ones: for him, it was a question of preventing a part of twentieth-century culture, one that had lost none of its currency, from falling into an oblivion to which the debate of modernism threatened to relegate it.” “Manhattan Transference,” Skyline, The Narcissistic City, (Stanford, Calif.: Stanford University Press, 2001), 117.

26 Damisch, “This book, which proposes, through the image of Manhattan “a blueprint for a Culture of Congestion,” was, then, the fruit of specifically psychoanalytic work. A work of memory as much as of rendering explicit (the aspects being mutually inextricable), and one aiming to (re)establish the architect as the subject of a history of which he has been dispossessed as the result of a repression whose object was part of the culture of modernity.” Ibid.

27 Rem Koolhaas, “Advocates of post-modernism embrace historicist architecture maintaining that modern buildings have two essential flaws: they do not complement the architectural environment of most European and American cities, nor do they meet the needs of people who will use them. I want to show here that this post-modern hypothesis is based on a solid foundation of amnesia. Modern architecture does not emerge from emptiness. Good modern architects carefully consider a city’s existing needs and historical context.” “A Foundation of Amnesia,” Center City Profile, Design Quarterly, no. 125 (1984), 5.
Koolhaas’s intentions are based on the present rather than on “nostalgia” for the past, Vriesendorp’s visions could be said to do the same. Likewise, Tafuri described history as a “production,” one which is “determined by its own traditions [as well as] its own transformations and those of the realities that it deconstructs.” This critical historiography, *historical projects as well as projects in history*, included in this early OMA monograph promises just this kind of double transformation by simultaneously including “the recovery of Manhattanism” alongside designs for *The Sphinx Hotel* - Manhattanism as historical (fictional) reimagining that triggers the transformation of contemporary reality in the form of real and mythical projects.

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28 Damisch, “If Rem Koolhaas obstinately denounces the fatalist notion that each generation must reject the heritage of the preceding one, if he himself lays claim to the last of the great Manhattan architects (including Wallace K. Harrison, who gave concrete form to Le Corbusier’s theoretical proposal for the United Nations headquarters), it is for reasons that have nothing to do with nostalgia, reasons that in the present context, are strategic in character.” Ibid., 118.

29 Tafuri, “History is viewed as a “production,” in all sense of the term: the production of meanings, beginning with the “signifying traces” of events; an analytical construction that is never definite and always provisional; an instrument of deconstruction of ascertainable realities. As such, history is both determined and determining: it is determined by its own traditions, by the objects that it analyzes, by the methods that it adopts; it determines its own transformations and those of the reality that it deconstructs. The language of history therefore implies and assumes the languages and techniques that act and produce the real: it “contaminates” those languages and those techniques, and in turn, is “contaminated” by them.” “Introduction: The Historical Project,” *The Sphere and the Labyrinth*, Ibid., 3.
Halfway through the decade, Vriesendorp’s *Dream of Liberty* was published in 1979 on the cover of Daniel Baroni’s *Grattacieli, Architettura Americana tra Mito e Realta 1910 – 1939* (fig. 5.7) (fig. 5.8). Baroni presents the history of American modernism through the lens of the skyscraper as one of both myth and reality. Accordingly, Vriesendorp’s image on the cover depicts the ultimate end of the metropolis and perhaps of civilization altogether: it is, according to Volker Fischer, “a spectral scene [where] the world laid waste, perhaps after ‘star wars’.” A return to prehistory is all that is left in a Vriesendorp’s future where half of the world is frozen, while the other half takes the form of a barren desert. The skyscraper joins the sphinx and pyramid as the only monuments left from the total obliteration of civilization, “archaeo-mythological counterparts to the few surviving skyscrapers in the ice.” In this dystopian future, prehistoric Egypt comes face to face with post-apocalyptic New York. Koolhaas had already described the shock felt by Dali upon his arrival to New York, discovering that in fact it was not a modern city after all but rather quite the opposite. “New York, you are Egypt! But Egypt turned inside out…she erects pyramids of slavery to death and you erect pyramids of democracy with the vertical organ pipes of your skyscrapers all meeting at the point of infinity of liberty!” If the image of the pyramid points to the myth of antiquity, Vriesendorp’s *The Dream of Liberty* as her escape from the shackles of history can be interpreted in several ways. At first glance, it depicts a flight

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32 Fischer, “*Dream of Liberty* depicts the end of the metropolis. Madelon Vriesendorp paints a spectral scene, the world laid waste, perhaps after “star wars.” Half of the world has entered a new Ice Age, the other half has become desert; it is further threatened by cascades of lighting volts from space. The sphinx and pyramids lie in the sand as archaeo-mythological counterparts to the few surviving skyscrapers in the ice.” *Postmodern Visions*, Ibid.
34 Madelon Vriesendorp, interview with the author, “[Pyramids] they are also a Surrealist image of the whole of antiquity and the buried treasure and danger and the whole myth of pyramids. Apparently it is not true at all
from history, which is headed towards disaster. This reading can be understood as the inherent impossibility of ever escaping history; the utopian dream of escape turns into a dystopian landscape left in ruins by the passing of time. Alternatively, *The Dream of Liberty* can also be read as a symbol for Koolhaas’s rediscovery of an American modernity that stood on the edge of the abyss, about to be forgotten. Unlike the alleged shock felt by those that had come before him upon seeing New York frozen in a state of trans-temporal paralysis, modern and premodern at once, Koolhaas constructs a competing narrative that offers an alternative history of the skyscraper, and, more generally, of American modernity. Whereas others dismissed this history as “contaminated,” made of artifacts belonged to popular culture and kitsch, Koolhaas and Vriesendorp embraced it:

“…we went in a tour in Rockefeller Center. [And] people said, ‘You went on a tour? Like with other tourists?’ […] …we were sort of contaminated in a way, you know, we went on a tour. We were proper tourists.”

The *Dream of Liberty* as a flight of history became their own escape through historical rediscovery.

The closing of the decade was marked by Vriesendorp’s *The Birthday Party AKA 10 Ans Après l’Amour* (1984) (fig. 5.9). If the *Dream of Liberty* showed a post-apocalyptic landscape where the beginning and the end of time could be seen simultaneously, Vriesendorp’s *Birthday Party* shows a much different return to history:

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36 Cover, *Design Quarterly*, Ibid.
“[Vriesendorp]: This is the final installment of the romance between the father and the mother. And the kiddies! The children’s party…
[Colomina]: Oh, [The Birthday Party AKA] 10 Ans Après l’Amour!
When did you do this one?
[Vriesendorp]: I did it for Design Quarterly in 1984.
The affair between the Chrysler and Empire State Buildings, with Philip Johnson, Michael Graves, Bob Stern… and Robert Venturi. The neo-classical column as a cake. This was an allusion to the post-modernist Biennale in Venice that year.”

At the center of a scene characterized by its docile domesticity, Philip Johnson’s AT&T Building can be seen celebrating its completion alongside Michael Graves’s Portland Building four years after the first Venice Biennale entitled The Presence of the Past. Both have been turned into the offspring of the Chrysler and Empire Estate Buildings, caught famously in the act a decade earlier by the RCA building as Madame Chrysler’s “flat-topped husband.”38 The elevations of the Venice Biennale’s Strada Novissima hang upside down across the top, flattened into paper decorations devoid of any depth, weight or direction. In this tableau, this postmodern turn to history affirms its irrelevancy as a collective project: In the backdrop, Johnson’s Republic Bank Center in Houston stands incongruously next to other projects with a high degree of formal intricacy on their exteriors. This is augmented by the exaggerated features in the elevation of a villa designed by Venturi and Scott-Brown where its historical allusions border caricature. Intricately ornate participants, stand autonomously devoid of context and in stark contrast with a decimated modern metropolis in the background, where building forms stand devoid of features and shaded in earth tones.

The dramatic contrast between both of these worlds, one based on the end of history as a condition of flattened postmodern exteriority, and the other as a decimated and featureless modern world, were two of the historiographical contradictions of “skyscraperology” as it

37 Madelon Vriesendorp in conversation with Beatriz Colomina, “Disaster Follows Ectasy like Form Follows Function,” The World of Madelon Vriesendorp, Ibid., 58-59.
38 Charles Jencks, “Here, Madame Chrysler is caught in eth act with Monsieur Empire State by the flat-topped husband, (RCA) […] while the evidence, the spent Good Year Balloon, is there for all to see…” “Skycities,” Skyscrapers, Skyprickers, Skycities, (London: Academy Editions, 1980), 58.
came to an end. If Vriesendorp’s series represented a unit of time, a decade where the image of the tall building was confronted by its own history, Vriesendorp’s *The Birthday Party* signaled its end, triggered by what Koolhaas would describe as a “foundation of amnesia.”  

![Figure 5.9: Madelon Vriesendorp, The Birthday Party AKA 10 Ans Apres L’Amour (1984).](image)

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Vriesendorp’s collection of images charted a temporal trajectory that revealed an alternative process of interpretation, appropriation, transference and migration throughout the decade; this shaped the four episodes and critical historiographical models discussed in this dissertation. These episodes both rediscovered the virtues embedded in an archeological process of historiographical discovery but also transformed the present. Each image affirms the modern skyscraper as the result of critical historiography, open for rediscovery and reinterpretation. In each instance, the skyscraper appeared in a state of “double exposure,” both as a landmark for the historiographical discourse that centered on its emblematic role in the history of American modernity, but also as a series of specific conceptual and architectural projects.

Today we live in a second “skyscraperology” decade. Since 9/11 and exactly ten years after the exhibition “Tall Buildings” at the Museum of Modern Art in New York (fig. 5.10), contemporary professional practice continues to be committed to the production of tall buildings. The general public’s fascination with the skyscraper, embodied by the recent completion of the new World Trade Center Complex in New York, has come to embody the overcoming of cultural differences that have shaped the “war on terror” by the West. Paul Goldberger’s Pulitzer Prize winning Up From Zero, Politics, Architecture and the Rebuilding of New York has helped to consolidate the “heroic” image of this rebuilding effort, albeit the unremarkable set of towers that emerged from it (fig. 5.11).  

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Figure 5.10: Cover, *Tall Buildings*, (New York: Museum of Modern Art, 2003).
In the Middle and Far East, the rush to populate cities with western designed tall buildings has come to signal the arrival of democracy and modernization in spite of the urban and environmental challenges confronting these vertical cities (fig. 5.1).\(^{42}\) Dubai’s well known rise (and eventual environmental collapse) has illustrated the nature of this contradiction. The paradoxical proliferation of tall buildings across the globe raises a number of questions. On the one hand there are those who oppose this general trend towards urbanization. Recently Peter Buchanan has raised the question of whether the tower is an “anachronism waiting for rebirth.”\(^{43}\) On the other hand, there are those that see

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\(^{43}\) Peter Buchanan, “Is the tall building an anachronism? Does it, like sprawling suburbia and out-of town shopping malls, seem doomed to belong only to what is increasingly referred to as “the oil interval,” that now fading and historically brief moment when easily extracted oil was abundant and cheap? The answer is probably “Yes,” particularly for the conventional freestanding, air-conditioned, artificially lit tower that

**Figure 5.12:** Rem Koolhaas, “*Can Our Skyline Support so much Genius?*” *Dubai Renaissance: Project Description,* Office of Metropolitan Architecture Archives, Rotterdam, 2006.
the environmental, social and political virtue of the skyscraper precisely in its capacity to respond to densification, wondering whether the future of the tall building typology lies in its capacity to become local and responsive. Independently of the environmental tension that exists between the universal and local characteristics of the typology, contemporary practice continues its search for “uniqueness” as a way to arrive at unmistakably recognizable icons such as the “Gherkin,” “Shard,” or “Burj.” In contrast to the 1970s where the search for legibility in the tall building was confronted with the question of history, today’s discourse has replaced history for iconography.

As part of this search for a unique iconography, the images of Vriesendorp’s skyscraper series continue to be published today, and much in the same way as they had been originally on the cover of journals and books. Vriesendorp’s Birthday Party appeared on the cover of a recent issue of Architectural Review, in celebration of a recent exhibition on postmodernism at the Victoria and Albert Museum in London (5.13). The exhibition that also coincided with the publication of Charles Jencks’s latest book on the issue (5.14) (5.15). In both publications, the question of history’s inherent pluralism as a function of postmodernism’s capacity for resurgence is posed. Jencks designates postmodernism as an ongoing and “unfinished movement of five decades,” and continues to broaden its
guzzles vast amounts of energy and is built for short-term profit out of high-embodied-energy materials, many of them petroleum derivatives. Such buildings are utterly contrary to the requirements of times of increasingly insecure and dwindling oil supplies, in which even the United States must one day embrace the quest for more sustainable lifestyles and forms of development. Energy-wasteful buildings […] continue to be built, and more are proposed, particularly for boom cities like Dubai and many in China.


Alejandro Zaera-Polo argues for the potential inherent in finding specific norms that can make the tall building typology more responsive to local environmental, social and political conditions “High-Rise Phyllum, 2007,” Harvard Design Magazine, Ibid., 15-29.


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definition focusing on questions of iconography rather than historiography. Jencks offers a number of interpretations as a way to express its pluralism, catchy labels that have more to do with general culture rather than historiography as they once did: a “general social phenomenon,” “(pm)” an “artistic or cultural movement” “(PM),” and a “mass-cultural genre or even kitsch” “(PoMo).”

Stuart Cohen has argued that because of the predominance of technology in the skyscraper’s development across time, certain periods of its history concerned with its iconography or “symbolic program” have been neglected, such as in the case of the Beaux-Arts skyscraper. If the turn of the century interest and debates surrounding the iconography of the skyscraper mostly hinged on questions related to historical style, the contemporary focus on iconography today is more concerned with the problem of iconology.

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48 Charles Jencks “Moreover, as an unfinished movement of five decades, Post-Modernism is still contentious, and critics disagree over its meaning. The different spellings reflect this, including the streamlined version of a single word, Postmodernism. Yet, since critics agree that the designation refers to the era of pluralism after Modernism, I prefer the hyphenated version, a spelling that underscores its double-coding.” “Post-Modernism Resurgent?” The Story of Post-Modernism, p.11

49 Jencks, “It is of course tiresome to reread the same phrase again and again, so I will refer to pm, lower case, when it is a general social phenomenon, PM when it is the artistic or cultural movement, and PoMo when it is the mass-cultural genre, or even kitsch. […] Post-Modernism = The artistic or cultural movement; PoMo = the mass cultural genre, pm= the general social phenomenon.” Ibid.

50 Stuart Cohen, “The skyscraper was both the earliest icon and the last bastion of modern architecture. It provided modern architecture with its message of utopia – the city of towers. […] Because histories of modern architecture have dealt predominantly with the connection between the skyscraper and the developments of technology, an entire period has been neglected – that of the eclectic, Beaux Arts skyscraper with its explicit ornamental and symbolic program,” “The Skyscraper as Symbolic Form,” Design Quarterly, no. 118/119 (1982), [12-17], 13.

51 Charles Jencks, interview with the author, “I’ve just finished the book, The Story of Post Modernism. It’ll be out in a month and you can read it there. But, basically I’m more explicit there in saying that an architect, really, if it's smart in doing icons, has got to understand iconography. And understanding iconography is not enough. You have to understand iconology. And this iconology and iconography are yin and yang or their different things, but they are always operative. And if you read Panofsky, who made those distinctions, he said, "The iconology is the underlying symbol and symptom of a time. It’s what the artist portrays and symbolizes on a deeper level." And the iconography is the local conventions and symbols and signs that the architect is consciously using. So to give a crude example, let us call the Gherkin iconography is to do with a spiral in the stretched egg – and the diamond shape. Those are iconographic signs as well as the vertical shape. But the iconology is – the dumb iconology is the penis or the cigar, and the cigar really isn't an underlying symbol whereas the penis is, of course, as Freud famously said.” (London, July 27th, 2011).
Figure 5.13: Cover: Madelon Vriesendorp’s *The Birthday Party AKA 10 Ans Après L’Amour*, (1984). “The watercolor was originally made for the cover of the now defunct US journal *Design Quarterly*, and graces the AR’s as we reconsider Postmodernism;” *Architectural Review*, No. 1377, Vol. CCXXX, November, 2011
Figure 5.15: Madelon Vriesendorp, Metaphorical sketches for “Norman Foster Swiss Re Tower, London, 1997-2004: A swelling curve, smaller at the base and sharper at the top, again recalls the refinement like entasis. Atria twist up the outside pulling the air up six floors, naturally ventilating the skycourts, one of several ecological goals. Metaphorical sketches showing a mixture of paranoid and pleasant associations that often give the iconology more bite.” Charles Jencks, The Story of Post-Modernism, Five Decades of the Ironic, Iconic and Critical in Architecture, (London: John Wiley & Sons, 2011), 234.
Figure 5.16: Charles Jencks, *The Iconic Building* (New York, NY: Rizzoli, 2005).
As part of the flattening of the question of history into one of iconography in the form of a fight for slogans, Jencks’s *The Iconic Building* (fig. 5.16) focuses on the iconography/iconology of individual projects, such as Koolhaas’s CCTV (2005-2011) or Norman Foster’s Swiss Re (2000 – 2003), rather than reflecting upon understanding the changing images of these buildings in relation to history. ²² This search for reconciliation between competing historical narratives transformed into a search for message recognition, a “word puzzle” that sought to define an increasingly simplified and legible metaphorical/analogical reading: gherkin, shard, and aqua to name a few. In a previous volume, Jencks exalted this concern for an individualized iconography through the title’s singular tense: “*The* Iconic Building, consisting of one-of-a-kind acts built upon signature “starchitects” as brands. Jencks’s investigation into the meaning of these icons revealed different individual actors rather than individual perspectives. ²³ Could it be that this shift in deciphering the narrative of the individual building (icon) is no longer interested in facing the questions of a collective history? Or conversely, has the sign of a collective historiographical consensus led to the search for individuality in the architectural project? In the first instance, the question of history and tradition is lost to a search for individuality. In the second instance, the search for individuality stems from challenging a strong consensus in the collective perspective towards history. If in the past, important civic buildings such as the cathedral and the city hall “expressed shared meaning,” with its collective dimension as the fertile ground for the practice of critical historiography, today the struggle for collective

²³ Jencks, Ibid.
meaning has been transformed into a landscape of competing individual messages, or as Jencks describes: “The War of Hot Labels.”  

The extraordinary range of projects submitted to the World Trade Center competition in New York (2002) is symptomatic of an extraordinary typological transformation taking place in contemporary practice. As the most pervasive Western export, the proliferation of the tall building is raising new environmental, cultural and political questions as it is being exported by the West to the Middle and Far East. A number of contributions continue to mine the history of the skyscraper in increasingly more detail and depth. In both cases, the contemporary architectural project marches on in parallel to the project of history, both confident yet unburdened by one another.

Paradoxically, Rem Koolhaas, as the chief skyscraperologist of this prolific decade, has recently made an extraordinary declaration in which he unabashedly has decided to “Kill the Skyscraper,” bringing the discourse back full circle where it began in 1975 with the cover of Bernard Huet’s *L’Architecture D’Aujourd’Hui* declaring the “Life and Death” of the skyscraper.

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54 Jencks, “The War of Hot Labels. […] In the last ten years a new type of architecture has emerged. Driven by social forces, the demand for instant fame and economic growth, the expressive landmark has challenged the previous tradition of the architectural monument. In the past, important public buildings, such as the cathedral and the city hall, expressed shared meaning and conveyed it through well-known conventions. […] But in a world market place competing for attention, decency and deference carry little weight and even attacks on iconic buildings fail to register. In fact the insults often add a welcome frisson, the desired element of controversy and column inches – publicity.” Ibid., p.7.

55 Innovative Designs Competition, Lower Manhattan Development Corporation (New York, 2002).


58 Rem Koolhaas, “Kill the Skyscraper, Beijing CBD Core” *Content*, (2004), 473. Curiously this declaration is made as part of the project statement for CCTV, Koolhaas’ latest tall building, one that proposes to kill the conventional type as it exists in practice as a way to innovate and move forward.
Skyscraper (fig. 5.1).\textsuperscript{59} Considered almost a perfect act at the time of its invention, the contemporary skyscraper had become for Koolhaas increasingly less interesting in proportion to its success in contemporary practice.\textsuperscript{60} Rather than pursuing its potential for "excessive difference," the tall building finds itself "corrupted [...] negated by repetitive banality."\textsuperscript{61} For Koolhaas, this is a problem of professional practice, caused by major architectural firms unwilling to confidently pursue the potential of new typologies and reject the heterogeneous values and tastes of their clients.\textsuperscript{62}

\textsuperscript{60} Rem Koolhaas, "The skyscraper is a bizarre typology. Almost perfect at its invention – and more than any other more evolutionary type, it is an invention – the skyscraper has become less interesting in inverse proportion to its success." \textit{Content}, Ibid.; and Charles Jencks in an interview with the author: "The law of diminishing architecture [...] There is a law of diminishing architecture that starts at about half a million square feet, the size of a 70 story skyscraper. It reduces architecture created thereafter. Like any social law, there's only group tendency." (London, July 27th, 2011).
\textsuperscript{61} Koolhaas, "It has not been refined, but corrupted; the promise it once held – an organization of excessive difference, the installation of surprise as a guiding principle – has been negated by repetitive banality." \textit{Content}, Ibid.
\textsuperscript{62} Koolhaas, "Condescendingly assuming the worst about their clients' values and tastes, major architectural firms are prolonging the life of a type that has not been invested with new thinking or ambition since the World Trade Center completion in 1972." \textit{Content}, Ibid. The fact that this text is written as part of the project description for his China Central Television Headquarters (CCTV) (2004-2012) points to the need to kill the received conventions that exist in practice as a way to reformulate them anew.
Figure 5.17: Rem Koolhaas, “Kill the Skyscraper, Beijing CBD Core” *Content*, (2004), 473.
For Koolhaas and with respect to the 1970s, the completion of the World Trade Center Towers marks the end of a period of innovation, and the beginning of a period that has not invested in new thinking. As a historian/practitioner, and embarking on a new cycle of critical historiography, Koolhaas outlined a chronology of events leading to this bleak present condition by using the history of New York as a lens, one that is “Delirious no more.”63 During the inception of the tall building, New York is built from 1850 to 1933 “in a single spurt of imagination and energy.”64 Its genius was to create a parallel universe from “sober and abstract European modernism” at a compulsive speed: Woolworth, Chrysler, Empire Estate and finally Rockefeller Center.65 The 1950s and 1960s witnessed “important” postwar buildings as the product of individual architects rather than collectives with a much lower rate of production: Lever (’52), UN (’53), Seagram (’58), [and] Pan Am (’63).66 The decade of the 1970s, however, produced mixed results. The completion of the original World Trade Center towers in 1972 would become a paradoxical landmark: “the towers are abstract and structurally daring [but] nobody likes it.”67 In their domination of the New York skyline, they were viewed as alienating: “twinning is their only genius.”68 In a desperate act of survival, architects and developers returned to the formulas that shaped the identity of New York in the 1920s and 1930s, resulting in second rate exaggerated clones in search of attention.69 In the 1980s and 1990s, under Giuliani’s reign of bubbles (…the Wall Street

64 Koolhaas, Wired, Ibid., 167.
65 Koolhaas, “Its genius is to create a universe parallel to sober and abstract European modernism – to imagine life in the metropolis as a deeply irrational experience that uses sparkling new technologies to exacerbate desire.” Ibid., 167.
66 Ibid.
67 Koolhaas, “In 1972 (president: Nixon, mayor: Lindsay) the World Trade Center is finished. Nobody likes it. The towers are abstract and structurally daring; their interiors entirely columns free, 10 million square feet of real estate carried on two cores and two envelopes.” Ibid.
68 Koolhaas, “The towers dominate Manhattan’s skyline but do not participate in it – twinning is their only genius.” Ibid.
69 Koolhaas, “In this state of Narcissism, Manhattan’s architects and developers begin to clone and rip off the most obvious features of the city’s pre-WWII architecture. Boxes sprout spires; art deco becomes the new

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bubble, the media bubble, the internet bubble, and the art bubble) New York was turned into a “Zero Tolerance” bubble, “a deadly mantra for a metropolis: what is a city if not a space of maximum license?”\textsuperscript{70} After the attacks of September 11\textsuperscript{th}, “the sublime” could no longer be used to describe the twin towers; Koolhaas focused, instead, on five unremarkable towers in response to a “massive representation of hurt […] Call it closure.”\textsuperscript{71}

In the desire to transform a contemporary building practice dominated by the symptoms of a megalomaniac search for hot labels offset by an unimaginative form of mass repetition, as well as a recent history shaped by trauma and financial excess, lies the potential to start anew through a deep reflection on the problems of the past. Given its parallels to our contemporary condition, the decade of “skyscraperology” (1975 – 1984) becomes an instrumental period of study as a means to reimagine contemporary practice and, more specifically, its production of tall buildings. Rather than continuing to exploit a purely positivist project based on technological innovation, the interest here lies in broadening disciplinary concerns by challenging the typology through a historiographic framework. It is precisely from this expanded notion of the discipline that we understand that contemporary practice is responsible for its own history. As we embark in new historiographical journeys, new forms of “life and death” emerge in the space between the temporary writing of competing histories and an ever-changing contemporary practice. This is where the possibility to reimagine the future lies, even momentarily.

\textsuperscript{70} Ibid.
\textsuperscript{71} Ibid.
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