

**Architecture Incorporated:
Authorship, Anonymity, and Collaboration in Postwar Modernism**

by
Michael Kubo

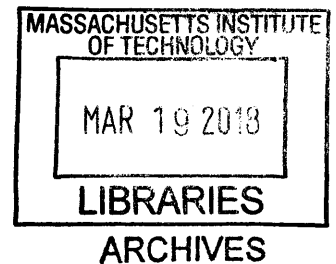
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Abstract

A broad transformation occurred in the scale and scope of professional architectural practice in the United States in the decades after World War II. My dissertation explores this shift, in particular the rise of the body of collaborative and team-based methods of production that would come to be labeled as corporate architectural practice. An exploration of these practices reveals a climate of speculation in the postwar period on the corporation as a social and institutional form, and a widespread interest in the potentials of anonymous and collective methods to reshape the nature and objects of architectural production. Tracing the history of these collaborative approaches from progressive project to the critique of the corporate, the dissertation challenges the historiographic methods premised on singular authorship that have governed existing interpretations of postwar modernism.

While there exists a growing body of work on architecture produced for corporations in the postwar period, far less critical attention has been paid to its corollary: the corporate production of architecture itself. Despite the dominant role of large firms within mainstream architectural practice in the United States, a comprehensive account has yet to be written of the motivations for and growth of such practices after 1945, the shifting economic and political conditions which underlay their production, and the problematic reception of their work by architectural critics after the 1970s, predicated on notions of signature and authorship which remained essentially unchanged despite these radical shifts in the nature of production.

The dissertation proposes a cultural and discursive history of corporate architectural practice, from its origins and international extension to its built products and their reception within the architectural field. I explore these transformations in architecture through the history of The Architects Collaborative (TAC), founded in 1945 as an experiment in team-based design methods by seven young practitioners together with German émigré Walter Gropius. Despite the extensive historiography of Gropius and his work prior to 1945, there is as yet no detailed history of TAC itself, the largest architectural firm in the U.S. by the 1970s and the collective body through which Gropius practiced for the last twenty-five years of his career. An exploration of the firm's origins and expansion, its sustained legacy of work in the Middle East and Europe in the decades after World War II, and its eventual demise in 1995 reveals the contested stakes around questions of anonymity, authorship, and expertise at the heart of the U.S. architectural corporation and its continuing global impact up to the present.

Thesis Supervisor: Mark Jarzombek

Title: Professor of the History and Theory of Architecture

Architecture Incorporated: Authorship, Anonymity, and Collaboration in Postwar Modernism

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Introduction

I believe that an architectural historian should, from time to time, look over the shoulders and under the feet of the conventionally accepted heroes and try to see what went on around them and on what they stood; and, furthermore, to see whether that hinterland may not contain some very adequate heroes of its own.

—John Summerson¹

Despite the increasing presence of large, team-based offices within U.S. architectural practice over the last century, a history of how architects and critics have understood these offices has yet to be written. In the past century, the nature of group practice transformed from the big businesses and large organizations that accompanied the merger movement at the turn of the twentieth century to the factory producers of the industrial expansion in the 1910s and 1920s, the bureaucratic firms of the postwar boom, and the multinational conglomerates of the neoliberal present. Throughout these shifts in the scope of “corporate” architectural organization, architects and historians have speculated on the implications of the large-scale office for the status of architecture as a business, a profession, and a field of cultural production.²

In this dissertation, I explore the unaccounted presence of collective, collaborative, and team-based methods of production within architecture’s modernity. Despite the diversity of these practices and the intensity of debates regarding their efficacy and meaning for the nature of architectural production, all would eventually come to be grouped, and increasingly criticized, under the broad rubric of “corporate” architectural practice in the decades after World War II. An exploration of these practices reveals a widespread interest in the potentials of collective methods to reshape the nature and objects of architectural production, as well as the contested stakes around questions of creativity

¹ John Summerson, “Charting the Victorian Building World,” in *The Unromantic Castle and Other Essays* (London: Thames and Hudson, 1990).

² I borrow this term from Pierre Bourdieu, *The Field of Cultural Production* (New York: Columbia University Press, 1993).

and authorship within the architectural corporation after 1945. Despite the dominant role of large firms within mainstream architectural practice in the United States, a comprehensive account has yet to be written of the motivations for and growth of such practices after 1945, the shifting economic and political conditions which underlay their production, and the problematic reception of their work by architectural critics after the 1970s, predicated on notions of signature and authorship which remained essentially unchanged despite these radical shifts in the nature of production. In exploring this history, I propose that architects throughout the twentieth century have regarded the structure of professional practice itself as the terrain on which the relation between architectural creation and the broader economic and cultural conditions of practice can be negotiated and contested.

This investigation began with a basic question: what do we mean when we talk about corporate architecture? Within the design professions, the term “corporate” has commonly been used to bracket a certain domain of generic or formulaic work, in contrast to practices that are seen to be more unique, original, or inventive. Yet it is often unclear precisely what the abstraction of the “corporate” is meant to signify.³ Does it designate a certain scale of office, or particular legal or creative structures of practice? Does it refer to the production of architecture serving corporate clients or programs, for example the office tower?⁴ Or does it ultimately describe the perceived character—or lack thereof—of the work that is produced? The dissertation explores the challenges of language that have accompanied attempts to think the concept of the architectural corporation, focusing on key terms within this discourse, including questions of bureaucracy, teamwork,

³ See John Harwood, “Corporate Abstraction,” in *Perspecta 46: Error* (2013): 218–243. In his assessment of the theoretical difficulties of historicizing team-based or corporate entities in architecture, Harwood points to the “sophistry of inter-war avant garde theory,” such as that of Hitchcock, in its attempts to finesse “the historiographical attitude produced by simultaneously viewing the history of architecture as the product of individuals and of groups.” Instead, he calls us to address “the question of what is excluded from a historical account that treats neither collective action, nor the behavior of individuals as motivated by corporate identity.”

⁴ On the nature of corporate architectural space in the postwar period, see in particular Reinhold Martin, *The Organizational Complex: Architecture, Media, Corporate Space* (Cambridge, MA: MIT Press, 2003) and John Harwood, *The Interface: IBM and the Transformation of Corporate Design, 1945-1976* (Minneapolis: University of Minnesota Press, 2011).

collaboration, incorporation, influence, signature, and anonymity. I argue that the basic narratives of architectural modernism have been overburdened by a language that remains centered on the notion of singular architectural authorship, despite the fundamental impact of team-based architectural practices over the last century.

I study these transformations in modern architecture through the history of The Architects Collaborative (TAC), founded in 1945 as an experiment in team-based design methods by seven young practitioners together with German émigré Walter Gropius. Despite the extensive historiography of Gropius and his work prior to 1945, there is as yet no detailed history of TAC itself, the collective body through which Gropius practiced for the last twenty-five years of his career. An exploration of the firm's origins and expansion, its sustained legacy of work in the Middle East and Europe in the decades after World War II, and its eventual demise in 1995 reveals the contested stakes around questions of anonymity, authorship, and expertise at the heart of the U.S. architectural corporation and its continuing global impact up to the present. In exploring this history, I argue that TAC is worthy of study as both a symptomatic example of broader transformations in the nature of professional practice after World War II and as a specific case that reveals the limits of existing categories for understanding the range of collective and corporate practices that took shape in this period.

A central aspect of the history of collaborative practices has been their challenge to modernist discourses of the singular creative figure. My dissertation investigates the historiography surrounding just such an anointed figure within architectural modernism, Walter Gropius, and the difficulties faced by historians in accounting for his work as it came to engage with the team-based models of practice for which he and his contemporaries advocated. Though it was the largest dedicated architecture firm in the U.S. by the 1970s, the firm has been conventionally historicized almost exclusively in relation to Gropius, the architect singularly identified with the migration of the Bauhaus and its legacy after World War II. Received accounts of TAC's origins have perpetuated the

idea that Gropius established the firm as an application of his ideas on collaboration and teamwork among holistically-trained designers, achieved through a group of willing disciples who would realize this collective ideal in practice.⁵ Such accounts distort the true story of TAC's founding, described in Chapter Two, by seven younger architects who came together through a dense network of personal and professional connections in a shared climate of utopian social ideals at the start of the postwar building boom. A reassessment of this history against the historiography of TAC, the focus of Chapter Three, reveals persistent questions concerning the architectural corporation and its global extensions after World War II that parallel recent explorations of the modes of embodiment, personhood, signature, and influence in architectural history.⁶

Among the team-based practices that have served as exemplars of late modernism for architectural historians, TAC was unique in being both a postwar collective of young practitioners and the medium through which the singular image of Gropius continued to be propagated during the last twenty-five years of his work. This double construction has continued to pose a crisis for historians, many of whom have preferred to collapse the firm's history back onto the conventional

⁵ TAC's work has appeared primarily through histories of Gropius that presume he was the primary author of the firm and its projects. These include Winfried Nerdinger, *The Architect Walter Gropius* (Berlin: Bauhaus-Archiv; Cambridge, MA: Busch-Reisinger Museum, 1985); John C. Harkness, ed., *Walter Gropius Archive, Vol 4: 1945–1969, The Work of The Architects Collaborative* (New York and London: Garland Publishing Inc., 1991); Reginald R. Isaacs, *Walter Gropius: An Illustrated Biography of the Creator of the Bauhaus* (Boston: Little, Brown, and Company, 1991). The major monographic treatments of TAC's work are Walter Gropius and Sarah P. Harkness, ed., *The Architects Collaborative 1945-1965* (Teufen: Verlag Arthur Niggli, 1966) and "TAC: The Heritage of Walter Gropius," *PROCESS: Architecture* No. 19 (October 1980).

⁶ See in particular Ana Miljački, ed., *Under the Influence* (Cambridge, MA: MIT SA+P Press, 2014); Timothy Hyde, "Notes on Architectural Persons," *The Aggregate* website (Transparent Peer Reviewed), accessed October 15, 2013, <http://we-aggregate.org/piece/notes-on-architectural-persons>; Amanda Lawrence and Miljački, ed., *Terms of Appropriation: Essays on Architectural Influence* (London: Routledge, 2017).

narrative of other supposedly singular creative practices before and after World War II.⁷ This biographical emphasis has served to distort the histories of both TAC and Gropius, marginalizing the firm and its work while condemning Gropius to stand as a synecdoche for the perceived failures of the modernist avant garde at large.⁸ The problematics of reception and legacy within this history have been further complicated by the presence of artists and architects throughout the twentieth century who consciously sought to efface the role of signature in their work, significantly including László Moholy-Nagy and Gropius among the Bauhaus émigrés.⁹ This abdication of authorship was frequently portrayed negatively by historians and critics, as a pretext for their dismissal of postwar modernism as a submission to the demands of mainstream market practice in the U.S. Yet others, like the architectural historian Henry-Russell Hitchcock, recognized that the postwar emergence of large-scale, bureaucratic firms would require the critic to develop fundamentally different tools in order to distinguish the built products of such practices from those of more singular modes of self-fashioning.¹⁰ Despite Hitchcock's warning that "conceptually the two types of work are distinct and should not be subjected to the same type of analysis and criticism," I argue, subsequent historians

⁷ The titles and chapters of the major surveys on twentieth-century modernism in this period attest to the historiographic emphasis on the legacy of prewar avant garde figures as singular authors, variously referred to as masters, pioneers, founding fathers, etc. To note only some of the most prominent examples, see Nikolaus Pevsner, *Pioneers of the Modern Movement from William Morris to Walter Gropius* (London, Faber & Faber 1936); Peter Blake, *The Master Builders: Le Corbusier, Mies van der Rohe, Frank Lloyd Wright* (New York: Norton, 1976); Charles Jencks, "Gropius, Wright and the Collapse into Formalism," in *Modern Movements in Architecture* (Garden City, N.Y., Anchor Press, 1973); Manfredo Tafuri and Francesco Dal Co, "The Activity of the Masters After World War II," in *Modern Architecture* (Milan: Electa, 1976); William H. Jordy, "The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer" (1968), reprinted in Jordy, *"Symbolic Essence" and Other Writings on Modern Architecture and American Culture*, ed. Mardges Bacon (New Haven: Yale University Press, 2005): 187–224.

⁸ George Kubler, in particular, has pointed to the limits of art and architectural history as biography. As he notes, "The life of an artist is rightly a unit of study in any biographical series. But to make it the main unit of study in the history of art is like discussing the railroads of a country in terms of the experiences of a single traveler on some of them." Kubler, *The Shape of Time: Remarks on the History of Things* (New York and New Haven: Yale University Press, 1962): 6.

⁹ On anonymity and the effacement of signature by artists and architects in the twentieth century, see in particular Louis Kaplan, *László Moholy-Nagy: Biographical Writings* (Durham & London: Duke University Press, 1995); Caroline Jones, "Frank Stella: Executive Artist," in *Machine in the Studio: Constructing the Postwar American Artist* (Chicago: University of Chicago Press, 1996): 114–188; David Joselit, "The Artist Readymade: Marcel Duchamp and the Société Anonyme," in Jennifer R. Gross, ed., *The Société Anonyme: Modernism for America* (New Haven and London: Yale University Press, 2006): 33–44, and Joselit, *Infinite Regress: Marcel Duchamp 1910–1941* (Cambridge, MA: MIT Press, 2001).

¹⁰ Henry-Russell Hitchcock, "The Architecture of Bureaucracy and the Architecture of Genius," *Architectural Review*, No. 101 (January 1947): 3–6.

proved largely unwilling or unable to meet this call for new methods to assess the work of corporate architects after 1945 as distinct from their prewar predecessors.¹¹

Challenging this framework has required an engagement with the body of critical and theoretical literature on questions of authorship and cultural production, drawn from diverse fields including sociology, literary criticism, business and institutional history, and histories of collective spaces of artistic and architectural work. In seeking to broaden the framework for understanding these creative practices, my research engages methodological approaches drawn in particular from the history of science, especially those concerning the social construction of technological systems.¹² This dissertation has also been informed by attempts to introduce sociological methods to the study of art, particularly Howard S. Becker's seminal *Art Worlds*.¹³ In contrast, sociological analyses of architecture—particularly those produced in the 1980s and 1990s, at a time when the economic and legal structures of mainstream professional practice were increasingly under threat—have focused on professional issues internal to the discipline, ignoring broader cultural questions concerning the meaning and interpretation of architecture in its social context.¹⁴ Conversely, histories focused on evaluating the visible products of architectural production have often obscured the questions of bureaucracy, organization, competition, expertise, and ethics in relation to practice which the dissertation seeks to illuminate. Between these two approaches, I am interested in what historian of technology Donald Mackenzie has described as the “historical sociology” of cultural fields and their practices, in which historical questions about the definition of concepts and objects within a field are

¹¹ *Ibid.*, 6.

¹² See in particular Wiebe E. Bijker, Thomas P. Hughes, Trevor J. Pinch, ed., *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, MA: MIT Press, 1987).

¹³ Howard S. Becker, *Art Worlds* (Berkeley: University of California Press, 1982).

¹⁴ Sociological analyses of the design professions in this period include Judith R. Blau, Mark La Gory and John S. Pipkin, ed., *Professionals and Urban Form* (Albany: State University of New York Press, 1983); Blau, *Architects and Firms: A Sociological Perspective on Architectural Practice* (Cambridge, MA: MIT Press, 1984); Robert Gutman, *Architectural Practice: A Critical View* (New York: Princeton Architectural Press, 1988); Paul L. Knox, ed., *The Design Professions and the Built Environment* (London and Sydney: Croom Helm; New York: Nichols Publishing Company, 1988); Dana Cuff, *Architecture: The Story of Practice* (Cambridge, MA: MIT Press, 1991); Magali Sarfatti Larson, *Behind the Postmodern Facade: Architectural Change in Late Twentieth-Century America* (Berkeley: University of California Press, 1993).

informed by the social processes through which the “knowledge-generating and knowledge-assessing activities” of the field take shape.¹⁵

The historiographic elision of TAC has been exacerbated by the problematic status of the archive itself in relation to the firm’s work. The research draws on a body of accessible but largely unprocessed material, all salvaged during TAC’s sudden demise in 1995 and scattered among various institutions including the MIT Museum and the Harvard Graduate School of Design. The bulk of this fragmented body of material has remained ignored by scholars of postwar modernism, in contrast to archives focused on Walter Gropius as a singular author and teacher, including the Bauhaus-Archiv in Berlin and the Harvard University Art Museums. These archives have served to reinforce the identification of Gropius with the Bauhaus and Harvard, the major sites of his pedagogy and practice before and after World War II, while largely separating his history from that of the office with which he practiced for nearly half of his professional career.¹⁶ Such archives have institutionalized the narrative of emigration and influence from Europe to the United States which continues to structure the history of architects like Gropius, ultimately reinforcing the devaluation of their postwar work as a collapse of avant garde idealism under the demands of professional practice in the U.S.

Correcting the historiographic division between Gropius and TAC has required an expansion of the archive itself beyond the study of existing documentary material. The chapters that follow have

¹⁵ Donald Mackenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance* (Cambridge, MA: MIT Press, 1993). Mackenzie’s term refers to a double sense in which historical narratives of a given field and its products would benefit by being more attention to the sociological, while conversely, the sociological study of such a field would benefit from a focus on historical questions and narratives. In contrast to sociologies of architectural practice that have focused on the career patterns and reward systems internal to the field, Mackenzie offers a reminder that within any field of production, change “is simultaneously economic, political, organizational, cultural, and legal change, to enumerate just some of the aspects of ‘the social.’”

¹⁶ The distortions induced by the historiographic and interpretive split between Gropius and TAC can be seen readily in *The Walter Gropius Archive* (New York and London: Garland Publishing Inc. and Harvard University Art Museums, 1990–91), the definitive four-volume publication of materials in collection of the Busch-Reisinger Museum concerning Gropius and his practice. Three volumes focus on his work in Germany and in the United States with other German émigrés including Marcel Breuer and Konrad Wachsmann, while the fourth volume, ostensibly dedicated to the work of The Architects Collaborative after 1945, in fact contains only a small number of the firm’s projects in which its authors claim “Gropius Had a Major Part.”

benefited from interviews with numerous ex-principals, collaborators, and other alumni of the TAC office, many of whom have not previously been included in historical accounts of projects often attributed solely to Gropius or otherwise ignored. This research has included other protagonists in TAC's international work beyond the firm itself, including engineers, local consultants, and other bureaucratic agents involved with these projects. These interviews comprise an oral history of the firm that includes a broader array of voices of those inside and outside the firm, seeking to paint a more complex portrait of the social and professional cultures in which architectural practices take place. While the voices of these team members and collaborators are crucial in describing the formation and growth of TAC in the first half of the dissertation, they reappear throughout the study in relation to specific projects and problems faced by the firm as it negotiated the shifting landscape of architectural practice during its fifty years of existence. In this way, narrating the history of a collectivity like TAC demands a multivalent approach that avoids the distortions of biographical history on the one hand, and on the other, the problematic constructs of "anonymous history" or an essentializing "architecture without architects."¹⁷

A persistent elision enabled by the reliance on narratives of singular authorship, addressed in the second half of the dissertation, is the history of involvement of U.S. architecture firms in the transnational, oil-based economies of the Arab and Persian Gulf states after World War II. These exchanges reached their peak during the boom in crude oil prices from 1973 to 1983 as a direct corollary to the economic collapse of practice in the West, a period in which TAC built heavily in Iraq, Kuwait, Saudi Arabia, and the United Arab Emirates. The dissertation addresses this discursive ellipsis between the conventional histories of such U.S. firms and their deep reliance on commissions in the Arab and Persian Gulf among an expanding international map of commissions. I trace how, paradoxically, post-colonial critiques of such work as Orientalist have often served to preclude a more detailed account of the sustained, reciprocal influence between corporate practices and the

¹⁷ Sigfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (New York: Oxford University Press, 1948); Bernard Rudofsky, *Architecture Without Architects* (New York: Museum of Modern Art, 1964).

speculative oil economies of the Gulf states. In studying the implication of TAC and other U.S. architects in Iraq and Kuwait after 1945, I argue that it is precisely in the relationship between the changing economy of architectural practice in the U.S. and the problematic discourses of “modernization” in the Middle East that the evolutions of both the abstract language of late-modern architecture and the increasingly anonymous modalities of corporate architectural practice can be traced.

Constructing a fuller global understanding of these exchanges requires connecting regional, national, and disciplinary histories of architecture which have often remained separate. Tracing the implication of postwar practices within transnational exchanges also poses a challenge to the interpretive framework of critical regionalism, in which a supposedly universalizing and uncritical modernism was seen to demand forms of resistance only possible from local architects rooted in more “authentic” regional cultures.¹⁸ In failing to account for the role of such multinational practices within the history of postwar architectural modernism, I argue, these accounts have served to obscure the political and structural forces that undergirded the trajectory of modernist architectural production in the twentieth century. In particular, I argue that the suppression of this history in critiques of corporate architectural production after the 1970s erased precisely those social and political questions of bureaucracy, organization, competition, expertise, and ethics in relation to global practice which the dissertation seeks to illuminate.

The six chapters of the dissertation provide a series of related episodes in the trajectory of collective and corporate architectural practice in the twentieth century, overlapping in time and geography. Following an introductory chapter, the remaining sections extend from the founding of TAC in

¹⁸ See in particular Kenneth Frampton, “Towards a Critical Regionalism: Six Points for an Architecture of Resistance,” Hal Foster, ed., *The Anti-Aesthetic: Essays on Postmodern Culture* (Port Townsend, WA Bay Press, 1983): 16–30.

1945 to its growth and international extension in the 1950s, the incorporation and transformation of the office in the 1960s and 1970s, and its gradual decline from the end of the oil boom in 1983 to the firm's eventual bankruptcy in 1995. Each chapter of the dissertation centers on the instrumentality of one or more operative terms within postwar architectural discourse and practice, and concentrates on one or more projects through which the changing contexts and conditions of practice, the stakes of architectural authorship, and the reception of modernism in these decades can be measured.

Chapter 1, "The Concept of the Architectural Corporation," provides a brief history of team-based architectural practice in the United States from the turn of the twentieth century to the 1990s. I examine this evolution in the context of the broader development of the modern corporation as an organizational and social form, as distinct from the collective and collaborative models of architecture practice that would mark the decades after World War II. I focus on the evolution of these collaborative ideals under the changing legal and economic constraints of market practice in the United States after the 1950s, as corporate business models became increasingly prevalent among architecture firms and the field was reshaped by professional debates over competition, compensation, and ethics through the 1970s. The chapter concludes with the emerging critique of the architectural corporation by a self-styled neo-avant garde after the 1960s, and the subsequent nostalgia for signature forms of authorship that left architects, historians, and critics with few tools to account for the meaning of collaborative and corporate models for architectural production on the cusp of the postmodern turn.

Chapter 2, "The Idea of the Architects Collaborative," traces the origins and founding of TAC in the years during and after World War II. Collaboration became the watchword for a generation of architects committed to challenging the paradigm of the singular genius—the primary model for interpreting the work of the so-called modernist masters— as inadequate to address the large-scale building problems of their time. For adherents to the collaborative ethos, a perceived consensus on

the principles of the modern movement was accompanied by the belief that such unity might enable newly collective forms of work that would bring the building disciplines together to address the complex tasks of postwar construction. I explore the formation of TAC in relation to this emerging discourse and its attendant questions of anonymity, equality, and democracy, and the call for new methods of practice that were opposed to the specialization and hierarchy associated with large prewar businesses. I situate these broader structural transformations against the office history of TAC as it grew to become one of the largest and most successful architecture firms in the U.S. and as the firm attempted to adapt, ultimately unsuccessfully, to these shifts in practice in its later years, leading ultimately to the firm's demise.

Chapter 3, "Collective Practice and the Limits of Historiography," explores the origins of TAC in 1945 and the early years of the office against the existing historiography of the firm, which has attributed the intentions behind its founding primarily to Gropius. This conventional assessment relies on Gropius's body of writing on collaboration and teamwork and his pedagogical emphasis on team-based work among holistically-trained designers first at the Bauhaus and later at the Harvard University Graduate School of Design. In drawing on this legacy of pronouncements by the prewar European "master," historians have assumed TAC to be merely the translation of Gropius's ideas on teamwork into practice, largely ignoring the role played by his collaborators. In reassessing the history of TAC, I pay particular attention to how the firm's model was received and interpreted by architectural critics, many of whom took TAC's work as evidence for the decline of the modernist masters (exemplified by Gropius) in the U.S. after World War II. I argue that the uneasy status of authorship beyond the firm's rhetoric of collaboration led critics to conflate TAC's architecture with the personae of its presumed authors, cementing the firm's reputation as a producer of buildings whose aesthetics embodied the anonymous, corporate character of their architects.

The final three chapters of the dissertation develop the themes of this broader history of twentieth-century professional practice episodically, focusing on the reinterpretation of major

projects or sites of work by TAC: the Pan American Airways building in New York City (1958–63), the University of Baghdad in Iraq (1957–83), and the firm’s numerous projects built in Kuwait from the 1960s to the 1980s, ranging in type from major institutional commissions to anonymous souks.

In Chapter 4, “Real Estate, Ethics, and the Problem of Pan Am,” I revisit the circumstances surrounding the history of the Grand Central City project, which became the Pan American Airways building, and the differing stakes among its consortium of architects, including Emery Roth & Sons, TAC, and Pietro Belluschi. A reassessment of this history reveals a set of public debates on questions of authorship, ethics and social responsibility, public versus private development, and the role of both corporate clients and corporate architects in the transformation of New York City after the 1950s. Crucial in these debates, I argue, was the tendency of critics to search for evidence of authorial signatures that might distinguish the roles of the building’s various architectural protagonists, most significantly Walter Gropius. In this way, debates over Pan Am’s design came to serve as a referendum on the fate of the modernist masters after World War II and a benchmark for critics and the public alike to assess the state of mainstream postwar architectural practice in the United States.

Chapter 5, “Bureaucracy and Genius at the University of Baghdad,” describes the international expansion of TAC’s work to the developmental context of Iraq after 1957, among the earliest examples of involvement by U.S. firms in the Arab and Persian Gulf states after World War II. TAC’s commission to design the University campus formed part of a national modernization program under the Iraq Development Board, created in 1950 to expend oil revenue on national development, first through infrastructure and later through iconic cultural projects by foreign architects including Le Corbusier, Alvar Aalto, Frank Lloyd Wright, and Gio Ponti. In particular, I explore how TAC’s increasingly bureaucratic organization allowed it to continue working through changing political currents in Iraq, particularly after the coup d’état of July 14, 1958, which spelled the end of the U.S.-allied Hashemite monarchy, along with most of the projects by international architects it had

commissioned for Baghdad. A crucial factor in TAC's continuity across political regimes was their success in self-positioning as an expert practice, in contrast to other modes of address that sought to navigate this new landscape through the rhetoric of cultural synthesis and artistic genius. A comparison of these competing forms of engagement reveals the reemergence of the discursive dialectic of bureaucracy and genius in the post-colonial context of Iraq, as a means of competition among foreign architects to participate in national modernization programs in the Arab and Persian Gulf states after World War II.

Chapter 6, "Architecture and Oil in the Gulf States," explores the involvement of TAC and other U.S. firms with the Kuwaiti oil boom and the speculative finance economy to which it gave rise. The demolition and planning of Kuwait City after 1952 constituted one of the earliest and most extreme examples of large-scale urban transformation in the Gulf states after World War II, creating a vast, empty urban canvas for governmental and commercial architectures through which the state sought to project the spatial and economic bases of a "modern" Kuwait onto the world stage. The role of foreign architects, and TAC in particular, was crucial in creating these images of modernity. The chapter explores the unintended consequences of the firm's heavy involvement in Kuwait after 1965, and the factors that led to the firm's eventual bankruptcy as a consequence of related events including the end of the boom in crude oil prices and the collapse of the Souq Al Manakh stock bubble in Kuwait in 1982. In exploring these processes, I devote particular attention to the cultural constructions of foreign and local and the complex economies of material, labor, and expertise through which the work of TAC and other U.S. firms in took shape in the Arab and Persian Gulf states after the 1950s.

Chapter 1

The Concept of the Architectural Corporation 1890–1990

The ideology of the past century has taught us to see in the individual genius the only embodiment of true and pure art.

—Walter Gropius¹

When architecture becomes an anonymous art, like engineering, the Modern Movement will have come to an end.

—Joseph Hudnut²

Professionalization, Big Business, and U.S. Firms Before 1945

The nature and meaning of group architectural production in the United States have shifted continuously from the end of the nineteenth century to the present. As the structures of professional practice took shape through this period, both the framework and the nomenclature of team-based architecture have changed, from the “big businesses” and large organizations that accompanied the merger movement at the turn of the twentieth century to the “plan factories” of the industrial expansion in the 1910s and 1920s, the bureaucratic firms and “package builders” of the post-World War II boom, the incorporated entities of the 1960s and 1970s, and the multinational conglomerates that reshaped the field after the 1980s. Despite the expanding role of large offices within U.S. architectural practice since the end of the nineteenth century, it was only after World War II that the term “corporate” came to constitute a topos of architectural discourse, one that referred at once to a specific mode of production, the mentality of its producers, and the perceived qualities of the work produced. Throughout these changes in the scope of architectural organization,

¹ Walter Gropius, *Scope of Total Architecture* (New York: Harper & Brothers, 1955): 86.

² Joseph Hudnut, “Architecture and the Individual,” *Architectural Record* (October 1958): 170.

architects and historians have speculated on the implications of the large-scale office for the status of architecture as a business, a profession, and a field of cultural production.

From its origins in the second half of the nineteenth century, the interpretation of team-based production in the U.S. has been marked by persistent tensions between competing definitions of architecture as a benevolent profession of socially concerned professionals, an economically-driven market service, or an artistic endeavor. The inherited British notion of the professional as an elite, gentlemanly practitioner, entrusted to mediate the interests of clients with the needs of society in a financially disinterested manner on the model of medicine or law, encountered an established tradition of carpenters and craftsmen in the U.S., hostile to the definition of architecture as a discipline distinct from such craft trades. The first expatriates who sought to gain an economically and culturally elevated status for the architect, like Benjamin Latrobe, encountered resistance as the idea of the professional became increasingly democratized during the nineteenth century, coming to refer to any member of a learned trade.³

The increasing organization of dedicated architectural practices and the conscious introduction of European models of team-based professional practice in the U.S. was initiated by the first Americans to study at the École des Beaux-Arts in Paris, beginning with Richard Morris Hunt in 1846. Upon their return to the U.S., architects like Hunt and H.H. Richardson sought to raise the professional and cultural status of the architect by replicating both the structure and the discursive formations of their academic training. Their studios combined the domain of the Beaux-Arts *atelier* (the collegial space in which students worked under the guidance of a master) with the working

³ On the professionalization of architectural practice in the United States from the nineteenth century to the present, see Mary N. Woods, *From Craft to Profession: The Practice of Architecture in Nineteenth-Century America* (Berkeley: University of California Press, 1999); Bernard Michael Boyle, "Architectural Practice in America, 1865–1965—Ideal and Reality," in Spiro Kostof, ed., *The Architect: Chapters in the History of the Profession* (New York: Oxford University Press, 1977): 309–344; Paul Louis Bentel, "Modernism and Professionalism in American Architecture, 1919–1933," Ph.D. Dissertation, Massachusetts Institute of Technology (1993).

space of a professional office, at once business practice and learning environment.⁴ Along with the German polytechnic, the École provided a formative pedagogical model for the first schools of architecture in the U.S., including programs at the Polytechnic College of Pennsylvania (1861), the Massachusetts Institute of Technology (1865), the University of Illinois (1868), and Cornell University (1871).⁵

Such attempts to establish a firm pedagogical foundation for architectural practice were paralleled by the consolidation of new learned societies and professional associations. Chief among these was the establishment of the American Institute of Architects (AIA) in New York in 1857. For the AIA, questions concerning the ethics and economics of architectural practice were paramount, including the establishment of standards for architectural fee structures, the registration and licensing of practitioners, and bans on advertising and other competitive practices which were seen to lower the professional stature of the field.⁶ These disciplinary concerns were circulated in parallel through the first architectural journals in the U.S., particularly the *American Architect and Building News*, established in 1876.⁷ Such economic protections, which formed the core of the AIA's charter to defend the interests of architects, later emerged at the center of legal battles over the conditions of professional practice a century later, as part of renewed debates over the definition of architecture as a market service or a professional practice that would have repercussions for the integrated, diversified firms that reshaped the field after the 1970s.

⁴ On the structure of Beaux-Arts pedagogy, see Richard Chafee, "The Teaching of Architecture at the École des Beaux-Arts" and David van Zanten, "Architectural Composition at the École des Beaux-Arts From Charles Percier to Charles Garnier," in Arthur Drexler, ed., *The Architecture of the École des Beaux-Arts* (New York: Museum of Modern Art, 1975): 61–110, 111–324.

⁵ Michael J. Lewis, "1860-1920, The Battle between Polytechnic and Beaux-Arts in the American University," in Joan Ockman and Rebecca Williamson, ed. *Architecture School: Three Centuries of Educating Architects in North America* (Cambridge, MA: MIT Press; Washington, D.C.: Association of Collegiate Schools of Architecture, 2012): 66–89.

⁶ On the AIA's prohibition of architects from advertising prior to World War II, see Andrew M. Shanken, "Breaking the Taboo: Architects and Advertising in Depression and War," *Journal of the Society of Architectural Historians*, Vol. 69, No. 3 (September 2010): 406–429.

⁷ See Mary N. Woods, "The 'American Architect and Building News' 1876-1907," Ph.D. Dissertation, Columbia University (1983).

The first recognition of the coming impact of corporate models of business practice for architectural production came with the industrial revolution and the “great merger movement” in U.S. manufacturing that saw the consolidation of large-scale industrial corporations at the turn of the twentieth century.⁸ These firms soon found their parallel in the rise of architectural firms in Chicago and New York City that were equally organized to meet the needs of a corporatizing class of investment concerns, including the formation of joint-stock companies, as well as the demands of an increasingly complex array of commercial and industrial building types, including the speculative office tower and the daylight factory.⁹

Contemporary debates over the importance of these transformations in the business world marked an early instance of the discursive dichotomy between genius and bureaucracy that would mark later attempts to understand the meaning of team-based practice for the architectural profession. Chicago architect Louis Sullivan, who joined into group practice with engineer Dankmar Adler in 1880, later claimed that his self-described rival Daniel H. Burnham, then a principal of Burnham & Root, had espoused a particular interest among his peers in the benefits of large scale-practice. “My idea is to work up a big business, deal with big business men, and to build up a big organization,” Sullivan recounted Burnham telling him as early as 1874, “for you can’t handle big things unless you have an organization.”¹⁰ Sullivan noted that during the intense commercial boom

⁸ On the rise of the large industrial corporation in the last quarter of the nineteenth century, see Alfred D. Chandler Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, MA and London: Belknap Press, 1977); Thomas K. McCraw, ed., *The Essential Alfred Chandler: Essays Toward a Historical Theory of Big Business* (Boston: Harvard Business School Press, 1988); David Noble, *America By Design: Science, Technology, and the Rise of Corporate Capitalism* (New York: Knopf, 1977); Alan Trachtenberg, *The Incorporation of America: Culture and Society in the Gilded Age* (New York: Hill and Wang, 1982), and Olivier Zunz, *Making America Corporate, 1870–1920* (Chicago: University of Chicago Press, 1990). Sociologies of the corporation in this period include William G. Roy, *Socializing Capital: The Rise of the Large Industrial Corporation in America* (Princeton, NJ: Princeton University Press, 1999) and Charles Perrow, *Organizing America: Wealth, Power, and the Origins of Corporate Capitalism* (Princeton, NJ: Princeton University Press, 2002). On the merger movement, see Naomi R. Lamoreaux, *The Great Merger Movement in American Business, 1895–1904* (Cambridge, UK and New York: Cambridge University Press, 1985).

⁹ On the impact of joint-stock companies on the economics of speculative real estate in Chicago and New York City in the early twentieth century, see Daniel Abramson, “Inventing Obsolescence,” in *Obsolescence: An Architectural History* (Chicago: University of Chicago Press, 2016): 12–37.

¹⁰ Louis H. Sullivan, *Autobiography of An Idea* (New York: Press of the American Institute of Architects, Inc., 1926): 285–286.

of 1890–92—the economic bubble that he saw as giving rise to both the impasse and the solution of the skyscraper as a type—and its subsequent collapse in the Panic of 1893, “there was well under the way the formation of mergers, combinations and trusts in the industrial world.”¹¹ Burnham, he claimed, was “The only architect in Chicago to catch the significance of this movement” for his own practice, “for in its tendency toward bigness, organization, delegation, and intense commercialism, he sensed the reciprocal workings of his own mind.”¹² Yet within Sullivan’s conception of architecture as an artistic vocation, such an interest could ultimately only be negative. He was careful to contrast his own creative practice—even though conducted within a joint partnership of architect and engineer—as a mode of signature production opposed to the business-oriented ambitions of Burnham, a model of authorial self-fashioning that would soon be emulated by Sullivan’s legatee, Frank Lloyd Wright.

The body of increasingly large architectural firms that accompanied the merger movement at the turn of the century were concentrated in Chicago and New York City, the cities that increasingly constituted the dominant poles of industrial, commercial, and architectural production in the U.S. in these years. Burnham’s interest in the benefits of large-scale organization for the expanding tasks of architectural practice was paralleled in New York City by architects like George B. Post, whose office had 60 employees by the end of the nineteenth century.¹³ By the first decade of the twentieth century, the largest practices were those of McKim, Mead & White in New York City, with 110 employees around the time of the firm’s design of the World’s Columbian Exposition in Chicago in 1893, and D.H. Burnham & Company (the successor firm to Burnham & Root after engineer John

¹¹ Ibid., 314.

¹² Ibid.

¹³ Diana Balmori, “George B. Post: The Process of Design and the New American Architectural Office (1868-1913),” *Journal of the Society of Architectural Historians*, Vol. 46, No. 4 (December 1987): 351. See also Winston Weisman, “The Commercial Architecture of George B. Post,” *Journal of the Society of Architectural Historians*, Vol. 31, No. 3 (October 1972): 176–203; D. Everett Waid, “The Office of George B. Post & Sons,” *The Brickbuilder* (February 1914): 47–49.

Wellborn Root's death in 1891), which boasted of having 180 employees by 1912.¹⁴ (*Fig. 1.1*) As their names indicated, these firms often relied on a structure of partners specialized as architects and engineers (as with Adler & Sullivan or Burnham & Root), or a division of their tasks between design, construction, and business management (as with McKim, Mead & White or the later partnership of Skidmore, Owings & Merrill, established in Chicago in 1936).

New office settings for group practice accompanied the increasing size and organization of these firms. The floor plans of the largest offices, like Burnham & Root, typically combined large, undifferentiated rooms for draftsmen with private offices and consultation rooms through which partners could communicate directly with each other, as well as with clients.¹⁵ (*Fig. 1.2*) Frank Lloyd Wright later described his relationship with Sullivan during his time working for Adler & Sullivan in just such terms, occupying the rare position of a separate room as chief draftsman adjacent to Sullivan's office, through which he could work directly with the architect he later declared to have been his "*Lieber Meister*."¹⁶ (*Fig. 1.3*) These firms were often concentrated in large buildings designed

¹⁴ Robert Gutman, *Architectural Practice: A Critical View* (New York: Princeton Architectural Press, 1988): 5; Jay Wickersham, "Learning From Burnham: The Origins of Modern Architectural Practice," *Harvard Design Magazine* 32 (Spring/Summer 2000): 22. On D. H. Burnham & Company in this period, see "The Organization of An Architect's Office No. 1.," *The Engineering & Building Record* (January 11, 1890): 84–85. On McKim, Mead & White in this period, see D. Everett Waid, "The Business Side of an Architect's Office. The Office of Messrs. McKim, Mead & White.," *The Brickbuilder* (December 1913): 267–270.

¹⁵ Primary resources for understanding the structure and organization of group firms in this period are "The Business Side of an Architect's Office," a series of articles by D. Everett Waid in *The Brickbuilder* from 1902–4 on business aspects of architectural practice and reappearing as a series of firm profiles in 1913–14, and "How Architects Work," a second series of firm profiles by Waid in *The Brickbuilder* from 1911–12. See Waid, "The Business Side of an Architect's Office," *The Brickbuilder*, I. (April 1902): 69–70; II. (May 1902): 91–93; III. (August 1902): 157–160; IV (September 1902): 191–195; V. (February 1903): 37–39; VI. (November 1903): 232–233; VII. (December 1903): 254–256; VIII. (January 1904): 13–15; VII. [sic] (August 1904): 168; Waid, "How Architects Work," *The Brickbuilder*, I.—Offices of Noted Architects [H. J. Hardenbergh, Cass Gilbert, La Farge & Morris, Maynicke & Franke, Donn Barber] (December 1911): 249–252; II.—Offices of Noted Architects [York & Sawyer, Charles A. Platt, Carrere & Hastings, Grosvenor Atterbury] (January 1912): 7–10; III.—Offices of Noted Architects [J. H. Freedlander, H. Van Burn Magonigle, Delano & Aldrich, Trowbridge & Livingston] (February 1912): 35–38; Waid, "The Business Side of an Architect's Office," *The Brickbuilder*, "With A Description of the Architects' Building, New York" (August 1913): 179–181; "The Office of Mr. Donn Barber" (September 1913): 197–200; "Description of the Offices of Messrs. Henry Bacon; Ford, Butler & Oliver; Ludlow & Peabody; H. Van Buren Magonigle and Kenneth Murchison" (November 1913): 251–254; "The Office of Messrs. McKim, Mead & White" (December 1913): 267–270; "The Office of George B. Post & Sons" (February 1914): 47–49; "The Offices of Mr. Howard Greenley and Messrs. Taylor & Levi" (March 1914): 62–64; "The Office of Messrs. Mann & MacNeille" (May 1914): 103–105.

¹⁶ Frank Lloyd Wright, *Genius and the Mobocracy* (New York: Duell, Sloan and Pearce, 1949).

by the architects to house their own offices as well as those of their clients, such as Burnham & Root's offices in its Rookery Building (1888) and Adler & Sullivan's offices in its Auditorium Building (1889). Steinway Hall (1895) in Chicago, designed by Dwight Heald Perkins, quickly became home to the "Steinway Group" of architects including those of Wright (who formed his own practice in 1893 after being fired for accepting private commissions while with Adler & Sullivan), R. C. Spenser, and Myron Hunt.¹⁷ The Architects' Building in New York City (1913), designed by Ewing & Chappell and built by a stock-holding cooperative of fifteen architects and seven engineers, was "home to a large group of T square and triangle men" including McKim, Mead & White, the largest U.S. firm at the end of the 19th century.¹⁸ (Fig. 1.4) Yet outside of professional trade journals in which the organization of such firms was detailed, architects like Wright continued to promote images of themselves as singular authors. In Wright's case, this construct was emblemized by his home and studio in the Chicago suburb of Oak Park (1889), publicized in the popular press as the true locus of his creative practice, in contrast to his "business office" in Steinway Hall. (Fig. 1.5–1.6)

The Artistic Proletariat and the Bauhaus Collective

The rise of efficient group production in the U.S. sparked the interest of European architects in the first decades of the twentieth century, many of whom later became émigrés in the years immediately prior to World War II. Mutual exchanges between young European, Soviet, and U.S. architects in the interwar period paved the way for modernist movements on both sides of the Atlantic.

Fascinated by architectural "Americanism," German architects traveled to the U.S. to study its urban and industrial landscapes, inspired particularly by Frederick Taylor's theories of scientific

¹⁷ On Steinway Hall as a center for architects' offices in Chicago in this period, see William R. Hasbrouck, *The Chicago Architectural Club: Prelude to the Modern* (New York: Monacelli Press, 2005): 210–216.

¹⁸ D. Everett Waid, "The Business Side of an Architect's Office, With A Description of the Architects' Building, New York," *The Brickbuilder*, Vol. 22 (August 1913): 179–181. Subsequent profiles of firms in the Architects' Building appear in the September, November, and December 1913 issues of *The Brickbuilder*.

management and the factory models of Henry Ford.¹⁹ Press photographs of U.S. industrial buildings, like those compiled by Walter Gropius in the *Jahrbuch des Deutscher Werkbund* in 1913, were superseded by the reportage of Erich Mendelsohn's *Amerika, Bilderbuch eines Architekten* (1926) and detailed insider accounts of U.S. design and construction practices like *Wie Baut America?* (1927) and *Amerika* (1930), written by Austrian émigré Richard Neutra after working for Holabird & Roche and Frank Lloyd Wright in Chicago before moving to Los Angeles.²⁰ (Fig. 1.7–1.8) Gropius visited the U.S. in 1928, traveling among other cities to Detroit to photograph Albert Kahn's Ford River Rouge Plant (1917–27), and thereafter to Los Angeles, where he visited Neutra and photographed his buildings, including the Jardinette Apartments completed in the same year.²¹ (Fig. 1.9) The ground was prepared in turn for European modernism in the U.S. by proselytizing critics and curators, chief among them Alfred H. Barr Jr., Henry-Russell Hitchcock, and Philip

¹⁹ See Jean-Louis Cohen, *Scenes of the World to Come: European Architecture and the American Challenge, 1893–1960* (Paris: Flammarion, 1995); Ivan Rupnik, "Exporting Space-Time: American Industrial Engineering Tools and European Modernism," in Eva Franch i Gilibert, Amanda Lawrence, Ana Miljački, Ashley Schafer, ed., *OfficeUS: Agenda* (Zurich: Lars Müller, 2014): 105–116.

²⁰ On the circulation of the photographs collected by Gropius before and after 1913, see Reyner Banham, *A Concrete Atlantis: U.S. Industrial Building and European Modern Architecture* (Cambridge, MA: MIT Press, 1986); Mark Jarzombek, "The Discourses of a Bourgeois Utopia, 1904-1908, and the Founding of the Werkbund," in *Imagining Modern German Culture 1889-1910*, ed. François Forster-Hahn (Washington, D.C.: National Gallery of Art, 1996): 127–145. Images of these factory commissions were among those circulated most heavily after 1914 by European architects who sought to emulate the efficiency of U.S. building practices as well as the forms of U.S. industrial buildings. The extensive republication of these images by European architects thereafter included, most famously, their copying and alteration by Le Corbusier in *Vers une Architecture* (1923).

²¹ Gropius's trip to the U.S. is chronicled in Gerda Breuer, Annemarie Jaeggi, ed., *Walter Gropius: Amerikareise 1928 = American Journey 1928* (Berlin: Bauhaus Archiv, 2008).

Johnson at the Museum of Modern Art (MoMA) in New York.²² *The International Style*, the publication that resulted from their “Modern Architecture: International Exhibition” at MoMA in 1932, quickly became what Sibyl Moholy-Nagy called the “passport that secured the entry of the ‘Makers of Modern Architecture’ into this country.”²³ (Fig. 1.10)

While the dramatic successes of big businesses in the U.S. offered compelling alternatives to the stultifying methods of older European models, a rising generation of younger architects in Europe and the U.S. viewed both professional traditions skeptically. They criticized the inequalities inherent in the European academic models that underlay both modes of practice, particularly the *École des Beaux-Arts* and its emphasis on the identification and elevation of architectural genius. This emphasis was embodied by the pyramidal system of drawing competitions among students (*concours*) that structured the school’s pedagogy, culminating in the singular annual winner of the Prix de Rome.²⁴ For Walter Gropius, the founding director of the Bauhaus in Weimar in 1919, in practice this cultivation of signature produced not the flowering of creative genius but merely the “artistic proletariat,” a class of architectural laborers “foredoomed to semi-starvation” by its inability

²² On the impact of the “Modern Architecture” exhibition, *The International Style*, and the legacies of Barr Jr. and Johnson, see Terence Riley, *The International Style: Exhibition 15 and The Museum of Modern Art* (New York: Rizzoli, 1992); John Elderfield and Kirk Varnedoe, *Philip Johnson and The Museum of Modern Art* (New York: Rizzoli, 1998); Sybil Gordon Kantor, *Alfred H. Barr, Jr. and the Intellectual Origins of the Museum of Modern Art* (Cambridge, MA: MIT Press, 2002); David A. Hanks, ed., *Partners in Design: Alfred H. Barr Jr. and Philip Johnson* (New York: The Monacelli Press, 2015). On the exile, arrival, and acceptance of the Bauhaus and the Bauhäusler in the U.S., see Margret Kentgens-Craig, *The Bauhaus in America: First Contacts 1919-1936* (Cambridge, MA: MIT Press, 1999); Kathleen James-Chakraborty, “From Isolationism to Internationalism: American Acceptance of the Bauhaus,” in James-Chakraborty, ed., *Bauhaus Culture From Weimar to the Cold War* (Minneapolis: University of Minnesota Press, 2006): 153-170; Peter Hahn, “Bauhaus Architects and Designers Between the Old World and the New,” Franz Schulze, “The Bauhaus Architects and the Rise of Modernism in the United States,” and James-Chakraborty, “Changing the Agenda: From German Bauhaus Modernism to U.S. Internationalism,” in Stephanie Barron with Sabine Eckmann, *Exiles + Emigres: The Flight of European Artists From Hitler* (Los Angeles and New York: Los Angeles County Museum of Art and Harry N. Abrams, 1997): 211–252; William H. Jordy, “The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer,” in Donald Fleming and Bernard Bailyn, ed., *The Intellectual Migration: Europe and America, 1930–1960* (Cambridge, MA: Harvard University Press, 1969): 485–526.

²³ Sibyl Moholy-Nagy, “The Diaspora,” *Journal of the Society of Architectural Historians* (March 1965): 25.

²⁴ For much of its history, the majority of Beaux-Arts students did not formally graduate as such, ascending only to the status of *élèves*—those who had been admitted to the upper levels of the *concours*—while the Prix de Rome signified the only true credential for a Beaux-Arts alumnus. See Chafee, “The Teaching of Architecture at the *École des Beaux-Arts*,” in Arthur Drexler, ed., *The Architecture of the *École des Beaux-Arts**: 61–110.

to do more than slavishly copy.²⁵ Born out of the “widespread heresy that art is just a useless luxury” and the enervated mentality of “*l’art pour l’art*” propagated by the academy, Gropius argued in *The New Architecture and the Bauhaus* (1934) that this labor class, “lulled by false hopes of the rewards of genius,” was in fact “brought up to the ‘professions’ of architect, painter, sculptor, etc., without the requisite training to give it an independent artistic volition,” possessing only “amateurish studio-bred order which is innocent of realities like technical progress and commercial demand.”²⁶ (*Fig. 1.1*) Furthermore, in their obsession with identifying “that rare ‘biological’ sport, the commanding genius,” such academic models produced fundamentally undemocratic structures of architectural practice. Recognizing the group nature of architectural practice, Gropius argued that these schools had abdicated their mission, forgetting

that their business was to teach drawing and painting to hundreds and hundreds of minor talents, barely one in a thousand of whom could be expected to have the makings of a real architect or painter. In the vast majority of cases this hopelessly condemned its pupils to the lifelong practice of a purely sterile art. Had these hapless drones been given a proper practical training they could have become useful members of society.²⁷

Unable to produce original creative works and ignorant of the realities of professional practice, Gropius’s “artistic proletariat” symbolized the perceived failure of the European academy to create true forms of community among designers in either education or practice. Such conventional structures of group work were thus inadequate settings for designing the forms of community Gropius and his contemporaries sought to build in their roles as architects and urban planners.²⁸ Instead, both state agencies and private firms in Europe and the U.S. were staffed primarily by

²⁵ Walter Gropius, *The New Architecture and the Bauhaus* (London: Faber and Faber, 1935): 58.

²⁶ Ibid. This text is a variation of “Idee und Aufbau des Staatlichen Bauhauses Weimar,” published in *Staatliches Bauhauses Weimar 1919–1923* (Weimar–München: Bauhausverlag, 1923) and abridged and translated into English as “The Theory and Organization of the Bauhaus,” published in Herbert Bayer, Walter Gropius, Ise Gropius, ed., *Bauhaus 1919–1928* (New York: Museum of Modern Art, 1938): 22–31.

²⁷ Gropius, *The New Architecture and the Bauhaus*: 61.

²⁸ See Jeannette Redensek, “Manufacturing Gemeinschaft: Architecture, Tradition, and the Sociology of Community in Germany, 1890-1920,” Ph.D. Dissertation, The City University of New York (2007).

architects capable only of working as low-level producers of drawings or technical specifications. Such conditions typified many of the largest U.S. offices, where pools of anonymous draftsmen executed tasks under job captains or passed projects between specialized departments in sequence. These included both the technologically advanced firms that fascinated European architects like Gropius and more stylistically retrograde examples like John Russell Pope, an academically trained classicist whose firm, organized hierarchically from construction managers to chief draftsman to an undifferentiated “drafting force,” faithfully reproduced a federal classical style in monumental commissions like the Jefferson Memorial (1935–1943) and the National Gallery of Art (1936–41) in Washington, D.C.²⁹ (*Fig. 1.12–1.13*)

In contrast to such examples of practice, Gropius’s propagation of the Bauhaus model sought to reflect the recognition, in his words, that “The art of building is contingent on the coordinated team-work of a band of active collaborators whose orchestral cooperation symbolizes the cooperative organism we call society.”³⁰ In contrast to the competitive structure of the *École des Beaux-Arts*, Bauhaus pedagogy was organized as a progression from shared elementary formal training (in the famous preliminary course, or *Vorlehre*) to specific material technologies and craft techniques, and finally to the building arts (*Bau*) as the highest unification of these separate disciplines. (*Fig. 1.14–1.15*) The goal of this method was to produce holistically trained artists, some of whom went on to teach the next generation of Bauhaus apprentices as workshop “masters” in tandem with craftspersons. Yet “the Bauhaus student was no professional,” in the words of architect and designer Marcel Breuer, who was among the primary products of the Bauhaus method, joining the first generation of workshop masters after his graduation as a student.³¹ In practice, Gropius maintained a clear distinction between *bauatelier*, the design studio within the Bauhaus curriculum, and *baubüro*,

²⁹ See Parker Morse Hooper, “Office Procedure, I: Office Manual of John Russell Pope, Architect,” *Architectural Record* (January 1931): 177–182 and “Office Procedure, 2: Office Manual of John Russell Pope, Architect,” *Architectural Record* (June 1931): 261–272.

³⁰ Gropius, *The New Architecture and the Bauhaus*: 57.

³¹ William H. Jordy, “The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer”: 506.

his professional office, housed in the administrative wing of the building adjacent to his director's office. (Fig. 1.16) Paradoxically, this split mirrored the professional differentiation between the Beaux-Arts *atelier* as teaching environment and *bureau* as the setting for private practice, often led by the same practitioner.

Though Gropius later disavowed the idea that the name “Bauhaus” was a reference to the medieval *bauhutte*, an evident nostalgia for the image of the guild informed the school's models of collectivity. Such invocations of an imagined harmony of teamwork placed Gropius's program within an artistic lineage that extended from William Morris and the Arts & Crafts school in England to the interwar Germany of the design reform movement, or *Kunstgewerbe*.³² The contested stakes of Bauhaus-produced goods—often singularly designed but intended to signify the standards and aesthetics of mass-production—reflected broader debates about the creation of signature artistic works versus anonymous objects for the market, in parallel with discussions of individual versus team-based production. Such dichotomies were tied to earlier legal and economic arguments within the Deutscher Werkbund, like the debate between Hermann Muthesius and Van de Velde in 1914, over the valuation of artistic labor in the marketplace through the apparatus of copyright (proper to artistic signature) versus patents (proper to reproducible objects).³³

³² Gropius invoked John Ruskin and Morris explicitly as predecessors who “strove to find a means of reuniting the world of art with the world of work.” *The New Architecture and the Bauhaus*: 62. The intellectual genealogy from the Arts & Crafts movement to the Bauhaus was codified in particular by Nikolaus Pevsner in his *Pioneers of the Modern Movement From William Morris to Walter Gropius* (London: Faber & Faber, 1936), published by the same press in the year following Gropius's book. On the image of the medieval guild as a model for the modernist conception of the master builder, see Andrew Saint, *The Image of the Architect* (New Haven: Yale University Press, 1983).

³³ The debate initiated by Muthesius's lecture at the Werkbund Congress of 1914 was first published as *Die Werkbundarbeit der Zukunft und Aussprache darüber* [The Future Work of the Werkbund and Discussion Thereof], edited by Muthesius and appearing in the same year. For a translation of this publication, see “Appendix B: Werkbund Theses/Counter-Theses,” in John C. Maciuika, *Before the Bauhaus: Architecture, Politics, and the German State, 1890–1920* (Cambridge, UK: Cambridge University Press, 2005): 300–311. For a reading of this debate as concerning copyrights and patents as opposed legal valuations of artistic production, see Frederick J. Schwartz, “Commodity Signs: Peter Behrens, the AEG, and the Trademark,” *Journal of Design History*, Vol. 9, No. 3 (1996): 153–184 and “Magical Signs: Copyright, Trademarks and “Individuality,” in Schwartz, *The Werkbund: Design Theory and Mass Culture Before the First World War* (New Haven: Yale University Press, 1996): 147–212. On authorship, reproducibility, and intellectual property within the Bauhaus collective, see Robin Schuldenfrei, “The Irreproducibility of the Bauhaus Object,” Magdalena Droste, “The Bauhaus Object between Authorship and Anonymity” and T'ai Smith, “The Identity of Design as Intellectual Property,” in Jeffrey Saletnik and Robin Schuldenfrei, ed., *Bauhaus Construct: Fashioning Identity, Discourse and Modernism* (London and New York: Routledge, 2009): 37–60, 205–225, 226–244.

The closure of the Bauhaus by the Nazi government in 1933 formed the first major impetus for the mass departure of European architects through the decade—and the dissemination of the architectural ideals that accompanied this migration—which Sibyl Moholy-Nagy termed “The Diaspora.”³⁴ Gropius and Breuer left for England in 1934 and from there to Cambridge in 1937, practicing together until a contentious split in 1941. Ludwig Mies van der Rohe left last among the Bauhäusler, arriving in 1937 in Chicago, a city he saw as both open to German immigrants and possessing favorable regulations for licensing foreign architects.³⁵ Josep Lluís Sert escaped the Spanish Civil War to Paris in 1937, departing for the U.S. in exile following Franco’s victory in 1939. Victor Gruen (née Gruenbaum) fled Austria in 1938 on the eve of World War II, practicing first in New York before moving to Los Angeles. As immigrants, these architects were aware that only university posts would allow them to obtain permanent residence in the U.S. Joseph Hudnut, dean of the architecture school at Harvard University, sought a European modernist as chair of the program, choosing Gropius after Mies declined to compete for the position.³⁶ Mies instead went to the Armour (later Illinois) Institute of Technology, joined by Ludwig Hilberseimer, while László Moholy-Nagy founded the short-lived New Bauhaus School of Design in Chicago in 1937. The opening of the retrospective exhibition “Bauhaus: 1919-1928” at the Museum of Modern Art in 1938, curated by Barr Jr., placed a definitive stamp on the arrival of the Bauhäusler *en masse* and presaged their impact on the guiding ethos of architectural practice in the U.S. (*Fig. 1.17*)

The absorption of the émigrés into the U.S. professional context proceeded rapidly. Mies, Breuer, and Gropius were received as the major figures among the émigrés after World War II, though the later interpretation of the work of such “masters” within the context of their U.S. offices proved to be problematic, as will be discussed in Chapter 3. Breuer, for his part, saw the two

³⁴ Sibyl Moholy-Nagy, “The Diaspora,” *Journal of the Society of Architectural Historians* (March 1965): 24–26.

³⁵ Cammie McAtee, “Alien #5044325: Mies’s First Trip to America,” in Phyllis Lambert, ed., *Mies in America* (Montreal and New York: Canadian Centre for Architecture and Whitney Museum of American Art, 2001): 133–185.

³⁶ Jill Pearlman, *Inventing American Modernism: Joseph Hudnut, Walter Gropius, and the Bauhaus Legacy at Harvard* (Charlottesville: University of Virginia Press, 2007).

professional cultures as complementary: “Americans are efficient,” he said, while “Germans are systematic,” a combination he felt to be ideal in adapting to the new context.³⁷ Significantly, the postwar work of these architects often included commissions in their countries of origin, many of them identified publicly with the persona of the émigré and their conceptual return. By 1957, a special issue of the *Architectural Review* on “Machine Made America” reflected the integration of these architects into the mainstream of U.S. practice, including Mies, Gruen, Neutra, and Gropius equally with their colleagues and students among the postwar “Personal Contributions to American Architecture.”³⁸ (Fig. 1.18)

The Architecture of Bureaucracy and The Architecture of Genius

In the years immediately after 1945, architects and critics looked to the largest firms of the early twentieth century to comprehend the implications of team-based practices for postwar architectural production. Among the earliest attempts was Henry-Russell Hitchcock’s 1947 article in the *Architectural Review*, “The Architecture of Bureaucracy and the Architecture of Genius,” in which he predicted that the major categories of postwar architecture would be distinguished not by style, but by economy of production. (Fig. 1.19) Hitchcock noted that the prewar terms of architectural debate had centered on avant-garde themes of advance or regression. “The early twentieth century,” Hitchcock noted, “in considering its own cultural phenomena, was much obsessed with time, or more precisely, with pace of development.... criticism of architecture down almost to the war was frequently and tediously concerned with whether buildings were ‘advanced’ enough or too ‘advanced.’”³⁹ In the aftermath of World War II, Hitchcock argued, both the exigencies of wartime construction and the immediate needs of the postwar building boom had given way to a

³⁷ William H. Jordy, “The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer”: 491.

³⁸ “Genetrix: Personal Contributions to American Architecture,” *Architectural Review* (May 1957): 336–386.

³⁹ Henry-Russell Hitchcock, “The Architecture of Bureaucracy and the Architecture of Genius,” *Architectural Review*, No. 101 (January 1947): 3.

“clarification of the architectural picture” in which “it came about that there was at last only one contemporary way of building.” Like the Allies, modernism had definitively won its own battle at mid-century. Clearly satisfied with this state of affairs, Hitchcock ventured that in the wake of modernism’s victory, older revolutionary terms of debate would be replaced by newer questions concerning the structure and interpretation of architectural practice. “It is not too optimistic,” he wrote, “on the basis of the building done during the war in America—and I believe also in England—to say that the particular situation which justified a primary critical approach to new buildings in terms of their degree of modernity came to an end with the present decade.”⁴⁰

The new social, political, and economic context of the postwar period thus placed new demands on the architectural profession, to be resolved within the dominant language of modernism. Given this stylistic consensus, “the major problem of architecture in the middle of the twentieth century,” Hitchcock wrote, would “be a problem not of up-to-dateness but of quality.” In providing the competence required to meet this new criterion of quality, he predicted that a new type of professional entity would evolve to meet the increasing scale and scope of design tasks in a postwar society: the bureaucratic design office. Within this framework, Hitchcock speculated,

The major division of architecture into categories is, I believe, going to be between what may be called the architecture of bureaucracy and the architecture of genius, and of the latter we may presume that very little will be built for some years to come. By the architecture of bureaucracy I do not mean merely such building as is designed by civil servants, nor even the building which is closely controlled by the regulations of one or more ministries.... By bureaucratic architecture I mean all building that is the product of large-scale architectural organizations, from which personal expression is absent.⁴¹

While the speed and competence of bureaucratic architecture would ideally be suited to large-scale projects—the article identified town planning, hospitals, and schools as examples—Hitchcock counterposed “an entirely different world” of design practice for those monumental or special

⁴⁰ Ibid., 4.

⁴¹ Ibid.

cultural commissions requiring artistic or creative synthesis, “the world of the architecture of genius.”⁴² The genius was defined as the anti-bureaucrat, “the sort of architect who functions as a creative individual rather than as an anonymous member of a team”; his or her method would be “a particular psychological approach and way of working at architecture which may or may not produce masterpieces.” In contrast to the principles of quality and consistency that would govern the needs of bureaucratic work, the synthetic capacity of the genius would constitute the criterion for judging the success or failure of these symbolic commissions: “only complex individual structures of generalized symbolic meaning”—that is, those produced by the genius—“actually fail architecturally when there has been no individual imaginative formulation.”

Hitchcock’s distinction between bureaucracy and genius constituted a first call, at the outset of the Cold War, for new methods of history and criticism capable of describing the new systems of architectural production that would mark the decades to come. Such methods were compelled, in Hitchcock’s view, by a condition in which these two modes of practice and their resulting forms of expression—the competent prose of the bureaucrat and the imaginative poetry of the genius—would each have their exclusive domain of professional application. Significantly, Hitchcock already warned that this dichotomy, at once productive and discursive, would require the architectural critic to develop different tools to evaluate the built results of such practices. “Conceptually the two types of work are distinct and should not be subjected to the same type of analysis and criticism,” he insisted.⁴³ Henceforth, it would no longer be possible to judge bureaucratic production on the same artistic criteria that had applied to the prewar avant-garde, whether the interpretive framework of signature and authorial intention or the expressive attributes of imagination, creativity, or synthesis.

Frank Lloyd Wright provided the inevitable model of Hitchcock’s architectural genius, reinforcing an image maintained through the atelier-like atmosphere Wright cultivated at his Taliesin studios in Arizona and Wisconsin. (*Fig. 1.20*) Expressing this image in *Genius and the Mobocracy*

⁴² Ibid., 6.

⁴³ Ibid.

(1949), Wright praised his mentor, Louis Sullivan, in much the same terms that reappeared within his own self-fashioning.⁴⁴ In hailing Sullivan as “our great native genius,” Wright offered an example of singular creativity that paralleled Hitchcock’s description, a figure opposed to the structures, and strictures, of conventional architectural production.⁴⁵ (*Fig. 1.21*) In this way, Wright rejected both the conventional notion of professional practice and its increasing reliance on large-scale organization among teams of architects. “Professionalism,” he wrote, “is parasitic—a body of men unable to do more than band together to protect themselves.”⁴⁶ For Wright, such group structures ultimately produced not equality but “mobocracy,” a mentality that “swarms, and swamps what genuine democracy we have built into our commonplace,” which thus threatened to become merely “a battlefield for divided interests.”⁴⁷

In contrast to the authorial model emblemized by Wright, “the type of bureaucratic architecture *par excellence*” in Hitchcock’s account was represented by the office of Albert Kahn & Associates, known primarily for factories and offices for Ford Motor Company and other Detroit manufacturers.⁴⁸ Hitchcock praised “The strength of a firm such as Kahn...[that] depends not on the architectural genius of one man... but in the organizational genius which can establish a fool-proof system of rapid and complete plan production.”⁴⁹ Such a system, organized in technical divisions

⁴⁴ Frank Lloyd Wright, *Genius and the Mobocracy* (New York: Duell, Sloan and Pearce, 1949). Hitchcock had earlier reinforced this self-fashioning through his monograph on Wright, *In The Nature of Materials: The Buildings of Frank Lloyd Wright 1887-1941* (New York: Duell, Sloan and Pearce, 1942).

⁴⁵ *Ibid.*, 3. In his account, Wright was aware of the conceptual problems inherent in claiming the status of genius for both himself and Sullivan, his mentor and former employer, a fact that might otherwise condemn him to the status of disciple or legatee. In Wright’s construction, it was his own genius that enabled him to recognize the same characteristics in Sullivan, thus making their connection one of sympathy between geniuses rather than that of genius and emulator. “For genius is but an expression of principle,” he wrote, and so “Therefore in no way does genius ever run counter to genius nor ever could.” *Genius and the Mobocracy*: 80. In this sense, Wright claimed, “I am not writing this belated book as a discipline and I am not willingly a professional. A lineal descent from seed—perhaps.” *Ibid.*, 4.

⁴⁶ *Ibid.*, 4.

⁴⁷ *Ibid.*

⁴⁸ On Albert Kahn & Associates, see George C. Baldwin, “The Offices of Albert Kahn, Architect, Detroit, Michigan,” *Architectural Forum* (October 1918): 125–130; “Industrial Buildings: Albert Kahn Inc.,” *Architectural Forum* (August 1938): 87–96; “Producer of Production Lines,” *Architectural Record* (June 1942): 39–42.

⁴⁹ Hitchcock, “The Architecture of Bureaucracy and the Architecture of Genius”: 4.

from design to engineering to construction, enabled different sets of design information to “meet on the site with as perfect mutual co-ordination as machine parts come from the various sections of a factory to be joined first into sub-assemblies and then into the finished product on the final assembly line.”⁵⁰ (*Fig. 1.22*) Achieving extreme speed and quantity through coordinated divisions of specialists working simultaneously across architecture, engineering, and construction rather than in successive phases, the firm’s production methods embodied the same Taylorist principles of scientific management that regulated Ford’s production of automobiles—a factory producer of factories.⁵¹ Indeed, contemporary articles lauded Kahn’s firm as such, marveling at the prodigious output of this “Producer of Production Lines.”⁵² (*Fig. 1.23*) As proof of Hitchcock’s association of bureaucracy with quantity, by 1938 the work of Albert Kahn & Associates accounted for nearly twenty percent of all industrial buildings in the U.S. designed by architectural firms.⁵³ The office grew to over 600 employees by 1942 to support a massive expansion of plant construction for the production of tanks, aircraft, and other military equipment during World War II.⁵⁴ (*Fig. 1.24*) Kahn & Associates’ wartime industrial building program in the U.S. was anticipated by Kahn’s involvement as consulting architect for all industrial construction in the Soviet Union under Stalin’s First Five-Year Plan from 1929 to 1932, a vast program of national building that included the formation of a design

⁵⁰ Ibid.

⁵¹ Frederick Winslow Taylor’s *Principles of Scientific Management* was first published in 1911, the year after Kahn & Associates’s Highland Park plant for Ford Motor Company (1908–1910) was completed. On the relation between scientific management and the organization of the Kahn office, see Federico Bucci, “Scientific Management of Design Work” and “Fordism and Architecture Firms,” in *Albert Kahn: Architect of Ford* (New York: Princeton Architectural Press, 1993): 123–140.

⁵² “Producer of Production Lines,” *Architectural Record* (June 1942): 39–42.

⁵³ “Industrial Buildings: Albert Kahn Inc.” 87.

⁵⁴ On Kahn & Associates’s involvement with wartime construction, see Jean-Louis Cohen, “The Case of Kahn,” in *Architecture in Uniform: Designing and Building for the Second World War* (Montreal: Canadian Centre for Architecture, 2010): 86–99.

bureau in Moscow with over 2,000 Soviet workers, trained by architects and engineers from the Kahn office.⁵⁵

While Albert Kahn & Associates undertook an extensive range of public and private commissions throughout its history, including hospitals, schools, office buildings, libraries, houses, temples, and academic buildings, both Kahn and his office remained associated primarily with factory buildings in the architectural press, coming to epitomize (as the firm did for Hitchcock) the image of the “bureaucratic” or industrial architect.⁵⁶ In this way, the respective images of genius and bureaucracy were reinforced on both sides of the discursive divide, with the self-fashioning of both group producers like Albert Kahn & Associates and singular personae like Frank Lloyd Wright mirrored in their classification within the field by architects, historians, and critics.

The Corporate Architect at Mid-Century

Despite Hitchcock’s invocation of Albert Kahn & Associates as the “bureaucratic architect *par excellence*,” by 1947 Fordist factory production was already an anachronistic model for large-scale organizations in the postwar period. A year before Hitchcock’s article, sociologist Peter F. Drucker defined the corporation as the representative American social institution, predicting its emergence as the dominant form for business and other postwar institutions. In contrast to the assembly-line production embodied by Ford Motor Company, Drucker argued in *The Concept of the Corporation*

⁵⁵ On Kahn’s involvement in the U.S.S.R. between 1929 and 1932, see Sonia Melnikova-Raich, “The Soviet Problem with Two ‘Unknowns’: How an American Architect and a Soviet Negotiator Jump-Started the Industrialization of Russia,” *IA*, Issue 2 (2010): 57–80; Anatole Senkevitch, “Albert Kahn’s Great Soviet Venture as Architect of the First Five-Year Plan, 1929–1932,” *Dimensions* 10 (1996): 35–49. On the relationship between Kahn’s U.S. and Soviet works, see Claire Zimmerman, “Albert Kahn’s Territories,” in Franch i Gilabert, Lawrence, Miljački, Schafer, ed., *OfficeUS Agenda*: 117–128.

⁵⁶ Claire Zimmerman, “The Labor of Albert Kahn,” *The Aggregate* website (Not Peer Reviewed), accessed December 14, 2014, <http://we-aggregate.org/piece/the-labor-of-albert-kahn>. The series of factories with which Albert Kahn Associates became synonymous began in 1903, when the firm designed the first of nine buildings for the Packard Automotive Plant in Detroit. Subsequent designs for Pierce-Arrow Motor Car Company and Ford Motor Company followed, culminating in the massive River Rouge complex of factory buildings for Ford (1917–27).

that the managerial principles that would typify the coming economic boom would emulate the flexible, distributed model of General Motors, the largest corporation in the world by the 1950s.⁵⁷ (Fig. 1.25) In contrast to the assembly-line production embodied by Ford Motor Company and identified by Hitchcock with the bureaucratic structure of Albert Kahn & Associates, Drucker wrote, “The essence of this large-scale organization of the late twentieth century is that within it people of very diverse skills and knowledges work together.”⁵⁸ General Motors’ structure consisted of independent automobile divisions combined with coordinated decision making and control between divisions to ensure consistency across the company’s product lines. A mix of specialists at different levels within the hierarchy allowed information to travel both upwards and downwards through the production chain, creating feedback loops—or what Drucker called “a Two-way Flow”—that would increase efficiency from the factory floor to the management office and allow the company to make rapid design changes within and across divisions in response to technical issues or consumer demands.⁵⁹ Looking back in 1972, Drucker still held that “the attempt by General Motors to find the principles, the constitution, the concept of order and organization for a very big institution, is still essentially without parallel.”⁶⁰ Decentralization, teamwork, and flexibility were, for Drucker, the characteristics that marked the progressive application of corporate models across both business and institutional domains in the postwar context.

In 1949, an extensive survey of the architectural field conducted by the AIA, titled *The Architect at Mid-Century*, chronicled the changes in the scope and scale of design practice that mirrored the broader rise of the corporation suggested by Drucker. “The new society,” its authors reported, “has satisfied its larger purposes more and more by cooperating in associations,

⁵⁷ Peter F. Drucker, *The Concept of the Corporation* (New York: The John Day Company, 1946).

⁵⁸ *Ibid.*, xvi.

⁵⁹ *Ibid.*, 59. The concept of feedback loops was developed in Norbert Wiener’s *Cybernetics: or Control and Communication in the Animal and the Machine*, which appeared two years later in 1948.

⁶⁰ *Ibid.*, xx.

corporations, and institutions.”⁶¹ The survey described the range of professional responses to this new class of entities, noting that

The building needs of such groups have become a major phenomenon in modern practice, and architects soon adjusted their methods to the special necessities of these group clients. The expanded scale of corporate projects, their investment character, and the accelerated pace of completion imposed by relentless carrying charges, have increased the scope, type, and speed of architectural services to such an extent as to foster the growth of large architectural firms and the refinement of many phases of their work.⁶²

In changing to address the needs of its new clients, the AIA argued, the corporate architectural firm thus formed the natural counterpart to the rise of the corporation as a broader phenomenon of postwar society. Such offices were still a relative anomaly among all architectural practices, despite their increasing proportion of control over the building field. The survey noted that a mere two percent of architectural firms in the U.S. could be classified as large, with between 40 and 99 employees, while an even smaller number of “very large” firms, 0.9 percent, had more than 100 employees.⁶³ (*Fig. 1.26*) Yet the authors of the report suggested the increasingly disproportionate share of the construction field that was controlled by this relative handful of firms, a phenomenon that increased steadily over the next decade.⁶⁴ They also noted the national and international extension of the largest firms, as “the gradual increase in size and complexity of projects, together with vastly improved facilities for travel and communication, has encouraged a growing proportion of large firms whose practice extends not only throughout the nation, but often to distant lands as

⁶¹ Turpin C. Bannister, ed., *The Architect at Mid-Century: Evolution and Achievement, Volume One of the Report of the Commission for the Survey of Education and Registration of the American Institute of Architects* (New York: Reinhold Publishing Corporation, 1949): 16.

⁶² *Ibid.*

⁶³ *Ibid.*, 32.

⁶⁴ On the relative sizes of offices in the 1950s and 1960s, see *Architectural Forum's* annual survey of the hundred largest architectural firms in the U.S., published annually from 1958 to 1964. The initial article in the series described the survey as one “which confirms that while architecture is primarily an art, it is also a business that is stamped indelibly with the American cachet of bigness.” This article noted that the hundred largest firms in the U.S. controlled ten percent of all building construction as of 1958. “Architecture’s Biggest Firms,” *Architectural Forum* (September 1958): 112–114. See “100 Largest Architectural Firms in the U.S.,” *Architectural Forum*, April 1963: 110–112 and April 1964: 14–16.

well.”⁶⁵ This expanding map of involvement often required the expansion of the firms in turn; as the report noted, “the tendency of very large firms to establish branches or coequal offices in various metropolitan centers and even abroad” offered “another method by which large-scale technical resources can be brought to bear on local projects.”⁶⁶

The Architect at Mid-Century outlined two basic types of organization through which this new class of large architectural firms sought to meet the increasingly complex demands of its clients. A first type, embodied in the assembly-line organization of Albert Kahn & Associates, was organized into specialized departments, “each of which performs its assigned duties for each project in appropriate sequence.” (Fig. 1.27) The result of this structure was “a kind of horizontal stratification through which the project manager guides and coordinates the job,” presenting advantages of efficiency and speed in its “standardization of each stage of the work and the rapid pace this permits.” The report warned, however, of the potential dangers inherent in such a “fragmentation of the architectural process and the difficulty of ensuring that continuous personal concentration which is so necessary for creative work.”⁶⁷ Perhaps in response to this creative fragmentation, a second type of large firm was organized into project teams, each headed by a single project architect responsible for developing a given commission in its entirety from schematic design through to construction administration. (Fig. 1.28) The AIA survey noted that “In effect, the firm thus creates within itself a series of small offices,” thus benefiting from “the continuity and close integration of personnel and project it provides.”⁶⁸ Yet the authors of the report also reiterated the creative need for individuality within large organizations, echoing the dichotomy outlined by Hitchcock two years earlier. While “subdivision of duties is a necessary and legitimate principle” in such firms, the report warned, “final accountability for the quality of service and result cannot be delegated... the conception of a project

⁶⁵ Bannister, ed., *The Architect at Mid-Century: Evolution and Achievement*: 35.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*, 41.

⁶⁸ *Ibid.*, 41–42.

must evolve in the mind of one individual, and, unless the architect is to become a mere administrative figurehead, he [sic] cannot avoid its major decisions whether he works alone or employs an army of assistants.”⁶⁹ Despite these authorial difficulties, the AIA survey praised the increasing corporatization of architectural practice as beneficial for the status of the architectural field as a whole, by enabling large firms to meet the growing demands of practice “now conceived as requiring a degree of comprehensiveness never before envisioned.”⁷⁰ These innovations had led in particular to a more sophisticated delivery of architectural services, as “The new ideal of integration and the desire for precise control of all phases of the project... have brought not only extraordinary completeness to architects’ Instruments of Service, but have also expanded and refined to an amazing degree their administrative and managerial techniques.”⁷¹ Over the next decade-plus, the steady proliferation of such “Organizations for Efficient Practice” offered proof of the AIA’s prediction that large-scale firms would increasingly constitute the rule, rather than the exception, within mainstream architectural practice.⁷² (*Fig. 1.29–1.31*)

A General Motors of the Architectural World

The managerial methods outlined by Drucker and praised by the AIA found perhaps their closest parallel in architectural practice in the offices of Skidmore, Owings & Merrill (SOM), the firm that became uniquely synonymous with the term “corporate” during this period. (*Fig. 1.32*) SOM’s

⁶⁹ Ibid., 44.

⁷⁰ Ibid., 17.

⁷¹ Ibid.

⁷² The term refers to “Organization for Efficient Practice,” a series of profiles of large-scale firms that appeared in *Architectural Record* from 1960 to 1963. The firm profiles were “1. Eggers and Higgins Architects” (April 1960): 207–212; “2. Daniel, Mann, Johnson, & Mendenhall, Architects & Engineers” (June 1960): 187–194; “3. Smith, Hinchman and Grylls Associates, Inc. Architects & Engineers” (August 1960): 165–170; “4. Caudill, Rowlett and Scott, Architects-Planners-Engineers” (November 1960): 179–184; “5. Hellmuth, Obata and Kassabaum, Inc., Architects” (February 1961): 137–144; “6. Gruen Associates” (October 1961): 133–134; “7. Nolen-Swinburne & Associates” (February 1963): 155–158; “8. Eliot Noyes & Associates” (March 1963): 163–170.

success was based on its development of the “package deal,” in which large teams of architects and engineers delivered complex projects from site planning and structural engineering to detailed design, facade systems, interiors, budgeting, and administration.⁷³ Diagrams of the firm’s organization published in architectural journals precisely represented Drucker’s efficient yet flexible corporation. (Fig. 1.33) In practice, however, the image of SOM as a firm characterized by consistent products rather than by signature architects—one supposedly so anonymous that a partner claimed “it could even be called the ABC Company”—conflicted with public celebrations of Gordon Bunshaft above all as the firm’s lead designer.⁷⁴ This individual status, often effected at the expense of other partners’ credits—particularly female partners, like Natalie de Blois—was reaffirmed unproblematically by contemporary descriptions of Bunshaft’s role as office “dictator,” often in the same publications that lauded SOM’s teamwork.⁷⁵ (Fig. 1.34) Yet the overall impression of a smoothly functioning team was successful enough that *Fortune* magazine extolled SOM’s “group design,” while *Business Week* marveled at the firm’s \$2 billion dollars of “design by conference.”⁷⁶ (Fig. 1.35–1.36) *Newsweek* made explicit the firm’s affinity with Drucker’s managerial paradigm, praising SOM for its “enormous and assiduous activity and production—something like a General Motors of the architectural world.”⁷⁷ A 1950 exhibition of SOM’s work at the Museum of Modern Art—described by the Museum as its first on a group architectural practice—had already affirmed the

⁷³ William Hartmann, “S.O.M. Organization,” *Bauen + Wohnen* Vol. 11, No. 4 (April 1957): 116.

⁷⁴ “Skidmore, Owings & Merrill, Architects, U.S.A.,” *Museum of Modern Art Bulletin*, Volume XVIII, No. 1 (Fall 1950): 7. The singular status of Bunshaft within representations of the firm’s work was made evident in monographic treatments like Carol Herselle Krinsky, *Gordon Bunshaft of Skidmore, Owings & Merrill* (Cambridge, MA: MIT Press, 1988), as well as in his receipt of the Pritzker Prize in 1988, awarded to Bunshaft as an individual rather than to SOM as a firm. On Bunshaft’s persona, see Nicholas Adams, “Gordon Bunshaft: What Convinces is Conviction,” *SOM Journal* 9 (Berlin: Hatje Cantz: 2016).

⁷⁵ “Designers For a Busy World: Mood For Working,” *Newsweek* (May 4, 1959): 100. On Natalie de Blois, see Chicago Architects Oral History Project, *Oral History of Natalie de Blois, Interviewed by Betty J. Blum* (Chicago: The Ernest R. Graham Study Center for Architectural Drawings, Department of Architecture and The Art Institute of Chicago, 2004); “Interview with Natalie de Blois by Detlef Mertins,” *SOM Journal* 4 (Berlin: Hatje Cantz: 2004); Hilary Sample, “Natalie De Blois,” in Franch i Gilabert, Lawrence, Miljački, Schafer, ed., *OfficeUS Agenda*: 65–81.

⁷⁶ “The Architects From Skid’s Row,” *Fortune* (January 1958): 137–40, 210, 212, 215; “2-Billion Worth of Design by Conference,” *Business Week* (December 4, 1954): 96–104.

⁷⁷ “Designers For a Busy World: Mood For Working”: 97.

perceived compatibility between the repetitive, reproducible character of modernism and the efficiencies of bureaucratic production, characterizing the firm as one in which designers “work together, animated by two disciplines which they all share—the discipline of modern architecture and the discipline of American organizational methods.”⁷⁸ (*Fig. 1.37*)

However, the model of General Motors was not always a positive one for architects. Joseph Hudnut, for example, lamented the rise of the “corporation-architect,” the type of producer “whose esthetic is pre-harmonized to that of big business.”⁷⁹ Invoking an unnamed firm reminiscent of SOM as an example of such corporation-architecture, Hudnut wrote of “at least one architect who has, among his two hundred employees, a dozen or more who, segregated in a ‘style department’ not unlike that of General Motors, develop their designs in a collaborative manner.”⁸⁰ For Hudnut, the end results of this corporate turn could only be the demise of architecture as art: “I can imagine no method more subtly corrosive of individuality,” he wrote, maintaining that “The art in architecture, however elaborate may be the processes of getting things done, must be individual in origin and control.”⁸¹

Just as Hitchcock had situated the emerging architecture of bureaucracy in terms of the prewar model of Albert Kahn’s office, so contemporary critics looked to earlier examples of large-scale practice in order to understand this new scale of production. In a special issue of *Bauen + Wohnen* dedicated to SOM in 1957, Sigfried Giedion situated the offices’s work within the lineage of Chicago firms like Burnham & Root that had been among the pioneers of the large-scale architectural business at the turn of the twentieth century.⁸² (*Fig. 1.38*) Responding to Hitchcock

⁷⁸ “Skidmore, Owings & Merrill, Architects, U.S.A.”: 5.

⁷⁹ Joseph Hudnut, “Architecture and the Individual,” *Architectural Record* (October 1958): 170.

⁸⁰ *Ibid.*

⁸¹ *Ibid.*

⁸² Sigfried Giedion, “The Experiment of SOM,” *Bauen + Wohnen* Vol. 11, No. 4 (April 1957): 113. In his introduction to the first monograph of SOM’s work in 1962, Henry-Russell Hitchcock placed the firm’s heritage in the lineage of Daniel Burnham, whom he credited as “the inventor and developer of the large architectural office—the ‘plan factory’, if you will.” Hitchcock, “Introduction,” in Ernst Danz, *Architecture of Skidmore, Owings & Merrill 1950–1962* (New York: Praeger and London: The Architectural Press, 1962): 9.

and Giedion with a view from outside the United States, Peter Smithson placed SOM's genealogy not with the commercial architects of the Chicago School but rather with the New York office of McKim, Mead & White, among the largest architectural firms at the end of the nineteenth century.⁸³ For Smithson, both firms embodied a lineage of luxurious materials and careful execution inaccessible to foreigners, "that special tradition of concentration on detail which Americans enjoy." The results of this technocratic emphasis, he wrote, became manifest in the other-worldly impression created by "machine-absolute" buildings like SOM's Chase Manhattan Bank in New York City, among the exquisitely detailed products of U.S. corporate firms that could serve as "truly hints of *une architecture autre*" for foreign architects like Smithson. (Fig. 1.39) Hitchcock also linked the fetish character of such products with the professionalization of the firms that produced them, suggesting that "the acceptance of the skyscraper outside of North America has certainly already led in some cases to the development of architectural offices comparable in scale and organization to the American ones. Thus it is not only the American skyscraper that has come to be adopted abroad but, up to a point at least, the methods of its design and production."⁸⁴

Evident in these descriptions was the need to reconcile the prewar notion of modernism as a cultural avant-garde with the mainstream, corporate organization by which such products were achieved. Giedion's essay had characterized SOM as an "experiment" in merging management and progressive design, by using this scale of organization to convince clients of the value of modernist aesthetics. Yet Nathaniel Owings, one of the founders of SOM, argued that the partners' initial interest in team-based practice lay not just in leveraging big business toward aesthetic ends, but in how such large-scale involvement could be channeled toward broader cultural goals. In *The Spaces in Between*, his autobiography as well as a personal chronicle of SOM's early years and growth after World War II, Owings alluded to the partners' conviction that "We would have to take responsibility

⁸³ Peter Smithson, "The fine and the folk: An essay on McKim, Mead and White and the American tradition," *Architectural Design* (August 1965): 394–397.

⁸⁴ Henry-Russell Hitchcock, "The Rise to World Prominence of American Architecture," *Zodiac 8: America*, ed. Bruno Alfieri (Milan: 1961): 2.

to gain authority.”⁸⁵ The means to achieve this professional and cultural authority, they resolved, was “to build a modern ‘Gothic Builders Guild’ practice and to apply the synergism of power thus created.”⁸⁶ The key to this synergism was scale. As Owings insisted,

We were not after jobs as such. We were after leverage to influence social and environmental conditions. To work, we must have volume. An efficient set of master builders can eat up a lot of work. Volume meant power. We would try to change men’s minds.⁸⁷

Later statements by the firm that described its large-scale organization continued to defend the need for creative synthesis as the key to achieving these cultural impacts. In “Big Buildings from Big Offices,” published by *Voice of America* in 1961 as part of a series of essays by prominent architects and historians on the state of U.S. architecture, SOM partner William Hartmann reminded readers that “The ‘Big Office’ has to be more than a technical monolith to make an outstanding ‘Big Building.’”⁸⁸ Even while outlining the step-by-step procedures through which the firm executed large, complex commissions for its corporate clients, Hartmann suggested that “Beauty and order are special contributions manifestly needed in work of this scale,” and that such attributes were ultimately “the results of special qualities which distinguish one large firm from another.”⁸⁹ The firm thus continued to argue that its true ambitions were ultimately social and aesthetic, enabled by the power of efficient delivery methods and large-scale organization.

⁸⁵ Nathaniel Alexander Owings, *The Spaces in Between: An Architect’s Journey* (Boston: Houghton Mifflin Company, 1973), 66. On the writing and narrative voice of Owings’s book, see Nicholas Adams, “Belonging as a Corporate Ideal: Nathaniel A. Owings of Skidmore, Owings & Merrill writes *The Spaces in Between* (1973),” *Histories of Post War Architecture*, No. 0 (2017): 1–14.

⁸⁶ Owings, *The Spaces in Between: An Architect’s Journey*: 66.

⁸⁷ *Ibid.*

⁸⁸ William Hartmann, “Big Buildings from Big Offices,” *The Voice of America: Forum Lectures*, Vol. 6, No. 7 (1961): 6.

⁸⁹ *Ibid.*, 7. An earlier description of the firm’s structure by Hartmann is “S.O.M. Organization,” *Bauen + Wohnen* Vol. 11, No. 4 (April 1957): 116.

TAC and the Scope of “Total” Architecture

The firm that perhaps most genuinely adopted the postwar belief in team-based practice as a social ethos was The Architects Collaborative (TAC), established in Cambridge, Massachusetts in 1945. The firm was comprised of seven young architects along with Walter Gropius, chairman of the Harvard Graduate School of Design after his emigration from Germany via England in 1937. Founded as an experiment in collective production, TAC eventually became the largest dedicated architectural practice in the U.S., with \$12.4 million in billings and over 300 employees by 1978.⁹⁰ (*Fig. 1.40*) In the postwar decades the firm’s headquarters formed the nucleus of a vibrant professional culture of designers gathered around Harvard Square, numbering into the hundreds—many of them working in offices indebted to the collective atmosphere first established by TAC. For members of this scene, sometimes referred to by its legatees as the “Cambridge School,” it was within the structure of practice itself, beyond its visible products, that the postwar evolution of modernism would take place.

As will be described in detail in Chapters 2 and 3, TAC represented a model of practice that was distinct from other prominent team-based architecture firms of the postwar period like SOM, though all would eventually come to be grouped together by critics under the rubric of the corporate office. In particular, the collaborative ideal at TAC was radically opposed to the hierarchy represented by SOM’s work.⁹¹ Key to the TAC approach was the idea that teams should consist of generalists able to criticize each other as equals, rather than parceling tasks among specialized practitioners

⁹⁰ Oliver W. Witte, “Learn from the Public Giants,” *Building Design & Construction* (July 1978): 59.

⁹¹ It is interesting in this regard that Henry-Russell Hitchcock claimed an affinity between both the organizational models of SOM and TAC and the character of their design work in their early years. In his introduction to SOM’s 1962 monograph, Hitchcock contested the conventional notion that the firm’s work, particularly early buildings like Lever House, was “generically Miesian,” instead claiming that “before 1950 their approach to design was closer, perhaps, to that of Gropius. Their type of organization, with its emphasis on anonymous production by teams of co-workers, is certainly so although it was not derived from the pattern of practice Gropius had long called for and finally achieved with TAC.” Hitchcock, “Introduction,” in Ernst Danz, *Architecture of Skidmore, Owings & Merrill 1950–1962* (New York: Praeger and London: The Architectural Press, 1962): 9.

according to the managerial principles of efficiency and division of labor. This structure was formalized through a weekly meeting in which all the partners gave shared criticism of each others' projects, Gropius among them as a declared collaborator among equals—a far cry from descriptions of Gordon Bunshaft's "dictatorial" position at SOM. Working at other team-based firms meant suits and ties, a time clock, and a rigid chain of command; TAC meant corduroy and jeans, wild (occasionally scandalous) office parties, and a messy environment of shared investigation closer to an atelier than a corporate office. Embedded in this environment was Gropius himself, at once simply one among the partners and the singular figure identified with the outsized legacy of the Bauhaus.⁹² (*Fig. 1.41–1.42*)

Given Gropius's identification with the Bauhaus pedagogy of team-based work among holistically-trained designers and its postwar translation into schools of architecture in the United States, critics chose to see TAC's organizational model as the application of these same principles in the context of Americanized professional practice. As the chosen voice of TAC's work in the architectural press (though significantly not the primary author of the firm's architectural output), Gropius wrote extensively about the positive impact that collaborative models of management could have on architectural practice. In 1952, on the verge of his retirement from Harvard to focus on the practice, Gropius fought against the AIA's prohibition of designers from engaging in building contracting, a separation he regarded as preventing architects from maintaining their status as "masters" of the building industry in the face of competition with integrated "package-builders" and

⁹² Chief among these revels was the unfortunately named—but presumably tongue-in-cheek—Gropifest, an annual celebration of Gropius' birthday. While TAC celebrated the date prior to 1969, particular on his 80th (1963) and 85th (1968) birthdays—the latter in conjunction with events at the Harvard Graduate School of Design and in Harvard Yard—it appears the term "Gropifest" originated with the first celebration of Gropius's birthday a year after his death, scheduled for May 8, 1970 (later delayed until Gropius's actual birthdate of May 18). See Marjorie Sherman, "Gropius Party Postponed," *The Boston Globe*, May 24, 1970: 12; Robert Reinhold, "Gropie Fest' Honors Gropius," *The New York Times*, May 20, 1970: 43; Robert Taylor, "Gropifest: A Memorial in Living Metal," *The Boston Globe*, May 24, 1970: 26, and *Gropifest, May 8, 1970*, pamphlet (TAC and Harvard Graduate School of Design, 1970), Canadian Centre for Architecture Collections.

other large-scale construction entities.⁹³ (Fig. 1.43) Elaborating on these concerns three years later in his book *The Scope of Total Architecture*, Gropius reiterated the urgent need for “a closely co-operating team together with the engineer, the scientist and the builder,” in which “design, construction and economy may again become an entity—a fusion of art, science and business.”⁹⁴ (Fig. 1.44) Only such a holistic, team-based management structure would allow the profession to combat its increasing divorce from building production, a development that threatened to reduce the the architect’s role within the new spectrum of design tasks that demanded comprehensive solutions.

In advocating for teamwork, Gropius sought to articulate a specifically democratic notion of collaboration, a persistent feature of his writing in the Cold War context of U.S. postwar practice. He insisted that “it is one thing to condition an individual for cooperation by making him conform; it is another, altogether, to make him keep his identity within a group of equals.”⁹⁵ Achieving this balance would guarantee “the protection of the individual against becoming a mere number,” as he had perceived the products of the École des Beaux Arts to be, and so ensure “the development of related expression rather than of pretentious individualism.”⁹⁶ As a German émigré, Gropius was particularly sensitive to avoid any association of collective labor with the specter of communism, accusations that had also plagued large-scale federal programs like the Tennessee Valley Authority

⁹³ Walter Gropius, “Gropius Appraises Today’s Architect,” *Architectural Forum* (May 1952): 111–112, 166, 170, 174, 178, 182. On the ethical and service issues of architects competing with package-builders, see “Those Worrisome Package Builders,” *Architectural Forum* (April 1958): 120–123, 190 ff. The article describes Gropius as “certainly no partisan of the engineer-constructor but who does hold to the idea of the master builder,” quoting him on the dilemmas faced by architects in advertising their value: “when a client is in a building mood, he wants to buy the complete package for a fixed price and at a definite time of delivery. He is not at all interested in the question of the division of labor between architect, engineer, and contractor. Since he senses subconsciously that it is rather artificial to keep design and building so wide apart, he usually concludes that the architect is the unknown ‘X’ in his calculations, in terms of money as well as time.” *Ibid.*, 123. A 1955 article in *Architectural Forum* characterized Gropius’s argument as a more direct emulation of package-firms, and described architects’ motivations to follow his ideas as more cynically derived: “They agree with Gropius that only so can they seem really integral in the building effort, only so can their planning costs get paid without question, only so can they seem businesslike in a country that highly respects—and pays—men of business.” Louise Cooper et al., “The Architect Today,” *Architectural Forum* (October 1955): 123.

⁹⁴ Walter Gropius, “The Architect Within Our Industrial Society,” in *Scope of Total Architecture* (New York: Harper & Brothers, 1955): 80.

⁹⁵ Walter Gropius, “TAC’s Teamwork,” in Gropius and Sarah P. Harkness, ed., *The Architects Collaborative 1945–1965* (Teufen: Verlag Arthur Niggli, 1966): 24.

⁹⁶ *Ibid.*

before the war.⁹⁷ In this context, Gropius maintained, a collective method like that of TAC, self-consciously balancing individual decision-making with collective criticism, offered a middle path between the anti-democratic extremes of groupthink on the one hand and the autocratic cult of the genius on the other.

Gropius's concepts of the "total" architect and of "total architecture" thus reflected his attempts to effect a delicate rhetorical balance across the domains of politics, architecture, and business in arguing for collectivity in the postwar context. In this sense, the circulation of these terms within the field over the next two decades betrayed their shifting interpretation. In the same year Gropius's book appeared, an article in *Architectural Forum* offered a more blunt set of analogies within the postwar complex of military technology, consumer culture, and architectural production. "Democracy and the immense productivity of industry have for the first time in history produced something like a 'total' market," its authors wrote, arguing that in the construction field, "This revolution has led to an idea as radical as the idea of 'total' war: the concept of 'total' construction and with it the possibility of 'total' architecture."⁹⁸ Photographer and architect Robert Damora, an avowed acolyte of Gropius and the chosen photographer for his and TAC's earliest buildings in the U.S., used the term philosophically, defining Total Architecture as "architecture that is human, that is useful, that goes beyond form alone to the beauty of the spirit; architecture that encompasses all building types and all people."⁹⁹ Like Gropius, he stressed the democratic character of this concept in the postwar context, allied to the conviction that modern architecture so conceived would be "an architecture for everyone; just as our democratic government is a government for everyone with no

⁹⁷ See Karen Koehler, "The Bauhaus Manifesto Postwar to Postwar: From the Street to the Wall to the Radio to the Memoir," in Jeffrey Saletnik and Robin Schuldenfrei, ed., *Bauhaus Construct: Fashioning Identity, Discourse and Modernism* (London and New York: Routledge, 2009): 13–36.

⁹⁸ Louise Cooper et al., "The Architect Today," *Architectural Forum* (October 1955): 116–123.

⁹⁹ Robert Damora with Sirkka Damora, "Robert Damora," in Nina Rappaport, ed., *Robert Damora: 70 Years of Total Architecture* (New Haven: Yale School of Architecture, 2003), n.p. Damora photographed both Gropius and his house in Lincoln, Massachusetts in 1948, and TAC's Harvard Graduate Center in 1950. On Damora's relationship with Gropius, see Karla Cavarra Britton, "Robert Damora and the Mission of American Architecture," *The Journal of Architecture*, Vol. 21, No. 7 (2016): 995–1011.

exclusions.”¹⁰⁰ By the 1970s, however, architects and critics employed the term without political content, invoking the notion of “total” architecture more pragmatically to describe the increasing range of services offered by larger and more diversified design firms. In *Total Design* (1972), a monograph on the comprehensive practice of Welton Becket & Associates, editor William Dudley Hunt described the firm’s concept as encompassing “almost anything that could remotely be called professional architecture,” including an extensive array of services ranging from engineering to programming, space studies, survey and analysis, site selection, master planning, zoning assistance, industrial design, furnishing and decorating, graphics, plan checking, and cost control.¹⁰¹

In developing his argument from a text on the AIA’s prohibitions in 1952 to its expanded form in *The Scope of Total Architecture* three years later, Gropius’s position was both ideological and pragmatic. He insisted that collaboration across disciplines would allow the architect to recover the ideal of integration represented by the pre-industrial figure of the master builder in the context of postwar industrial society. These issues of production also directly concerned questions of authorship and the self-image of the producer, issues with which Gropius was intimately familiar through his long engagement with design pedagogy. Students of architecture would have “to learn to collaborate without losing their identity,” an approach he had worked to promote through collaborative workshops at the Bauhaus and later at Harvard.¹⁰² “The younger generation of architects,” he warned, “[is] beginning to lose confidence in the trusteeship character of our professional setup and in its logical result: the self-appointed prima donna architect.”¹⁰³ The historical task of the next generation of architects, inheritors of the legacy of modernism, would thus be to overcome “the

¹⁰⁰ Interview with Robert Damora by Dean Sakamoto, in *Robert Damora: 70 Years of Total Architecture*, n.p.

¹⁰¹ William Dudley Hunt, *Total Design: Architecture of Welton Becket & Associates* (New York, NY: McGraw Hill, 1972). Hunt had earlier written an industry guide to “comprehensive” practice, a market category of which Welton Becket & Associates was a prime exemplar. See Hunt, *Comprehensive Architectural Services: General Principles and Practice* (New York: McGraw-Hill, 1962).

¹⁰² Gropius, “The Architect Within Our Industrial Society,” in *Scope of Total Architecture*: 85.

¹⁰³ *Ibid.*, 84.

ideology of the past century” that “has taught us to see in the individual genius the only embodiment of true and pure art.”¹⁰⁴

Significantly, Gropius understood that this change in pedagogy would enable new attitudes towards individual self-consciousness for architects in practice, no longer taught to think in terms of singular authorship. He warned that these new team-based production would entail an inevitable confrontation with inherited expectations about the autonomy and importance of the architect, predicting that “Architects in the future will refuse to be restrained from a natural urge to take actual part in a team effort with the industry to produce buildings and their parts. The emphasis, I believe, will be more and more on the team.”¹⁰⁵ By the 1960s, however, this “natural urge” to teamwork received a more compelling impetus from legal and economic challenges that required firms to grow larger in order to meet the demands of an increasingly competitive marketplace.

Incorporation, Ethics, and the American Institute of Architects

In 1968, an editorial in the *Architectural & Engineering News* lamented the “Decay of the Old Ethics,” predicting that “the huge public-private client of the future will know little, and care less, about many of the ins and outs of architects’ professional ethics.”¹⁰⁶ Over the next decade, the profession underwent a series of fundamental shifts in the conditions of practice that saw the dismantling of over a century of anti-competitive regulations based on the definition of architecture as a disinterested, liberal profession. These changes had profound impacts on the competitive terrain of the architectural field, leading to the consolidation and expansion of ever-larger and more diversified firms.

¹⁰⁴ Ibid., 86.

¹⁰⁵ Ibid., 84.

¹⁰⁶ Stephen A. Klimont, “Decay of the Old Ethics,” *Architectural & Engineering News* (December 1968): 3.

A crucial event in this shift was the consent decree signed by the American Institute of Architects (AIA) with the U.S. Department of Justice in 1972 to remove mandatory fee schedules from its standards of professional practice, a major stake in its charter to protect the interests of U.S. architects as a community of expert practitioners.¹⁰⁷ The consequences of allowing architects to compete for services on the basis of price were immediately clear to critics, who warned that “agreeing to the consent decree reduces the concept of professionalism to the level of a commodity.”¹⁰⁸ Caught between consumer advocates who sought to democratize access to professional services and laissez-faire economists in favor of deregulating markets, by the end of the decade most of the AIA’s ethical protections against competitive practice had been dismantled, including its long-standing ban on advertising and rules to prevent any architect from attempting to supplant another with potential clients.¹⁰⁹ Studying the impact of these changes, sociologist Robert Gutman held that architects’ self-conception as a liberal (rather than entrepreneurial) profession was anachronistic, a sign that “the theoretical underpinnings which have held the field together no longer appear valid.”¹¹⁰ (*Fig. 1.45*)

Other market forces further exacerbated the need for firms to grow bigger in order to meet the demands of open market competition. The effects of prolonged recession, the reduction of architects’ authority over building construction, the increased specialization of building types, and expanded litigation and the resulting liability protection which firms were obliged to carry, all

¹⁰⁷ “Convention Delegates Vote 2–1 to Accept Justice Department Consent Decree,” *Architectural Record* (June 1972): 47.

¹⁰⁸ Walter F. Wagner Jr., “The AIA and the Justice Dept: Do you know you’re almost slightly pregnant?” *Architectural Record* (May 1972): 9. The AIA’s legal disputes with the Department of Justice over price competition was not fully resolved until 1990. See Daniel P. Moskowitz and Peter Hoffmann, “Architects and Engineers Getting Part of What They Want on Antitrust Laws,” *Architectural Record* (January 1983): 35; David Johnston, “Justice Department Files Antitrust Suit Against Architects,” *The New York Times*, July 6, 1990; Sharon Walsh, “American Institute of Architects Settles U.S. Suit on Pricing Policy,” *The Washington Post*, July 6, 1990.

¹⁰⁹ Jay Wickersham, “From Disinterested Expert to Marketplace Competitor: How Anti-Monopoly Law Transformed the Ethics and Economics of American Architecture in the 1970s,” *Architectural Theory Review*, Vol. 20, No. 2 (2015): 138–158. I am grateful to Wickersham for providing me with an early version of this paper, delivered at the annual conference of the Society of Architectural Historians in April 2011, in the early stages of my writing.

¹¹⁰ Robert Gutman, “Architecture: The entrepreneurial profession,” *Progressive Architecture* (May 1977): 55.

resulted in a steady decline in the net profitability of U.S. architecture firms after the 1950s.¹¹¹ The result was the consolidation of a smaller number of large firms with an increasing proportion of the architectural market, split from a sea of smaller practices with an ever-more marginal share of the field.

Firms responded in different ways to these shifts in the economics of architectural practice. The largest offices were pushed both to diversify and specialize their services, often in highly technical building categories, or to look for commissions abroad, particularly the expanding markets of Southeast Asia and the Middle Eastern Gulf States. A 1971 article in *Fortune* outlined the ways in which “Architects’ collective acceptance of the team idea” had become increasingly necessary to compete with contractors and developers in navigating the intensifying legal and economic pressures of the construction field.¹¹² “Building projects are growing larger and much more complex,” the article noted, “requiring an ever expanding list of specialists, from sociologists to market analysts, for their planning.”¹¹³ Such demands threatened the viability of medium-sized firms in particular (those listed in *Fortune* as having ten to thirty employees), necessitating expansion and diversification as a condition of survival on the open market. In response,

Many firms have abandoned the traditional partnership setup and have incorporated. At least two companies have floated public stock issues, and many more are considering the possibility. An increasing number of architects have become entrepreneurs. . . . Large firms are spreading out from architecture and engineering into such related activities as city and regional planning, economic and transportation studies, graphics, and interior design.¹¹⁴

Among the firms pursuing such structural changes in their practice, John Portman Associates chose the path of entrepreneurship, with Portman offering the persona of a combined developer, part

¹¹¹ See Anne Filson, “Net Profits,” in Eva Franch i Gilabert, Michael Kubo, Ana Miljački, Ashley Schafer, ed., *OfficeUS Atlas* (Zurich: Lars Müller, 2015): 700–701, based on Filson’s research on the separation of architects from building construction after 1949. I am grateful to Filson for providing this research for *OfficeUS* as well as for this dissertation.

¹¹² Gurney Breckenfeld, “The Architects Want a Voice in Redesigning America,” *Fortune* (November 1971): 206.

¹¹³ *Ibid.*, 198.

¹¹⁴ *Ibid.*, 146.

owner, and designer for large-scale commercial complexes like the Peachtree Center in Atlanta, Georgia (1965), a real estate model he soon applied to projects in San Francisco, Detroit, Los Angeles, and thereafter internationally in Singapore, China, India, and South Korea.¹¹⁵ Charles Luckman, previously a partner in large-scale practice with William L. Pereira in Los Angeles (and the client for SOM's Lever House in New York City prior to the start of his architectural career), agreed in 1968 to the acquisition of his firm, Charles Luckman Associates, by Ogden Corp., a conglomerate with interests in shipbuilding, scrap-metal, and savings and loans, among other industries.¹¹⁶ RTKL Inc., based in Baltimore, merged with research, engineering, and computation conglomerate URS Systems in 1971, opening the firm to both the development market and the access to capital provided by a publicly held firm.¹¹⁷ A public issue of \$1.4 million in stock provided Los Angeles building designer Barry A. Berkus with the funds to establish Environmental Systems International, Inc. (ESI) in June 1970, a competitor to architecture firms in selling designs for up to 13,000 houses and apartments by the end of 1971.¹¹⁸ Perhaps the most significant of these changes was the decision of CRS Design Associates, the firm established as Caudill, Rowlett Scott (CRS) in 1945, not to merge with a larger company but to become the first publicly traded architecture practice in 1971, initiating a series of acquisitions that transformed the company into a vast global engineering and

¹¹⁵ On the development model of John Portman Associates, see Charles Rice, *Interior Urbanism: Architecture, John Portman and Downtown America* (London: Bloomsbury, 2016); "John Portman: Atlanta's One-Man Urban Renewal Program," *Architectural Record* (January 1966): 133–140; Maeve Slavin, "Portmania," *Interiors* (October 1984): 118–127. On the firm's international expansion after 1979, see Robert Guenther, "U.S. Developers Sign Contracts To Put Up Projects in China," *The Wall Street Journal* (November 12, 1984): ii; John C. Portman, "An Architecture for Contemporary China," *Building in China* (December 1990): 34–38; Mitchell Pacelle, "U.S. Architects in Asia: Only Way to Go Is Up," *The Wall Street Journal* (March 21, 1996): B1; Aric Chen, "The Kubla Khan of Hotels," *The New York Times* (June 25, 2006): 5; Charlie Qiuli Xue, Yingchun Li, "Importing American Architecture to China: the Practice of John Portman & Associates in Shanghai," *The Journal of Architecture* (March 2008): 317–333.

¹¹⁶ Breckenfeld, "The Architects Want a Voice in Redesigning America": 203.

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

construction conglomerate over the next two decades.¹¹⁹ (*Fig. 1.46–1.47*) While journalists noted that “Not every firm is willing to share ownership and control with a large number of mostly anonymous stockholders and to bare its financial soul to them and to the world,” by 1978 at least 33 other large design and construction firms in the U.S. had chosen to issue public stock and so become subject to the forms of expansion and diversification demanded by shareholders on the open market.¹²⁰

By the 1970s, the economies of production represented by team-based offices had become the norm within architectural practice. A scale of operation that before World War II had been reserved for a handful of firms—including those of D. H. Burnham & Company, McKim, Mead & White, and Albert Kahn & Associates—formed the typical structure of mainstream architectural production.¹²¹ This expansion of corporate practice was intimately related to the expanding oil economies of the Arab and Persian Gulf States in the decades after World War II. As will be discussed in Chapter 5, TAC’s University of Baghdad (1957–83) was an early example of what quickly became a heavy involvement in the region by U.S. firms, in parallel with U.S. geopolitical and economic interests during the Cold War. This presence included corporate practices in particular, with SOM, CRS, Hellmuth, Obata + Kassabaum (HOK), Leo A Daly, and Daniel, Mann, Johnson & Mendenhall (DMJM) among the firms whose expansion in these years was indebted to large-scale commissions in the Middle East.¹²² (*Fig. 1.48*) The invitation of Houston-based CRS (later CRS-Sirrine Inc.) to assist with site selection for the University of Petroleum and Minerals (1964–82) in

¹¹⁹ Paolo Tombesi, “Capital gains and architectural losses: the transformative journey of Caudill Rowlett Scott (1948–1994),” *Journal of Architectural Education*, Vol. 11, No. 2 (2006): 145–168. See also Avigail Sachs, “Marketing Through Research: William Caudill and Caudill, Rowlett, Scott (CRS),” *The Journal of Architecture*, Vol. 13, No. 6 (2008): 737–752; Peggy Deamer, “Office Management,” in Franch i Gilbert, Lawrence, Miljački, Schafer, ed., *OfficeUS Agenda*: 52–64.

¹²⁰ Oliver W. Witte, “Learn from the Public Giants”: 48.

¹²¹ Robert Gutman, *Architectural Practice: A Critical View* (New York: Princeton Architectural Press, 1988): 5.

¹²² See Tony Morris, “American Designers in Arabia,” *Middle East Construction* (August 1985): 37–43. The article includes profiles of HOK, DMJM Phillips Reister Haley Inc., Leo A Daly, TAC, CRS-Sirrine Inc. as firms that were particularly invested in work in the region.

Dhahran, Saudi Arabia, for example, marked the beginning of three decades of large-scale commissions for governmental, industrial, and military clients in Saudi Arabia, including workers' housing for the Arabian-American Oil Company, or Aramco (1975–80) in Dhahran, King Abdul Aziz Military City (1976) for the U.S. Army Corp of Engineers, housing for the Ministry of Foreign Affairs (1978) in Riyadh, and office buildings for National Methanol and Saudi Petrochemical Company (1981) in Jubail.¹²³ (*Fig. 1.49*) As described in Chapter 6, exchanges between U.S. firms and Gulf clients reached their peak during the boom in crude oil prices from 1973 to 1983, a shift in clientele that formed a direct corollary to the corresponding decline in building practice in the United States.

The Critique of the Corporate

In retracing the steps that led to his decision to pursue a Ph.D. at the University of Cambridge in the spring of 1960, later published as *The Formal Basis of Modern Architecture* (1963), Peter Eisenman conspicuously located his decision to return to the academy in having become “disillusioned with practice after working with Walter Gropius’s [sic] Architects Collaborative” in the summer of 1959.¹²⁴ At the same time, a younger generation of architects and educators who had studied under Gropius at Harvard were publicly critical of the collaborative ethos. Victor Lundy insisted in 1961 that “creative architecture comes out of the individual, not group design.”¹²⁵ Paul Rudolph, then chair of the architecture department at Yale, laid the blame for the team method squarely at his

¹²³ On the origins of CRS’s involvement in Saudi Arabia and its subsequent practice there, see Jonathan King and Peter Langdon, ed., *The CRS Team and the Business of Architecture* (College Station, TX: Texas A&M University Press, 2002); Charles E. Lawrence, *Saudi Search* (Houston: CRSS Research, 1986). On the University of Petroleum and Minerals (later King Fahd University of Petroleum and Minerals), see “A Jewel of a University on the Arabian Sands,” *Fortune* (November 1975): 126–133; Charles K. Hoyt, “Caudill Rowlett Scott’s Ongoing Work For a Saudi Arabian University,” *Architectural Record* (April 1976): 95–100.

¹²⁴ Peter Eisenman, postscript to *The Formal Basis of Modern Architecture* (PhD Dissertation, Cambridge, 1963), published in 2008 (Basel: Lars Müller).

¹²⁵ Cranston Jones, *Architecture Today and Tomorrow* (New York: McGraw-Hill, 1961): 175.

teacher's feet. "Gropius may be wrong in believing that architecture is a cooperative art," he declared. "Architects were not meant to design together; it's either all his work, or mine."¹²⁶ In the same period, Robert Venturi reacted negatively to his experiences working for the office of Eero Saarinen & Associates in the 1950s, by then a firm of hundreds responsible for delivering an eclectic range of corporate images for a variety of clients.¹²⁷ Venturi denied the influence of other architects for whom he had worked, including Louis I. Kahn, in much the same manner that Frank Lloyd Wright had earlier resisted the label of disciple to his acknowledged master, Louis Sullivan.¹²⁸ In his own practice, Venturi's writing stressed the individual nature of his architectural interests—famously beginning his 1966 book, *Complexity & Contradiction in Architecture*, with a statement of personal taste, "I like complexity and contradiction in architecture"—even though he worked in partnership throughout his career, first with Paul Cope and H. Mather Lippincott (1958) and subsequently with William Short (1961), John Rauch (1964), and finally with his lifetime collaborator, Denise Scott Brown.¹²⁹ Latent in Eisenman's and Venturi's writings was a shared nostalgia for the ideal of the genius, with an emphasis on difficult, complex, and resistant forms of production as a deliberate counter to the smooth efficiencies represented by the distributed postwar office.

By the early 1960s, then, corporate architectural practice had come to stand as the *other* against which a younger generation of architects opposed itself in seeking more authorial modes of practice outside the strictures of the traditional office. For this self-styled neo-avant garde and its theoretical mentors, like Colin Rowe, the discursive rejection of mainstream professional practice in

¹²⁶ Ibid.

¹²⁷ On Saarinen's firm in this period, see Walter McQuade, "The New Saarinen Office," *Architectural Forum* (April 1962), 113–19. A critique of Saarinen's office in this period as providing "a style for the job," tailored to the needs of the firm's corporate clients, is Reyner Banham, "The Style for the Job," *New Statesman* (February 14, 1964): 261.

¹²⁸ On Kahn's discussion of influences in the writing of *Complexity & Contradiction in Architecture*, see Mary McLeod, "Venturi's Acknowledgements: The Complexities of Influence," Lee Ann Custer, "Teaching Complexity and Contradiction: Robert Venturi's Lecture Course 'Theories of Architecture,' 1961–1965," and Christine Gorby, "Manuscripts into Manifesto: The Evolution of Robert Venturi's 1966 *Complexity and Contradiction in Architecture*," papers delivered at the *Complexity and Contradiction in Architecture at 50* conference, Museum of Modern Art and Philadelphia Museum of Art, November 11–12, 2016.

¹²⁹ Robert Venturi, *Complexity & Contradiction in Architecture* (New York: Museum of Modern Art, 1966).

the U.S. after the 1960s centered on two parallel myths: the loss of the utopian social project of European modern architecture in its migration to the U.S. after the 1930s, and the figure of Walter Gropius as a synecdoche for this subjection to the market forces of postwar capitalism. In Rowe's introduction to *Five Architects* (1972), key among the documents that codified the neo-avant garde project of Eisenman and his peers, he summarized the generational feeling that postwar architectural production offered no more than a laundered, aestheticized version of a more radical prewar European modernism, "largely purged of its ideological or societal content."¹³⁰ In this transformation, Rowe argued, modern architecture in the U.S. had come to function as merely "a suitable veneer for the corporate activities of 'enlightened' capitalism."¹³¹ As such, its aesthetic content was "made safe for capitalism and, with its dissemination thereby assisted... became agreeably available to be catalogued—on either side of the Atlantic—among the cultural trophies of the affluent society."¹³² The consolidation of this critical discourse around the periodizing category of "late" modernism, framed in negative terms, further reinforced the narrative of a revolutionary European avant garde and its perceived collapse into formalism in the U.S. after World War II.¹³³

At the same time, the abstract, reflective language of corporate headquarters designed by U.S. architects in the 1970s and 1980s often further obscured the economic processes that lay behind their production. In his description of the rhetoric of late modernism, architectural critic Charles Jencks classified the shimmering mirror facades of such office buildings as "Slick-Tech" or "wet-look" architecture, a phrase that could well have been applied, for example, to TAC's headquarters for

¹³⁰ Colin Rowe, "Introduction," in *Five Architects* (New York: Wittenborn, 1972): 4.

¹³¹ Ibid.

¹³² Ibid.

¹³³ On "late modernism" as a periodization, see in particular Charles Jencks, *Late-Modern Architecture and Other Essays* (New York: Rizzoli, 1980). The majority of literature on the periodization of modernism has focused on the category of "postmodernism," leaving the notion of a "late" modernism relatively underdiscussed (even when this appears within broader discussions of late capitalism and postmodernity). See Jencks, *The Language of Post-Modern Architecture* (New York: Rizzoli, 1977); Andreas Huyssen, "Mapping the Postmodern," *New German Critique*, No. 33 (Autumn 1984): 5–52; Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham, NC: Duke University Press, 1991); Jameson, "Theories of the Postmodern," in *The Cultural Turn: Selected Writings on the Postmodern, 1983–1998* (London: Verso, 1998): 22–31.

Johns-Manville outside of Denver, Colorado (1973–77).¹³⁴ (*Fig. 1.50*) For philosopher Fredric Jameson, it was precisely this category of buildings, with their immersive interiors and hermetically enclosed exteriors, that offered the most powerful illustration of “the formal overtones proper to a late finance capitalism.”¹³⁵ Not least within these processes of mystification was the growing fissure between discussions of U.S. architects and the oil-based economies of the Arab & Persian Gulf states in which their work was increasingly implicated after World War II. Historian Reinhold Martin has recently pointed to the ways in which corporate buildings for U.S. oil companies, like Johnson/Burgee’s Pennzoil Place in Houston (1973–76), transubstantiated the “phantasm” of the petroleum economy into the shimmering effects of mirror-glass and steel, simultaneously concealing and mystifying both the processes of capital and the transnational sites, materials, and actors through which these processes flowed in these decades.¹³⁶ (*Fig. 1.51*)

Faced with such entanglements within the politics and economics of architectural practice, contemporary architects and critics struggled to engage with the impact of the architectural corporation on mainstream practice by the 1970s. A new wave of Marxist theoretical approaches, particularly embodied by the group of critics at the University of Venice centered around the historian Manfredo Tafuri, seemed to offer a means out of this growing impasse in critical assessment. In advocating for engagement with the structural conditions of U.S. architectural production, the group argued that “Academic disdain for the banal in this culture and a critical

¹³⁴ Charles Jencks, “The Rhetoric of Late-Modernism—A Pictorial Essay,” in *Late-Modern Architecture and Other Essays* (New York: Rizzoli, 1980): 35, 66. Jencks alluded to the processes of mystification inherent in such facades, describing an office tower designed by Anthony Lumsden of DMJM for the Indonesian bank Bumi Daya as having an “oil-slick surface” whose ripples “suggest a series of meanings without naming them.” Jencks, *Late-Modern Architecture and Other Essays*: 66.

¹³⁵ Jameson, “The Brick and the Balloon: Architecture, Idealism, and Land Speculation,” in *The Cultural Turn: Selected Writings on the Postmodern, 1983–1998* (London: Verso, 1998): 186. While Jameson praised Jencks’s “wonderful” descriptions of the glass-and-steel semiotics of late modernity in *Late-Modern Architecture and Other Essays*, he rejected the Jencksian tendency to make such literal links of “thematic self-reference,” as in his description of the Bumi Daya bank, from the economies of land speculation and finance capital to the formal aesthetics of late-modern architecture. Ibid.

¹³⁶ Reinhold Martin, “Materiality: Mirrors”, in *Utopia’s Ghost: Architecture and Postmodernism, Again* (Minneapolis: University of Minnesota Press, 2010): 93–122.

disparagement of its products are both positions to be rejected, not because they are wrong but because they are useless in explaining trends over time; they do not help us to understand, because they tend to eliminate phenomena and problems the forms of which may leave us indifferent but the mechanisms of which must be continually recognized.”¹³⁷ Yet in accounting for the legacy of the avant-garde “masters” and their postwar followers in their 1976 survey *Modern Architecture*, Tafuri and Francesco Dal Co took up the dichotomy laid out by Hitchcock in 1947 merely to lament a condition in which “a true and proper ‘architecture of bureaucracy’ settled in everywhere,” while the field “came to be dominated not by individual architects intent on communicating their opinions of the world but by large studios in which the tasks were parceled out with virtual assembly-line standards.”¹³⁸ Ceasing to distinguish among the varieties of collaborative, bureaucratic, and corporate practices that had shifted the landscape of practice over the preceding quarter-century, Tafuri and Dal Co dismissed such modes of practice as capable only of producing buildings “as anonymous as the architectural concerns that build them.”¹³⁹

Historical narratives like that of Tafuri and Dal Co constituted an effective abandonment of Hitchcock’s call to develop a critical framework through which such practices could be evaluated, in contradistinction to traditional models of singular architectural authorship, on the cusp of the postmodern turn. By the time of MoMA’s “Transformations in Modern Architecture” in 1979, a survey of the previous two decades of architectural production, curator Arthur Drexler could only point (following the historian Peter Collins) to the “archaeologically unclassifiable” variations of late- and post-modern production on display—a selection dominated by the work of corporate firms—declaring the result to be “bewildering, profuse, overloaded, contradictory, inconsistent, largely mediocre.”¹⁴⁰ (Fig. 1.52) Paramount within this proliferation was the dominant role of large-scale,

¹³⁷ Giorgio Cucci, Francesco Dal Co, Mario Manieri-Elia, Manfredo Tafuri, introduction to *The American City: From the Civil War to the New Deal* (Cambridge: MIT Press, 1979): xi.

¹³⁸ Manfredo Tafuri and Francesco Dal Co, *Modern Architecture/2* (Milan: Electa, 1976): 339.

¹³⁹ Ibid.

¹⁴⁰ “Response: Arthur Drexler on ‘Transformations,’” interview with Andrew McNair, *Skyline* (Summer 1979): 6.

corporate firms over the spectrum of architectural production in the United States by the 1970s, the producers *par excellence* of an endlessly pliable range of styles within an increasingly fragmented and competitive marketplace for architectural services.¹⁴¹ Drexler succinctly encapsulated the consequences of this shift in the economy of architectural practice a few years later in his introduction to *Three Skyscrapers* (1983), a MoMA exhibition on recent commercial towers by SOM, Norman Foster, and Johnson/Burgee (among the corporate firms whose work had featured most prominently in *Transformations*), where he lamented that “In a free society capitalism gives us what we want, including our own demise.”¹⁴²

Exhibitions like Drexler’s exposed the critical ellipsis that had come by this time to obscure corporate practices in architecture, exacerbated by a neo-avant garde that fashioned itself as the rejection of a professionalized field lacking criticality toward its own conditions of production.¹⁴³ Far from producing resistance to the economic dominance of the profession by large-scale offices, however, the critique of the corporate only reinforced the widening disparity between such firms’ increasing hegemony over the conditions of the built environment and the relative inattention given to their work in contrast to smaller, boutique practices. Indeed, this lack of attention had much the opposite effect, leaving few models by which to assess the next wave of multinational conglomerates that took over an even greater portion of the construction field after the 1990s, led by ultra-large entities like AECOM¹⁴⁴. It remains for critics to take up the task of recognizing and reading the

¹⁴¹ On the role of this exhibition in manifesting the dominant role of corporate firms over the spectrum of architectural production in the U.S. by the 1970s, See Michael Kubo, “‘I Decline To Be A Missionary:’ Late-Modern Mirrors and Transformations in Modern Architecture,” in Léa-Catherine Szacka, Veronique Patteeuw, ed., *Exhibitions, Periodicals and the Shaping of Postmodern Architecture—Mediating Messages* (London: Bloomsbury, 2018).

¹⁴² Arthur Drexler, *Three New Skyscrapers* (New York: The Museum of Modern Art, 1983): 6. The three skyscrapers were by Norman Foster Associates (Hong Kong and Shanghai Banking Corporation Headquarters in Hong Kong), Skidmore, Owings & Merrill (National Commercial Bank in Jeddah, Saudi Arabia) and Johnson/Burgee (International Place in Boston, Massachusetts).

¹⁴³ Drexler acknowledged the difficulties in presenting such mainstream work for public consumption: “The merely good, which may not be in dispute, is least eligible for public scrutiny. It is difficult to imagine a newspaper article that says: here are some good buildings—none of them has won a prize and they are in no way peculiar.” Arthur Drexler, *Transformations in Modern Architecture* (New York: Museum of Modern Art, 1979): 7.

¹⁴⁴ AECOM Technology Corp. has led the annual ranking by *Engineering News-Record* of the world’s “Top 500 Design Firms” by size every year since 2010.

work of such collective, collaborative, and corporate bodies in the twenty-first century, by effectively renewing the call made by Hitchcock seventy years ago to develop critical tools commensurate with the reality of this production.

Chapter 2

The Idea of The Architects Collaborative 1945–1995

When, in order to be an architect, one must be a genius, the profession, as such, is obsolete.
—*An Opinion on Architecture*, 1941¹

There are two ways to go—towards competition or towards collaboration.
—Sarah Pillsbury Harkness²

In the years during and after World War II, “collaboration” became the watchword for a generation of architects committed to challenging the legacy of the genius, inherited from the first generation of modernist “masters,” as inadequate to address the building problems of their time. For adherents to this ethos, faith in a perceived consensus around the principles of the modern movement was accompanied by the belief that such unity in the postwar period might, for the first time, enable newly collective forms of work that would unite the building disciplines in addressing the complex tasks of postwar construction. These efforts were inspired by models of collectivity including the large-scale infrastructural projects of the Tennessee Valley Authority and other federal entities under the New Deal, the housing and social development projects of the Farm Security Administration and the Federal Public Housing Authority during World War II, the coordinated planning efforts of the Telesis group of architects and planners on the West Coast, and the cooperative pedagogy of the German Bauhaus and its progressive U.S. analogues, from the Harvard Graduate School of Design in Cambridge to Black Mountain College in North Carolina. Young architects trained in these settings combined common interests in issues of community design, large-scale regional planning,

¹ John B. Bayley, Robert Hays Rosenberg, Bruno Zevi, John Taylor Moore, Jr., Warren H. Radford, Frank C. Treseder, Arthur Koon Hing Cheang, Wm. Joseph, Dahong Wang and T. J. Willo, *An Opinion on Architecture* (Boston: The Century Press, 1941): 8.

² Sarah P. Harkness, “Collaboration,” in Walter Gropius and Harkness, ed., *The Architects Collaborative 1945–1965* (Tuefen: Arthur Niggli, 1966): 26.

and progressive models of democratic action with a faith in the integrated, unifying character of modern architecture and design. Such concerns led members of this generation of designers to seek new models of collective work that would join the fields of architecture, planning, landscape architecture, and engineering into a new whole.³

It was in this context of debate on the intersections between democracy, collaboration, and modernism that the seven young founders of The Architects Collaborative—Jean Bodman, Norman Fletcher, John Harkness, Sarah Pillsbury, Benjamin Thompson, Louis McMillen, and Robert McMillan—came together. The architects who joined to form TAC were linked through a network of overlapping personal and professional connections, formed in this shared climate of social and architectural optimism in the prelude to the postwar building boom. Committed to forming a practice together after the war, these friends and colleagues decided that adding an experienced senior practitioner would help them find their way in the field and lend stature to the young firm. Coincidence and good timing intervened to bring Gropius, the very figure of Bauhaus pedagogy, on board. In Gropius, the group found both the eminent practitioner they sought and more fundamentally a highly sympathetic collaborator, one whose attitude toward the value of teamwork closely matched their own. Christened The Architects Collaborative, the goal of its founders was, in Sarah Harkness's words, nothing less than "to remake the world."⁴

As TAC grew to become the largest dedicated architectural practice in the U.S., however, the fate of these ideals and the legacy of the partners' collaborative optimism were increasingly contested. As the firm navigated fundamental changes in professional practice and management that defined the character of the office and its products by the 1980s, both the remaining founders and later principals struggled to reconcile the reality of the large-scale organization and its corporate structure

³ On the disciplinary turn to planning, see *Andrew Shanken, 194X: Architecture, Planning, and Consumer Culture on the American Home Front* (Minneapolis: University of Minnesota Press, 2011); *Anna Vallye, Design and the Politics of Knowledge in America, 1937–1967: Walter Gropius, Gyorgy Kepes*, Ph.D. Dissertation, Columbia University (2011).

⁴ Transcript of interview with Sarah Harkness conducted by Perry Neubauer, November 3, 2006: 4. I am grateful to Neubauer for providing transcripts of this and other interviews with then-surviving founders of TAC.

with the image of collectivity that had governed its birth at the start of the postwar period. The nature of these conceptual and economic battles over TAC's course revealed both the force of the partners' original faith in the collaborative ethos and the radical redefinition of architectural production that had taken place over the fifty years of the firm's existence.

Collective Tasks

The pursuit of coordinated and collective planning models in the U.S. after the 1930s was marked by a central imperative to distance such efforts from the more authoritarian forms of social organization that loomed over geopolitical debates in the years preceding World War II. The large-scale federal initiatives of the New Deal era were characterized by public advocacy not just for their social and economic benefits but for their fundamental compatibility with concepts of individual self-realization within an equal, collaborative democratic society. The successes of these programs offered inspiration to a generation of designers seeking more collaborative forms of creative work, in line with the desire to reform architectural pedagogy and practice along modernist lines.

For young architects of the era, above all these New Deal initiatives stood the Tennessee Valley Authority (TVA), which provided a fundamental model in these years both for the heroic scale of its concrete dams and large-scale infrastructural works and for its demonstration of the rapid planning and execution at a regional scale made possible by its coordinated team of architects and engineers.⁵ (*Fig. 2.1*) Students from around the country, including some of TAC's future partners, traveled to study the fruits of TVA's integrated infrastructural program for flood control, land and soil reclamation, rural electrification, and agricultural and economic development along the Tennessee River watershed. As teachers, many of these architects offered design studio problems at Harvard and

⁵ On the TVA's design methods, see Christine Macy, "The Architect's Office of the Tennessee Valley Authority," in Tim Culvahouse, ed., *The Tennessee Valley Authority: Design and Persuasion* (New York: Princeton Architectural Press, 2007): 26–51. On non-infrastructural buildings by the Architect's Office in these years, Roland Wank, "Architecture in Rural Areas: A Report on TVA Experience, by Roland A. Wank, Head Architect," *New Pencil Points* (December 1942): 47–53.

other schools of architecture modeled on the TVA's efforts as well as those of other federal planning authorities.⁶ Publications on the TVA stressed the democratic character of its work as an agent of national, social, and physical progress. A special issue of *Architectural Review* in 1943 devoted to the TVA, edited by Julian Huxley, hailed the program as a paradigmatic "achievement of democratic planning."⁷ (Fig. 2.2) The following year, David Lilienthal, the former chairman of the program, published *TVA: Democracy on the March* (1944) as an argument against persistent claims that the government program constituted a form of socialism in the United States.⁸ (Fig. 2.3)

At the southeastern end of the Tennessee Valley watershed lay Asheville, North Carolina, where a group of faculty, artists, and students established Black Mountain College in 1933 as a radical effort to realize the progressive educational ideals of democratic participation and collective self-determination. The College's creative model was heavily inspired by the educational philosophy of John Dewey, an interlocutor for the school's founders and a supporter of Black Mountain's efforts in these years.⁹ As reflected in the theoretical models offered by books like Dewey's *Democracy and Education* (1916) and *Art as Experience* (1934), the school's founders envisaged an intellectual framework that would bridge artistic creation and democratic action through collaborative social

⁶ Design topics related to the TVA and other federal programs later taught Harvard included studios to design a rental housing development in Newton, MA for the Federal Housing Authority (taught by John Harkness, 1947), mobile shelters and sectional housing for the TVA (taught by Norman Fletcher and Leonard Currie, 1951), and a construction camp and workers' community at Fontana Dam (taught by Josep Lluís Sert and Ronald Gourley, 1956). Harvard Graduate School of Design, The GSD History Collection, Student Affairs—Student Work, Subseries CA: Graduate School of Design, Architecture Student Problems, folders CA107, CC023, CA110, CC024, CA001.

⁷ "TVA: An Achievement of Democratic Planning," special issue of *The Architectural Review* on the TVA, ed. Julian Huxley (June 1943).

⁸ David Lilienthal, *TVA: Democracy on the March* (New York: Harper & Brothers, 1944).

⁹ Following his first visit to Black Mountain College in 1935, Dewey wrote to John Rice, the school's founder, that "No matter how the present crisis comes out, the need for the kind of work the College does is imperative in the long-run interests of democracy. The College exists at the very 'grass roots' of a democratic way of life." John Dewey, quoted in Harl-Heinz Füssli, "Pestalozzi in Dewey's Realm? Bauhaus Master Josef Albers among the German-speaking Emigrés' Colony at Black Mountain College (1933–1949)," *Paedagogica Historica*, Vol. 42, Nos. 1–2 (February 2006): 81.

participation.¹⁰ Contemporary school brochures advertised to potential students that “Black Mountain College is a small cosmopolitan community of students and teachers living together, an education stressing democratic cooperation.”¹¹ In line with these aims, Black Mountain provided a receptive home for a number of Bauhaus émigrés, including Josef and Anni Albers, Lyonel Feininger, and Xanti Schawinsky, who played fundamental roles in shaping the school’s experimental curriculum in art and architecture in these years.¹² In this sense, it was Black Mountain College that perhaps best represented the attempt to enact the cooperative ideals of the Bauhaus in the U.S.—not (as many critics assumed) Gropius’s program at Harvard, a professional graduate school within a major U.S. university, or the more formalist program of the New Bauhaus, later renamed the Chicago School of Design and then the Institute of Design, led first by László-Moholy Nagy and after his death by Serge Chermayeff in Chicago.¹³

The faculty and students of Black Mountain College and the Harvard Graduate School of Design were intimately connected during the war years. Walter Gropius taught in the summer art institutes at Black Mountain each year between 1944 to 1946 and served on the advisory council to the College from 1940 to 1949, a group that included Dewey, Carl Jung, and Albert Einstein. (Fig. 2.4) In turn, Josef Albers, the Bauhaus émigré entrusted to develop the foundational art curriculum (or *Werklehre*) at Black Mountain College, served as a visiting professor at Harvard in these years,

¹⁰ John Dewey, *Democracy and Education: An Introduction to the Philosophy of Education* (New York: The Macmillan Company, 1916) and *Art as Experience* (New York: Minton, Balch & Company, 1934). On the influence of Dewey and progressive educational models at Black Mountain College, see Mary Emma Harris, “A New Deal in American Education” and “Progressivism, Modernism, and the Higher Learning,” in *The Arts at Black Mountain College* (Cambridge, MA: MIT Press, 1987): 2–15 and Ruth Erickson, “A Progressive Education,” in Helen Molesworth and Erickson, *Leap Before You Look: Black Mountain College, 1933–1957* (Boston: Institute of Contemporary Art; New Haven and London: Yale University Press, 2015): 76–80.

¹¹ Black Mountain College brochure, box 1, folder 3, Mary Caroline Richards Papers, 1898–2007, Getty Research Institute, Los Angeles, cited in Helen Molesworth, “Imaginary Landscape,” in Molesworth and Ruth Erickson, *Leap Before You Look*: 47.

¹² See Jeffrey Saletnik, “Bauhaus in America,” in *Leap Before You Look*: 102–105.

¹³ As evident in its title, the New Bauhaus was much more self-conscious in claiming inheritance of the pedagogy of the German Bauhaus in the U.S. compared to Black Mountain College or even to Harvard. See for example Serge Chermayeff, “l’architecture au ‘bauhaus’ de Chicago” and “Architecture at the Institute of Design,” in *Gropius et son école*, special issue of *l’Architecture d’Aujourd’hui* (February 1950): 48–68.

teaching biannual fall seminars after 1936 as well as in spring and summer 1940.¹⁴ Under Gropius's direction, Harvard students also traveled to North Carolina in the summer months to gain hands-on experience by participating in Black Mountain's work programs, an integral part of both the College's operations and its collaborative pedagogy that included community farming and building projects.¹⁵ (Fig. 2.5) The democratic aspirations of these work programs found their most powerful expression in the collaborative construction of the Studies Building on Black Mountain's Lake Eden campus from 1940 to 1941 under the coordination of architect A. Lawrence Kocher, a member of the faculty and the director of the school's design-build program.¹⁶ (Fig. 2.6) The project followed Gropius and Marcel Breuer's failed attempts to build an ambitious but cost-prohibitive complex of campus buildings at Black Mountain College in 1939, plans for which were abandoned due to an inability to raise sufficient funds. (Fig. 2.7). Such misalignments between the professional efforts of external architects and the College's own culture of experimental, community-driven work among students and faculty presaged later conflicts after World War II, when TAC attempted to design a long-range plan for Black Mountain to ultimately failed ends.

A more proximate model of interdisciplinary collaboration among professionals in these years was offered by Telesis, an "environmental research group" of urban and regional planners, landscape architects, architects, and industrial designers established in San Francisco in 1939. The group's name derived from the concept of "telesis," derived from the Greek [τέλεσις] by sociologist Lester Frank Ward to describe his theories of a planned or "telic" society based on coordinated social

¹⁴ Harris, *The Arts at Black Mountain College*: 12. Harris describes Gropius's unsuccessful efforts to bring Albers to Harvard permanently, writing to Albers that his work was "too good for a small college." Ibid. Vincent Katz has argued that Albers' ideas on art, particularly his belief that "l'art pour l'art" can be justified, diverged from Gropius's belief in the social function of art and architecture following his departure from the Bauhaus. Katz, "Black Mountain College: Experiment in Art," in Katz, ed., *Black Mountain College: Experiment in Art* (Madrid: Museo Nacional Centro de Arte Reina Sofia, 2002): 52.

¹⁵ The pedagogical importance of the work programs are detailed in David Silver, "Building Autonomy, Creating Community: The Farm and Work Program at Black Mountain College," in *Leap Before You Look*: 120–129.

¹⁶ On Kocher and the Studies Building project, see Lauren Belliard, "The Design-Build Program at Lake Eden," in *Leap Before You Look*: 132–141.

advancement, or “planned progress,” through nationally directed education.¹⁷ The cover of the catalogue to *Space for Living*, a Telesis exhibition at the San Francisco Museum of Art in the summer of 1940, defined the term (via Webster Dictionary) as “progress intelligently planned and directed; the attainment of desired ends by the application of intelligent human effort to the means.”¹⁸ (Fig. 2.8) The group’s interests in coordinated planning as a tool for social development was reflected in the service of two of its most prominent members, Burton Cairns and Vernon DeMars, as successive directors for the western division of the Farm Security Administration (FSA) from 1937 to 1943. Other Telesis members, like landscape architect Garrett Eckbo, developed their understanding of collective action through their work for the FSA in these years. Eckbo’s involvement with the design of migrant workers’ camps with the FSA and later cooperative housing projects, for example, led him, in the words of historian Caroline Constant, “to view the process of collaboration—like the governing process of the housing cooperative—as an instance in miniature of participatory democracy in action.”¹⁹

The intersection of these disparate impulses toward collective action during the war years at Harvard was centered around the establishment of the student journal *TASK*, published irregularly in six issues from 1941 to 1944–45 and followed by a one-off double issue in 1948. The rotating group of editors and contributors to the journal during the war issues included two of TAC’s subsequent founders—Louis A. McMillen as an editor of the second issue in the fall of 1941 and Walter Gropius among the contributors to the first issue that summer—and future collaborators, including I. M. Pei, Ezra Stoller, and Edward Larrabee Barnes. The Cambridge discussion group from which the journal

¹⁷ See Frank Lester Ward, “Individual Telesis: Contributions to Social Philosophy. XI.,” *American Journal of Sociology*, Vol. 2, No. 5 (1897): 699–717 and “Collective Telesis: Contributions to Social Philosophy. XII.,” *American Journal of Sociology*, Vol. 2, No. 6 (1897): 801–822. Ward developed the concepts of “social telesis” and social planning in *Applied Sociology* (Boston, New York, Chicago, London: Ginn & Company, 1906).

¹⁸ Telesis Environmental Research Group, *Space for Living*, San Francisco Museum of Art, July–August 1940. I am grateful to Caroline Constant for bringing this exhibition catalogue to my attention.

¹⁹ Caroline Constant, “Collaborative Fruits: Garrett Eckbo’s Communal Landscapes,” in *The Modern Architectural Landscape* (Minneapolis: University of Minnesota Press, 2012). On Eckbo’s work for the FSA, see also Dorothee Imbert, “The Art of Social Landscape Design,” in Marc Treib and Imbert, *Garrett Eckbo: Modern Landscapes for Living* (Berkeley, Los Angeles and London: University of California Press, 1997): 106–178.

emerged brought together men and women from Harvard, MIT, and the Cambridge School of Architecture and Landscape architecture, a reflection of their shared commitment to the principles of equality and joint effort in cooperative work.

The topics covered by the journal and the group structure of its editors and contributors reflected these students' faith in collaboration as the means to achieve democratic forms of participation and planning for both the war effort and the tasks of physical and social reconstruction that would follow.²⁰ An editorial in *TASK* 1 explained its founders' hope that "This magazine is to be the expression of students who realize that architects today are either unaware of the rapidly changing needs of society or are unable to answer them."²¹ In defining their objectives, the editors argued that

The magnitude and nature of contemporary planning requires the closest collaboration of the engineer, landscape architect, regional planner, architect, and the people for whom they build. We believe that the architectural schools and the profession do not sufficiently reflect society's needs; nor train the student and the young architect in the principle of collective work.²²

The fourth issue similarly reminded readers that "*TASK's* purpose... is to give the profession direction—a social and cooperative one."²³ This need for direction, the editors claimed, required overcoming the "traditional isolation" of the architectural profession and its replacement "with a cooperative planning effort comprising all allied fields, technical, social, and economic."²⁴ An editorial in the fifth issue, on the verge of Allied victory, warned that students who had been trained in such technics for the war effort would be required to accommodate themselves to the new realities of team-based practice during peacetime. Its authors insisted that "the technician must be able to

²⁰ On the paradigm of planning as a model for reconstruction during and after World War II, see Andrew Shanken, *194X: Architecture, Planning, and Consumer Culture on the American Home Front* (Minneapolis: University of Minnesota Press, 2009).

²¹ "Editorial: *TASK*," *TASK* 1 (Summer 1941): 5.

²² *Ibid.*

²³ "The Architectural Front," *TASK* 4 (1943): 1.

²⁴ *Ibid.*

adapt himself to the large office in the interests of efficiency and prompt expedition of post-war work,” a change requiring that the prewar “contempt for ‘bureaucracy’ which marked so many designers in New Deal government agencies must also be recognized as a hang-over from the comfortable days of private patronage, which ended a decade and a half ago.”²⁵

Walter Gropius contributed to the efforts of the young *TASK* editors with an essay in the inaugural issue titled “Education Should Aim at Combining Individual Independence With the Spirit of Cooperation,” lending the journal both his imprimatur as chair of the Harvard architecture department and the banner of his advocacy for joining the principles of collaborative pedagogy to the democratic, anti-fascist language of a U.S. at war.²⁶ To these ends, he argued that “the development of our period seems to move away from a competitive attitude to a cooperative conception of thought and action,” reiterating his belief that strengthening each individual’s “independence of mind by stirring up his [sic] courage and initiative and adventures of his own serves better to develop cooperative qualities than the obsolete method of forcing the individual into given channels of thought and action.”²⁷ In this sense, Gropius’s statements echoed the Deweyan principles of progressive, democratic education with which he was simultaneously engaged as a member of the advisory board at Black Mountain College in these years.

Further evidence of *TASK*’s intrinsic connection to cooperative and collaborative initiatives taking place beyond Cambridge lay in the frequent appearance of representatives from Telesis and other national groups across the journal’s wartime issues. Landscape architect Garrett Eckbo was listed as the “Telesis Representative” to *TASK* in its fourth issue, having already provided the cover image for *TASK 2* (1942), depicting a planting plan for a group of multi-family houses in Firebaugh, California designed for the FSA. In the same issue the group expressed its conviction that, “by collaboration, we may develop the comprehensive viewpoint necessary to produce and encourage the

²⁵ “Unity for Planning,” *TASK 5* (Spring 1944): 3.

²⁶ Walter Gropius, “Education Should Aim at Combining Individual Independence With the Spirit of Cooperation,” *TASK 1* (Summer 1941): 34–35.

²⁷ *Ibid.*, 34.

study of the disorganized environment in which we find ourselves, make the average person aware of the rich possibilities of his home and his community, and point out the techniques by which this can be achieved.”²⁸ The issue also featured an article by Vernon DeMars, among the Telesis founders and then district manager for the FSA in San Francisco, on social planning and agricultural development in California. (Fig. 2.9–2.10) The Telesis group contributed another article on nursery schools on the west coast to the journal’s fourth issue, prior to the “West Coast Issue” of *TASK* 6 (1944–45), edited by Eckbo for Telesis among others and featuring an article on the planning of California’s Central Valley in the same year that Jean Bodman Fletcher, soon to be a founder of TAC, explored the same subject in her master’s thesis at Harvard. (Fig. 2.11–2.12)

An Opinion on Architecture

The collaborative roots of *TASK* lay in an even more polemical precursor, *An Opinion on Architecture* (1941), a manifesto published by an overlapping group of Harvard students, including Bruno Zevi, as a critique of the perceived formalist tendencies of the school under Joseph Hudnut. (Fig. 2.13) Published in the same summer that *TASK* 1 appeared, the pamphlet constituted both a defense of modern architecture as a social project, rather than a style, and an advocacy for the fundamental necessity of collective work in achieving truly democratic structures of pedagogy and practice.²⁹ Echoing Gropius’s own criticisms of the academies and their production of the “artistic proletariat,” the authors of *Opinion* argued that the pedagogy at Harvard as of 1941 had not yet progressed significantly beyond these outmoded structures, despite four years of Gropius’s presence. Laying the

²⁸ “Telesis,” *TASK* 2 (1942): 27.

²⁹ The editors of *TASK* 1 explained that both *An Opinion on Architecture* and the journal originated from student discussion groups in Cambridge, begun at Harvard after 1938 to discuss issues of concern in architectural pedagogy. They wrote that “In May [1941], several members of the discussion group attempted an analysis and clarification of the state of ‘Modern’ architecture with some criticisms of the Harvard Architectural School, and published three hundred copies under the title *An Opinion on Architecture*. This paper aroused considerable controversy among the students and though it produced diverse opinion among members of the faculty interested them sufficiently to provoke consideration of some concrete improvements at the school.” “Editorial,” *TASK* 1: 8.

blame at Hudnut's feet instead, the authors lamented the continued presence of a formalist "art for art's sake"—now transferred to the abstract model rather than the wash rendering—protesting that "our life in the school is not fundamentally different from that of any Beaux Art school."³⁰ For these students, the consequences in practice remained those identified by Gropius in *The New Architecture and the Bauhaus*: "As far as the profession is concerned," they wrote, "the result has been, and still is, the division of engineers, practical architects, and architects of facades."³¹

The ideology of the genius, they argued, was the cause of this persistent anachronism. In pushing strongly against the reduction of the modern movement to a style, they held that the pedagogical residues of individualism were philosophically incompatible with the modernist project, claiming that "modern architecture proclaims the end of the architect's exploitation of his own originality."³² As such, true unity in design was inseparable from collaboration in process. As the authors declared, "We hold that modern architecture is a synthesis of plan, structure, and their expression; and that its complex realization can only be achieved on a COLLECTIVE basis."³³ Elsewhere they framed this conviction in more explicitly socialist terms, insisting that "We see only one solution for the future of architecture as an expressive and social activity: COLLECTIVE WORK among architects, engineers, contractors, and the working class."³⁴ The manifesto concluded with the polemical statement, above a joint listing of its authors' names, that

³⁰ *An Opinion on Architecture*: 3.

³¹ *Ibid.*, 5. The fourth issue of TASK repeated this complaint two years later, arguing that "For years the public has had a definite and not incorrect picture of the architect. It is a familiar one: the architect is either a picture-maker, or a drafting arm of the real estate operator, or an aesthete, or a 'facadist.'" The editors pointed to young architects' unpreparedness for participation in the large-scale planning efforts of the war as proof that the academic emphasis on genius and the resulting production of the "artistic proletariat" had continued: the majority of trained architects, unable to find placement in war departments, "forgot about private practice and went to work for large architect-engineer combinations, government agencies and industrial construction firms often as structural mechanical and piping draftsmen. They were scattered and demoralized." "The Architectural Front," *TASK* 4 (1943): 1.

³² *An Opinion on Architecture*: 4.

³³ *Ibid.*, 10.

³⁴ *Ibid.*, 8. Among the differences between the more polemical *Opinion* and *TASK*, it is perhaps significant that this language has been rendered less explicitly Marxist in tone: while in *Opinion*, the ideal of collective work is described as joining building professionals to "the working class," in the first issue of *TASK* this appears as a less politicized call for "collaboration of the engineer, landscape architect, regional planner, architect, and the people for whom they build."

The main aim of this movement and of this review should be COLLABORATION: its possibility, its experiments.

*COLLABORATION IS THE CREDO AND THE FAITH OF ARCHITECTURE TODAY.*³⁵

In calling to redefine the social project of modernism in radically collectivist terms, the authors of *An Opinion on Architecture* offered a pointed assessment of the “pioneers” of the modern movement and their relevance for a younger generation of architects committed to the collaborative ethos. Neither Le Corbusier nor J. J. P. Oud, they noted, had worked during the five years of the war.³⁶ They rejected the example of Ludwig Mies van der Rohe entirely as “a man with absolute disregard for the conception of the architect as a social entity,” concerned mainly with “buildings dependent upon a particular financial and intellectual elite.”³⁷ Architects working in creative teams offered more valuable models of collaboration, including the Tecton group in London, which the authors praised “from the point of view of coherence of conception,” and Albert Kahn & Associates and the consortium of architects that designed the multi-block Rockefeller Center, which provided beneficial examples “from the point of view of work organization.”³⁸

A more telling assessment of the modernist masters appeared in the students’ contrasting descriptions of Frank Lloyd Wright and Gropius, as diametrically opposed figures of architectural authorship. For the manifesto’s authors, Wright’s heroic self-fashioning offered a paradigmatic case of “The Problem of Personality.” “This obscure genius,” they wrote,

³⁵ Ibid., 16.

³⁶ The claim was erroneous at least in the case of Le Corbusier, as evidenced by his attempts to build for the Vichy administration in France during the war. The authors of *Opinion* further compounded the inaccuracy of this claim by suggesting that “During the architectural reaction in France, he preferred to renounce work rather than compromise.” Ibid., 11. On Le Corbusier’s politics in this period and his relation to fascism, see Mary McLeod, “Architecture or Revolution: Taylorism, Technocracy, and Social Change,” *Art Journal*, Vol. 43, No. 2 (Summer 1983): 132–147 and *Urbanism and Utopia: Le Corbusier from Regional Syndicalism to Vichy*, Ph.D. Dissertation, Princeton University (1985); Simone Brott, “Architecture et Révolution: Le Corbusier and the Fascist Revolution,” *Thresholds* 41 (Spring 2013): 146–157; Xavier de Jarcy, *Le Corbusier, un fascisme français* (Editions Albin Michel: 2015).

³⁷ Ibid., 11.

³⁸ Ibid., 10.

has a deep interest in social problems, but, in their solution, he is overshadowed by his own personality. We regard him, as he probably will be regarded by history, as a genius able to free himself from the conventions of the outside world, but never able to free himself from himself.³⁹

By comparison, the authors upheld Gropius as an architect whose work, particularly in collaboration with Marcel Breuer after 1937, remained “of basic importance in the present stage of architecture in the United States.”⁴⁰ Though they commended the high quality of Gropius and Breuer’s projects together, including Gropius’s own house in Lincoln, MA, the authors noted their “only complaint is that is done on a strictly individual basis, and not in the light of a school or a movement.”⁴¹ Furthermore, as a key voice for teamwork as the key to reuniting the disciplines of architecture and engineering, the authors wrote that “the ideas and work of Walter Gropius are of basic importance for any concrete collective movement in the field of building organization.”⁴²

Despite their strident advocacy for the democratic necessity of collective work, the student authors of *An Opinion on Architecture* revealed a telling ambivalence toward the social consequences of true anonymity. They were careful to qualify their assessment of Wright, noting that “we advocated the principle of collective work as the only one which can solve the architectural problem, but of course, we do not mean to deny the value of personality.” As with Gropius and the later TAC founders, they stressed that true cooperation ultimately relied on a balance between individual self-identity and group consensus: “Collaboration and collective work does not mean anonymity, but a meeting of personalities in mutual understanding.”⁴³ At the level of creative practice, the authors also acknowledged the higher forms of artistic unity embodied by the notion of the genius. In holding

³⁹ Ibid., 12.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid., 11.

⁴³ Ibid., 13.

out hope that such a transcendent personality might still emerge in their own time, they were compelled to admit that

We must recognize the existence of the genius as a philosophical necessity. Outside and above collective work, and group movements, there has been in the past, and there will be in the future the man of self-sufficiency in analytical and comprehensive work: the man of synthesis and creation. We call for collaboration but a Leonardo could work alone.⁴⁴

True to the difficulties of personality outlined in its text, the questions of individual agency and politics within the group authorship of *An Opinion of Architecture* remained problematic. Bruno Zevi later claimed primacy over its production, and further insinuated that he had initially written an even more radical text with a more “violent critical title” that was ultimately censored by the other students.⁴⁵ More direct evidence of individual agency within the group can perhaps be found in the fact that three of its authors, John B. Bayley, Warren H. Radford, and Robert Hays Rosenberg, were also among the editors of the first and second issues of *TASK*, both of which appeared in the same year that *An Opinion of Architecture* was published. The differing political stakes within the editorial team behind these early issues of the journal, however, were equally difficult to discern. Critic Peter Blake—with whom Norman Fletcher collaborated in 1943 on the design of park apartments for the Serge Chermayeff Group in the “194X” issue of *Architectural Forum*—later claimed that behind the comparatively more “apolitical facade” of *TASK*, “there raged a fierce battle” over control of the journal between liberal promoters of modernism on the one hand and more openly communist partisans on the other, a proxy for broader struggles over the nature of the Allied resistance that would soon have more serious consequences during the Cold War.⁴⁶ A staunch anti-Communist,

⁴⁴ Ibid., 15.

⁴⁵ Jill Pearlman, *Inventing American Modernism: Joseph Hudnut, Walter Gropius, and the Bauhaus Legacy at Harvard* (Charlottesville: University of Virginia Press, 2007): 176. Zevi characterized the final text of *An Opinion on Architecture* as more “generic and weak” than he desired, claiming that he “accepted [the changes] because I wanted the signatures of students who were afraid of everything.” Ibid.

⁴⁶ Peter Blake, *No Place Like Utopia: Modern Architecture and the Company We Kept* (New York and London: W.W. Norton, 1993): 60.

Blake characterized the battle as between politically naïve “left/liberal students on the one hand, who wanted to produce an idealistic publication dedicated to such traditionally ‘modern’ issues as decent housing, good planning, neat and clean modern buildings, and all the rest; and a small group of Stalinist or Stalinoid students who wanted to turn the little magazine into a propaganda organ first for peace and, after June 1941, for war.”⁴⁷ Among those “friends of those early 1940s” whom he regarded as having been blindsided by these more radical political partisans at the time, Blake included “the Fletchers, the McMillens, the Harknesses, and other liberal or left/liberal architects” who would soon form TAC.⁴⁸

Above any such incipient political disagreements, however, the first issue of *TASK* advertised the editors’ sympathy with the anti-fascist polemic of *An Opinion on Architecture* from the outset. The first issue of the journal in 1941 included a cartoon, identified in the caption as “inspired” by the earlier manifesto, depicting “A Group of Students Fighting Fascism With Out-of-Date Equipment.”⁴⁹ (*Fig. 2.14–2.15*) It showed a young architect defending an imperiled “flower of democracy” against a looming, Hitler-like caterpillar, as well as from the various “domestic pests” that threatened to devour it from below. Among the out-of-date tools in the architects’ bug spray were various well-worn aesthetic tropes of modernism: form follows function, the flat roof, the cantilever. Prominently placed among them was “the genius,” appearing as the last among the outmoded concepts that had failed to reach their target. In paying homage to the earlier manifesto, the authors of *TASK* made clear that the aesthetic and political battles over both modernism and democracy were very much undecided as of 1941, a far cry from later authors like Henry-Russell Hitchcock who confidently proclaimed that modern architecture had emerged victorious in the immediate aftermath of World War II.

⁴⁷ Ibid. Blake further claimed the latter group “also followed the Stalinist line in the visual arts—which meant Socialist Realism in painting and sculpture, and neoclassical Revivalism in architecture.”

⁴⁸ Ibid., 63.

⁴⁹ The cartoon was possibly drawn by Christopher Tunnard, a contributor to the first issue and a lecturer at the Harvard Graduate School of Design at the time, as indicated by the initials “C. T.” appearing to the right of the architect depicted in the lower left corner of the drawing.

The Architects (Collaborative)

The backgrounds of the seven TAC partners reflected the diversity of their origins and social commitments, ranging from the wealthy and the well-to-do to those raised in more modest circumstances. Jean Bodman was born in 1915 in Boston, Massachusetts, to Maud Hayden Rogers and Fenimore Lewis Bodman, then a representative for the Powers-Weightman-Rosengarten Company, a chemical manufacturer based in Philadelphia. By 1933, Fenimore ran his own company, F. L. Bodman Inc., and the family had moved to the upper middle class suburb of Wayne, Pennsylvania. The youngest of three children, Jean attended the Baldwin School in Bryn Mawr, Pennsylvania, and then studied at Smith College in Northampton, Massachusetts, where she graduated in 1937. She then entered the Cambridge School of Architecture and Landscape Architecture for Women, then affiliated with Smith and perhaps the first degree-granting graduate programs in the U.S. to offer graduate training in architecture and landscape architecture exclusively to women under one faculty.⁵⁰ In 1942, following declining enrollment at the School during World War II, Harvard University began admitting women to its Graduate School of Design, including students attending the Cambridge School, who now received Harvard degrees.⁵¹ Bodman began studying there in the same year.

Norman Collins (“Fletch”) Fletcher was born on December 8, 1917 in Providence, Rhode Island, the child of immigrant parents from Lancashire, England. Raised in Willimantic, Connecticut, where he later proposed a community library as one of TAC’s first projects, Fletcher

⁵⁰ At the time the school was known as the Smith College Graduate School of Architecture and Landscape Architecture in Cambridge, having entered into a cooperative agreement with Smith in 1932. On the Cambridge School, see Doris Cole, “The Education of Women Architects: A History of the Cambridge School,” *Architecture plus* (December 1973): 30–35, 78–79; Kevin D. Murphy, “The Vernacular Moment: Eleanor Raymond, Walter Gropius, and New England Modernism between the Wars,” *Journal of the Society of Architectural Historians* Vol. 70, No. 3 (September 2011): 308–329.

⁵¹ Smithipedia, “Cambridge School of Architecture and Landscape Architecture,” <http://sophia.smith.edu/blog/smithipedia/academic-life/cambridge-school-of-architecture-and-landscape-architecture/>, last accessed September 20, 2015.

grew up under what were later described as “modest” family finances.⁵² Despite these limited means, Fletcher earned a full scholarship to Yale, earning his degree from the school of architecture in 1940. While in college, Fletcher became a committed pacifist and self-declared Fabian socialist, later crediting this conversion to his exposure to writing by authors including George Bernard Shaw and Aldous Huxley, particularly the latter’s *Ends and Means* (1937).⁵³ After earning a traveling scholarship in the year of his graduation, Fletcher eschewed the more traditional opportunity to travel to Europe, choosing instead to tour the U.S. to visit examples of large-scale infrastructural and master planning, including the TVA dam projects and FSA migrant labor camps in Arizona and California.⁵⁴

John Cheesman (“Chip”) Harkness was born on November 30, 1916 to Sara Arden Cheesman and Albert Harkness in New York City, moving shortly thereafter to Providence where his father, an architect, established his own office.⁵⁵ After attending the Gordon School and Providence Country Day School—the latter in a building designed by his father—Harkness finished high school at Milton Academy before attending Harvard in 1934, where he became a national champion in wrestling. After completing his undergraduate studies in 1938, he continued on to the Graduate School of Design, where he earned both his B.Arch (after completing the required design thesis project), and an M.Arch in 1941.⁵⁶ At the time he had already been accepted into the Master’s class to study with Walter Gropius, the only one of the future TAC partners to do so.

Sarah (“Sally”) Pillsbury was born on July 8, 1914 in Swampscott, Massachusetts, the daughter of Helen Farrington Watters and Samuel Hale Pillsbury, a lawyer. She attended the Winsor School,

⁵² The library project is described in “Program for the Proposed Willimantic Public Library on a Theoretical Site,” *Arts & Architecture* (August 1946): 28–29. The description of Fletcher’s upbringing as “modest” appears in Bryan Marquard, “Norman Fletcher, 89; Cofounded Influential Architects Group,” *The Boston Globe*, June 6, 2007.

⁵³ Transcript of interview with Norman Fletcher conducted by Perry Neubauer, November 6, 2006: 3.

⁵⁴ *Ibid.*

⁵⁵ John C. Harkness, *John Cheesman Harkness* (self-published autobiography, n.d.): 1. I am grateful to Sarah Harkness for providing me with a copy of this autobiography.

⁵⁶ *Ibid.*, 9.

where her friends included Molly Duncan Weed (later married to the designer Eliot Noyes), before both entered the Cambridge School of Architecture and Landscape Architecture, where Bodman had also studied, in 1940.⁵⁷ After her family purchased a plot of land in Duxbury, Massachusetts, Pillsbury designed a house on the site by through working through the office of Eleanor Raymond, an early graduate of the Cambridge School and the architect of the school's modern drafting wing, added in 1928.⁵⁸ (*Fig. 2.16*) The house, completed in 1941, was subsequently published in *Architectural Forum* under Raymond's name, with Pillsbury listed as an associate.⁵⁹ In 1940, Harkness and Louisa Loring Vaughan, a fellow graduate of the Cambridge School, established Pillsbury and Vaughan, possibly the first showroom for modern furnishings and interiors in Boston.⁶⁰ (*Fig. 2.17*) The partners soon became the exclusive distributors for the Artek-Pascoe company in Boston, changing the name of the store to Artek in Boston in 1942 before it closed the following year due to the privations of the war years.⁶¹

Benjamin C. Thompson was born on July 3, 1918 in St. Paul, Minnesota to Lynne Mudge and Benjamin Casper, a prosperous owner of farmland made valuable by the expansion of the railroads in the nineteenth century. Casper in turn had come from Maine, where his family previously owned a large timber concern.⁶² Thompson attended prep school in New England before enrolling as an undergraduate at the University of Virginia.⁶³ Inspired by travels in Europe with his mother, an artist and collector, Thompson enrolled at the Yale school of architecture in 1938, receiving a Bachelor of

⁵⁷ Transcript of interview with Sarah Harkness conducted by Perry Neubauer, November 3, 2006: 3.

⁵⁸ *Ibid.*, 3. On Eleanor Raymond and the Cambridge School, see Murphy, "The Vernacular Moment: Eleanor Raymond, Walter Gropius, and New England Modernism between the Wars."

⁵⁹ "House in Duxbury, Mass: Eleanor Raymond, Architect, Sarah Pillsbury, Associate," *Architectural Forum* (December 1941): 402–403.

⁶⁰ A later store for modern furnishings prior to the establishment of Design Research in 1953 was Rapson-Inc., established in 1950 at 282 Dartmouth Street by Mary and Ralph Rapson while Ralph was a professor at MIT.

⁶¹ Materials on Pillsbury and Vaughan are held in The Louisa Vaughan Conrad Collection, 1913-2003, Special Collections, Frances Loeb Library, Graduate School of Design, Harvard University. I am grateful to Caroline Constant for sharing her research on the store, including the photographs reproduced here.

⁶² Interview with Jane Thompson by the author, March 2016.

⁶³ Mildred F. Schmertz, "A Life in Architecture," *ArchitectureBoston: Ben* (Spring 2011): 23.

Fine Arts in 1941. He subsequently served as a lieutenant on a destroyer escort for the U.S. Navy before returning to the U.S. in 1944.⁶⁴

Louis Albert McMillen was born on October 24, 1916 in St. Louis, Missouri to Eleanor Strockstrom and Drury McMillen, an engineer. The family's wealth was derived from his maternal grandfather Louis Strockstrom, one of two brothers who established the the American Stove Company in St. Louis in 1901 as merger of eight smaller stove companies in St. Louis, Chicago and Cleveland.⁶⁵ While still married to Drury McMillen, Eleanor (later married to the architect Archibald K. Brown) moved to New York City in 1924 to establish McMillen, Inc., a major design concern credited as the first full-service interior decorating firm in the U.S., specializing in traditional styles. Louis McMillen attended St. George's School in Newport, Rhode Island before enrolling at Yale, where he received his Bachelor of Fine Arts in 1940. Norman Fletcher, his friend from Yale, later described McMillen's apartment in New York City during the war years as "a hotbed of socialism," visited by political activists such as Bayard Rustin, David Dellinger, and A. J. Muste.⁶⁶ McMillen studied at the Harvard Graduate School of Design in 1941–42—the only one of the future TAC partners to come from both Yale and Harvard social circles—before serving as a lieutenant in the U.S. Navy during World War II. Following his return to the U.S. in 1945, he completed his B.Arch. at Harvard in 1947 during the first two years of TAC's practice.⁶⁷

⁶⁴ Ibid.

⁶⁵ The company's headquarters in St. Louis, a modernist building designed by Harris Armstrong and completed in 1948, featured a ground-floor ceiling designed by Isamu Noguchi. See "Progress in St. Louis: The American Stove Company Puts Up An Enlightened Administrative Headquarters and Sales Display Building, *Architectural Forum* (October 1948): 70–79. and "Building à St-Louis (U.S.A.)," *l'Architecture d'Aujourd'hui* (December 1949): 60–63. In 1951 the company officially changed its name to match the name of its most successful oven and stove brand, Magic Chef.

⁶⁶ Norman Fletcher, quoted in Robert Campbell, "Utopia Revisited," *The Boston Globe*, April 7, 1994: A1. I am grateful to Campbell for bringing this article to my attention.

⁶⁷ The first publication of TAC's aims in August 1946 did not list McMillen among the partners, suggesting the possibility that he was not officially one of the founders as of the firm's establishment in January 1945. See "Program for the Proposed Willimantic Public Library on a Theoretical Site," *Arts & Architecture* (August 1946): 28. The letter from the Fletchers to Gropius in November 1945 suggesting the formation of the office does mention McMillen and his wife Peggy, also an architecture student at Harvard, expressing hope "that after he completes his course at Harvard, Louis McMillen and Peggy will join the cooperative."

Robert S. McMillan, the last of the partners to join the group, was born in 1917 in Hibbing, Minnesota. He studied at Yale with Fletcher, McMillen, and Thompson, graduating in 1943 before serving in the U.S. Army Corps of Engineers in World War II. The first appearance of his name among the TAC partners dates to January 1947, when he appeared in an article in the *Christian Science Monitor* on the idealistic “Modern Architects’ Collaborative” comprised by a group “whose friendships all date back to those prewar college days when their respective enrollments as students of architecture were scattered between Yale, Harvard and Smith School in Cambridge.”⁶⁸

This heterogenous group of architects came together during the war years through a sequence of overlapping relationships developed through schools and architectural offices around the country. Fletcher, McMillen, and Thompson had been classmates at Yale, where they had already talked about forming what Fletcher called the “World Collaborative,” an “ideal office” that would combine painting, sculpture, and architecture.⁶⁹ Fletcher and Harkness met while working together during the war at Skidmore, Owings & Merrill (SOM) in New York City after 1941, where both were conscientious objectors. Harkness remained in New York working for Kahn and Jacobs and then under Morris Ketchum at Harrison, Fouilhoux & Abramovitz before being drafted in the fall of 1942, serving first as an ambulance driver for the American Field Service and later in Isernia, Italy, where he developed a plan for the reconstruction of the town after Allied bombing in September 1943.⁷⁰ (*Fig. 2.18*) Fletcher, a declared pacifist, was arrested while at SOM for failing to register for the draft, and was placed on probation in order to work on wartime housing for the Office of Strategic Services (OSS) under Eero Saarinen.⁷¹ Harkness and Pillsbury, then students at Harvard

⁶⁸ Helen Henley, “Two Girls Share as Equal Partners in Modern Architects’ Collaborative,” *The Christian Science Monitor*, January 13, 1947: 10.

⁶⁹ Transcript of interview with Norman Fletcher conducted by Perry Neubauer, November 6, 2006: 2.

⁷⁰ Harkness’s plan for Isernia is detailed in “Planning With You,” *Architectural Forum* (March 1945): 107–111.

⁷¹ Fletcher’s work for the FSA is described in Vernon Armand DeMars, “A Life in Architecture: Indian Dancing, Migrant Housing, Telesis, Design for Urban Living, Theater, Teaching,” an oral history conducted in 1988-1989 by Suzanne B. Riess, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1992, http://www.oac.cdlib.org/view?docId=kt938nb53j&brand=oac4&doc.view=entire_text.

and the Cambridge School respectively, were married in 1941. By 1943 Bodman, then a student at Harvard, had met Fletcher, who moved to Washington, D.C. in 1944 to complete his work for the OSS. Following Bodman's graduation the couple moved to Bloomfield Hills, Michigan to work together for Saarinen, Swanson & Associates, marrying in 1945.

The independent work of the future partners as students reflected their common interests in issues of coordinated regional planning, federal infrastructure and housing initiatives, and collective work, just those concerns that *An Opinion on Architecture* and *TASK* were raising in the same years. Fletcher worked in 1942 for Telesis member Vernon DeMars, then head of the western division of the Farm Security Administration (FSA), while on a traveling fellowship from Yale to study regional planning and infrastructural projects in the United States. He worked as a draftsman on the design of wartime "duration" dormitories and a cafeteria and recreation center for defense workers in Vallejo, California. (*Fig. 2.19*) A year later, Jean Bodman spent a summer working for the Federal Public Housing Authority (FPHA) in 1943. Even more emblematic of this attitude was Bodman's thesis project at Harvard, published in *Arts & Architecture* magazine in May 1945. (*Fig. 2.20*) Conducted in the same year as *TASK*'s "West Coast" issue on regional planning in California, Bodman proposed a migrant workers' community and factory in the context of a regional plan for California's Central Valley, integrating flood control, electric power development, and water conservation and use.⁷² (*Fig. 2.21–2.22*) She wrote that the project "might become a laboratory where basic relationship[s] will be created which may serve as a guide for action in other regional developments," with the ultimate goal of "raising the living standards of the worker [through] a new pattern of agricultural-industrial communities operated on a cooperative basis."⁷³ The thesis was

⁷² Jean Bodman Fletcher, "There Should Be Regional Integration in Central Valley," *Arts & Architecture* (May 1945), n.p. Drawings for Fletcher's thesis are preserved in "Thesis: Community for Migratory Labor, Central Valley, California," 1943–1944, Harvard Graduate School of Design, The GSD History Collection, Student Affairs—Student Work, Subseries CA: Graduate School of Design, Architecture Student Problems, folder CB033.

⁷³ Fletcher, "There Should Be Regional Integration in Central Valley," n.p.

conducted under Walter Gropius, whom Bodman and Fletcher would soon solicit to join together in collaborative practice.

Prior to the formation of TAC, both the Harknesses and the Fletchers initially sought to develop their independent practices as married couples, publishing speculative designs and entering national architectural competitions during the building hiatus of the war years. In May 1943 the Harknesses gained an invitation (through the recommendation of Ketchum, who was too busy to participate) to contribute to the issue of *Architectural Forum* dedicated to “New Buildings for 194X” that also featured speculative projects by such luminaries as Ludwig Mies van der Rohe and Charles Eames. (Fig. 2.23) The couple contributed a design for a two-story bank as part of the recent tendency of financial institutions “to become more human,” writing of their hope “to accentuate this trend by the openness of the design and the generally informal treatment.”⁷⁴ For the same issue, Norman Fletcher collaborated with a group led by Serge Chermayeff to design a prototype for slabs of split-level park apartments, contrasting the “cramped, rugged individualism” of the traditional house with the “free, cooperative individualism” offered by modern, vertical living.⁷⁵ (Fig. 2.24) The Fletchers soon gained recognition through their first-prize entry for the design of “A House for Cheerful Living,” sponsored by *Pencil Points* and the Pittsburgh Plate Glass Company in 1945. The couple proposed a single-story house for Salinas, California, with separate bedroom and living wings connected by a prefabricated mechanical core in an H-shaped plan. (Fig. 2.25) The competition jury commended the project upon its publication in *Pencil Points* in May 1945, remarking that “the design is sympathetically done; it is simple, direct, and has a definite American flavor that is refreshing.”⁷⁶ Commenting on the project in the *New York Times*, the Fletchers declared, “We subscribe fully to the tendency in modern architecture of eliminating stylist ornaments in favor of

⁷⁴ John C. Harkness and Sarah Harkness, “Bank,” *Architectural Forum* (May 1943): 86.

⁷⁵ Serge Chermayeff Group (Peter Blach, Serge Chermayeff, Abel Sorenson; Collaborators: Norman Fletcher, Henry Hebbeln), “Park Apartments,” *Architectural Forum* (May 1943): 138–145. Peter Blach later changed his name to Peter Blake.

⁷⁶ “Report of the Jury,” *Pencil Points* (May 1945): 54–55.

practicality.”⁷⁷ Together with Charles D. Wiley the couple designed a hypothetical “Motor Traveler’s Hotel” for *Architectural Record* in July 1945, organized as a raised ring of parking spaces from which visitors would ascend or descend a half-level into two-story hotel units, suspended within U-shaped structural frames. (Fig. 2.26) An adjacent community center was attached to a ground floor containing shops, meeting rooms, and exhibition spaces. As the Fletchers explained, “A hotel is the visitor’s contact with the community and a focal point of local activities,” and it was thus natural that it should form “part of a community group which includes shops, offices, local municipal headquarters, theater and junior high school.”⁷⁸

It was the last in this string of winning competition entries, a project to design dormitories for Bodman’s alma mater, Smith College, that overlapped with the formation of The Architects Collaborative at the end of 1945. Conducted by the Museum of Modern Art in New York (which exhibited the winning entries in early 1946) together with *Pencil Points—Progressive Architecture*, the Fletchers teamed with Benjamin Thompson, Norman’s classmate at Yale. Their submission won first prize among the ninety-one entries submitted. Second prize went to the Harknesses, with whom the Fletchers had remained friends since working together at SOM.⁷⁹ (Fig. 2.27) The coincidence of five of the imminent founders of TAC gaining the first two prizes, a fact announced just after the establishment of the office at the beginning of 1946, offered a powerful confirmation that the idealism of their ambitions for collective practice was well founded. Both the program of the Smith competition and the social makeup of its winning teams—two women and three men from three different schools, working in independent collaboratives to design dormitories for a women’s college—reflected the group members’ shared desire to escape the hierarchical, and gendered, office structures that had continued through the war years. (Fig. 2.28) Norman Fletcher recalled his and

⁷⁷ “Homes Design By New York Architects in Prize Competition: Prize Plans in National Contest Stress ‘Livability’ of New Homes,” *The New York Times*, May 13, 1945: R1.

⁷⁸ “Motor Traveler’s Hotel, By Charles D. Wiley, Norman Fletcher and Jean Bodman Fletcher, Architects,” *Architectural Record* (July 1945): 75.

⁷⁹ *Ibid.*, 6.

Jean's strong interest in these years in developing a shared practice that would be "pretty much equal, no bosses... working as a team together in a collaborative way."⁸⁰

Acting on these ambitions immediately after the conclusion of the war, in November 1945 the Fletchers wrote to John Harkness (who had returned in May from serving in Europe) from Bloomfield Hills, Michigan to propose the formation of an office together, one month before competition entries for the Smith dormitories were submitted in December. The couple followed this entreaty with a letter a week later dated November 11, 1945 to Walter Gropius, who had asked John to join him as a teaching assistant in the master's classes at Harvard. (*Fig. 2.29*) Norman Fletcher later suggested that Louis Kahn and George Howe had been considered as possible collaborators, prior to the fortuitous timing of Gropius's invitation to Harkness and the group decision to approach the Harvard chair instead.⁸¹

In soliciting Gropius's involvement in the collaborative office they envisioned, the Fletchers sought to give "some background on the cooperative idea" as they saw it. They wrote to Gropius that "we feel that we can learn more and give more as productive citizens if we achieve more responsibility and independence than is possible in the traditional office organization."⁸² They had already enlisted the Harknesses along with Benjamin Thompson and Louis McMillen, another colleague of Norman's at Yale who was then finishing his master's degree at Harvard. Echoing Gropius's calls for integration between architecture and industry, the Fletchers describe their collective feeling that, "by working on projects, even very small ones, in which we had a very responsible part, we might gain greater contact with materials, building methods, and people," expressing the ultimate intention "to supplement and finally integrate with planning research and execution."⁸³ "Closely allied to the architectural aims," they continued, were "the social aims" the partners shared for the organization of their group

⁸⁰ Transcript of interview with Norman C. Fletcher conducted by Perry Neubauer, November 6, 2006: 5.

⁸¹ *Ibid.*, 6.

⁸² Letter from Jean Bodman Fletcher and Norman Fletcher to Walter Gropius, November 11, 1945: 1. Reginald R. Isaacs papers, circa 1842-1991, Smithsonian Archives of American Art.

⁸³ *Ibid.*

practice. To these ends, the Fletchers ventured the idea of starting a cooperative nursery as part of the new collective, along with the even more idyllic hope—perhaps in reference to the work programs at Black Mountain College—that “establishing some sort of design center in the country together with an experimental farm, may be possible.”⁸⁴ In pursuing this collective approach to living and working, they wrote to Gropius, “our aims become, not architecture for architecture’s sake, but architecture for the sake of a healthy society.”⁸⁵ The Fletchers traveled to Cambridge at the end of November to meet with Gropius and the other partners, and the new office was officially inaugurated on January 1, 1946.⁸⁶

The Cooperative Idea

By the time the results of the Smith dormitory competition were announced in February of 1946, the five architects of the winning and runner-up entries had already decided to form TAC, a fact that was noted when the winning entries were published in *Progressive Architecture* in April.⁸⁷ Combining the first- and second-prize winnings from the competition (\$2000 and \$1000, respectively) provided seed money for the new firm, along with its first possible commission. In choosing five of the founding members of the new office for the top two projects, Lucia Norton Valentine, a trustee of the College and a member of the jury, commented that “Style was the least consideration,” indicating that “the jury was searching for fundamentals as an indication of talent.”⁸⁸ Ironically the

⁸⁴ Ibid., 2.

⁸⁵ Ibid., 1.

⁸⁶ The December 25th meeting date is given by Reginald Isaacs in his *Walter Gropius: An Illustrated Biography* (Boston, Toronto, London: Bulfinch Press, 1991): 256.

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⁸⁸ Lucia Norton Valentine, “First Step Toward New Dormitory,” *Smith Alumnae Quarterly* (May 1946): 126. The Smith jury commended the Fletchers’ project in particular for its simplicity and appropriateness, citing their feeling that “the designers had developed their forms out of the requirements instead of forcing their rooms into any arbitrarily imposed shape.” “A Competition To Select an Architect for a Proposed Dormitory Group for Smith College,” *Progressive Architecture*, Vol. 27 (April 1946): 52–53.

commission, which was to have been TAC's first building, soon foundered due to the stylistic objections of an advisor to the competition jury then practicing for a traditional firm in New York.⁸⁹

Nine months after the official establishment of the office, the founders described their intentions in a "Statement of Aims," published in *Arts & Architecture* in August 1946 and signed by all of the partners. In it, they reiterated the polemical language of their Harvard contemporaries, framing the problem of teamwork as necessary for the democratic project of rebuilding after World War II. "The whole post-war reconstruction problem, so vast and so complex," they wrote, "hangs upon our ability to cooperate."⁹⁰ In addressing these tasks, the group argued,

The architect as a coordinator by vocation should lead the way—first in his [sic] own office—to develop a new "technique of collaboration" in teams. The essence of such technique will be to emphasize individual freedom of initiative instead of authoritative direction by a boss. Synchronizing all individual efforts by a continuous give and take of its members, a team can raise its integrated work to higher potentials than the sum of the work of just so many individuals.⁹¹

The firm's earliest projects reflected this commitment to developing the "technique of collaboration" in practice. Primary among these was the commission to develop a postwar construction program for Black Mountain College, both the major example of collaborative pedagogy in the U.S. for young architects like the TAC founders and the site where Gropius and Breuer's earlier projects for the College of 1939–40 had fallen through. At the time of TAC's founding in November 1945, Gropius had apparently already recommended the Fletchers to the College's director, Ted Dreier, either for teaching or to undertake design work for the College's Lake Eden campus—a gesture for which the

⁸⁹ Transcript of interview with Norman C. Fletcher conducted by Perry Neubauer, November 6, 2006: 7. Richard Marsh Bennett, a professional advisor to the competition jury, was then practicing in New York together with Caleb Hornbostel. It is unclear if Bennett was the "traditional" architect to whom Fletcher was referring, given the modernist projects designed by Bennett and Hornbostel, such as their winning design for a proposed Art Center at Wheaton College in 1938. Modernist dormitories for Smith College were ultimately built on a different site by Skidmore, Owings & Merrill (1957).

⁹⁰ "Statement of Aims," published in "Program for the Proposed Willimantic Public Library on a Theoretical Site," *Arts & Architecture* (August 1946): 28.

⁹¹ *Ibid.*

Fletchers thanked Gropius in the same letter in which they proposed the creation of a shared office.⁹² In February 1946, the young architects—now part of TAC—were commissioned to develop a long-range plan for the College, along with the design for a women’s dormitory, with Norman Fletcher as principal architect within the team.⁹³ Yet the development of the project laid bare significant differences in the conception of the collaborative creative process between the College and its architects. After Fletcher spent three weeks at Black Mountain in March 1946, TAC delivered preliminary building and site plans for a women’s dormitory for sixty students, received in May.⁹⁴ The College expected a TAC member to be in residence during construction, however, while a group of students responded independently to the firm’s plans by developing an alternative proposal for smaller six-unit spaces for sleeping and study, “to the astonishment of the faculty.”⁹⁵ Both the architects’ and the students’ plans were ultimately rejected after delays and lengthy debates in which a central question posed within the community—“when is a decision a decision at Black Mountain”—remained unanswered.⁹⁶ A second campus plan by TAC, submitted in October, elicited similar debate, with small groups of ten to twelve students convening to record criticisms that were then submitted to the architects.⁹⁷ (*Fig. 2.30*) While some funding was eventually raised for a first

⁹² Letter from Jean Bodman Fletcher and Norman Fletcher to Walter Gropius, November 11, 1945, Reginald R. Isaacs papers. In thanking Gropius, the Fletchers do not specify the nature of the recommendation: “We have been wanting to thank you for referring us to Ted Dreier of Black Mountain College. We were very enthusiastic after visiting the college, but have not yet given Ted an answer yet. The work down there bears a close relationship to our ideas for group effort, but we have hesitated to commit ourselves because, with the ending of the war, our long realized plans seem possible of being carried out.”

⁹³ Mary Emma Harris, *The Arts at Black Mountain College Project* (Cambridge, MA: MIT Press, 1987): 114.

⁹⁴ Mary Emma Harris has suggested that the Fletchers were invited to teach at the College, but chose to join TAC instead. See Harris, “TAC Plans,” *The Black Mountain College Project*, <http://blackmountaincollegeproject.org/architecture/campuses/lake%20eden/unrealized%20plans/%20collaborative%20text.htm>. The text of the Fletchers’ letter to Gropius bears out this interpretation to some extent, particularly in the Fletchers’ hesitation “to commit ourselves” in favor of pursuing their “long realized plans.”

⁹⁵ Mary Emma Harris, *The Arts at Black Mountain College Project*: 114.

⁹⁶ *Ibid.*

⁹⁷ The Architects Collaborative, “BMC Site Plan Study,” October 22, 1946, Harvard University Art Museums. Although this drawing is clearly dated and labeled as by TAC in the upper left corner, it is misattributed in both the Harvard University Art Museums collection and the Marcel Breuer Archive, where in both cases the drawing is classified as belonging to the Gropius and Breuer project of 1939–40.

dormitory building to be constructed, TAC remained unable to send a supervising architect for construction, and the project officially ended with the resignation of Dreier as the College underwent a faculty crisis in 1948–49.⁹⁸

Looking back a decade later, Sarah Harkness recalled that with the eventual losses of both the Smith and Black Mountain College commissions, “The first year consisted of very few jobs, but a great deal of discussion.”⁹⁹ However, she credited this year with the invention of the central mechanisms through which the partners structured the firm’s collaborative method across the decades to come: the system of job captains and the weekly partners’ meeting, originally held every Thursday at noon. As Harkness outlined in 1957,

Every job has to go through a meeting before the design is frozen. The job captain, together with those who have been assisting him, brings drawings, models, and pertinent facts and figures to the conference room. A really “hot” design meeting often produces the best architecture. In the end, the changes are those of the job captain himself, because he [sic] has final authority.¹⁰⁰

The relationship between job captains (or project managers, as they were later known) and the weekly meeting was thus meant to effect the balance between individual and collective authority that all the partners saw as essential to a democratic, rather than bureaucratic, form of collectivity. As Harkness explained years later, “the concept was not to establish design by committee but to have an active exchange of ideas on work at various stages of development.”¹⁰¹ Furthermore, by dedicating the weekly meetings to both design and business (including a system whereby partners served as rotating “mailmen” to sort through each week’s correspondence), the group ensured that there was no

⁹⁸ Mary Emma Harris, *The Arts at Black Mountain College Project*: 114.

⁹⁹ Sarah Harkness, text on TAC’s working methods quoted in “Genetrix: Personal Contributions to American Architecture,” *Architectural Review* (May 1957): 370. A portion of this text, unattributed to Harkness and listed only as “written by a member of the Collaborative,” appears in Ian McCallum, “Walter Gropius and TAC,” in *Architecture USA* (New York: Reinhold Publishing Corporation, 1959): 175–179. McCallum was the editor of the issue of *Architectural Review*, on “Machine-Made America,” in which the “Genetrix” article appears. The same text also appears, unattributed, in a special issue of *Baukunst und Werkform* on TAC (December 1957): 683.

¹⁰⁰ *Ibid.*

¹⁰¹ Sarah Harkness, “The Architects Collaborative,” *Encyclopedia of Architecture, Design, Engineering & Construction*: 46.

split between creative and managerial decision-making within the office. As the office grew beyond the original partnership and design work increasingly took place within separate project teams, the partners' meeting came to serve as a secondary means of ensuring coordination across projects. In later years, office portfolios, prepared for clients, continued to describe the weekly gathering as "the principal cohesive factor of the firm," the key instrument for guaranteeing that "collaboration first occurs within the team working together on the project and later within the design meetings."¹⁰²

Despite TAC's insistence that this structure of group meetings and individual decision-making was the key to ensuring equality within the firm, the anomalous status of Gropius remained a persistent issue within this framework. The partners repeatedly addressed the question of how to account for his voice within the collective, as both a self-described equal among the partners and an elder figure whose stature placed him, perhaps inevitably, as *primus inter pares* within this young group of architects. (Fig. 2.31) The other founding members maintained long after his death that Gropius had insisted on a co-equal role in the process of evaluation that was enacted during the weekly meetings, receiving criticism for his ideas in addition to critiquing the work of others. Rather than operating through any authorial signature, they held, Gropius functioned as a broadly intellectual figure among the group of architects, yet one fully embedded within the partners' collaborative model.¹⁰³ Sarah Harkness portrayed Gropius' importance to the team less in terms of architectural authority than in his voice as a thinker, collaborator, and critic at the heart of the firm. "Everybody wants to think of him as one of the world's great designers, but he wasn't," she argued — "he was one of the world's great philosophers."¹⁰⁴ Other partners acknowledged that Gropius was accorded an elevated status in this respect, but claimed that this manifested itself primarily in his

¹⁰² "The Architects Collaborative," TAC office portfolio c. 1967, n.p. Canadian Centre for Architecture Collections.

¹⁰³ In the year after Gropius's death, principal Alex Cvijanovic reiterated his sense that Gropius's true hope for the partner's meetings was that "the principals should have a communication of views regarding the world and not just regarding architecture." Cvijanovic, quoted in "Long-Range Planning Meeting—30 October 1970," in *Long-Range Planning Meeting—1970, Re-distributed for Long-Range Planning Meeting of June 25–27, 1981* (1981): 8. MIT Museum Archives.

¹⁰⁴ Transcript of interview with Sarah Harkness conducted by Perry Neubauer, November 3, 2006: 7.

ability to mediate disputes, not to impose his will. John Harkness later recalled, “when Gropius was with us he was so generally recognized as the senior person in the firm that he tended to pull us all together and override personal controversies.”¹⁰⁵ In this sense, he described the effect of Gropius’s absence on TAC’s practice after his death in 1969 in terms of a loss not of his signature as an architect, but of his value in enabling the social cohesion of the partnership as a whole. Harkness wrote to the firm’s members in 1984, fifteen years after Gropius’s death, of his continued conviction that

architectural offices fall into two categories: (1) Those that are built around a strong personality, and (2) those that are built around an idea or ideas. The first category tends to live and die or make a total transition with that person. Its work is largely monolithic. The second is more apt to be made up of a group of individuals working together, bound by their ideas but inevitably more varied in their design product. And most important, it has the structure to evolve, to continue past the original partners, to grow and change with time.¹⁰⁶

Gropius’s outsized voice, he argued, had in fact allowed TAC at its best to function as an example of the latter category—the firm built on ideas—even if historians and critics tended to relegate it to the status of the personality-driven office. “In spite of the fact that Gropius was such a strong personality,” Harkness wrote, “what he purposely gave to us was not hero worship but ideas, and that is why we have been able to continue.” In the absence of this guiding voice, he reminded the firm’s members that “When a leader such as Grope is no longer with us, it is easy to drift into a bickering over who will pick up the reins.... I think it is a credit to all of us that we have not done this.”¹⁰⁷

¹⁰⁵ John C. Harkness, “President’s Report,” *TAC Annual Report* (1981): 5. MIT Museum Archives.

¹⁰⁶ John C. Harkness, “President’s Report,” *TAC Annual Report* (1984): 5. MIT Museum Archives. In the 1981 Annual Report, Harkness made similar statements about the need to retain the collaborative spirit, without ceding control to a “strong personality,” for TAC’s continued success: “There is always a danger, particularly under pressure circumstances that we start to bicker with each other and complain that someone else is not doing his or her job. I believe collaboration requires realizing that we are not all identical. Each of us has strengths and weaknesses. We must learn to work together to support each other with respect for the contribution of the other person. This does not mean that we will decide who the best one or two designers are and have them do all of the design. Nor does it mean that production will be handed over to a production team. But it does mean forming teams with an eye to balancing these abilities, and it does require the respect for all members of the team. If we can do this, I think we will be continuing and strengthening TAC in the true collaborative spirit in which it was formed.” *TAC Annual Report* (1981): 5–6.

¹⁰⁷ *Ibid.*

The partners thus evidently felt the need to answer insistent questions about Gropius's role within the office as well as without, before and after his death. In her account of TAC's method just over a decade after its founding, Sarah Harkness made clear that the issue had already become predominant for the firm's reception, posing the question of an imagined reader along with a testy response: "Is it, in reality, 'Gropius's Architects' Collaborative'? No one is more annoyed by this misconception than Gropius himself."¹⁰⁸ She further reminded this hypothetical interlocutor that "The idea of a Master surrounded by his disciples is absolutely contrary to Gropius's own precepts." Yet Harkness was quick to note that the younger partners were not monolithic in their own right, portraying the group as a collection of disparate characters joined more by their belief in collaboration than by any particular creative type or method:

Is it then a remarkable coincidence of personalities that happen to click? Actually, the personalities could not be more different. It is such a "bunch of individualists" that one might wonder how they ever happened to come together. They even have different ways of working and different ways of running a job. To some, a pencil is their sword—if they lost their hold on it they would lose control of the design. Others feel they can guide the design by remote control. I do not think that the success of a collaborative office is dependent on a remarkable combination of particular people. It is a practical system—on the way to becoming more usual.¹⁰⁹

In the final analysis, Harkness framed the success of TAC's model as a question not of personality but of scale. "If there is anything magic in the whole set-up," she offered, "I believe a good deal of it may simply be a matter of numbers." In this view, the size of the original group fortuitously offered just the right balance between individual ego and collective consensus, achieved through face-to-face conversation rather than via a larger, more abstract entity. "The partnership," Harkness explained, "is large enough so that it would be almost impossible for one person to dominate it... However, the group is small enough so that the partnership can meet round the conference table for informal discussion; small enough so that decisions do not have to be made by vote, but only by the "sense of

¹⁰⁸ Sarah Harkness, "The Architects Collaborative," *Encyclopedia of Architecture, Design, Engineering & Construction*: 46.

¹⁰⁹ Ibid.

the meeting.” Given these characteristics, she added, “Our meetings have been likened to Quaker meetings in this respect.”¹¹⁰

However ideal the scale of TAC’s original practice for the founding partners, it was quickly superseded by the expanding size of the office. Within two years of group practice, there was already a debate within the firm about how best to maintain the collaborative model as its staff grew larger. In a discussion in November 1947 held at Gropius’s suggestion, the partners “discussed the problem of methods for handling future work coming into the office which was in excess of that which could be handled by the present group.”¹¹¹ The options discussed included hiring new members, on either a salary basis or according to a profit sharing system, but without the possibility of their becoming partners; or to open up the possibility of adding new members as partners after a year’s trial period. According to the meeting notes, Norman Fletcher was opposed to expansion in general, “afraid of increasing the number of people in the office very considerably by any method whatsoever because of the difficulty of maintaining design control and coordination,” while McMillen, in contrast, “felt that the office could expand a very considerable amount before such a point would be reached.”¹¹² Significantly for TAC’s collaborative ethos, Chip Harkness already warned that the “obvious disadvantage” of hiring salaried but subordinate members, without the possibility of becoming partners, “was that it reduced our method of operation to that of any other office.”¹¹³ Opening up the office to a profit-sharing system (among non-partners) or adding new partners, however, would entail other concerns for the firm and its future employees. The former option risked exposing new members to “bearing the possible gambles or losses of the office without promise of a future partnership,” while the latter, Harkness presciently noted, might lead to a situation where “with an increasing number of partners it might become difficult at a time when work slacked off to reduce

¹¹⁰ Ibid.

¹¹¹ “Meeting on November 20, 1947,” TAC meeting notes, transcribed by John C. Harkness, n.p. MIT Museum Archives.

¹¹² Ibid.

¹¹³ Ibid.

our personnel.”¹¹⁴ Indeed, the problems of eliminating staff became a paramount concern decades later when TAC, by then a large organization of over 300 employees, was confronted with the economic volatility of the 1970s and early 1980s.

No Woman Should Stay Home

Of no small importance within TAC’s “technique of collaboration” and its emphasis on “individual freedom of initiative” was the presence of two women among the founding partners, a feature that was well-noted in the popular press of the time. While the TAC partners may have regarded this simply as a natural way of pursuing their “long realized goals” of a practice that would be “pretty much equal”—with two married couples forming fully half of the partnership, all four trained as architects and anxious to practice—it also constituted one of the major stakes of collaboration at the outset of the postwar period. In 1951, the Dean of the Harvard Graduate School of Design, Joseph Hudnut, described the available means of collaboration for female architects in just such terms. In a two-part article titled “The Architectress,” he sought to outline the “amendments, or diversifications, of the accepted pattern of marriage” through which his students had been able to enter and sustain architectural practices despite the strictures of postwar family life, based on his experiences as a professor at Harvard and previously at the Columbia School of Architecture. Hudnut noted that under five percent of female graduates of professional schools of architecture remained in the profession for longer than five years, while even fewer, only two percent, began independent practices. The vast majority of women trained in architecture—ninety-five percent, he claimed—became housewives.¹¹⁵ Yet for women who wanted to practice, Hudnut argued, the vicissitudes of family obligations were largely incompatible with the continuity required for architectural creation.

¹¹⁴ Ibid. The partners decision among these three options, according to Harkness, was that “It seemed to be the general census [sic] that for a particular rush job where an old line draftsman might be needed to push a job through, he would be hired under method #1.”

¹¹⁵ Joseph Hudnut, “The Architectress,” Part I, *Journal of the A.I.A.* (March 1951): 115.

“Architecture is a vocation which cannot be practiced successfully unless practiced continuously,” he wrote; “It will not admit of interludes for the education of children or the promotion of husbands.”¹¹⁶

In describing the ways in which his female students had overcome these challenges, Hudnut placed significant weight on two working methods that were both already typified by the TAC founders: marriage and collaboration. Aside from marrying a wealthy husband—a practice he wryly noted had enabled some of his students to work independently—Hudnut described a more earnest “variation in the pattern of marriage, also put into practice by our graduates” as a means of practicing: namely, that of “a husband-and-wife partnership in architecture.”¹¹⁷ More significantly among the devices through which “women-architects have escaped some of the oppressions unjustly laid upon their sex,” however, was “the ‘collaborative’ mode of practice,” in which “a number of architects may agree to pool their talents and some, or all, of them may be women.”¹¹⁸ In describing the benefits of collectivity, Hudnut noted the flexibility such a setup offered for structuring the relationship between family and work: “A collaborator, in such an event, may reserve the right, at certain times and under specified conditions, to be absent from the office; and since such absences would be anticipated and provided for, they might be of little consequence in the welfare of the partnership as a whole.”¹¹⁹

Despite his later criticisms of collaborative and corporate models of practice, as described in Chapters 1 and 4, Hudnut praised them here as a significant means by which women could enter

¹¹⁶ Ibid. Hudnut further detailed the barriers to women both within the structures of the offices in which they worked and in their dealing with outside contractors and builders: “Perhaps the greatest barrier to woman’s progress in architecture is neither our patterns of marriage, but those less mutable prejudices... concerned with employment, promotion, opportunity, salesmanship. Architects do not like to employ women in their offices; contractors do not like to build from their plans; people with money to spend do not like to entrust its expenditure to a woman. The real bottleneck here is the architect’s office in which the beginner in architecture must serve his apprenticeship after graduation. Following their very ancient tradition, architects who are established in practice take newly fledged architects under their wings and help them to grow wings of their own. Women, I am sorry to say, often receive a somewhat cold welcome in such offices.” Hudnut, “The Architectress,” Part II, *Journal of the A.I.A.* (April 1951): 182.

¹¹⁷ Hudnut, “The Architectress,” Part II: 181.

¹¹⁸ Ibid., 182.

¹¹⁹ Ibid.

and remain in the workplace. However, in writing on the gender gap in architectural practice, Hudnut ventured an assessment of the merits of collective work that anticipated his later views. While he noted positively that “such a scheme seems to be at this moment the most promising of any yet proposed against the ironies of marriage,” he also cautioned that

since the ability to collaborate is here taken for granted, it would seem to be somewhat perilously founded. Collaboration is a beautiful word; but there are still in human nature impulses towards power and selfish promotion, basic stupidities and jealousies, and even honest, inevitable misunderstandings. Collaboration will succeed best, I think, where only one of the collaborators is gifted with a truly creative imagination. I can conceive several musicians taking their parts in an orchestra, each with his special command of harmony; but I find distinctly discouraging the thought of seven sculptors at work on a Venus.¹²⁰

Though the anecdotes he offered in “The Architectress” were clearly not those of the TAC founders—the article noted a “Miss P.” of Columbia, who won a student competition for “A Norman Castle of the Tenth Century,” and a “Miss B.” of Harvard, who, noticing a parking garage was to be built in downtown Boston, walked unannounced into the manager’s office and gained the commission by expounding on the virtues of module construction—he might well have included Jean Fletcher (a student at Harvard during his tenure) or Sarah Harkness (who studied at the Cambridge School and was married to a Harvard student) among his examples, as architects whose practice embodied both the partnership of married designers and the principles of collective work. Indeed, Harkness later offered an analogy between the domestic and professional realms as requiring similar commitments to the collaborative process: “Just as it would be impossible to say exactly why a marriage is successful,” she wrote, “one can only make a guess as to why an organization works.”¹²¹

¹²⁰ Ibid.

¹²¹ Harkness, text on TAC’s working methods quoted in “Genetrix: Personal Contributions to American Architecture:” 370. The analogy between domestic and professional partnership reappeared in more chauvinistic terms in an article in *Time* magazine on Gropius, which included the following (possibly apocryphal) exchange with Frank Lloyd Wright on the nature of collaboration: “Wright, a noted individualist, once snapped: ‘Gropius, I suppose that if you were planning to have a baby, you would turn to a neighbor for collaboration.’ ‘I would,” replied Gropius, ‘if my neighbor was a woman.’” “The Idea-Giver,” *Time Magazine*, Vol. 94, No. 3 (July 18, 1969): 61.

At the early years of TAC, the Harknesses and the Fletchers lived together in a setup similar to the one described by Hudnut, in which collaboration allowed a flexible schedule of family and work for the female partners in particular among the two married couples. A 1947 article in the *Boston Globe*, titled “No Woman Should Stay Home,” described the means through which “cooperation is the keynote of a successful home life and careers of two young Cambridge women.”¹²² (*Fig. 2.32*) As the article outlined, at the time the Fletchers and the Harknesses lived on two floors of a three-story house on Trowbridge Street in Cambridge, MA, where they shared a maid, babysitters, and domestic facilities in balancing childcare—at the time each couple had two children—with a rotating work schedule at TAC. In effecting this live-work arrangement, the article suggested, “the parents heartily believe that their mode of living can serve as a pattern for other young married couples, as well as a basis for better community planning.”¹²³ A second article from the same year in the *Christian Science Monitor*, “Two Girls Share as Equal Partners in Modern Architects’ Collaborative,” further praised the benefits of this structure of living and working for its female practitioners, noting that “their budding success stems securely from the completely cooperative nature of their enterprise.”¹²⁴ (*Fig. 2.33*)

An article written by Jean Fletcher and Sarah Harkness for *House & Garden* in 1947, titled “Architecture, Family Style,” constituted something of a manifesto for the partners’ emerging approach to designing domestic settings to meet the changing needs of the postwar housewife.¹²⁵ Following a check-list of domestic priorities for women—“Is your house easy to run, pleasant to live in?” “Is your husband’s office less than an hour from home?”—the article described a life cycle of living spaces from the apartment for a young couple (“little space but few responsibilities”) to the

¹²² Barbara Brooks Walker, “No Woman Should Stay Home: Two Cambridge Wives Solve Career Problem,” *The Boston Sunday Globe*, March 2, 1947: A9.

¹²³ Ibid.

¹²⁴ Henley, “Two Girls Share as Equal Partners in Modern Architects’ Collaborative”: 10.

¹²⁵ Jean Bodman Fletcher and Sarah Harkness, “Architecture, family style: two woman architects look at today’s houses, tell how they affect family life,” *House & Garden*, Vol. 92 (October 1947), 146–149.

“transition” house (“share a maid, a garage, a washing machine, a drying yard, a jungle gym”), on to the independence of the single-family home and, finally, the “return to a less complicated way of life” once the family’s children were married in turn. (*Fig. 2.34*) This circular pattern of living spaces presaged Fletcher and Harkness’s own progression from the shared arrangement of their house on Trowbridge Street to the independence of Six Moon Hill (1949), the community of detached single-family homes designed by the TAC partners for themselves and other office members two years later in Lexington, MA. The project originated with the communal purchase of two adjacent plots of land on a steeply sloping, twenty-acre site (named by the partners after the six Moon cars found in a barn on the property), which was then divided into house lots and distributed by lottery among the investors along a new road and cul-de-sac, purpose-built to serve the development. (*Fig. 2.35*) Each family was free to design their own house based on their needs and the constraints of the topography, supported by a communal open space and swimming pool and within a shared architectural language. The Fletchers, for example, designed a split-level house with a two-story block containing bedrooms above and an open children’s playroom below, connected to a single-story wing containing kitchen, living and dining rooms. (*Fig. 2.36*) The Harknesses designed a single-story house (later expanded to include a two-story wing to accommodate a growing number of children) around a central living space with skylights and fully openable exterior walls on garage-door pivots, both using Wasco plexiglass domes based on technology developed for airplane cockpits during World War II. (*Fig. 2.37*)

A later generation of architects was more critical of what they saw as the conventional postwar domesticity of Six Moon Hill, including Mary Otis Stevens, who worked for TAC from 1956 to 1958 before designing her own house and studio in Lincoln, MA (1961–65) as a radical experiment

in the structure of domestic life.¹²⁶ Yet the group argued that the community and its houses offered a flexibility of modern, “servantless” living that was crucial in allowing the partners to effectively combine living and working needs—even if such needs were assumed to extend only to the female partners. Among the domestic benefits of the planned community was a form of informal co-parenting in which child-care duties were often shared between households, a situation well suited to the large number of children among the partners—five for Benjamin Thompson, six for the Fletchers, and seven for the Harknesses. Regular community meetings reflected the sense in which the balance of individual and collective at Six Moon Hill was modeled on the same principles that had guided the formation of TAC itself. (Fig. 2.38) Contemporary articles noted this intended symmetry between domestic and professional settings, praising the partners for the way in which “each of their houses has an individual character although all are unmistakably TAC products—a double paradox since each TAC job is the result of one design team’s effort within the group framework.”¹²⁷

TAC’s experiments in community planning continued nearby at the Five Fields development in Lexington (1952), for which Jean and Norman Fletcher were design partners along with Louis A. McMillen. (Fig. 2.39–2.40) The firm sought to plan a complete housing community with control from design and construction through to marketing and the establishment of a homeowner’s organization to regulate the development.¹²⁸ (Fig. 2.41) Sixty-eight low-cost houses were built around common parkland that was jointly owned by its residents. The community was initially

¹²⁶ In criticizing Six Moon Hill in particular among other postwar suburban precedents, Mary Otis Stevens claimed, “I was against ordinary American domesticity. I didn’t want my children to grow up in the conventional restrictive environment in which I had been brought up.” Liane Lefaiivre, “Critical Domesticity in the 1960s,” *Thresholds* 19 (2000): 23. On Mary Otis Stevens and the Lincoln house, see Michael Kubo, “Lincoln House and Studio,” in Chris Grimley, Kubo, Mark Pasnik, *Heroic: Concrete Architecture and the New Boston* (New York: Monacelli Press, 2015): 194–201; Susanna Torre, “Building Utopia: Mary Otis Stevens and the Lincoln, Massachusetts, House,” in Avital Bloch and Lauri Umansky, ed., *Impossible to Hold: Women and Culture in the 1960’s* (New York and London: New York University Press, 2005).

¹²⁷ “The Individual House: Practice of The Architects Collaborative,” *Architectural Record* (May 1950): 128–135.

¹²⁸ TAC described the Five Fields development in “Five Fields, Housing Development,” *The Architects Collaborative Inc. 1945–1965*: 48–53; “Five Fields Houses,” in John C. Harkness, ed. *Walter Gropius Archive, Vol 4: 1945–1969, The Work of The Architects Collaborative* (New York and London: Garland Publishing Inc., 1991): 46–58.

regulated by a charter, created by TAC, which was explicitly framed to encourage a mix of residents that would be racially, ethnically, and socially diverse, in contrast to the restrictive covenants typical of many suburban developments of the period—and in contrast to the more homogeneous social makeup of Six Moon Hill.¹²⁹ John Harkness later recalled that at Five Fields, the partners “were very specific that there was no restriction as to race or religion, etc.”¹³⁰ For the founding partners, both Six Moon Hill and Five Fields served to demonstrate that collaborative live-work ideals could be realized, through sensitive community planning and house design, within the postwar economic framework of managerial capitalism and the center-suburb pattern of the American city. (*Fig. 2.42*)

The idealism conveyed by the female TAC founders in the firm’s early years about the ability to combine the labors of home and work was tempered, in later years, as both the office and the partners’ families grew steadily larger. While a central mechanism in promoting equality among the founders after 1945 was an agreement that all partners would earn the same salary, including the pooling of any income earned from teaching or other outside activities, it is unclear how this equal redistribution accommodated the presence of two couples among the original eight members, or how late the salary structure and work schedule of the female partners were maintained within the

¹²⁹ The autobiography of Caleb Warner, a resident of Five Fields for nearly fifty years beginning after almost all the houses were built and occupied, supports TAC’s claims that the development was designed to be ethnically and culturally diverse, if not economically (as a community designed for professionals). According to Warner, “Our neighbors were professionals of one sort or another—psychiatrists, psychologists, doctors, architects, academics, and a few from the business world.... Although our community reflected Lexington generally, at various times over the years Five Fields was home to persons of various ethnicities, single-sex couples, and representatives of a variety of religious denominations. The diversity of our community was very important to us.” Warner and A. Wendy Warner, *Grant Me To Find the Task: The Life Story of Caleb Warner* (Bedford, MA: CreateSpace Independent Publishing Platform, 2013): 163. The founding charter initially also specified TAC as the designer for any new homes subsequently built as part of the development, a provision that was apparently later removed after being found to be illegal under Massachusetts state law.

¹³⁰ John C. Harkness, *John Cheesman Harkness*: 17.

office.¹³¹ By 1964, Ise Gropius wrote sympathetically to Ellen Jawdat (discussed in Chapter 5), a former Harvard student then attempting to combine her own demands of architectural practice and childcare in Iraq, that “All TAC members are, of course, in the same position as you: the children are becoming adults and present more problems... Louis and the Fletchers being in the sixes and eights [sic] & Chip in the sevens and considering the gratifying but horrendous freedom given to youngsters here it must be a tremendous merry-go-round when the TAC members return to their homes.”¹³² Ise confirmed that the part-time rotation between home and office was still operative for the female founders: “Jean still works halftime and Sally is also quite active though I don’t think on as regular a basis,” she wrote, though qualifying that “I say ‘works’, implying that work at home just is no work, while most working mothers tell me that the office is an actual haven of peace compared to the home.”¹³³ Whether the benefits of this “haven of peace” were extended equally to female office members after the founders was another question. In her later years, Sarah Harkness acknowledged her feeling that not enough was done for women who subsequently joined the firm, suggesting, for example, that more could have been done to promote women to the level of principals. Such changes in the atmosphere of the office were fully evident in portraits of the firm’s partners by the 1980s.

(Fig. 2.43)

¹³¹ In 1970, principal John F. Hayes characterized this founding principal as still operative: “The original objectives of the firm indicate a strong ideal about working together as a team and also the idea that everyone was making his maximum contribution to the firm and that, therefore, there was no necessity to reward each one differently through salaries or bonuses. With the exception of the two female partners, this procedure has operated through the years and the original partners have all received the same salaries.” He did not specify, however, whether this “exception” referred to the part-time work schedule of the female partners, or to an unequal distribution of salary for the two couples, versus the four individual partners among the founders. Hayes, quoted in “Long-Range Planning Meeting—30 October 1970,” included in *Long-Range Planning Meeting—1970, Re-distributed for Long-Range Planning Meeting of June 25–27, 1981* (1981): 6. MIT Museum Archives.

¹³² Letter from Ise Gropius to Ellen Jawdat, September 16, 1964. Harvard University, Houghton f 2013M-29.

¹³³ Ibid.

TAC Inc.

As TAC's work grew in parallel with the postwar baby boom in its first two decades—progressing from suburban houses and elementary schools to secondary education and then to universities, hospitals, office buildings, and other institutional and cultural commissions—the office changed in size and character as well. By the mid-1960s, a conjunction of events marked the closure of TAC's first twenty years of collaborative practice and signaled the firm's transition to more bureaucratic, professionalized forms of organization. The simultaneous commissions of the Pan American Airways building and the University of Baghdad after 1957, described in detail in Chapters 4 and 5, brought the office to a new level of financial and technical capability at national and international scales, by completing the largest commercial office building in the world and carrying the Iraqi university campus into its first phase of construction by 1963.

These changes in the expanding scope and scale of TAC's practice were registered in the firm's incorporation in July 1963, legally shifting management of office business operations from the partners to a corporate Board of Directors.¹³⁴ This shift in structure reflected the evident recognition, as described in a 1980 issue of *PROCESS* magazine devoted to the firm, that “When architecture is practiced on a large scale, it necessarily becomes a business as well as an art and a profession.”¹³⁵ Contemporary texts by the firm offered reassurance that “Although it is now TAC Inc., the character

¹³⁴ The date of incorporation is given in an undated office portfolio, likely produced in 1967 or 1968, in which TAC is described as “A firm of architects, urban designers, and landscape architects organized as a partnership in December 1945 and incorporated in July 1963.” Canadian Centre of Architecture Collections.

¹³⁵ Leonard J. Currie and Virginia M. Currie, “TAC: Principles Process & Product,” in *TAC: The Heritage of Walter Gropius*, *PROCESS:Architecture* No. 19 (1980): 41. Currie and Currie describe the rationale for TAC's incorporation and its effects as follows: “The corporate structure was adopted in order to share the company ownership more easily and in a broader fashion, and also to better meet legal responsibilities and liability issues. There has been attempt to improve business efficiency without impeding the chief objective of the firm—which is to produce well-designed and socially responsible architecture for the use of people.” As of 1980, they wrote, “Throughout the firm there seems to be a consensus that TAC has matured and provides better service by devoting more effort to the business aspects. The day-to-day operations are more efficiently handled by a small group of informed individuals instead of meetings involving all of the principals.” *Ibid.*

of the firm remains the same.”¹³⁶ The weekly partners’ meetings continued as sessions devoted to both design criticism and business matters, now supplemented by occasional meetings of the new Board, including five of the founding partners and two senior associates.¹³⁷ Yet the replacement of the partner structure by a legal structure of president, vice president, and directors and the introduction of a system of shareholders marked the beginning of inevitable changes in the character and conception of the office’s cooperative model in later years.¹³⁸ As the firm expanded physically and economically, the space of collaboration was increasingly confined to the scale of the project teams, represented only secondarily by the partners’s meetings that were crucial to the firm’s original model.¹³⁹

By 1965 TAC—or more properly TAC Inc.—was one of the largest and most successful offices of the postwar era, having grown from its original eight partners into a firm with nearly 150 employees and large-scale commissions around the globe.¹⁴⁰ In the same year, TAC was on the cusp of completing its first major monograph, *The Architects Collaborative Inc. 1945–1965*, as the culmination of its first twenty years of practice. The firm’s continued expression of faith in the cooperative idea in the pages of the monograph, discussed in Chapter 3, was reciprocated by

¹³⁶ Walter Gropius and Sarah Harkness, ed. *The Architects Collaborative Inc. 1945–1965*: 16.

¹³⁷ Ibid. This monograph text, unattributed but likely produced by TAC, describes the attempt to mediate the character of the new office organization with the original intentions of the partners’ meetings: “A formal vote is used only for matters of a legal character, never for design decisions.... In order to comply with the law, the terms of the partnership have been replaced by president, vice president, director, etc. However, since the notion of a frozen hierarchy would not be in the spirit of TAC, these responsibilities are rotated. The group of partners and senior associates is large enough to prevent domination by one person, yet small enough to meet around the conference table for informal discussion. Decisions are made by the sense of the meeting rather than by vote.”

¹³⁸ Among the immediate consequences of incorporation was the reclassification of the founding partners as principals, and the naming of additional principals for the first time since the founding of TAC two decades earlier. In 1964, Alex Cvijanovic, William Geddes, Herbert Gallagher, H. Morse Payne Jr., Richard Brooker, Ernest Birdsall were named as principals. Peter Morton joined was named principal in 1965, and Roland Kluver in 1966. Walter Gropius was named the first president of the firm. Sarah Harkness, “The Architects Collaborative,” in Joseph A. Wilkes and Robert T. Packard, ed., *Encyclopedia of Architecture, Design, Engineering & Construction*, Vol. 5 (New York: John Wiley & Sons, 1987): 47.

¹³⁹ *The Architects Collaborative Inc. 1945–1965*: 16.

¹⁴⁰ The TAC monograph lists a total staff of 142 in the Cambridge office at the end of 1964. The list of present employees as of March 1965 in the back matter of the monograph contains 175 names, not including the six remaining founders following the death of Jean Bodman Fletcher and the departure of Robert S. McMillan. *The Architects Collaborative Inc. 1945–1965*: 16, 294–295.

professional bodies like the American Institute of Architects, which, in granting TAC its Firm Award for 1964, commended the practice for its “notable effort in establishing a purely democratic association of equal partners.”¹⁴¹ These efforts, the AIA held, had “carried TAC through the formative years into the maturity of producing architecture of a high rank without personal idiosyncrasies”—even those of Gropius, “the self-effacing master.”¹⁴² (*Fig. 2.44*) In the same year, the partners’ work on the first comprehensive publication of TAC’s projects was paralleled by the firm’s design for a new, purpose-built headquarters to house its expanding operations and reflect its mature professional image to potential clients. These related products—monograph and headquarters, book and building—both drew the firm’s first twenty years to a close and announced its ambitions for the future.

As TAC grew in the years after 1945, the loose collaborative structure of this “purely democratic association of equal partners” had been mirrored in the geography of the firm’s work spaces, distributed in a network of clapboard houses and other rented buildings around Harvard Square. A converted three-story house at 63 Brattle Street, rented from Radcliffe and formerly a Harvard faculty residence, constituted TAC’s main offices through the 1950s.¹⁴³ Among the quirky features of the old house-turned-offices was an attic mezzanine, occupied by drafting tables and fitted with Wasco dome skylights like those used in the Harkness house, from which office members reported being able to overhear private conversations from the second floor just below.¹⁴⁴ (*Fig. 2.45*) Partner Roland Kluver later recalled that “Drafting spaces were tucked around in the various odd rooms of the old house in a wonderful, crazy, overcrowded way.”¹⁴⁵ (*Fig. 2.46*) By the end of the

¹⁴¹ American Institute of Architects, “Architectural Firm Award Honoring The Architects Collaborative,” 1964, n.p. Canadian Centre of Architecture Collections.

¹⁴² *Ibid.*

¹⁴³ TAC partner Roland Kluver claimed the house had once been the home of G. Holmes Perkins, a professor at the Harvard Graduate School of Design beginning in 1930 and chair of the city planning department from 1945 to 1950. Kluver, “Early Days,” in *TAC Reminiscences*: 33.

¹⁴⁴ Terry Rankine, “The Second Floor of 63 Brattle, circa 1960,” in *TAC Reminiscences*: 69.

¹⁴⁵ Kluver, “Early Days,” in *TAC Reminiscences*: 33.

1950s, the main office was one among a diffuse collection of converted drafting spaces around Harvard Square, each housing one or two principals and their project teams. The nicknames given by TAC members to these separate spaces—including “Siberia” (90 Mount Auburn Street) and “Bensville” (1 Story Street)—indicated their physical and conceptual distance from the head office, or to partners, like Benjamin Thompson, who had formed quasi-independent studios, in his case with a dedicated team that stayed together through multiple projects under his direction.¹⁴⁶ The first shop for Design Research (D|R), the retail outlet for the “modern environment” spun off from TAC by partner Benjamin Thompson in 1953, was located in an adjacent row of clapboard buildings at 57 Brattle Street.¹⁴⁷ (*Fig. 2.47*)

The block that included both the TAC main office and D|R buildings had long been slated by Harvard University, the firm’s landlord, to become the future home of a library for the Graduate School of Education.¹⁴⁸ Upon the termination of TAC’s lease in 1961, the firm confronted the problem of designing a new, purpose-built headquarters that would reflect the changing needs of the office while maintaining a collaborative, rather than corporate, character. As Mildred F. Schmertz outlined in a contemporary article in *Architectural Record*, the firm’s task was “how best to gather its sizable, widely dispersed staff under one roof for greater efficiency, without changing TAC’s image into one of ‘bigness.’”¹⁴⁹ (*Fig. 2.48*) Such a building would have to accommodate the firm’s expanding scale and scope of practice while at the same time providing reassurance that TAC, as

¹⁴⁶ Terry Rankine, later a founding member of Cambridge Seven Associates, claimed that 90 Mount Auburn Street and 1 Story Street were commonly referred to as “Siberia” and “Bensville,” respectively, by members of the Thompson team and by others in the office. Rankine, “Memories of TAC,” in *TAC Reminiscences*: 69, 71. As discussed later in this chapter, the closeness of the Benjamin Thompson project team is evidenced by the fact that five members of this team split from TAC together to form Cambridge Seven Associates with Ivan and Peter Chermayeff in 1962, while a second set of twelve architects from this team joined Thompson upon his own departure from TAC to establish Benjamin Thompson & Associates in 1966. See Tom Green, “TAC: May 1959—January 1966,” in *TAC Reminiscences*: 23.

¹⁴⁷ See “Bright Glass Prism on Brattle Street,” *Architectural Record* (May 1970): 159–164. See also Jane Thompson and Alexandra Lange, “Experiencing the Store: Brattle Street, 1953–69), in *Design Research: The Store That Brought Modern Living to American Homes* (San Francisco: Chronicle Books, 2010): 34–69.

¹⁴⁸ Benjamin Thompson & Associates went on to design the Harvard Graduate School of Education Library, completed in 1972, on the site of the old TAC and D|R buildings.

¹⁴⁹ Mildred F. Schmertz, “A Challenging Collaboration for TAC,” *Architectural Record* (September 1967): 160.

Schmertz argued, had successfully “avoided organizing its practice into any system which could eventually resemble the over-specialized pecking orders of some larger organizations.”¹⁵⁰ The article noted that multiple options for siting a new headquarters were considered, from occupying warehouse space on Boston Wharf, to purchasing and renovating a former book bindery, to designing a new suburban office building near the burgeoning Route 128 tech corridor outside of Cambridge, a location that would have enabled a horizontally organized corporate office.¹⁵¹ Gropius’s insistence proved decisive in advocating for the benefits of staying in Harvard Square for TAC’s employees and office culture, and the firm soon acquired a property at the corner of Brattle and Story streets, just down the street from the 63 Story Street house.¹⁵²

TAC’s new offices, at 46 Brattle Street, were officially inaugurated on November 16, 1966.¹⁵³ (*Fig. 2.49*) At a speech given on the occasion of the building’s opening, Gropius suggested the difficulties faced by a collaborative firm—one whose method was based on a culture of shared criticism among equals—in designing a building for a clientele of 150 in-house architects. “You can hardly imagine,” Gropius explained, “what a complicated balancing act had to be performed in order

¹⁵⁰ Ibid.

¹⁵¹ Ibid., 163.

¹⁵² Ibid. The history of acquiring the property for the new TAC headquarters and eventually the Architects’ Corner remains unclear. Jane Thompson claimed, in interviews with the author (2016), that the impetus to acquire land in anticipation of Harvard’s termination of the lease came from Benjamin Thompson, implying that it was the need for a new Design Research space, not the TAC office, that initially impelled the land purchase. Tom Green, who left with Benjamin Thompson to form Benjamin Thompson & Associates in 1966, later claimed that “Ben and TAC acquired the Brattle Inn and adjoining Story Street site for the new D|R building and the TAC office building.” Green, “TAC: May 1959—January 1966,” in *TAC Reminiscences*: 23. It is perhaps more likely that, if Benjamin Thompson played a role in effecting the land purchase, this was in his role as TAC partner, though the future location of D|R may have been a consideration. Jane Holtz Kay lists 1961 as the year “TAC bought the corner of Brattle and Story streets,” i.e., including the future sites of both the TAC and D|R buildings. Holtz Kay, “A Block on Brattle Street,” *The Boston Sunday Globe*, April 30, 1972: A12.

¹⁵³ Ise Gropius wrote to Ellen and Nizar Jawdat on November 1, 1966, confirming the opening date: “TAC will have a big housewarming party at their new building on November 16th. It is a great satisfaction for Grope to see TAC firmly anchored in this way, but whenever he sees something safely launched he usually gets itchy feet and takes a new risk.” Houghton Library, Houghton f 2013M-29. The typescript of the speech given by Gropius upon the opening of the office is marked, in what appears to be Gropius’s hand, “15 Nov. 66. Opening of TAC Office.” The contents of the speech imply that this may have been a dinner or exhibition opening the night before the official opening of the building. Gropius, “Speech at Opening of TAC Office,” typescript with annotated manuscript revisions, Harvard University, Houghton Library, MS Ger 208, folder 289.

to do justice to the many individual suggestions of the various Partners and to bring them under one hat in order to reach our aim of a straight-forward, easily readable design.”¹⁵⁴ Gropius expressed gratitude that “after making-do for so long with 7 small offices in Cambridge and Boston, overlapping and doubling many of our efforts, we have now assembled everyone under one roof,” taking the occasion to reaffirm his belief in “what invaluable advantages result from mutual stimulation if a group of people of differing inclinations, interests and talents work in close contact towards a common objective.”¹⁵⁵ The new headquarters thus embodied “the most important asset of an architectural firm,” not the material tools needed for production but rather “that elusive spirit which keeps creative faculties awake and stimulates the individual to positive action.” While Gropius noted that “this volatile quality needs renewal again and again,” he professed to the assembled guests his belief that TAC’s new offices proved that “at present it certainly exists among us.”¹⁵⁶

Developed by a team led by principal Louis A. McMillen and lead designer H. Morse Payne Jr., the organization of the new building reflected the attempt to maintain TAC’s organization as a collection of groups despite their consolidation into a single facility. A circulation core located at the hinge of the L-shaped building in plan allowed each floor to be split into two halves, each serving from one to three principals and their respective teams in an organization of small studios rather than a single large work space. (*Fig. 2.50*) Each studio functioned as an office in miniature, with its own reception desk, conference room, principals’ offices, and drafting tables. (*Fig. 2.51*) The quality of the building’s materials was also intended to display the technical skill of which the firm was capable. Concrete details were designed to be simple but elegant, with incised floor slab edges and vertical joints between infill panels drawing a sharp linework across the building’s facades. The fineness of the building’s execution in concrete and the clarity of its layout were clearly meant to make an impression on clients: in Gropius’s words, “We hope it proves right away that we know

¹⁵⁴ Walter Gropius, “Speech at opening of TAC office, November 1966,” typescript with annotated manuscript revisions, MS Ger 208, folder 289, Houghton Library, Harvard University.

¹⁵⁵ *Ibid.*

¹⁵⁶ *Ibid.*

what we're doing."¹⁵⁷ Indeed, Jane Holtz Kay, a critic for the *Boston Globe*, agreed upon the building's opening that the result had "a certain refinement, a quality associated with the firm," noting that the headquarters stood "solidly on concrete columns, neatly lined, [with] an agreeable sandblasted finish, bronze windows, [and] bronze mullions."¹⁵⁸

A TAC office portfolio produced after 1968 repeated the firm's portrayal of the building as a visible expression of its collaborative ethos. "In designing its own building," the entry on the firm's headquarters declared, "an architectural firm is, in a very real sense, presenting its position to the world.... Thus the design period becomes and opportunity, in fact an obligation, to evaluate and reaffirm its basic principles."¹⁵⁹ To these ends, the entry noted, the Brattle Street offices "were designed to accommodate TAC's own approach to architectural problem solving, whereby a number of small teams work semi-independently within the larger organization," a method that "obviated the need for large, undifferentiated drafting spaces" as found in a typical large-scale firm.¹⁶⁰

The siting and urban form of TAC's new headquarters gave further proof of the interest in community that provided the organizing schema for the building's interiors. An extra floor was gained above the four stories permitted by local zoning codes by giving over a portion of the site to an entry court reached via a passage from Brattle Street, creating the beginnings of the courtyard and pedestrian arcade that gave the block its distinctive urban structure in later years. These processes initiated the formation of what become known as the "Architects' Corner," an urbane group of concrete buildings clustered off of Brattle Street in Harvard Square, so named for the number of firms who designed their own offices there. Significantly, the firms whose buildings made up the Architects' Corner included the successive heads of the Harvard Graduate School of Design over its first three decades: Gropius (chair of the architecture department 1937–53), Josep Lluís Sert (dean

¹⁵⁷ Schmertz, "A Challenging Collaboration for TAC": 163.

¹⁵⁸ Jane Holtz Kay, "A block on Brattle Street": A12.

¹⁵⁹ "TAC Office Building and Addition," in *The Architects Collaborative, TAC office portfolio*, 7 vols., n.d. [after 1970], Bauhaus Archiv.

¹⁶⁰ *Ibid.*

1953–69), and Benjamin Thompson (chair of the architecture department 1963–68). The partners' interests in the block as a community group continued even independent of the firm, as when Thompson, who had left the firm two years earlier, described the issues faced in designing a headquarters for Design Research adjacent to the TAC building in a 1968 letter to Gropius. In completing the courtyard begun by the TAC block, Thompson wrote that the D|R building would have to match the contextual and urbanistic demands its partners had established, beyond the commercial imperatives of a store for modern furnishings. The problem, he explained to Gropius, was thus “how to turn corners and face the TAC building—and the constant effort to do something for the community scene—i.e. Brattle Street.”¹⁶¹

At the same time, however, representations of TAC's expanding partnership and practice after 1966, produced from its new headquarters, effected not so much the image of an informal collaborative as the impression of a professional, bureaucratic office. While both the firm's monograph and later publications continued to reproduce images of Gropius and the founding partners in their early years, official photographs of partners' meetings at 46 Brattle Street conveyed a seriousness and corporate character that the firm had claimed the design of its offices was expressly intended to avoid. (*Fig. 2.52*) Such images of the partners, circulated in the firm's office brochures and in architectural magazines, clearly reflected the self-satisfaction of a firm that had achieved a significant measure of success and stability by the mid-1960s.¹⁶² (*Fig. 2.53*) These group portraits were a far cry from the establishment of TAC twenty years earlier by a group of recent school graduates, working together in one room of Gropius's two-room office in Harvard Square. Yet the question of whether the firm's organization had hedged in the meantime from the collaborative ethos to a more properly corporate character of practice—a status corresponding to the firm's official

¹⁶¹ Benjamin Thompson, letter to Walter Gropius, October 17, 1968, Bauhaus Archiv, Berlin, GS 19, 690. Jane Holtz Kay, by contrast, contested the idea that D|R and TAC were in good communication during the project: “Supposedly, the new D|R would evolve through dialogue and design review with TAC. In fact, dialogue was limited but Thompson spoke the same language as his former colleagues anyhow.” Holtz Kay, “A block on Brattle Street”: A12.

¹⁶² See especially the cover of *Casabella* 318 (September 1967), featuring a portrait by Ezra Stoller of the TAC partners—eleven men, with only Sarah Harkness remaining among the two original women partners.

incorporation in 1963 and embodied in its monograph and headquarters three years later—remained open.

Collaborative Successors

The stakes of the cooperative idea in the 1960s played out not just at TAC but in the number of successor firms launched by its office members over the course of the decade. Two of the firm's original eight partners, Robert S. McMillan and Benjamin Thompson, left within a span of three years to establish independent practices, while two others passed away by the end of the decade: first Jean Bodman Fletcher, who died of cancer at the young age of forty-five in 1965, and then the elder Walter Gropius, aged eighty-six, in 1969. While Robert S. McMillan Associates and Benjamin Thompson & Associates operated under their founders' names, other offices established by TAC members in the 1960s, including Cambridge Seven Associates (C7A) in 1962 and Architectural Resources Cambridge (ARC) in 1969, spoke the team concept in their firm titles as TAC had done before them. Significantly, many of these offices laid claim to the collaborative ethos, in many cases framing their models of practice explicitly as improvements to or elaborations of the concepts of anonymity, teamwork, and cooperation their members had learned from their experiences at TAC. Such arguments were often counterposed with criticisms of how TAC's output and methods had changed by the 1960s, laying the groundwork for their own claims to the collaborative method.

The first firm to split from TAC was precipitated by the departure of office members Lou Bakanowsky, Alden Christie, Paul Dietrich, and Terry Rankine to join architect and filmmaker Peter Chermayeff and graphic designers Ivan Chermayeff and Tom Geismar in establishing Cambridge Seven Associates (C7A) in 1962. (*Fig. 2.54*) The combined group represented two professional and personal lineages, each committed to the idea of a truly interdisciplinary creative practice that would

exceed the boundaries of TAC's more narrowly defined architectural focus.¹⁶³ The first group—Bakanowsky, Christie, Dietrich, and Rankine—had all worked under Benjamin Thompson, and had often discussed leaving together to form a group practice that would expand TAC's collaborative structure to an even more integrated method across the design disciplines. As Rankine later recalled of his conversations with Paul Dietrich, the two architects “found a common belief in the relationship of design disciplines,” both feeling the desire “to do more than straight architecture, which was what most of the offices were doing in Cambridge at that time, and that architecture would benefit from a combined design approach ranging from exhibit design, graphic design, through urban design.”¹⁶⁴

In seeking to expand their purview to encompass these disciplines, Dietrich provided the link to the second lineage within the group, represented by Peter and Ivan Chermayeff. The pair were the sons of Serge Chermayeff, the British émigré who led the New Bauhaus School of Design in Chicago from 1946 to 1951 before moving to Cambridge to teach at the GSD in 1953. Serge Chermayeff, a forceful advocate for community in architecture and urban planning as well as for collaborative methods of practice like those espoused by Gropius and the Telesis group, saw these beliefs realized in his sons' related interdisciplinary practices.¹⁶⁵ In the summer of that year, Dietrich approached

¹⁶³ TAC subsequently expanded its areas of specialization as well, adding dedicated departments for Landscape Architecture (1965), Interior Design (1968), and Publications and Graphics (1977). Sarah Harkness, “The Architects Collaborative,” in Joseph A. Wilkes and Robert T. Packard, ed., *Encyclopedia of Architecture, Design, Engineering & Construction*, Vol. 5 (New York: John Wiley & Sons, 1987): 48. A less formalized version of the interiors department, however, may date to as early as 1953; it was through this interiors group that Benjamin Thompson may have developed the ideas on marketing modernist furnishings and other goods that led to the establishment of Design Research in 1953.

¹⁶⁴ Terry Rankine, “The Summer of 1962: My Memories of the Start of Cambridge Seven,” March 18, 2013, <https://architects.org/news/summer-1962-my-memories-start-cambridge-seven>.

¹⁶⁵ Ivan studied graphic design at Yale and established a thriving graphic design firm with Tom Geismar, Chermayeff & Geismar, in New York City in 1957, while Peter received his architecture degree from the GSD in 1962 while working independently as a documentary filmmaker. On the Chermayeff family, see Carson Chan, “The Chermayeff Century,” *032c*, Issue #22 (Winter 2011/2012), <http://032c.com/product/issue-22-winter-2011-2012-the-chermayeff-century/>. For Serge Chermayeff's views on collaboration and community, see Chermayeff, “Telesis: The Birth of a Group,” *Pencil Points* (July 1942): 45–48; Chermayeff, “Architecture and a New World,” *California Arts and Architecture* (May 1942): 18–19, 38, 40, and Chermayeff and Christopher Alexander, *Community and Privacy: Toward a New Architecture of Humanism* (Garden City, NY: Doubleday & Company, 1963), which the authors dedicated “To Walter Gropius with admiration affection and gratitude.”

Peter Chermayeff, then working on an anti-war film about the effects of nuclear weapons, about joining his colleagues to form a collective, multidisciplinary design practice. Assured that exhibitions, graphics, and film would be equal parts of the work undertaken by the new firm, Peter agreed to join the team, with “an idea that we could start a multidisciplinary firm with graphics, exhibit design, industrial design, architecture, and urban design.”¹⁶⁶ Ivan Chermayeff and Tom Geismar soon came on board as partners, in parallel to their ongoing work with Chermayeff & Geismar in New York. In joining forces, the combined team sought to create what Rankine referred to as “the idea,” a “studio with many of the design disciplines all working happily together—a designer’s paradise!”¹⁶⁷

Fortuitously, the establishment of the firm coincided with the interdisciplinary commission that established its reputation, the New England Aquarium (1962–69) in Boston, an ideal demonstration of its founders’ shared interests in the integration of architecture, graphics, and exhibition design into a holistic visitor experience.¹⁶⁸ Faced with the task of naming a large group of equal partners, as TAC had before them, the colleagues christened themselves Cambridge Seven Associates, or C7A.

A year after Cambridge Seven Associates began its interdisciplinary practice, partner Robert McMillan, then a director of TAC S.p.A. in Rome, left the firm to establish Robert S. McMillan Associates in 1963. (*Fig. 2.55*) The international character of the firm quickly matched the expertise of the Rome office from which it originated, gaining commercial and institutional commissions including the University of Lagos and Nigerian Parliament in Lagos, Nigeria, an office tower in Nairobi, Kenya, and a mosque for the University of East Africa in Dar es Salaam, Tanganyika by 1968.¹⁶⁹ By this time, the firm listed its head office as located in Lucerne, Switzerland, while maintaining an affiliated company in Rome “for much of the actual production” of projects,

¹⁶⁶ “Experiential Thinking,” interview with Peter Chermayeff, in Chris Grimley, Michael Kubo, Mark Pasnik, *Heroic: Concrete Architecture and the New Boston* (New York: Monacelli Press, 2015): 283–289.

¹⁶⁷ Rankine, “The Summer of 1962: My Memories of the Start of Cambridge Seven.”

¹⁶⁸ On the history of the New England Aquarium project and its relation to the formation of Cambridge Seven Associates, see Michael Kubo, “New England Aquarium 1962–69,” in Grimley, Kubo, Pasnik, *Heroic: Concrete Architecture and the New Boston*: 220–227.

¹⁶⁹ *Robert S. McMillan Associates*, office portfolio, c. 1968, n.p.

operating “under the direct supervision of Mr. McMillan and his associates.”¹⁷⁰ TAC SpA, meanwhile, continued working on projects in Tunisia, Mali, Nigeria, and Guinea, in addition to its expanding presence in Europe and the Arab and Persian Gulf states in these years.¹⁷¹ In this sense, McMillan’s firm sought to replicate the same benefits of location and client access that originally led TAC to establish a Rome office in 1959 to conduct the University of Baghdad commission, with McMillan and Louis A. McMillen jointly responsible for running the office in its first two and a half years.

An article on McMillan Associates and its international growth in *Progressive Architecture*, written a year after the firm’s establishment, described its practice model as “an interesting departure from the ‘team’ concept fostered by the alma mater of all principals in the firm, The Architects Collaborative.”¹⁷² According to the article, however, the difference lay in his decision to direct all projects personally from the top down, a structure that was less an “interesting departure” than it was diametrically opposed to TAC’s collaborative, non-hierarchical approach. The article noted that “each client is served by McMillan, plus one of the associates as project manager,” with the result that “McMillan is the main designer of the firm, as well as being administrative and technical head of office procedure.”¹⁷³ Office portfolios advertised the firm’s combination of team-based technical expertise and comprehensive service with the singular direction of McMillan, reassuring clients that “each... is served directly by Mr. McMillan and an associate,” though “fully supported at all levels by the staff of project architects, designers, job captains, draftsmen, modelmakers, specification writers, field supervisors, and administrative personnel.”¹⁷⁴

The final member of TAC’s original partnership to break with the firm was Benjamin Thompson, who left, along with most of his design team within the office, to form Benjamin

¹⁷⁰ Ibid.

¹⁷¹ “The Architects Collaborative,” *The Architects Collaborative 1945–1965*: 12.

¹⁷² “U.S. Firm Radiates from Rome,” *Progressive Architecture* (October 1964): 240.

¹⁷³ Ibid.

¹⁷⁴ *Robert S. McMillan Associates*, office portfolio, n.p.

Thompson & Associates (BTA) in December 1965.¹⁷⁵ In turn, four members of the group that left *en masse* to form BTA—Henry S. Reeder, Colin L. M. Smith, and associates Thomas G. Green and Joseph Maybank III—soon left Thompson’s firm to establish another collaborative endeavor, Architectural Resources Cambridge (ARC), in 1969. Both splits testified to the largely autonomous character of Thompson’s studio within TAC by the mid-1960s, a fact already presaged by the formation of C7A by a group including five architects who had all worked together under his direction.

The circumstances of Thompson’s split with the other founding partners, combined with the close proximity of both BTA and Design Research to TAC’s offices after 1966, made his the most fraught of the departures from the firm in the 1960s. Thompson nevertheless remained on good terms with Gropius in the years afterward, continuing to correspond regarding academic matters at Harvard, where Thompson was then chair of the architecture department, and with Ise and Walter on personal matters.¹⁷⁶ Indeed, through his later interdisciplinary practice with his second wife, Jane Thompson—including the architectural and urban planning work of BTA, the commercial and lifestyle interests of Design Research, and the establishment of Harvest restaurant in the Architects’ Corner, among other ventures—the couple often cultivated the impression that it was Ben who most fully embodied the ideal of “total architecture” envisaged by Gropius, in contrast to TAC’s corporatizing practice by the 1960s. Such claims paradoxically aimed to position Thompson as the partner who best understood Gropius’s philosophy of design, and thus the true inheritor of this legacy through BTA’s independent office, despite his acrimonious isolation from the TAC

¹⁷⁵ Thompson announced his departure in a letter to the TAC partners on December 7, 1965, and BTA was incorporated in January 1966.

¹⁷⁶ The correspondence between Thompson and the TAC partners, and separately with Ise and Walter Gropius, regarding his separation from TAC in December 1965 and early 1966 is preserved in the Bauhaus Archiv, GS 19, No. 690; a portion of this correspondence is reproduced in the Reginald Isaacs papers of the Archives of American Art, Smithsonian Institution, Washington, D.C. A smaller set of correspondence between Thompson and the Gropiuses before and after 1965–66 is preserved at Houghton Library, MS Ger 208, folder 1623.

collaborative.¹⁷⁷ Jane Thompson, for example, later described the split as “a divergence of convictions.”¹⁷⁸ While she placed primary blame on Ben’s dissatisfaction with the firm’s standing policy of redistributing all income equally among the partners, including salary gained from work outside the office—including both his Harvard salary as chair and his “presumed, but not real” earnings through D|R—she also argued that “TAC was taking on projects that didn’t match his interests or temperament or values,” a reference to both the firm’s increasingly bureaucratic work and its expanding commissions in the Middle East.¹⁷⁹

For his part, in announcing his departure in letter to the TAC partners on December 7, 1965, Benjamin Thompson alluded only to an intractable conflation of unspecified personal and office matters, “in which affairs of my private and business life have become irrevocably (if irrelevantly) confused.”¹⁸⁰ In protesting a “lack of sympathetic understanding” from his fellow partners that rendered the situation “untenable as the continuing base of a working relationship,” Thompson ventured a deeper rebuke of an atmosphere he clearly no longer felt to be personally cooperative:

¹⁷⁷ On the same day as Thompson’s typewritten letter to the TAC partners announcing his departure from the firm, he sent a personal letter to Gropius, written in his own hand, in which he wrote: “I want you to know that you have been a tremendous influence to me both personally and professionally. Besides that you have been ‘the closest friend.’ I want to help TAC and you in every possible way in the future. Only now I must unburden myself to the kind of freedom for growth that my searching seems to desire.” Gropius’s reply, however, firmly dismissed the reasons given in Thompson’s letter to the TAC partners, suggesting that the true source of acrimony lay in his effective isolation from the firm: “But for heaven’s sake try to free yourself from the illusion that there is any confounding of your private and your business affairs by the members of TAC. This is not so and I have made sure that you are in error.... The reason that a clarification in TAC has become necessary is the fact that your absence from almost all TAC meetings for a year and your refraining from showing your work in our design meetings has brought the situation to a head.” He offered that “Though I am, of course, personally very sorry that you will leave TAC I do not consider it tragic in itself.... My thoughts on teamwork remain in principle undisturbed by this separation.” Thompson, letter to Gropius, December 7, 1965 and Gropius, letter to Thompson, December 9, 1965, Bauhaus Archiv, GS 19, No. 690.

¹⁷⁸ “Live, Work, Play (Is This Any Way to Run a Business?),” Philip Loheed, William Pressley, Jane Thompson in conversation with Scott Simpson, *ArchitectureBoston: Ben* (Spring 2011): 42.

¹⁷⁹ Ibid. In interviews with the author (2016), Jane Thompson reiterated Ben’s specific interest in schools and other cultural commissions, and his criticisms of the office buildings and other service projects that increasingly occupied TAC’s portfolio by the 1960s, as well as its expanding presence in the Arab and Persian Gulf states. However, BTA went on to design the InterContinental Hotel in Abu Dhabi (1976–1981), an opportunity Jane praised as a cultural experience. An account of Ben Thompson’s opposition to projects undertaken by TAC for the U.S. Air Defense Command, the Pan American Airways Building, and the University of Baghdad among other projects is given in Mildred F. Schmertz, “A Life in Architecture,” *ArchitectureBoston: Ben* (Spring 2011): 24.

¹⁸⁰ Benjamin Thompson, letter to TAC partners, December 7, 1965. Bauhaus Archiv, GS 19, No. 690.

I know there is an underlying rebuttal that the good of TAC must come ahead of any personal concerns. I have lived under that doctrine for the past 18 years. I now find little personal faith or group objectivity to prove there is any meaningful “whole” of which I am considered a flesh and blood part.¹⁸¹

In her later recounting of the reasons for Ben’s departure, Jane Thompson related this loss of faith in the firm’s partnership model to a deeper criticism of the ways in which both felt the office had changed for the worse by the mid-1960s. While TAC had “started out like one big studio,” she claimed, “eventually the partners were running their own studios”—a statement that best applied to Ben’s own project teams, ensconced in their own space at 1 Story Street—while collaboration operated solely “through weekly crit sessions.”¹⁸² In this view, true collaboration demanded something more interactive than mere group criticism. She contrasted TAC’s method as “a very different scene from BTA,” claiming its structure of sole ownership paradoxically offered a more fully integrated model of cooperation among team members: (*Fig. 2.56*)

Ben’s approach to collaboration was more open—everybody had jobs to do, but they didn’t own them. Collaboration didn’t mean sitting around, looking at something, and criticizing it, but everybody standing over a model and moving things around. It was physical, active design.¹⁸³

Notwithstanding such criticisms of the TAC office, Benjamin Thompson maintained a dialogue with his former partners in the years immediately after the split about the siting of an expansive new showcase for Design Research, facing onto Brattle Street, adjoining TAC’s headquarters. (*Fig. 2.57*) Beginning with a design similar in character to the offices of their erstwhile colleagues, partner Tom Green and senior associate Joseph Maybank—both ex-associates at TAC—developed a joyous architecture of display in concrete and glass, cantilevering the building’s floors and setting back the columns behind continuous floor-to-ceiling windows to create the effect of a stacked urban bazaar.

¹⁸¹ Ibid.

¹⁸² “Live, Work, Play (Is This Any Way to Run a Business?):” 42.

¹⁸³ Ibid.

The unprecedented use of butted glass without mullions, held with simple clips, enabled D|R to be what Green later described as “a building almost ‘without architecture.’”¹⁸⁴ The continuity between the building’s deep interior and the life of the street was enhanced by several retail innovations: a floor organization of open mezzanines that drew visitors upward through the space, the setting of objects on display (including the store’s monumental neon “D|R” sign) well behind the plane of the facade, and the use of chamfered corner diagonals to decrease reflections. Remarkable in its transparency, D|R offered “a deceptively simply package: concrete without brutalism, glass without glossiness, contextual [sic] without imitation.”¹⁸⁵ The building garnered a host of accolades immediately upon its opening in December 1969. For critics like James O’Gorman, D|R was nothing less than “a building distilled from one stream of 20th-century architecture: the one theorised by Gropius, sloganised by Mies, canonised by Giedion, and summarised by Le Corbusier in his 1914 project for a basic concrete (Domino) structure of posts, slabs, and connecting stairs.”¹⁸⁶ In this way, D|R provided a signature architectural image within the bureaucratic consistency of the Architects’ Corner, a proper foreground for the professional background of TAC’s offices and the other architecture firms that were soon housed in adjacent buildings.

By the mid-1970s, a veritable village of self-professed architectural collaboratives and other large-scale firms existed in and around Harvard Square, the gravitational center of professional design practice in Boston established, in no small part, by The Architects Collaborative over its quarter-century of work. TAC and Benjamin Thompson & Associates anchored the Architects’ Corner along with the offices of Sert, Jackson & Associates (SJA) and ex-TAC associate Earl Flansburgh, all bolstered by the luminous images of modernism advertised by Design Research next door. Just down the street were Cambridge Seven Associates, Architectural Resources Cambridge, and Hugh Stubbins Associates (HSA), which completed its headquarters across the street from C7A in 1969. Like TAC,

¹⁸⁴ Tom Green, quoted in Thompson and Lange, *Design Research*: 150.

¹⁸⁵ *Ibid.*, 147.

¹⁸⁶ James O’Gorman, “DR US,” *Architectural Review* (January 1972): 30.

all of these companies worked in self-designed, purpose-built buildings, constructed in part for their own use and supporting an array of design-related business, like Charrette, a retail provider of architects' supplies and reprographic services, located on the ground floor of SJA's headquarters at 44 Brattle Street. At its peak, the "Cambridge School" may have included upwards of 500 people, led by the expanding offices of TAC Inc. While these firms competed for commissions, many of their designers worked for different firms at different times as projects were gained or lost, such that Harvard Square "often felt like a single huge shop of architects."¹⁸⁷

Cooperation and Control

In 1978, TAC was the largest dedicated architecture firm in the U.S., with some \$12.4 million in annual billings for commercial, institutional, and industrial buildings.¹⁸⁸ The office had grown in size from its founding eight principals to an international design concern with 325 employees by the mid-1970s, spread across offices in Cambridge and Kuwait City.¹⁸⁹ Just as the firm had expanded its presence in the previous decade through Louis McMillen's participation in a trade mission to the Arab and Persian Gulf states that brought major institutional projects in Kuwait, the United Arab Emirates and Saudi Arabia, in 1974 principal Howard Elkus joined a trade mission to Southeast Asia that brought the firm's commission to design the Government Services Insurance System (GSIS) headquarters in the Philippines.¹⁹⁰ By 1983 TAC opened a third office in San Francisco to satisfy its

¹⁸⁷ Robert Campbell, "Reflecting on a Time When Harvard Square Towered With Designers," *The Boston Globe*, July 6, 2003. On the Cambridge group of architects in this period, see also "Talking About a Revolution: Cambridge in the '60s," transcript of roundtable discussion with Norman C. Fletcher, John C. Harkness, Huson Jackson, Elizabeth Padjen, Terry Rankine, Tad Stahl, Mary Otis Stevens, *ArchitectureBoston* (July/August 2003): 8–19.

¹⁸⁸ Oliver W. Witte, "Learn from the Public Giants," *Building Design & Construction* (July 1978): 59.

¹⁸⁹ Between January 1975 and January 1977, TAC reached a peak of 325 personnel in August 1975. Monthly figures for these years are given in "Personnel Department," *TAC Inc., 1976 Annual Meeting of Stockholders, 25 March, 1976* (1976) and "Personnel Department," *TAC Annual Report* (1977). Employment numbers declined by roughly a third through January 1979 (222 employees) before rising steadily again until the firm reached its high of 375 employees in January 1983, just prior to the beginning of TAC's collapse.

¹⁹⁰ Howard Elkus, "TAC in Asia," in *TAC Reminiscences*: 14–16.

growing portfolio of commissions on the West Coast, the result of the firm's attempts to shift a greater portion of its projects back to the U.S. as a hedge against the economic volatility of work in the Middle East.¹⁹¹ In the same year, the office reached a peak of 375 employees, with international projects on four continents and the prosperous outlook of a firm that had seemingly mastered the competitive economic landscape of the field after the 1970s. (*Fig. 2.58*)

Yet all was not well behind the facade of the thriving corporate office. In the year prior to TAC's triumphant ranking in 1978, the firm underwent a fundamental restructuring intended to redress the imbalance between the collaborative model on which it had been founded and the corporate reality of the firm's existence three decades later. Between 1976 and 1977, the partners established a Board of Principals (later the Policy Board) as a co-equal body to the Board of Directors that had been in place since TAC's incorporation in 1963, splitting the management of the office between two competing, and ultimately incompatible, models of governance. While the Board of Directors would continue to be responsible for the day-to-day management of the firm, the Board of Principals was intended to make decisions regarding the staffing and conduct of TAC's projects, as well as to strategize the firm's long-term goals and interests. Those remaining among the office founders—Norman Fletcher, John Harkness, Sarah Harkness, and Louis McMillen—all joined the Board of Principals, hoping by these means to revivify something of the original sense of the weekly partners' meetings where design and business matters were considered together, under the communal governance of architects rather than the corporate direction of managers. Sarah Harkness was clear about the intentions of this binary division as a check on the hierarchical authority of the directors, later noting that “the Policy Board is a TAC invention. It doesn't exist in corporate law.”¹⁹²

At the same time, the prospects for the long-term health of the firm gave cause for deep concern from the perspective of the principals, in sharp contrast to the external image of TAC as an

¹⁹¹ Howard Elkus, “The Beginning of the San Francisco Office,” in *TAC Reminiscences*: 17.

¹⁹² Sarah Harkness, “August 1, 1986, Memo from the Directors,” office memorandum to Board of Directors, August 8, 1986. MIT Museum Archives.

office that had successfully transcended the passing of its chief mentor at the end of the 1960s. The combined economic effects of inflation and recession in the U.S., paired with an overcommitment to work in the Middle East (discussed in Chapter 6) in contrast to its more diversified competitors, threatened to preclude TAC from re-entering domestic markets in which it had worked heavily in previous decades. Years of ineffective business policy and long-term planning had also taken their toll as the firm grew larger. In 1976 TAC's president, H. Morse Payne Jr, outlined to the firm's stockholders his fear that "we are entering a new an unknown era, and numerous Directors and Associates have forecast a 'belt-tightening' to come, a slimming down of an over-fed TAC, one of staff reduction and close control of abundant waste, without overthrowing those qualities that make TAC so attractive."¹⁹³ As a response to such internal and external forces, the partners expressed hope that a binary organization of corporate directorship and collaborative policy-making would enable TAC to overcome its difficulties, and so maintain both its market position and its reputation as a socially-concerned team of professionals.¹⁹⁴ (*Fig. 2.59*)

The status of TAC's founding ethos of collaboration remained a subject of open discussion among the partners throughout these organizational changes, visibly transacted through the bureaucracy of stockholders' reports and office memoranda. As early as 1970, the year after Gropius's death, the principals debated the legacy of these intentions and the possibility of their survival as, in Sarah Harkness's later history of the era, "architects everywhere became more concerned about office management and about architecture as a business."¹⁹⁵ In this year Norman Fletcher shared his hope that "in addition to the survival of TAC as an economic and professional entity" following the loss of

¹⁹³ H. Morse Payne Jr, "President's Report," in TAC Inc., *1976 Annual Meeting of Stockholders*, March 25, 1976, n.p. MIT Museum Archives.

¹⁹⁴ John Harkness reported to the firm's shareholders in March 1976 that "The most important accomplishment of the Executive Committee this year has been, I believe, developing a simple organization for TAC as shown in the chart—and at least the beginning of its execution." Harkness, "Report of the Executive Vice President," in *TAC Inc., 1976 Annual Meeting of Stockholders, 25 March, 1976* (1976). MIT Museum Archives. In the same report, H. Morse Payne affirmed that "The adoption of the organizational chart is one of the major accomplishments of the year, and hopefully will prove to be a major contribution to better office management." Payne, *ibid.*

¹⁹⁵ Sarah Harkness, "The Architects Collaborative," in Joseph A. Wilkes and Robert T. Packard, ed., *Encyclopedia of Architecture, Design, Engineering & Construction*, Vol. 5 (New York: John Wiley & Sons, 1987): 48.

Gropius, “I would hope that the original ideas of TAC (the philosophical and ethical objectives) survived as the younger echelon begins to take over.¹⁹⁶ In contrast, principal John F. Hayes cautioned that “our torment is that we cherish this view of TAC while at the same time finding ourselves driven to a more hierarchical and autocratic structure in order to manage a firm of over 200 people.”¹⁹⁷ Principal Herb Gallagher was equally direct in diagnosing this split between ideal and reality, claiming that “part of our confusion results from applying the collaborative idea to management and corporate structure and failing to see how the change in our scale has affected the original concept.”¹⁹⁸ At the same time, Hayes expressed confidence that the landscape of large-scale practice after Gropius offered “an opportunity which is at least as challenging as the original foundation of TAC: to bring together not 8 people, but over 200 individuals to work together in teamwork which is as serious and all-embracing as that which was initiated in 1945.”¹⁹⁹ Despite such claims, in the decade that followed both the character of the firm and its public image increasingly became, perhaps inevitably, that of a corporate, rather than collaborative, entity. (*Fig. 2.60*) By 1980, even laudatory publications on TAC’s history were obliged to note, equivocally that, “unquestionably, the more recent emphasis on management has somewhat modified the personality of the firm.”²⁰⁰

¹⁹⁶ Fletcher, quoted in “Long-Range Planning Meeting—30 October 1970,” included in *Long-Range Planning Meeting—1970, Re-distributed for Long-Range Planning Meeting of June 25–27, 1981* (1981): 5. MIT Museum Archives.

¹⁹⁷ Hayes, quoted in “Long-Range Planning Meeting—30 October 1970”: 6. In reference to this modern business ideal, Hayes quotes John Kenneth Galbraith: “Decision in the modern business enterprise is the product not of individuals, but of groups.... It is fortunate that men of limited knowledge are so constituted that they can work together in this way. Were it otherwise, business and government, at any given moment, would be at a standstill awaiting the appearance of a man with the requisite breadth of knowledge to resolve the problem presently at hand.” He continues: “Group-decision making extends deeply into the business enterprise. Effective participation is not closely related to rank in the formal hierarchy of the organization. This takes an effort to grasp. Everyone is influenced by the stereotyped organization chart of the business enterprise. At the top is the Board of Directors and the Board Chairman; next comes the President; next comes the Executive Vice-President; thereafter come the Department of [sic] Divisional Heads—power is assumed to pass down from the pinnacle. Those at the top give orders; those below them relay them on or respond. This happens, but only in very simple organizations.” Galbraith, *The New Industrial State* (Princeton: Princeton University Press, 1967): 80–81.

¹⁹⁸ Gallagher, quoted in “Long-Range Planning Meeting—30 October 1970”: 1.

¹⁹⁹ Hayes, quoted in “Long-Range Planning Meeting—30 October 1970”: 7.

²⁰⁰ Leonard J. Currie and Virginia M. Currie, “TAC: Principles Process & Product,” in *TAC: The Heritage of Walter Gropius, PROCESS:Architecture* No. 19 (1980): 42.

While these changes in organization changed the perception of TAC's practice, they also did little to stem the decline of its fortunes after its peak in the early 1980s, as the instability of its foreign commitments, its lack of access to specializing U.S. markets, and its continued management issues combined to doom the firm after 1983. The Board of Directors put it bluntly, declaring in the same year that "financially, TAC is a mess." Noting the firm's "apparent lack of business policy," the Board acknowledged that "it is not surprising since we are trained as architects, not businessmen. We would not expect a business school graduate to competently design a building."²⁰¹ In light of these conditions, the directors concluded that the firm's "present policies and management techniques are more characteristic... of a company that is going out of business than one on a path to revitalization."²⁰²

The Demise of TAC

The conflicts surrounding the fate of the collective ideal in this context came to a head in the mid-1980s, as the legacy of collaboration and the reality of incorporation were weighed against the urgent background of financial crisis and the potential collapse of the firm. These tensions played out around the opposed stakes of the Policy Board and the Board of Directors, co-equal bodies whose views of governance reflected ultimately irreconcilable conceptions of TAC's nature and the means for its continuation. In 1985, John Harkness framed the split in character and opinion between the two entities diplomatically, suggesting that, while "the two must work together, and since their assignments are different, there would appear to be no reason for conflict," nevertheless "they do represent different points of view, and it is the constructive working out and balancing of these positions which I think keeps TAC alive and vital."²⁰³ Yet within a year, relations between the two

²⁰¹ "TAC Financial Management," office memorandum from Board of Directors to John Patterson, Vice President, September 1, 1983: 1–3. MIT Museum Archives.

²⁰² Ibid.

²⁰³ John C. Harkness, "Policy Board Report," *TAC Annual Report* (1985): 6.

had exploded into an open battle over control of the office. The fight was triggered by a memorandum on August 1, 1986 in which members of the Board of Directors, during an annual recess in the appointment of Policy Board members, asserted their exclusive control under the firm's by-laws over decisions regarding the appointment of principals for design projects as well as promotions, compensations, and terminations of all stockholders within the office.²⁰⁴ Such an arrogation of authority threatened to fatally undermine the the principals on the Policy Board who had traditionally been responsible for these issues, reducing them to secondary veto status and effectively ending their ability to make decisions regarding the long-range planning of the practice. More significantly, this shift in power would place all project principals in the office and their design teams under the hierarchical control of a corporate board of directors for the first time in the firm's history.

The founding partners immediately reacted in unison to express their shock at the perceived reorganization of TAC as a fully corporate entity under centralized administration, a structure that in their view constituted a definitive break from four decades of the firm's guiding practice. Within a matter of days, the remaining members of the original partnership and other principals wrote to the shareholders and the Board of Directors to protest the potential loss of the collaborative spirit in which the firm had been established. For Sarah Harkness, often the public voice of TAC's ethos over the previous four decades, the conflict offered definitive proof—as she lamented a year later in the final published statement on TAC's history by the founding partners—that “the psychological climate within the practice of architecture has gone from the exuberance that followed World War II to conservatism and business orientation.”²⁰⁵ In protesting the shift from a collaborative to a corporate business model, Harkness protested that “The Board of Directors seems not to know the

²⁰⁴ “Follow-up to Yesterday's Meeting,” office memorandum from The Board of Directors to Stockholders, August 1, 1986. I am grateful to Richard Brooker for providing the documents surrounding the August 1 memorandum, and to Marc Rubin, a consultant on TAC's office management for Arthur D. Little in these years, for providing background on the nature of the disputes between the Policy Board and the Board of Directors.

²⁰⁵ Sarah Harkness, “The Architects Collaborative,” in Joseph A. Wilkes and Robert T. Packard, ed., *Encyclopedia of Architecture, Design, Engineering & Construction*, Vol. 5 (New York: John Wiley & Sons, 1987): 46.

difference between leadership and bossmanship, between good organization and military discipline, between cooperation and control.”²⁰⁶ She further warned that “a dictatorship is not the answer,” reminding the directors that “TAC needs saving, but you can’t save a thing by destroying it.”²⁰⁷ Reflecting on the firm’s long history, Norman Fletcher asked: “Is the development of a corporate office dictated to by a small group of Directors with a minimum of input from the distinguished professionals who have been selected to be Principals in this firm the end result of what we started to build as ‘The Architects Collaborative’ in 1945?”²⁰⁸ Principal Richard Booker was more definitive in answering this question, concluding that the proposed changes meant “that the word “Collaborative”, so valid for over 40 years, is no longer pertinent and, for the sake of honesty, should be removed from our Company’s name.”²⁰⁹ Finally, John Harkness summarized the position of the founding partners at greater length, writing that in seeking to establish “a single source of power” as the only solution to TAC’s problems,

It seems to me that this is throwing away everything that TAC has stood for over the years. It is certainly giving up Gropé’s idea of getting away from the “Boss” system. It is giving up on what has made TAC different from other offices, namely a system of collaboration and working together in confidence, rather than being dictated to and in fear of punishment. It is even giving up the system of checks and balances that is part of the democratic process in favor of absolute dictatorship. It is, in fact, giving up what made TAC what it is today.²¹⁰

While the directors were ultimately unable to gain the power needed to effect the proposed corporate takeover within the firm, largely due to the continued obstinance of the original partners among the members of the Policy Board, the crisis exposed the degree to which the founding members clearly

²⁰⁶ Sarah Harkness, “August 1, 1986, Memo from the Directors,” office memorandum to Board of Directors, August 8, 1986.

²⁰⁷ Ibid.

²⁰⁸ Norman C. Fletcher, “August 1, 1986, Memo from the Board of Directors,” office memorandum to The Stockholders, August 8, 1986.

²⁰⁹ Richard Brooker, “August 1, 1986, Memo from the Directors,” office memorandum to Board of Directors, August 7, 1986.

²¹⁰ John C. Harkness, office memorandum to The Stockholders, August 11, 1986.

saw the collaborative ethos as heavily threatened, if not definitively abandoned, within TAC's practice by the mid-1980s.

Such attempts to rescue or reinvigorate the firm's founding model were increasingly at odds with the reality of TAC's situation by this time. In the firm's annual report the year prior to the controversy between the Policy Board and the Board of Directors, the president of the firm, John F. Hayes, already openly acknowledged to office members that "I cannot promise you a TAC as it was, for that would not be a TAC which was appropriate for the future."²¹¹ Nor, however, could he promise "the security of working for an institutional TAC which could solve all our problems." Caught between these two poles—cooperation and control, collaboration and delegation, collectivity and corporation—the office could instead only offer the vague opportunity "to be part of a growing firm which we can make whatever we want it to be, if we have the commitment to do it."²¹²

The end finally came for The Architects Collaborative on April 7, 1995, when the two remaining founders among the firm's full-time staff, Norman Fletcher and John Harkness, announced the closure of the office to the assembled staff.²¹³ (*Fig. 2.61*) By this time the firm whose staff had run to nearly four hundred at its peak had shrunk to 55 employees, victims of years of TACs concerted efforts to reduce its overhead and expenses in the hopes of prolonging its survival.²¹⁴ The last straw in the slow but steady demise of the office was the firm's defaulting on a loan from Harvard, to whom TAC had sold its purpose-built headquarters as part of its efforts to stay afloat. Financially speaking, however, the writing had been on the wall for well over a decade, and there was little to stop the impending bankruptcy of the practice. (*Fig. 2.62*) It remained for local academic institutions to save what they could of the archival legacy of TAC's fifty years of work, at the same

²¹¹ John F. Hayes, "President's Report," TAC Annual Report (1985): 4. MIT Museum Archives.

²¹² Ibid.

²¹³ Bradford McKee, "TAC's Demise," *Architecture* (December 1995): 117–119.

²¹⁴ The number of employees is given in McKee, *ibid.* The effort to reduce TAC's personnel after January 1983, to 220 by September of that year and (minus a brief uptick in 1985–86) steadily thereafter, is described in "Staff Reduction Program," TAC office memorandum from John Hayes to Directors, September 22, 1983. MIT Museum Archives.

time rescuing some measure of the last twenty-five years of Walter Gropius's practice in the U.S.²¹⁵ Looking back on the history of the firm at the time of its collapse, Robert Campbell, the architecture critic for the *Boston Globe*, wondered how TAC's collaborative ethos had failed to guarantee its continued success, noting that "if ever a firm deserved to survive its founders and prosper into future generations, it was this one, based as it was on the principle of collective accomplishment and personal anonymity."²¹⁶ He ventured that by the mid-1990s, "perhaps that very anonymity came to seem bland, in an age of big-name architects and signature buildings."²¹⁷ As TAC's legacy came to center exclusively on the figure of Walter Gropius in the decades after both he and the office had passed from the scene, the statement proved to be both a prescient forewarning of the imminent rewriting of the firm's history and a prediction of the ongoing revival of individual authorship in architectural practice.

²¹⁵ Nancy Levinson, "Funds Raised By Preservationists Save Gropius Archives After TAC's Demise," *Architectural Record* (September 1995): 19.

²¹⁶ Robert Campbell, "Architects Collaborative Closes Doors After 50 Years," *The Boston Globe*, May 5, 1995: 65.

²¹⁷ *Ibid.*

Chapter 3

Collective Practice and the Limits of Historiography

The refusal of Gropius to remain a 'master' and his disappearance into the reality of American professional life were paid for with a harsh price that necessarily affects any discussion of his career.

—Manfredo Tafuri and Francesco Dal Co, 1976¹

Master and Disciple

The vectors of architectural influence are typically assumed to travel in one direction only: from master to disciple, elder to younger, originary author to legatee, “genius” to emulator. Take for example the master diagram that opens Roxanne Williamson’s *American Architects and the Mechanics of Fame*, mapping the “career connections of major American architects.”² (Fig. 3.1) The timeline purports to trace a pattern of correlation between architectural employers and “mentors” during their formative periods of development and the later successes of their employees and “protégés” in the field, ranked according to an “index of fame.”³ One of numerous attempts to visualize the trajectory of modernism’s rise and fall at the cusp of the postmodern turn, the resulting tangle of lines illustrates both the extension and the limits of such arrows of influence, as the pathways along which much of the received history of twentieth-century architecture has been directed.⁴

Williamson’s diagram is clearly inspired by the canonical flowchart of the development of modern artistic movements propagated by Alfred H. Barr, Jr. and the Museum of Modern Art, a

¹ Manfredo Tafuri and Francesco Dal Co, *Modern Architecture* (New York: Rizzoli, 1976): 307.

² Roxanne Williamson, *American Architects and the Mechanics of Fame*: (Cambridge, MA: MIT Press, 1991): 3.

³ Williamson defines fame tautologically, as “the sort of reputation that arises out of truly innovative designs, the kind of work deemed important enough to be included in the history textbooks.” *Ibid.*, 13.

⁴ Examples of such visualizations include Charles Jencks’s series of “evolutionary trees” after 1970 (discussed later in this essay); Klaus Herdeg, *The Decorated Diagram: The Decorated Diagram: Harvard Architecture and the Failure of the Bauhaus Legacy* (Cambridge, MA: MIT Press, 1983); Alexander Caragonne, *The Texas Rangers: Notes from the Architectural Underground* (Cambridge, MA: MIT Press, 1995).

timeline endlessly repeated in art-historical surveys.⁵ (*Fig. 3.2*) The map of American architects directly adopts the structure of Barr's diagram, with names and movements ordered chronologically from top to bottom and connected via a thicket of arrows that flow from employer to employee, from influencer to influenced. In Williamson's more convoluted version, the attempt to diagram influence not among a smaller constellation of movements but between a far larger set of individual names creates an increasingly knotted web of connections as it multiplies and flows forward in time, seemingly overburdened by this relentless proliferation of authors.

Like Barr's master diagram, which splits historically overlapping groups into strict binaries as a necessary function of the arrows that bind predecessor X to successor Y (like the separation between the entry "Bauhaus," identified with two locations and dates—Weimar 1919 and Dessau 1925—from the dateless and placeless entry "Modern Architecture"), Williamson's chart also relies on an insistent splitting of individuals from groups, partners from collaborators. Dissociated within the temporal space of the diagram, these uncoupled terms are situated no longer according to their primary periods of activity (as with Barr's movements) but more anachronically according to the birth dates of their protagonists, now attached to biography according to the metric of fame rather than located organically in time.⁶

It would be easy enough to criticize the complication or the imprecision of Williamson's chart. Instead, we might seek to untangle the threads of historiography implied by its vectors, to look for evidence of other groupings that these arrows of influence carry away with them as they flow in time.

⁵ This image first appeared as the cover of Alfred H. Barr, Jr.'s *Cubism and Abstract Art* (New York: Museum of Modern Art, 1936). See also Barr's sketches of the chronology of modern art as a "torpedo moving through time," of 1933 and 1941 (bottom). The Museum of Modern Art Archives, New York: Alfred H. Barr, Jr. Papers, 9a.15. Reproduced in Sybil Gordon Kantor, *Alfred H. Barr, Jr. and the Intellectual Origins of the Museum of Modern Art* (Cambridge, MA: MIT Press, 2002): 367.

⁶ The phrase "mechanics of fame" is adopted from George Kubler, who nevertheless would seem to offer a rebuke to such attempts to identify and valorize predecessors over successors rather than situate them within the dynamics of historical time: "The mechanics of fame are such that their predecessors' talent is magnified, and their own is diminished, when talent itself is only a relatively common predisposition for visual order, without a wide range of differentiation. Times and opportunities differ more than the degree of talent." Kubler, *The Shape of Time: Remarks on the History of Things* (New Haven and London: Yale University Press, 1962): 7–8.

Most conspicuously absent from such narratives, in particular, are the collective and corporate practices that came to constitute no less than the dominant form of architectural production in the United States after World War II. Falling largely outside the framework of individual actors that populate such conventional histories, we might seek to identify these corporate bodies within the blank spots that appear between names and lines of connection, abstracted behind the threads of authorship and influence.

In what follows I propose to trace the path of one such collective practice and its historiography after World War II: the one enclosed in Williamson's diagram by the curving lines at bottom right—first solid (as from employer to employee), then dotted (designating “partnership or close association”)—that bind the seemingly ordinary name of “Gropius” with the smaller and more cryptic entity designated by the acronym “TAC,” separated by a distance of some thirty years. The two bodies tethered together across this temporal distance are The Architects Collaborative (TAC), the team-based firm established in Cambridge, Massachusetts in 1945 and the largest dedicated architecture practice in the United States by the 1970s, and the figure of Walter Gropius, the German émigré who constituted one of its eight founding partners and worked within the firm for the last quarter-century of his career.

The formation of TAC reflected the unique conjunction of recent school graduates forming a partnership with an accomplished elder figure—already renowned first as the founder of the Bauhaus and later as chairman of the Harvard Graduate School of Design—in which all of the firm's partners insisted on their equality and lack of hierarchy in both practice and external appearance, regardless of their individual pedigrees. Diagrams of influence like Williamson's negate this image of equality, graphically separating the elder Gropius in order to assign him temporal and authorial primacy over

his collaborators, often described in histories simply as “his” students.⁷ (*Fig. 3.3*) As such the arrow constructs an implied relationship of influence in time from the disciplined parent (*Pius*, as Gropius was known to his closest friends: pious, conscientious) to his presumed disciplinary subordinates (his filia, his affiliations).⁸ The resulting conjunction isolates a single, “signature” member of this collectivity from the nameless remainder of the group, subsumed and anonymized under the abstraction of the acronym: TAC.⁹ In between, other names appear in eddies of tangential or parallel lines: [Marcel] Breuer, [Hugh] Stubbins, [Edward Larrabee] Barnes. Only one arrow extends outward from the acronymic entity named TAC, and this not to any of its unnamed partners but rather more curiously to the figure of an architect—[Peter] Eisenman—who would later frame his own disciplinary position as an explicit rejection of the firm as a lineage of influence.¹⁰

Far from an atypical construction, such attempts to trace the dynamics of legacy point us to the conventional means by which much of the history of modernism in the twentieth century has been narrated. Such accounts have been canonized in flowcharts, maps, and timelines that seek to codify and make legible a historiographical framework of influence, proceeding via the avenues of

⁷ Among the founding partners, only three attended the Harvard Graduate School of Design under Gropius’s chairmanship: John C. Harkness (graduated 1941), Jean Bodman Fletcher (1944), and Louis A. McMillen (1947?). Of these, only Harkness studied in Gropius’s one-year master’s class, while Gropius had been Bodman Fletcher’s thesis advisor. Four others studied at Yale: Norman C. Fletcher (1940), Benjamin Thompson (1941), Robert S. McMillan (1943), and McMillen (1940) prior to attending Harvard. The eighth partner, Sarah Pillsbury Harkness, graduated from the Cambridge School of Architecture and Landscape Architecture in Cambridge, MA (1940?).

⁸ While Gropius’s name appears circa 1886, the year of his birth, the placement of TAC is less precise, landing sometime around 1915, a date presumably derived from the birth of one of the firm’s other seven partners. Jean Bodman Fletcher and Sarah Pillsbury Harkness were born in 1915; John C. Harkness in 1916; Robert S. McMillan and Louis A. McMillen in 1917; Norman C. Fletcher and Benjamin Thompson in 1918.

⁹ This acronym is one of only two that appear amidst the swirl of authorial names. The other is DMJM, for Daniel, Mann, Johnson & Mendenhall (also established in 1945). This acronym serves in the diagram primarily as a predecessor for Cesar Pelli and Frank O. Gehry, two architects who later established signature practices after working for the firm. Oddly, the acronym is not connected to the name of Anthony Lumsden, the head of the design division at DMJM and a collaborator of Pelli’s there, who also later established his own practice (he appears instead as a legatee of Eero Saarinen). Like TAC, its individual partners are unnamed outside of the acronym.

¹⁰ In retracing the steps that led to his PhD dissertation at the University of Cambridge, Peter Eisenman conspicuously located his decision to return to the academy in having become “disillusioned with practice after working with Walter Gropius’s Architects Collaborative [sic] in Cambridge, Massachusetts” in the summer of 1959. Eisenman, postscript to *The Formal Basis of Modern Architecture* [Ph.D. Dissertation, Cambridge, 1963], published in 2008 (Zurich: Lars Müller): 379.

temporality, geography, or intentionality. By the time of accounts like Williamson's, the discursive binary of Gropius and TAC had come to play a characteristic role within this framework, as a conjunction that seemingly confirmed the master narrative of an early twentieth century European avant garde (personified in the figure of Gropius) and its dissolution in contact with the realities of mainstream architectural practice in the United States after World War II (subsumed within the abstraction and disappearance of entities like TAC).

Navigating against the currents of influence we encounter in such conventional narratives, we might seek to develop strategies for redrawing these lines, to rejoin what has been separated or to reorient their flows. This might suggest, for example, an attempt to reverse the directionality of the arrows, evading the chronology of influence in order to better reflect the property of inclusion by which the larger entity (TAC) encompasses each of its members (Gropius). A provocative argument for just this sort of chronological reversal has been made by the art historian Michael Baxandall, who cautions us that "to think in terms of influence blunts thought by impoverishing the means of differentiation."¹¹ Commenting on the problematic nature of influence as a means of relating artists (but also architects) occupying different temporalities and intentions, he describes the trope of influence as "a curse of art criticism primarily because of its wrong-headed grammatical prejudice about who is the agent and who the patient: it seems to reverse the active/passive relation which the historical actor experiences and the inferential beholder will wish to take into account."¹² Instead, Baxandall advocates for a reversal of this causal sequence, granting agency to chronological successors (who look actively back toward the past) over their predecessors (whose actions neither determine nor predict the future):

If one says that X influenced Y it does seem that one is saying that X did something to Y rather than that Y did something to X... If we think of Y rather than X as the agent, the vocabulary is much richer and more attractively diversified: draw on, resort to, avail oneself of, appropriate

¹¹ Michael Baxandall, "Excursus against influence," in *Patterns of Intention: On the Historical Explanation of Pictures* (New Haven and London: Yale University Press, 1985): 59.

¹² *Ibid.*

from, have recourse to, adapt, misunderstand, refer to, pick up, take on, engage with, react to, quote, differentiate oneself from, assimilate oneself to, assimilate, align oneself with, copy, address, paraphrase, absorb, make a variation on, revive, continue, remodel, ape, emulate, travesty, parody, extract from, distort, attend to, resist, simplify, reconstitute, elaborate on, develop, face up to, master, subvert, perpetuate, reduce, promote, respond to, transform, tackle...¹³

Taking up Baxandall's expanded lexicon would allow us to narrate the history of TAC in the opposite direction: rather than assigning ordinary status to the father (Gropius) over his legates, we might seek to personify the young architects who joined together and sought out Gropius, to identify them as actors equally worthy of authorship.

Enacting such a procedure here has the immediate benefit of granting primacy to the collective over the individual, a fairer reflection of the intentions embodied in the deliberately anonymous naming of The Architects Collaborative.¹⁴ This narrative would additionally deflect the weight typically given to Gropius's numerous statements advocating the virtues of teamwork among holistically-trained designers, in which he urged the next generation of architects "to learn to collaborate without losing their identity" in order to overcome "the ideology of the past century [that] has taught us to see in the individual genius the only embodiment of true and pure art."¹⁵

Drawing instead on the various theorizations of collaboration and anonymity among TAC's

¹³ Ibid. A related argument for the creative potential of influence-in-reverse is developed by Harold Bloom in *The Anxiety of Influence: A Theory of Poetry* (New York and Oxford: Oxford University Press, 1973), to which the title of this essay obviously alludes. On the reversibility of influence in time and its historiographic consequences, see also T. S. Eliot, "Tradition and the Individual Talent" [1919], in *Selected Essays* (New York: Harcourt, Brace & World, Inc., 1932): 3-11 and Jorge Luis Borges, "Kafka and His Precursors," in *Labyrinths: Selected Stories & Other Writings* (New York: New Directions Publishing, 1962): 199-201.

¹⁴ The Architects Collaborative was the first major architectural practice in the United States whose title did not include the individual names of partners. Here I differentiate private firms like TAC (typically limited liability partnerships or corporations) from working groups, professional societies, or other team-based entities whose structures were not primarily market-driven. Among TAC's predecessors in deemphasizing the signature were artistic societies (the Société Anonyme, established 1920), working groups of architects, landscape architects, and planners (the Telesis group, established 1939), and federal architectural agencies such as the Architect's Department of the Tennessee Valley Authority (established 1933). In the U.K., precedents included industrial and interior design concerns like Isokon Ltd. (with which both Walter Gropius and Marcel Breuer practiced prior to their emigration to the U.S.) and architectural collectives like Tecton (established 1932), self-defined as a group rather than a firm and whose individual members continued to be identified under their own names.

¹⁵ Walter Gropius, "The Architect Within Our Industrial Society," in *Scope of Total Architecture* (New York: Harper & Brothers Publishers, 1955): 85, 86.

members might allow us to avoid reducing the firm to a mere translation of Gropius's ideas through a group of "disciples" who would realize this group ideal in practice—a deceptively simplistic model of theory and its application, pronouncement and its realization. This would have the effect of deconstructing the persistent myth surrounding the firm's origins, namely that Gropius established the office as "his" firm.

Indeed, this inverted chain of directionality bears a stronger historical relationship to the actual circumstances of TAC's formation, through a sequence of events that ran largely in the opposite direction from the one implied by lineages like Williamson's. The partners who came together to form TAC were linked not primarily by an allegiance to Gropius but through a network of overlapping personal and professional connections among the seven younger architects that brought them together during World War II. Sarah Harkness later described the union of the partners in these years idealistically as "the outcome of several coincidences amongst people who were not even acquainted with one another, but who each had a dream in mind of a group practice."¹⁶ Gropius joined in the fall of 1945 as essentially the last piece in this puzzle of associations, chosen by the younger collaborators as much for his stature as a respected senior practitioner as for his sympathetic attitude toward collective work.

Work and Teamwork

A conspicuous aspect of The Architects Collaborative throughout its existence was its partners' repeated definition of their practice not according to a language of influence, legacy, or inheritance, but rather through one of collaboration, teamwork, and anonymity. Its founders were united in the firm's early years by their belief in the model of shared input among holistically trained designers, a

¹⁶ Sarah Harkness, text on TAC's working methods quoted in "Genetrix: Personal Contributions to American Architecture," *Architectural Review* (May 1957): 370.

method capable of producing what Gropius described as “Total Architecture.”¹⁷ In contrast to the specialization and division of tasks associated with other large-scale practices in these years (particularly Skidmore, Owings & Merrill), TAC’s partners regarded themselves as generalists able to criticize each other as equals, Gropius included.¹⁸ Yet the collaborative method at TAC was not simply design by committee. Its partners were careful to emphasize that their ideal model relied on individual as well as collective agency, formalized through the in-house rule that each project would be led by a single partner with ultimate responsibility for decision-making following this group criticism.

To understand the intended balance between individual and collective at stake within this structure of practice, we might turn to the statements made by the founding members of TAC upon the conclusion of the firm’s first twenty years of existence, an anniversary commemorated by the publication of its first major monograph, *The Architects Collaborative 1945–1965*, in 1966. (Fig. 3.4) As discussed in Chapter 2, the appearance of the monograph as a summation of TAC’s practice was accompanied in the same year by the consolidation of its offices, by then with a staff of over 150 employees, in a purpose-built headquarters in Harvard Square. (Fig. 3.5) The partners’ introductions to the monograph reiterated their continued faith in the collaborative model after twenty years of work, an ethos that resonated in titles like “TAC’s Teamwork” (by Walter Gropius), “Collaboration” (by Sarah P. Harkness), “Search for a Common Language” (by John C. Harkness), and “The Idea of Anonymity” (by Louis A. McMillen). The nature of their separate contributions spoke further to the delicate balance between signature and anonymity, with each partner’s name attached to an individually authored text, though all sought to outline the principles of the

¹⁷ Walter Gropius, *Scope of Total Architecture* (New York: Harper & Brothers Publishers, 1955).

¹⁸ Note that this concept of holism entailed a delimited disciplinary definition of the architect, expanded to include problems of planning but not landscape architecture or engineering; these would be kept outside the framework of the architects’ office, as they were at TAC, though the architect would collaborate heavily with these fields as part of what Gropius described as “a closely co-operating team together with the engineer, the scientist and the builder.” Gropius, *Scope of Total Architecture*: 80. In this sense TAC remained in the conventional category of firms consisting solely of architects (even if holistically trained), unlike more integrated (and consequently much larger) firms like Skidmore, Owings & Merrill that incorporated engineers and other disciplines within the office.

cooperative ideal they shared.¹⁹ (Fig. 3.6) John C. Harkness affirmed the hope that “the interrelation of the principals in the firm should not weaken or reduce their individuality, but should make the work handled by each, singly or in groups, part of a common language.”²⁰ Sarah P. Harkness suggested further that the individual and the team were mutually dependent constructs, arguing that “The essence of collaboration is the strength of the individual. When collaboration is operating as it should, a good idea will be carried by conviction, recognized by others without loss of their own prestige.”²¹ Benjamin Thompson likened the group’s creative method to jazz music as a form of “design in action,” one in which “Unity of the group centers around a common theme; yet each jazz combination develops different styles and a team personality based on the special characteristics of the musicians.”²² For his part, Gropius affirmed his conviction that “What makes our group function is a common method of approach, a kindred way of responding to the challenges of our day, a similar ‘Weltanschauung,’ if you will.”²³ The office’s success, he argued, was the result of “the give-and-take of a group of equals who are willing to work concertedly but without losing their identities.”²⁴

For TAC’s partners, anonymity constituted both the key characteristic and the ideal expression of this balanced model of collaboration in practice. Louis A. McMillen cited the firm’s name as evidence of this shared goal among its members, declaring that “When we called our firm ‘The Architects Collaborative’ instead of Fletcher, Fletcher, Gropius, Harkness, Harkness, McMillan, McMillen and Thompson, we were conforming to our ideal of anonymity.”²⁵ Only once TAC and its collaborative approach had become “firmly established as a group venture in the world of

¹⁹ Walter Gropius and Sarah P. Harkness, ed., *The Architects Collaborative 1945-1965* (Teufen: Verlag Arthur Niggli, 1966).

²⁰ John C. Harkness, “Search for a Common Language,” in *The Architects Collaborative 1945-1965*: 27.

²¹ Sarah P. Harkness, “Collaboration,” in *The Architects Collaborative 1945-1965*: 26.

²² Benjamin Thompson, “Miscellaneous Comments,” in *The Architects Collaborative 1945-1965*: 23.

²³ Walter Gropius, “TAC’s Teamwork,” in *The Architects Collaborative 1945-1965*: 24.

²⁴ Ibid.

²⁵ Louis A. McMillen, “The Idea of Anonymity,” in *The Architects Collaborative 1945-1965*: 27.

architecture... did the identity and diversity of the individual reemerge and become recognizable as an essential factor of the cooperative effort.”²⁶ Even then, McMillen claimed this shift was less a reclaiming of signature than a revelation of the internal mechanisms of the collective method itself, “more in the nature of opening a door of the drafting room to the public or to the client to let them view and understand the operations within.”²⁷

In the same year, Benjamin Thompson—though soon to leave the anonymity of TAC to establish a practice under his own name—wrote separately of a parallel search for forms of communal architectural expression that would reflect this shared character of production.²⁸ (*Fig. 3.7*) “We don’t dare to be anonymous because we think of anonymity as conformity, and thus follows a loss of identity,” he claimed.²⁹ Instead, Thompson ventured that “a higher level” of expression was possible as the mark “of a true community architecture,” though one that “could only come after egotism and upstage-itis have been overcome, leaving the confident self-assurance to design for other humans than ourselves.”³⁰ In this way, anonymity was seen as a shared attribute of both the office and its products, binding the democratic idealism of the partners’ collaborative method to the architectural character of their work.

Unresolved in such statements was the question of whether the model the partners envisioned could accurately be described as anonymity at all, or rather as a form of collective authorship, a reactivation of the signature at the level of the group. Unlike contemporaneous invocations of essentialized or timeless modes of cultural production supposedly without authors (or more precisely, without the author-function), from Gideon’s “anonymous history” to Bernard Rudofsky’s “architecture without architects,” in the case of TAC the assignation of authorship was clearly

²⁶ Ibid.

²⁷ Ibid.

²⁸ Thompson left TAC in December 1965 along with the members of what had by then become his de facto studio within the firm; Benjamin Thompson Associates (BTA) was incorporated in January 1966.

²⁹ Benjamin Thompson, “Remarks on Anonymous Architecture,” *Connection* (June 1965): 16–18.

³⁰ Ibid.

maintained, but now in the form of a team-image rather than that of individual names.³¹ At the same time, the partners' statements reiterated a parallel stress on the maintenance of personal identity within the group as a hedge against conformity, seen as anti-democratic if anonymous in the strict sense. In contrast, TAC's "group venture" appealed instead to less rigid concepts of shared cultural consciousness—Gropius's 'Weltanschauung'—in the search for an ostensibly more democratic model of group practice, premised on a precarious balance between the individual and the collaborative ethos.³² (*Fig. 3.8*)

The external imaging of TAC in its early years revealed the inherent tensions between the "ideal of anonymity" in practice and the individuality of its members, Gropius in particular. As the firm began to receive its first major commissions, group portraits of the partners belied McMillen's claims of a smooth transition from the public establishment of the "group venture" to the later freedom for "the identity and diversity of the individual" to emerge. Despite the intended equality among the partners, the evident presence of Gropius among the collective induced a subtle hierarchy to these portraits, structuring them according to his figure. We can gain a sense of the shifting interplay among these concepts in practice by comparing official and unofficial images of the TAC partners taken in its early years. An informal photograph (likely taken between 1949 and 1950) provides a literal image of an "opening a door of the drafting room." It captures the weekly partners'

³¹ Sigfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (New York: Oxford University Press, 1948); Bernard Rudofsky, *Architecture Without Architects* (New York: Museum of Modern Art, 1964). On the "author-function," see Michel Foucault, "What is an Author?" [1969] in *Language, Counter-Memory, Practice* (Ithaca: Cornell University Press, 1977): 113-138.

³² These concerns were presaged by the group at Harvard associated with the student journal TASK (published irregularly from 1941 to 1948), which included Louis McMillen among the editors of the second issue (1942). In *An Opinion on Architecture* (Boston: Century Press, 1941), a manifesto published by an early grouping of these students as a critique of the perceived formalist tendencies of the school, its authors point to "The Problem of Personality," identified paradigmatically with the figure of Frank Lloyd Wright, "an obscure genius... overshadowed by his own personality." While its authors call for collective work "among architects, engineers, contractors, and the working class" as "THE CREDO AND THE FAITH OF ARCHITECTURE TODAY," they evince a telling ambivalence toward the consequences of genuine anonymity, qualifying that while "we advocated the principle of collective work as the only one which can solve the architectural problem... we do not mean to deny the value of personality. Collaboration and collective work does not mean anonymity, but a meeting of personalities in mutual understanding." Elsewhere, the authors maintain that "We must recognize the existence of the genius as a philosophical necessity... there has been in the past, and there will be in the future the man of self-sufficiency in analytical and comprehensive work: the man of synthesis and creation. We call for collaboration but a Leonardo could work alone."

meeting, the central construct through which office projects were presented and criticized by all principals equally. (*Fig. 3.9*) The office members sit loosely encircled around a drafting table piled with drawings, surrounded by textile swatches and the everyday detritus of the office; Gropius appears here as simply one among the partners, embedded comfortably in this workaday context. Compare this with contemporaneous portraits of the TAC principals by Walter R. Fleischer in which Gropius is always situated at the center of the composition, flanked symmetrically by his younger collaborators, hierarchically ordered by gender rather than according to their own relationships—dissociating for example the two married couples among the partners, the Harknesses and the Fletchers.³³ (*Fig. 3.10–3.11*) Such official portraits conflated the image of the firm with that of its work, taken not in the space of the office (as would happen after the completion of the firm's purpose-built headquarters in 1967) but on the site of its first major non-residential commission, in the commons building that anchors the Harvard Graduate Center complex. While the informal picture captures the process of the Graduate Center in production, the official photograph constructs an image of the office as a team, coincident with the image of its first major commission as the emblem of both these collective efforts and a collective public architecture.

³³ Of these two photographs, the portrait of the founding members on the staircase of Harkness Commons at the Harvard Graduate Center (*Fig. 3.9*) has become the most frequently reproduced image of the TAC office. Despite its extensive circulation, the photograph has not previously been attributed as far as I am aware. The contention that it was taken by Fleischer, a photographer for the Harvard News Office, is supported by the existence of two other portraits of the TAC partners taken at Harkness Commons on what appears to be the same day, with the partner dressed identically as they are in the stair photograph. The first is a photographic print provided to me by principal Perry Neubauer (compiled during his research for *Standing Still* (2005), a documentary on the then-surviving TAC founders), depicting the partners in the grill room of the Commons building, standing in front of Hans Arp's wood relief *Constellations* (1950). (*Fig. 3.10*). While this image is also unattributed, a second photograph, clearly taken as part of the same series, is held in the photographic archives of the Harvard News Office and is attributed to Fleischer. The latter two photographs appear to have been taken in succession, the Neubauer print constituting an earlier, less composed take, with the edges of the dining hall furniture visible in the lower right corner and the unexpected appearance of Nell Harkness, Sarah and John's daughter, to the left of the seated partners. In the photograph attributed to Fleischer, these details have been corrected. The Neubauer print may have come from the personal collection of John Harkness: Neubauer recalls that the photograph was in Harkness's possession at the time of his research, an idea confirmed by the presence, in the same folder of prints provided to me, of personal portraits of Harkness's early years, some of which appear in his self-published autobiography, *John Cheesman Harkness* (n.d.). This provenance further suggests that the Fleischer photograph in the Harvard News Office archive is the more official one, and the Neubauer photograph possibly an earlier, rejected version that Harkness kept for his own collection. The existence of both photographs, taken in the same building on the same day as the more commonly circulated staircase image, seems to confirm that all three are by Fleischer.

Signature and Anonymity

Despite the repeated emphasis of TAC's founders on the principles of collaboration and anonymity as the key to understanding their practice, the disciplinary reception of the firm after 1945 fell increasingly back onto formulaic narratives about the prewar European masters and their legacy after World War II. Given Gropius's singular identification with the pedagogy of teamwork among holistically-trained designers, first at the Bauhaus and later at Harvard, and his numerous pronouncements on collective work in these years, critics tended to interpret TAC's working model as the application of these statements to the professional context of postwar practice in the U.S. Even sympathetic profiles of TAC in its early years tended to focus on the figure of Gropius above all, emphasizing his declarations (even if emphasizing his equality within the collective) above those of his partners and implicitly consigning the firm's younger members to the status of his legatees.³⁴ (Fig. 3.12) Gropius became the anointed voice of TAC in the architectural press, if not synonymous with its output, despite the abundant evidence that he was not the primary author of the firm's work.

What such narratives revealed was the growing inability of architectural critics to reconcile the work of team-based practices with the historiographic demands of authorship that were seemingly required in order to assess the legacy of modernism and its heroic prewar figures after World War II. In parallel with the formation of TAC among other collective firms, Henry-Russell Hitchcock speculated on the critical consequences of this shift in practice, predicting the rise of an emerging "architecture of bureaucracy" as a mode of production distinct from that of genius.³⁵ Taking as a

³⁴ See for example the special issue of *l'Architecture d' Aujourd'hui* in February 1950, edited by Paul Rudolph, devoted to *Gropius et son école*—"Gropius and his school." The issue includes a portfolio of Gropius's work in the U.S. that mixes projects by Gropius and Marcel Breuer between 1937 and 1941, his work with Konrad Wachsmann under the General Panel Corporation, and projects by TAC after 1945.

³⁵ Henry-Russell Hitchcock, "The Architecture of Bureaucracy and the Architecture of Genius," *Architectural Review* (January 1947): 3-6. Recent discussions of Hitchcock's text in the context of postwar architectural theory include Joan Ockman, introduction to the reprint of Hitchcock's text in *Hunch 12: Bureaucracy* (2009): 142-146; Michael Kubo, "The Concept of the Architectural Corporation," in Eva Franch i Gilabert, Amanda Lawrence, Ana Miljački, Ashley Schafer, ed., *OfficeUS: Agenda* (Basel: Lars Müller, 2014): 37-45.

given the victory of the prewar avant garde and the resulting stylistic consensus around modernism after World War II, Hitchcock famously predicted the evolution of a new professional entity to meet the increasing scale and scope of design tasks in a postwar society: the bureaucratic office, whose technical competency would engender the standardized, consistent quality of “all building that is the product of large-scale architectural organizations, *from which personal expression is absent.*”³⁶ In contrast, Hitchcock was careful to reserve “an entirely different world” of design practice for those monumental or special cultural commissions requiring artistic or creative synthesis, “the world of the architecture of genius.” Here the genius was defined as the anti-bureaucrat, “the sort of architect who functions *as a creative individual rather than as an anonymous member of a team*”; his method would be “a particular psychological approach and way of working at architecture which may or may not produce masterpieces.”³⁷

Significantly, Hitchcock already warned that this dichotomy between the competent prose of the bureaucrat and the imaginative poetry of the genius, at once productive and discursive, would require the architectural critic to develop different tools to evaluate the built results of such practices. Henceforth it would no longer be possible to judge bureaucratic production on the same artistic criteria that had applied to the prewar avant garde, whether the interpretive framework of signature and authorial intention or the expressive attributes of imagination, creativity, or synthesis. While in Hitchcock’s formulation these discursive categories were intended to be held separate and applied to wholly different types of practice, little was said about how such binaries—the genius versus the bureaucrat, the “creative individual” versus the “anonymous member of a team”—might function as differentiating labels among the members of a single group. No attempt was made to assess the work

³⁶ Ibid. Emphasis mine.

³⁷ Ibid. Emphasis mine.

of a collective entity in which competing historical claims were made as to the status of authorship between signature and anonymity, whether these came from inside or outside the collective.³⁸

Among the team-based practices established after 1945, TAC constituted a uniquely problematic case in terms of such categorizations. None of the other corporate entities founded in the context of postwar professional practice in the U.S. included the presence of a prewar figure like Gropius within a generationally distinct group of practitioners, and none insisted on their equality in the terms posed by TAC. Firms like Skidmore, Owings & Merrill (SOM) or Caudill, Rowlett, Scott (CRS) consisted solely of this younger generation of architects, unburdened by the presence of their avant garde predecessors in the flesh. Other practices organized around prewar modernist figures, like the offices of Ludwig Mies van der Rohe and Marcel Breuer, corporatized over time yet deliberately remained identified with their titular leaders.³⁹ TAC was a composite construction: a postwar collective of recent graduates, but also the medium for the singular image of Gropius during the last twenty-five years of his work. The peculiar conjunction of Gropius with a group of younger collaborators constituted a particular problem of anachronism, in which the figure of Gropius was seen to correspond increasingly to the prewar period, despite his evident presence within a partnership of young school graduates that would become one of the most prominent offices of the postwar decades.

James Marston Fitch pointed to this conundrum in his 1960 monograph on Gropius, identifying him with those outsized cultural figures who “lived on into a world in which their works had become commonplace,” producing a temporal dilemma in which “the prophet had overrun his prophecy.”⁴⁰

³⁸ In his text Hitchcock specifically counterposed the practice of Albert Kahn & Associates, representing the bureaucratic firm *par excellence*, with that of Frank Lloyd Wright, the epitome of the genius. On the other side of this dichotomy from attempts to parse questions of authorship within an acknowledged collective, a parallel case could be made that Wright’s atelier model (cultivated at his Taliesin studios in Arizona and Wisconsin) functioned far more as a team-based practice than has been acknowledged.

³⁹ For a related exploration of the concepts of signature and anonymity in relation to the office of Ludwig Mies van der Rohe, see Timothy Hyde, “Signature: Or, the Life and Death of Anonymous,” in Ana Miljački, ed., *Under the Influence* (Cambridge, MA: MIT SA+P Press, 2014): 152-163.

⁴⁰ James Marston Fitch, *Walter Gropius* (New York: George Braziller, Inc., 1960): 7.

Fitch was clear about this historiographic problems posed by this dichotomy, in which such figures “have simultaneously the scale of legendary heroes and the normal dimensions of colleagues and contemporaries,” a phenomenon that “has complicated enormously the necessary task of weighing their contributions to contemporary life.”⁴¹ In the case of Gropius, he existed as both “the creator of the world famous *Bauhaus* and the most influential architectural teacher alive, [and] at the same time, a successful practicing architect with the greatest volume of work in his entire career.”⁴² Caught in the ellipsis between Gropius’s early years and “his” later career was TAC, the entity through which this great volume of work took place.

In confronting this temporal and scalar problematic, critics tended to fall back onto two primary modes of assessment, often in tandem: the extraction of an author (Gropius) from within the group, or the sublimation of authorship and intentionality through the abstraction of the collective (TAC).⁴³ An early image of the tensions between these divergent narratives is provided by Giedion’s monograph on Walter Gropius (1954), enigmatically split into the binary subtitle “Work and Teamwork”—a curious juxtaposition of an authored oeuvre (work) with an anonymous mode of practice (teamwork). (*Fig. 3.13*) The cover, designed by Herbert Bayer, depicts an overlay of Gropius’s face onto an abstracted, unidentified image of TAC’s work (in this case the unbuilt McCormick office building in Chicago).⁴⁴ Gropius’s face is subsumed within the graphic cage of the building’s facade pattern of windows and balconies, rendered in blue against a white background, not in front of this background but seemingly behind or even enmeshed within it, an ambiguous

⁴¹ Ibid.

⁴² Ibid.

⁴³ Another sense of this tenuous splitting within a single practice was reflected in the self-image promoted by Skidmore, Owings and Merrill (SOM) as a firm characterized by consistent products rather than by signature architects—one supposedly so anonymous that a partner claimed “it could even be called the ABC Company”—despite the parallel acknowledgment of Gordon Bunshaft as the firm’s lead designer, and his description as office “dictator.” “Skidmore, Owings & Merrill, Architects, U.S.A.,” *Museum of Modern Art Bulletin*, Volume XVIII, No. 1 (Fall 1950): 7. The description of Bunshaft as dictator is from “Designers For a Busy World: Mood For Working,” *Newsweek* (May 4, 1959): 100.

⁴⁴ Sigfried Giedion, *Walter Gropius: Work and Teamwork* (London: Architectural Press Ltd., 1954).

layering of personhood and anonymity. Such images locked the image of an author, the assignation of “his” work, and the abstraction of “teamwork” in an uneasy relationship of irreconcilable terms.

Such dynamics induced an increasing tension between public representations of Gropius alone and that of TAC, the firm in which he practiced. The result was the narrative isolation of Gropius above and apart from the collective, in order the better to identify and account for his presumed signature within the firm’s work—but also as a means to track the arrows of modernism’s influence from prewar avant garde to postwar mainstream, from Europe to the U.S., and from the generation of the “founding fathers” to their inheritors. Gropius provided a ready synecdoche not merely for the corporate body of TAC but increasingly for the prewar European “masters” in the United States and, by extension, the fate of the avant garde after World War II.⁴⁵

Surveys such as Manfredo Tafuri and Francesco Dal Co’s *Modern Architecture* (1976) provide a symptomatic example of the force such tropes had acquired at the close of what had by then come to be categorized, at the endpoint of this historical arc, as “late” modernism.⁴⁶ Tafuri and Dal Co begin their account of architectural production after the 1950s with the need to take stock of the canonical figures of the prewar avant garde, those “traditional ‘masters’ of the modern movement” whose work after World War II had now “arrived at a final accounting.”⁴⁷ Seeking to isolate the solitary figure of Gropius as a convenient stand-in for the postwar dissolution of modernism at large, the authors

⁴⁵ The titles and chapter titles of the major surveys on twentieth-century modernism in this period attest to the historiographic concern of postwar critics to account for the legacy of the prewar avant garde, variously referred to as masters, pioneers, founding fathers, etc. To note only some of the most prominent examples, see Nikolaus Pevsner, *Pioneers of the Modern Movement from William Morris to Walter Gropius* (London, Faber & Faber 1936); Peter Blake, *The Master Builders: Le Corbusier, Mies van der Rohe, Frank Lloyd Wright* (New York: Norton, 1976); Charles Jencks, “Gropius, Wright and the Collapse into Formalism,” in *Modern Movements in Architecture* (Garden City, N.Y., Anchor Press, 1973); Manfredo Tafuri and Francesco Dal Co, “The Activity of the Masters After World War II,” in *Modern Architecture* (Milan: Electa, 1976); William H. Jordy, “The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer” (1968), reprinted in Jordy, *Symbolic Essence and Other Writings on Modern Architecture and American Culture*, ed. Mardges Bacon (New Haven: Yale University Press, 2005): 187–224.

⁴⁶ As the capstone to such narratives, the periodizing label of “late” modernism served to confirm the secondary, negative framing of the generation of postwar successors like TAC as a confirmation of the master narrative of a revolutionary European avant garde and its “collapse into formalism” in contact with the realities of mainstream practice. See especially Charles Jencks, *Late-Modern Architecture* (New York: Rizzoli, 1980).

⁴⁷ Manfredo Tafuri and Francesco Dal Co, *Modern Architecture* (Milan: Electa, 1976): 306.

describe TAC as his creation alone, no more than the product of Gropius's desire "to realize in America his constant ideal of teamwork designing as evidence of the continuity between the specialist group and society as a whole."⁴⁸ So, the authors tell us, "In 1946 he created The Architects Collaborative [sic], gathering around himself some of his former students and, as was his wont, reserving to himself the role of methodologist within the group."⁴⁹ Symptomatically, the story of agency is told backwards through the intentionality of Gropius and his presumptive influence on "his" students, betraying an indifference to the real circumstances of TAC's formation and implicating the figure of Gropius as the singular culprit of this narrative. Such evident distortions revealed more about the historiographic assumptions underlying contemporary accounts than they did about their subject, unwittingly pointing to the compulsion of critics like Tafuri and Dal Co to assign an authorial voice to Gropius alone.

As TAC's commissions increased in scale and scope through its first two decades of practice, these authorial claims were inevitably projected onto the interpretation of the firm's work, as critics searched for discernible traces of intentionality beyond the firm's rhetoric of anonymity. An especially prominent position in such accounts was reserved for the Pan American Airways building in New York City (1958–63), designed by TAC in consortium with Pietro Belluschi and Emery Roth & Sons. Critics attacked the project from the outset for both its extreme scale and its perceived banality—"a colossal collection of minimums," as Ada Louise Huxtable derided it—and the resulting public and architectural outcry over its construction did permanent damage to the reputations of its major protagonists, Gropius in particular.⁵⁰ A common feature of these judgments was the interpretive conflation of the building and its characteristics with the personae of its presumed authors. Critics searched in Pan Am's laconic qualities for evidence of Gropius's imprimatur, as a statement on architecture and the city that might take its place among the trio of towers associated with the

⁴⁸ Ibid.: 307.

⁴⁹ Ibid.

⁵⁰ Ada Louise Huxtable, "Architecture Stumbles On: Recent Buildings Are Nothing Much to Brag About." *The New York Times*, April 14, 1963, 119.

modernist masters that took shape in New York City in the 1950s.⁵¹ At the same time, the unsettled attribution of authorship over the tower's final design also gave ammunition to the critical perception of Pan Am as a building whose aesthetics embodied the anonymous, corporate character of its architects.

Sibyl Moholy-Nagy invoked both of these readings in her review of Pan Am and the subsequent project by Marcel Breuer & Associates for a adjacent tower over Grand Central Terminal, criticizing the work of "The Gropius T.A.C. team, *so anonymous* that it has left to its leader the glaring spotlight of world publicity."⁵² Portraying the firm's other partners as incapable of superseding the authority of the master, for Moholy-Nagy the tower's mute aesthetics provided damning evidence that the firm had "dutifully turned its pencils in the same groove of a stuck conceptual record."⁵³ Other prominent critics echoed similar criticisms of the building's unrelieved scale and monotony in relation to its prominent urban setting. Tafuri and Dal Co cemented their critique of Gropius by portraying Pan Am as the ultimate sign of the master's dissolution into mere professionalism, condemning him for the willingness "*to legitimize with his signature* ostentatious urban paradoxes like the Pan American Building of 1958."⁵⁴ For William H. Jordy, the inability to distinguish any individual signature within TAC's work (whether Gropius's or otherwise) was similarly problematic: while buildings like Pan Am or the U.S. Embassy in Athens were "not without quality... they are essentially *without personality*."⁵⁵ Repeating the trope by which TAC's work stood in for the greater collapse of postwar modernism in the U.S., for Jordy such buildings revealed the fundamental "blandness of both visual qualities and theoretical commitment in most modern architecture" by the late 1940s, a quality

⁵¹ The others were the Seagram Building, designed by the office of Ludwig Mies van der Rohe (1958), and the United Nations complex (1952), designed by the office of Wallace K. Harrison following notorious disputes over its authorship with Le Corbusier, a member of the international Board of Design Consultants convened for the project.

⁵² Sibyl Moholy-Nagy, "Hitler's Revenge," *Art in America* (September-October 1968): 42-43. Emphasis mine.

⁵³ Ibid.

⁵⁴ Tafuri and Francesco Dal Co, *Modern Architecture*: 307. Emphasis mine.

⁵⁵ William H. Jordy, "The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer" (1968), reprinted in Jordy, *Symbolic Essence and Other Writings on Modern Architecture and American Culture*, ed. Mardges Bacon (New Haven: Yale University Press, 2005): 215. Emphasis mine.

“more evident in Gropius’s work” and its “mildness” than in that of his fellow émigrés.⁵⁶ As for the implications of this supposed lack of qualities for Gropius’s reputation, Jordy saw these dynamics as similarly damaging to his status as modernist master, as, “his fame secure, his work at the close of his career blurs his former position to that of the merely distinguished professional.”⁵⁷ Such reviews made the language of authorship explicit in conveying the means by which the synthetic mastery of the avant garde had been subsumed into the bureaucratizing formalisms of postwar practice, corrupting both producers and their products.⁵⁸ (*Fig. 3.14*)

In his speculation on the modes of embodiment in architectural history, Timothy Hyde has identified the ways in which, in accounts such as these, “the signature stands in for what is actually a complex anonymity, with anonymity understood here not only in its colloquial sense of an unknown authorship but in a theoretical sense as an uncoupling of the consequences of authorship from individuated acts of authoring.”⁵⁹ The reception of Pan Am frequently conflated these two senses of anonymity, one as an attribute of the building and its qualities (“Indistinguishable from others of its kind; unexceptional; bland, generic, nondescript”), the other of its architects (“Nameless, having no name; of unknown name”).⁶⁰ The Gropius who is made to appear in such narratives —“commonplace,” “willing to legitimize with his signature,” “merely professional”—forms a natural corollary to the abstraction of TAC, associated with “mildness,” “blandness,” “essentially without personality.” The signature has become anonymous, while anonymity becomes a characteristic of the signature.

⁵⁶ Ibid.: 214. Rem Koolhaas later echoed such assessments of Pan Am as a building “without qualities” in his comparison of the tower with the Seagram Building and the U.N. Secretariat, describing it as “so effortlessly integrated that it is, ironically, both unavoidable as and hard to locate. The biggest building in the world leaves no footprint. It is a disappearing act, *an apotheosis of background*.” Koolhaas, “Enabling Architecture,” in Robert E. Somol, ed., *Autonomy and Ideology: Positioning an Avant-Garde in America* (New York: Monacelli Press, 1997): 298. Emphasis original.

⁵⁷ Ibid.: 216.

⁵⁸ See for example the summary judgment contained in the title of Meredith Clausen’s history of Pan Am, *The Pan Am Building and the Shattering of the Modernist Dream* (Cambridge, MA: MIT Press, 2005).

⁵⁹ Timothy Hyde, “Notes on Architectural Persons,” *The Aggregate website* (Transparent Peer Reviewed), accessed October 15, 2013, <http://we-aggregate.org/piece/notes-on-architectural-persons>.

⁶⁰ “anonymous, adj.” *OED Online*. Oxford University Press, June 2016. Web. 25 July 2016.

The dissolution of character, of personality—of personhood, in Hyde’s terms—that critics saw in buildings like Pan Am was seen to apply equally to Gropius and his team. As Anna Vallye notes, “Moral-aesthetic formulations of blandness or superficiality in Gropius’s American production were frequently expressed as a weakness in his authorial position, his status as both the designer of a specific set of architectural works and the originator of a specific legacy in theory and design.”⁶¹ We are left with the figure of Gropius as what Vallye has described as a *cipher*, “a code name for the historical eclipse of the modern movement and a blind spot for critical assessment.”⁶² The problematics of legacy are exacerbated in this case by the presence of an author who deliberately sought to efface his own signature by advocating for the principles of anonymity, teamwork, and collaboration in both pedagogy and practice over the length of his career.⁶³ For critics like Tafuri and Dal Co, this abdication of authorship could only be a negative, providing a damning coda to his practice and pointing to the essential conundrum of Gropius’s status within the group: “the refusal of Gropius to remain a ‘master’ and his disappearance into the reality of American professional life were paid for with a harsh price that necessarily affects any discussion of his career.”⁶⁴

Vallye points to the ways in which these stakes ultimately served to condemn Gropius’s authorial stature: “Like the dilemma of the split in quality between Gropius’s early and late work, the scholarly investigation of the collaboration problem has reinforced the logic of authorial erasure by splintering

⁶¹ Anna Vallye, “A Figure Covered with Labels: The Reception of Gropius’s American Work,” in *Design and the Politics of Knowledge in America, 1937–1967: Walter Gropius, Gyorgy Kepes* (Ph.D. Dissertation, Columbia University, 2011): 37.

⁶² *Ibid.*: 32.

⁶³ Similar narratives conditioned the reputations of other Bauhäusler in the United States. Louis Kaplan offers a provocative reading of László Moholy-Nagy, another figure narratively tied to the fate of the modernist “masters” in the United States, as an artist specifically motivated by the effacement of the signature in favor of practices of anonymity. In discussing the historiographic consequences of the “signature effect” in relation to the construction of authorship, Kaplan points to “the double band of the signature effect (between signified subject and signifying matter)” as a mechanism that “prescribes a series of tensions... that shuttle between identity and and anonymity, between originality and plagiarism, between necessity and chance, between authorship and its resignation.” In this manner, Kaplan writes, the signature becomes a problem for history—not just the history of the signature, but the signature of history.” See especially Kaplan, *László Moholy-Nagy: Biographical Writings* (Durham & London: Duke University Press, 1995).

⁶⁴ Tafuri and Dal Co, *Modern Architecture*: 307.

the consistent articulation of work over time.”⁶⁵ The consequence of this logic of erasure has been a progressive rupture of the historiography of TAC into two opposed categories. On the one side stands the figure of Gropius as genius, a role he disavowed and a reputation his work could never adequately fulfill, built as it was on a handful of early buildings—themselves designed with collaborators—and thereafter produced within a collective body.⁶⁶ On the other side of this binary there remains the history of his anonymous collaborators, first reduced to the status of mere students or acolytes of the master and ultimately condemned to irrelevance and abstraction within the historical record.

The Anxiety of Anonymity

The historiographic construction of anonymity as a term of critique proved to be as damaging for TAC’s reputation as the problematics of the signature were for Gropius. Far from the figure of Gropius’s cipher, the abstracted ground of TAC—an entity “so anonymous that it has left to its leader the glaring spotlight of world publicity”—came to function as a stand-in of a different sort. As a vehicle for the reduction and erasure of authorship, the consequences of teamwork in practice were far different from the “ideal of anonymity” desired by the members of TAC in its early years. Such statements instead engendered a form of historiographic anonymity (and its consequent distortions of historical accounts ever in search of authors, signatures, and other figures in whom to invest intentionality), rather than an anonymity of process or a positive sublimation of the individual to the larger project of collectivity.

Gropius’s death in 1969 reinforced the collapse of TAC’s reception after the 1970s, once detached from the biographical narrative of the author. Within a decade, the discursive split between

⁶⁵ Vallye, *Design and the Politics of Knowledge in America, 1937–1967: Walter Gropius, Gyorgy Kepes*: 40.

⁶⁶ Architects with whom Gropius worked in partnership or collaboration prior to TAC included Adolf Meyer (1910–25), Maxwell Fry (1934–36), Marcel Breuer (1937–41), and Konrad Wachsmann (1942–52).

Gropius as author and TAC as anonymous corporate entity was largely taken for granted in the architectural literature, reinforcing the false impression that Gropius was the primary actor in the founding of the office. The last monographic treatment of the firm was produced in 1966, and the few accounts of TAC after Gropius's death in 1969 remained largely focused around the question of his authorship alone within the firm's oeuvre, a phenomenon reinforced by the construction of the archive of both Gropius's and TAC's work.⁶⁷ (*Fig. 3.15*)

Once separated from this authorial presence, the abstracted image of TAC came to serve as a ready example for the critical dismissal of bureaucratic practice as a submission to the demands of capital. For Tafuri and Dal Co, the firm offered a paradigmatic example of these processes and their consequences: "by its nature, and subject as it was to the laws of the American market, TAC very soon became a many-branched, impersonal concern equipped to deal with the major professional ventures and open to any sort of request from public or private clients."⁶⁸ Surveying the legacy of the avant garde masters and their postwar followers, Tafuri and Dal Co took up the dichotomy laid out by Hitchcock in 1947 in order to lament a condition in which "a true and proper 'architecture of bureaucracy' settled in everywhere," while the field "came to be dominated not by individual architects intent on communicating their opinions of the world but by large studios in which the tasks were parceled out with virtual assembly-line standards."⁶⁹ In this categorization, TAC became simply one among a group of equally technocratic U.S. firms, "equipped to work at an intense speed

⁶⁷ The construction of this archive has served to reinforce the binary division between Gropius and TAC. In contrast to the meticulous organization of Gropius's personal papers and archival documents related to the Bauhaus, materials on TAC have remained fragmented since the firm's sudden bankruptcy in 1995, when portions of the then-extant office drawings, slides, and documents were hastily scattered among a consortium of institutions in Boston including the MIT Museum, the Harvard Graduate School of Design, and the Boston Architectural Center. The consequences of this split can be seen in the four volumes of *The Walter Gropius Archive* (New York and London: Garland Publishing, Inc., 1990–91), published as an illustrated catalogue of the holdings of the Gropius archive at the Busch-Reisinger Museum (now Harvard University Art Museum). While the Busch-Reisinger holds the original documents published in the first three volumes, covering Gropius's work up to 1945, the majority of the material that appears in the fourth volume (1945–1969) remains unaccounted for. Further, while the fourth volume is subtitled *The Works of The Architects Collaborative*, this includes only a selection from the "TAC Projects in which Gropius Had a Major Part," given in an index at the front of the book. How this involvement was determined is never established.

⁶⁸ Tafuri and Dal Co, *Modern Architecture*: 339.

⁶⁹ *Ibid.*

of production and to fulfill demands for high technological levels in buildings as anonymous as the architectural concerns that build them.”⁷⁰

The historiographic ellipsis surrounding TAC's work by the 1970s is most fully registered by the only monographic treatment of the firm produced in the decade after Gropius's death, a special issue of the Japanese magazine *PROCESS: Architecture*, published in 1980.⁷¹ (*Fig. 3.16*) The first section of the issue, “Works of Walter Gropius in America,” conforms to the conventional reliance on the image of Gropius as author of the firm's work, beginning with a full-page portrait of the genius himself, granting his imprimatur to the projects that follow—those works that Gropius “proved willing to legitimize with his signature.” Some of the projects in this section are illustrated with photos of Gropius hovering and gesturing over architectural models of TAC's buildings, visually constructing the image of his architectural authorship within the pages of the monograph. (*Fig. 3.17*) In contrast, the second section of projects after 1969, generically titled “Recent Works of TAC,” reveals the weight of editorial ambivalence in how to present the work produced after Gropius's death. Instead of an image of the iconic father figure, the section begins with an altogether different aesthetic: an abstracted graphic of the world, marking the international locations of the projects produced in the 1970s. (*Fig. 3.18*) The image is now truly anonymous, simply data points on a map.

An extreme example of the systemic elision of TAC appears in Charles Jencks's *Modern Movements in Architecture* (1973), the revisionist history best known for its categorization of six traditions of modernism, as codified in his “evolutionary tree” of twentieth-century architectural production.⁷² (*Fig. 3.19*) Indebted in its own way to Barr's diagram of influence, Jencks's genealogy

⁷⁰ Ibid.

⁷¹ “TAC: The Heritage of Walter Gropius,” *PROCESS: Architecture* No. 19 (October 1980).

⁷² Charles Jencks, *Modern Movements in Architecture* (Garden City, NY: Anchor Press, 1973). The first version of Jencks's diagram appeared as “The Evolutionary Tree,” *Architectural Design* (October 1970): 527. Subsequent revisions include versions published in his *Architecture 2000: Predictions and Methods* (New York, NY: Praeger, 1971); the revised enlarged edition of *The Language of Post-Modern Architecture* (New York: Rizzoli, 1978 ff.) in which the tree begins Part Three, added from the original 1977 edition, and *The New Moderns: From Late to Neo-Modernism* (New York: Rizzoli, 1990). Jencks revisited the accuracy of the diagram in retrospect in *Architecture 2000 and Beyond: Success in the Art of Prediction* (Chichester, West Sussex: Wiley-Academy, 2000).

produces a temporal splitting much like that of Williamson's chart, with the signature of Gropius allied to the "Heroic" prewar avant garde of the Bauhaus, while the anonymity of TAC is grouped with other large-scale "Bureaucratic" practices of the post-World War II boom. In a chapter of the book devoted largely to Gropius (along with Frank Lloyd Wright) and his perceived "collapse into formalism" after World War II, the various TAC projects used to illustrate this progression are ascribed to Gropius's authorship alone, while the existence of The Architects Collaborative remains unmentioned. Where the acronym "TAC" appears, this occurs not within the body text but solely in the captions to three images (out of 236 total) situated in the marginalia; even in these instances the firm is relegated to secondary status alongside the master, as an addendum to projects whose authorship is designated as "Walter Gropius with TAC." (*Fig. 3.20*) The repression of the firm's presence extends into the index of the book, where a half-page of references are given under Gropius's name—again including the same three projects accompanied by the parenthetical "(with TAC)"—while omitting any listing for the firm itself. In the place where one would expect The Architects Collaborative to be listed independently, one finds only an absence.

The degree to which TAC's presence is suppressed through the apparatus of these histories points to the deep ambivalence felt by Jencks and other contemporary critics towards assessing the large-scale bureaucratic firms that had come to dominate architectural production in the United States by this time. While Jencks's account would seem to be an almost caricatured example of the sort of elision of TAC that had become common by the 1970s, all too easy to criticize for its inaccuracy, it demonstrates the force of received histories of modernism that had set in on the cusp of the late- and post-modern turns in architectural production. Only such an extreme repression of the reality, indeed the very existence, of TAC in favor of the signature of Gropius could allow Jencks to proclaim, for example, in the introduction to his second edition of the book, that

In 1984, fateful year, when our architectural future is being stamped by ever larger bureaucratic firms, when our biggest offices such as those led by Walter Gropius [sic] perpetrate a form of historicist kitsch in the Middle East... it is time to reassess our recent past and Western culture

together: criticize the unthinking modernism and historicism which are so commercially successful.⁷³

Such is Gropius's authorial weight that his ghostly signature is compelled to appear here again, "leading" the office fifteen years after his death. In parallel, the abstraction of TAC is left as a floating signifier, denied an image, unmoored from its own history and condemned to the marginalia of the historical record as a footnote to the authorship of Gropius.⁷⁴

The evident anxieties over how to envision the work of TAC and other "anonymous" bureaucratic practices mark a particular form of historical closure by the close of the 1970s. Despite Henry-Russell Hitchcock's call in 1947 for new modes of criticism adequate to the bureaucratic office, it was still impossible to critically or historically situate the reality of such practices without a continued reliance on the conventional tropes of authorship, influence, and intentionality. In the case of The Architects Collaborative, the result was a falling back onto the simplifications of binary categories that repeated, in varying terms, the same fundamental dichotomy between signature and anonymity: the architecture of genius and the architecture of bureaucracy, work and teamwork, the heroic prewar and the bureaucratic postwar, the heritage of Walter Gropius and the abstracted map of TAC's "late" work.

A look at the historiographic absences that have taken place within the gaps of these dichotomies, like that of TAC, leads to troubling questions about the adequacy of the traditional methodological apparatus of the architectural historian in situating or properly evaluating this kind

⁷³ Charles Jencks, *Modern Movements in Architecture*, second edition (Harmondsworth: Penguin Books Ltd, 1983): 8.

⁷⁴ Jencks's quote provides a particularly egregious example of the problems of chronology that accompany the signature. Timothy Hyde connects these problems to the historiographic construct of personhood and the related problem of *presentness*, a form of temporality that "forges a narrative order, commonly chronological, that accompanies the appearance of persons." He notes that "such an emphasis on presentness... may well be a liability, because among its consequences is the obscuring of forms of multiplicity or collectivity in which the presumption of a unified time would be misleading." Hyde, "Notes on Architectural Persons," n.p. It is a similar problematic of chronology that induces the swirls of arrows in diagrams like Roxanne Williamson's, in which an entity composed of multiple persons, identified to their respective dates of birth, cannot be in two places at once. The arrow serves in such cases as a patchwork device to connect what has been separate in a tenuous gesture of reconstitution, yet one that necessarily introduces the directionality of influence.

of production. Attending to the historiographic case of TAC and its dissolution under the signature of Gropius requires us to confront both the shadings of anonymity with which the firm described its intentions and the abstraction into which its later history increasingly disappeared. This confrontation would necessarily undo the ways in which, as John Harwood notes, “Such abstractions pull away from the archive of architectural history, the primary facticities architectural history seeks to wrestle into form.”⁷⁵

A lasting residue of these historiographical abstractions is that The Architects Collaborative has remained largely absent from histories of postwar architectural practice, while the authorial presence of Walter Gropius has become the vehicle for dismissing the firm’s work in the breach. This double construction has posed a crisis for historians, most of whom have chosen to shoehorn the history of the firm back into the narrative mode of other supposedly singular authorial practices before and after World War II. In this way, the firm’s “ideal of anonymity” gradually gave way to the anxiety of anonymity. The arc of TAC’s reception might thus serve as a cautionary tale for both the historian and the architect to be attentive to the nuances of such appeals to collectivity. For as we have seen, in the idealization of anonymity, historiographically speaking, one very often gets what one wishes for.

⁷⁵ John Harwood, “Corporate Abstraction,” in *Perspecta 46: Error* (2013): 228.

Chapter 4

Real Estate, Ethics, and the Problem of Pan Am 1954–1963

Our present desperate way of solving problems of collaboration on large projects is simply to throw a few prominent architects together in the hope that five people will automatically produce more beauty than one. The result, as often as not, becomes an unrelated assemblage of individual architectural ideas, not an integrated whole of new and enriched value.

—Walter Gropius¹

The speculative development that began as Grand Central City and was completed as the Pan American Airways Building was mired in controversy from its origins. Resistance to the project first concerned the fate of the declining Grand Central Terminal and its possible demolition, as a sacrifice to the corporate building boom that reshaped the area around Park Avenue during the 1950s. Once the preservation of the terminal was no longer in doubt, opposition focused on the tower proposed for the site by the developer Erwin S. Wolfson and his chosen architects, Emery Roth & Sons, then on the revised scheme that followed the engagement of The Architects Collaborative (TAC) and Pietro Belluschi as consultants. At the time of its opening in 1963, the Pan Am building stood as the largest commercial office tower in the world, adding nearly three million square feet to an intensely pressured urban site. Many critics remained convinced that no office building should be built on the site at all, irrespective of its design, lest it increase congestion to the point of overload atop one of the densest transportation hubs in the world. So too, critics warned that a tower on this site would block the famed vista down Park Avenue and overshadow the pinnacle of the New York Central Building that had traditionally crowned it. (*Fig. 4.1*)

¹ Walter Gropius, address upon receiving the degree of Doctor of Humane Letters, Columbia University, March 1961. The lecture text was published as “True Architectural Goals Yet to be Realized,” *Architectural Record*, June 1961: 147–152, and in revised form as “The Role of the Architect in Modern Society” in Gropius, *Apollo in the Democracy: The Cultural Obligation of the Architect* (1968).

In joining these already-heated debates about the Grand Central site, TAC and Belluschi were charged with elevating the bare financial premises that had given it shape by providing symbolic value, a form of cultural currency that might rescue the public viability of the project and distinguish it in its competitive context. The resulting changes to the design following TAC and Belluschi's arrival, aimed at modifying the spatial and aesthetic impact of the project, included rotating the tower's position within the city grid, reducing its square footage, faceting and breaking up its profile, redesigning a complex series of public pathways through the lower levels of the building, and integrating the work of artists including Gyorgy Kepes, Josef Albers, and Richard Lippold into the building's public spaces. Yet for all these substantial reorientations, the final design fared little better in the eyes of its critics. For opponents of Pan Am, such changes ultimately did little to mitigate the negative urban impacts of the project, mere aesthetic window-dressing over the essentially uniform financial imperatives that had brought the project into being and largely dictated its result.

As the Grand Central City scheme developed into Pan Am, I argue, the project came to constitute a crucible for the corporatization of architecture in the postwar period, as a highly visible terrain on which the ethics of architectural authorship in relation to the corporate world were negotiated. Both the corporate organization of Emery Roth & Sons and the collaborative ethos of TAC came to play specific roles in this complex. In testing the boundaries of TAC's team-based ideal from the more corporate organization of the Roth partnership, the development of Grand Central City revealed the failures of TAC and Gropius in particular to sufficiently account for the economic forces that would constrain their role, or for the discursive slippages that would level the critical distinctions between these different modes of practice. The collaborative model of TAC—neither corporate nor individually authored, neither explicitly positioned to resist the demands of U.S. commercial building nor tailored to serve them—was particularly ill-suited to navigate these currents of patronage and public reception. As interpretations of Pan Am's form tended to elide the distinctions among the various actors that had produced it, TAC suffered the consequences of an

irresolvable task: to provide recognizable evidence of creative authorship within a project that was developed by a consortium of architects and governed by abstract financial demands, and to do so via a team-based approach to design that was ultimately resistant to the production of signature form.

The Corporate Client

“The myth created by some critics that builders owe an obligation to society should be laid low for all time. Nothing is further from the fact.” So protested Richard L. Stanley, editor of the trade magazine *Real Estate Forum*, in a special issue in September 1962 devoted to the Pan American Airways Building in New York City.² (*Fig. 4.2*) Unreservedly taking the side of the developer and the architects of Pan Am as the building neared completion, Stanley continued:

A builder is engaged in producing a product—in this case office space—and like any other business man must sell his product to his customers—in this case corporate business—at a price and of a quality to compete with other builders. If he doesn’t succeed, his building will stand empty. Builders are not philanthropists. They supply a need. They are in business to make profits like every other business. Not to build monuments.³

True to the magazine’s motto—“*Who we serve proves how we serve*”—Stanley sought to defend these corporate interests and their successful realization in Pan Am against those “ivory-tower ‘experts’” who were, in his opinion, guilty only of “piously attacking its architectural quality.” In time, he argued, the building would be judged more favorably. “Undoubtedly when the books are closed and the Pan Am building is weighed in the balance it will prove to have been one of the most daring and complicated, yet at the same time most uniquely desirable, building projects of this or any other time.”⁴ In such developer-centric arguments, good architecture was defined according to its capacity

² Richard L. Stanley, “Scotching a Myth,” *Real Estate Forum* V. 17, No. 9A (September 30, 1962): 3.

³ Ibid.

⁴ Ibid.

to fulfill the business demands of its corporate clients, more properly subservient to the interests of economics than to art.⁵

As the Grand Central City scheme took shape after 1954, these economic concerns lay at the center of broader public debates over the sweeping changes taking place in midtown New York City, as a proxy for the broader transformation of U.S. city centers according to the interests of large organizations. Authors like Jane Jacobs stressed the national implications of the wave of construction taking place in midtown Manhattan and centered along Park Avenue in particular. “It is misleading to think of this fantastic absorption of expensive space as a ‘New York’ boom,” she wrote, “for although the boom is geographically localized in Manhattan, this is really the ‘US’ building boom, or most of it.”⁶ Statistics bore out the claim. Jacobs noted that the 40 million square feet of office space that were completed or slated to be built circa 1957—some 64 buildings, with 20 more planned—constituted roughly one and a half times as much new building as in the rest of the U.S. combined. This new quantity of building, a 40% increase in office space in New York City, was in itself greater than the *total* quantity of available office space in any other city in the U.S.⁷ As maps published in *Architectural Forum* by Jacobs and others made clear, spatially the portion of this building boom in midtown Manhattan was concentrated most visibly around the fifteen blocks of Park Avenue

⁵ Sara Stevens argues against the easy opposition, often made by architects and historians, between architectural idealism of the presumably amoral economic self-interest of developers. Rather, she claims that the professionalizing field of developers in the twentieth century developed what she refers to as “economic moralism,” an ethics of real estate practice in combination with economic theory. Within this framework, she claims, developers argued that the economics of new development in city centers were inherently good—that “investing in downtowns was morally the right thing to do”—as a kind of parallel morality to that of architects. Stevens, *Developing Expertise: Architecture and Real Estate in Metropolitan America* (New Haven and London: Yale University Press, 2016): 8–9.

⁶ Jane Jacobs, “New York’s Office Boom,” *Architectural Forum* (March 1957): 105.

⁷ Ibid. Articles in *Architectural Forum* the preceding year tracked this increase in office space in New York City, with early versions of the map of Park Avenue and midtown New York that appeared in Jacobs’ article. See “Fabulous New York office boom keeps growing; rental market still firm” and “NY boom doubles uptown land prices; key parcels—\$250 psf. bid, \$300 asked,” *Architectural Forum* (January 1956): 12–14.

extending from the New York Central Building northward, as genteel prewar apartment buildings gave way to rows of glass and steel office towers.⁸ (*Fig. 4.3*)

Whether the urban and architectural consequences of this expansion were beneficial was another matter. Jacobs, for one, condemned the results of this economic shift: “Esthetically,” she cautioned, “the boom is pretty much a bust.” While she noted that this wave of construction had produced “a half dozen or so stars and another two or three creditable performances”—a status implicitly accorded to a handful of signature towers that included the Seagram, Lever House, and Union Carbide buildings along Park Avenue—she made clear that the bigger issue lay in the far greater quantity of generic buildings, produced for large organizations whose chief interest was the production of maximum rentable floor space for as-yet-unknown tenants. Jacobs lamented the fact that, notwithstanding these few outstanding products of the building boom,

the dominant effect is the ubiquitous, depressing mediocrity of the supporting cast. Block upon block or the new buildings are as like one another as as fundamentally boorish as block upon block of tenement building—just blander. We may have had uglier periods of city building, but never duller.⁹

Such sentiments were echoed in the popular press by Ada Louise Huxtable, who wrote in the *New York Times* that by 1960—with the exception of those few “prestige structures” like Jacob’s half-dozen stars—the majority of skyscrapers built along Park Avenue were “unpardonably ugly.”¹⁰ Huxtable derided these formulaic developer buildings for “making the city less and less a place of beauty,” as

⁸ This concentration of building in the blocks extending northward from Park Avenue was in large part due to the sale of these blocks by the New York Central Railroad after World War II, as the decline of the railways in favor of automobile and air transit and the rising profitability of office space in midtown Manhattan led the company’s director, Robert Young, to parcel and sell its real estate holdings. The history of the New York Central’s ownership and construction of these blocks over the railway tracks leading to Grand Central Station from the north, and the concomitant construction of Park Avenue itself as a multi-level conjunction of gardens, apartment and hotel buildings with the Grand Central complex at its terminus, is summarized in Meredith L. Clausen, *The Pan Am Building and the Shattering of the Modernist Dream* (Cambridge, MA: MIT Press, 2005). See also Douglas Haskell, “The Lost New York of the Pan American Airways Building,” *Architectural Forum* (November 1963): 106–111.

⁹ Jane Jacobs, “New York’s Office Boom”: 111.

¹⁰ Ada Louise Huxtable, “Towering Question: The Skyscraper,” *The New York Times Magazine*, June 12, 1960: 16.

“the current crop of skyscrapers rises, row on row, shapeless and characterless, monotonous monuments to mediocrity.”¹¹ Only three years prior, Huxtable had sought to explain the aesthetic and urban virtues of these new buildings in positive terms to a public that lacked the criteria to evaluate the laconic visual language of the modernist glass and steel office tower, claiming that their “unprecedented dramatic effects of reflected sun and shadow on flat, vitreous facades add a brilliant, if unpremeditated, beauty to the urban scene.”¹² By 1960, however, the negative sociological consequences of this relentless development for urban life in midtown Manhattan had become clearer. The skyscraper, which in its earlier rarity had been “at a distance so impressive and so beautiful in the subtle transformations worked by changing light and weather,” had, in its relentless proliferation through mostly generic examples, become “a socio-economic colossus that reaches into every aspect of city life.”¹³

A central question for understanding the causes of this urban transformation lay in how to assess the relative responsibilities of architects, clients, the city, and the public in mediating this seemingly unceasing wave of standardized, corporate construction. Critics like Jacobs and Huxtable were clear about the underlying impact of New York City’s zoning laws in dictating the form of the buildings sought by developers—Huxtable in particular advocated for the revisions to the Zoning Law that would follow the year after her article on the “Towering Question” of the urban skyscraper.¹⁴ Yet they placed ultimate responsibility at the feet of architects for their choices in

¹¹ Ibid.

¹² Ada Louise Huxtable, “The Park Avenue School of Architecture,” *The New York Times Magazine*, December 15, 1957: 56. This was the first article published under Huxtable’s byline in the *New York Times*. She had previously been credited in the Times as a correspondent, in an article-length letter contesting a Stuart Preston review of architecture in Connecticut and Venezuela. Huxtable, “Dissenting View: Correspondent Questions Venezuelan Architectural Achievements,” *The New York Times*, September 8, 1957: X10.

¹³ Ada Louise Huxtable, “Towering Question”: 16.

¹⁴ Ibid. The article was written just prior to the 1961 Zoning Law that sought to reward developers for avoiding the bulky, “wedding cake” massing in favor of more slender towers, allowing them to trade ground-level open space for higher allowable building heights. Huxtable advocated for these changes in the article, at which time the previous (1916) zoning law was under revision.

resisting, or complying with, these demands.¹⁵ Huxtable pointed repeatedly to the troubling alignment between the architects' purview and their clients' requests: while in seeking to discipline the corporate office building, "We must have a higher standard of performance among architects," at the same time, "Architects themselves cannot practice on a higher level until their clients are converted."¹⁶ Eschewing the option to blame the economic constraints that governed office building for their typically ungainly design—the zoning laws that permitted bulky, stepped-back towers and the developers who sought to maximize their profits within these given envelopes—she cautioned that this mode of evaluation "makes it possible to skirt around the basic issue: the free, creative choice which every architect must exercise within the specific limitations that vary with the job."¹⁷ Such defenses led ultimately to the problem of judgment: "By playing down design responsibility," Huxtable warned, these architects' lack of accountability would ultimately lead to a "lack of differentiation between good and bad architecture or good and bad architects."¹⁸ She insisted that, in the final accounting,

...the fact remains that a building is usually only as good as is designer, and the fate of the new building rests firmly with the artist-architect. He, in turn, is dependent upon an enlightened or open-minded client. Because we live in a society where practical men of affairs distrust art and consider scientific efficiency the ultimate good, it has been a simple, profitable and esthetically disastrous process to discount the artist-architect and to reduce the art of architecture to a commercial operation.¹⁹

¹⁵ In her first article on the construction reshaping Park Avenue, Huxtable noted that architects were already "worried about a vast panorama of bungled mediocrity if the curtain wall is treated with less than the proper professional respect." She noted that "The critic of architecture shares the professional's alarm, but is also increasingly aware of the delicate question of the role and responsibility of the architect in the determination of the new style." Huxtable, "The Park Avenue School of Architecture": 54.

¹⁶ Huxtable, "Towering Question": 70.

¹⁷ Huxtable, "The Park Avenue School of Architecture": 56.

¹⁸ Ibid.

¹⁹ Ibid. In response to Huxtable, the architect Peter Blake, then the associate editor of *Architectural Forum*, protested that "To say that good architects could produce good buildings despite the restrictions in force at present is to suggest that good writers could produce good books even if bureaucrats told them what to write." Peter Blake, "'Free' Architecture," *The New York Times*, January 5, 1958: 51.

This position served to counter the arguments made by advocates, like Stanley, who sought to abdicate architects—and ultimately their corporate clients—from responsibility for the proliferation of generic volumes that Huxtable derided as “economically ‘styled’ rather than architecturally designed.”²⁰

Corporation-Architect

The problem of choice in delivering such “styled” economic products posed equally critical questions concerning the nature of the design practices that were seen to be most heavily affiliated with these commissions. In the language of critics like Huxtable, this complicity implied a lack of individual judgment or discernment provided by the “artist-architect,” that singular figure capable of exercising the “free, creative choice” that might transcend mere economic motives. Such statements pointed to concerns not merely about the demands of an increasingly corporate clientele, but about the corporate organization of the design firms that often served them. If the enlightened individualism of the architect was required to mediate the more anonymous constraints of the typical office development—designed to serve the diffuse financial interests of group-organized lenders and real estate companies by providing flexible rental space for unknown tenants—the counter-figure to this individual persona, the corporate architect, was seen to bear a special role in catering to this expanding class of corporate clients.²¹ Such relationships took on a different tenor from the design of prestige buildings for brand- and design-conscious corporate clients, which fell more comfortably into traditional discussions of architecture’s capacity to express or ennoble the motives and character

²⁰ Huxtable, “The Park Avenue School of Architecture”: 56.

²¹ On the group structure of clients, lenders, and real estate firms, see Louise Cooper et al., “The Architect Today,” *Architectural Forum* (October 1955): 116–123; Frederick Gutheim et al., “The Corporate Client,” *Architectural Forum* (December 1955): 106–113; Frank Fogarty, “The Lender’s Influence,” *Architectural Forum* (July 1956): 140–143; Fogarty, “The Real Estate Operator,” *Architectural Forum* (August 1956): 118–122; “The Growth of Group Finance,” *Architectural Forum* (September 1958): 118–119.

of its patrons.²² Nor did such products fall as easily into discussions of “signature” developers—often figures who traded on outsized personas in their own right—who sought the marketing value of name-brand architects with whom they developed long-term relationships as a way of adding value to their projects.²³ Nor, conversely, could these projects be entirely subsumed within the separate problem of “design by committee” by developers or builders with in-house architectural teams, including “package-builders” that provided complete services from design to construction.²⁴ Instead, generic office buildings like those that lined Park Avenue seemed to instantiate a more ambiguous problem of architectural agency: how to evaluate the design of anonymous buildings, for anonymous tenants, by anonymous architects.

Contemporaries were explicit in expressing their fears over this expanding nexus of corporate architectural organizations and corporate builders. Joseph Hudnut, who had fought against Walter Gropius’s collaborative pedagogy while dean of the Harvard Graduate School of Design in favor of

²² For contemporary discussions of these issues of corporate patronage, see “The Corporate Client,” *Architectural Forum* (December 1955): 106–113 and “The Corporate Clients: What Are Their Attitudes?,” *Progressive Architecture* (June 1966): 158–160. The body of recent literature on architecture produced for signature corporate clients in this period includes Reinhold Martin, *The Organizational Complex: Architecture, Media, Corporate Space* (Cambridge, MA: MIT Press, 2003); Alexandra Lange, “Tower Typewriter and Trademark: Architects, Designers and the Corporate Utopia, 1956-1964,” Ph.D. Dissertation, New York University (2005); John Harwood, *The Interface: IBM and the Transformation of Corporate Design, 1945–1976* (Minneapolis: University of Minnesota Press, 2011); Louise Mazingo, *Pastoral Capitalism: A History of Suburban Corporate Landscapes* (Cambridge, MA: MIT Press, 2011); Wim de Wit, *Design for the Corporate World: Creativity on the Line, 1950-1975* (London: Lund Humphries: 2017).

²³ Sara Stevens analyzes two such case studies: the developer Herbert Greenwald and the firm of architect Ludwig Mies van der Rohe, and the developer William Zeckendorf and his employment of I. M. Pei and his collaborators as an in-house design firm, later split off to form I. M. Pei & Associates. Stevens, *Developing Expertise*: 139–234. In practice, the architects of these commissions were typically signature designers backed by team-based production process, as with Eero Saarinen and Associates, I. M. Pei & Partners, Eames Office, the Office of Ludwig Mies van der Rohe, or, in a more ambiguous case of signature within group practice, Gordon Bunshaft of Skidmore, Owings & Merrill.

²⁴ Stevens presents the case study of Equitable Life Insurance Company and the design of the Gateway Center in Pittsburgh via a “design by committee,” eventually involving the architects Eggers & Higgins once the major aspects of site planning and building layouts were determined. Stevens, *Developing Expertise*: 98–138. On the competition between architects and “package-builders” in this period, see Louise Cooper et al., “The Architect Today,” *Architectural Forum* (October 1955): 116–123 and “Those Worrisome Package Builders,” *Architectural Forum* (April 1958): 120–123.

“inner experiences, unprofaned by the collective conscience,” warned of the alignment of these group methods in professional practice with the economic interests of large organizations.²⁵ He argued that

... the corporations of our time, to whom architecture sometimes means little more than the dressing up of floor space with esthetic surface, also exercise a determinate influence on the design of buildings (quite reasonably, to be sure) through the architects best suited to their purpose. They are apt to prefer, as did the emperors and the bishops, architects who are like themselves.... Such preferences have given rise to a practitioner unique to our time: the corporation-architect, the architect whose esthetic is pre-harmonized to that of big business.²⁶

In Hudnut’s view, the architects who chose to work for corporate clients mirrored the abstract character, and often the group structure, of the firms they served. (*Fig. 4.4*) “The corporation-architect has often a very shadowy personality,” he wrote, and was “sometimes himself a corporation—or something very like one.” Speculating on the implications of this collusion for the character of architectural production, Hudnut warned, “I can imagine no method more subtly corrosive of individuality.”²⁷

For critics of the transformation of midtown Manhattan in the late 1950s, the first scheme for Grand Central City seemed to encapsulate precisely the corrosive products of this identity between corporate architect and corporate client. Its architects, Emery Roth & Sons, presented a perfect image of the type of office “whose esthetic is pre-harmonized to that of big business,” the architectural corporation that was perfectly organized to produce corporate buildings. As the

²⁵ Joseph Hudnut, “The Post-Modern House,” *Architectural Record* (May 1945): 75. The battle between Gropius and Hudnut over the Basic Design course at Harvard prior to Gropius’s retirement from teaching in 1952 and Hudnut’s departure the following year—and more broadly between Gropius’s universalizing, Bauhaus-derived formal pedagogy and a more humanistic model that could incorporate history, context, and individual expression—is described in Jill Pearlman, *Inventing American Modernism: Joseph Hudnut, Walter Gropius, and the Bauhaus Legacy at Harvard* (Charlottesville: University of Virginia Press, 2007).

²⁶ Joseph Hudnut, “Architecture and the Individual,” *Architectural Record* (October 1958): 169–170. In this article, Hudnut claimed, “I know at least one architect who has, among his two hundred employees, a dozen or more who, segregated in a “style department” not unlike that of General Motors, develop their designs in a collaborative manner.” In eliding the differences between corporate and collaborative modes of practice, it is unclear whether Hudnut is alluding to specialized production firms like Emery Roth & Sons or SOM, or to holistic practices like TAC.

²⁷ *Ibid.*, 170.

producers of numerous previous developments in midtown Manhattan for developer clients like the Uris Corporation and Wolfson's Diesel Construction Company, the Roth partnership was responsible for a substantial portion of the glass and steel office buildings that increasingly crowded the blocks around Grand Central.²⁸ The firm's outsized impact on the transformation of midtown Manhattan was evident in articles that chronicled the New York building boom, like Jacobs', in which a roster of barely distinguishable Emery Roth & Sons buildings marched along the page in uniform rows, much as they did along Park Avenue and its adjacent streets.²⁹ (*Fig. 4.5*) For his part, Wolfson played an equally outsized role in New York City's construction boom. By some estimates, Diesel Construction Company was responsible for nearly \$300 million in new office building in the city after 1946, more than that of any other individual investor.³⁰ Yet he lacked the outsized persona of developers like William Zeckendorf—Wolfson's predecessor in competing for the Grand Central City site—choosing instead to trade more quietly on a reputation among real estate professionals as a reputable and responsible builder of office buildings, many of them by the Roth partnership.³¹ These difference in persona were evident in the schemes each developer originally offered for the Grand Central site: while Zeckendorf proposed a structurally heroic landmark to replace Grand Central Terminal, a hyperboloid 80-story tower designed by I. M. Pei, Wolfson and Roth's design was for a relatively anonymous, 55-story glass and steel volume that would have been distinguished primarily by its prominent site, wedged between the preserved Terminal to the south and Warren & Wetmore's New York Central Building to the north.

²⁸ Of the forty-one buildings illustrated in Jacobs's article, fourteen were by Emery Roth & Sons.

²⁹ See in particular Jacobs, "New York's Building Boom" and Roth, "High-Rise Down to Earth." Both articles feature extremely similar maps of the construction boom in New York City—Jacobs' showing all projects in midtown Manhattan, Roth's showing solely buildings of Emery Roth & Sons projects in the area. The two maps are drawn with nearly identical boundaries and include many of the same projects.

³⁰ Ogden Tanner, "Grand Central's Wolfson," *Architectural Forum* (November 1958): 132–133.

³¹ *Ibid.* The article describes Wolfson as having "a strikingly high reputation among members of his profession.... Wolfson is hardly the needle-eyed, cigar-chomping type of real estate speculator. A trim, courteous, and friendly man whose taste runs to conservative grey suits, he would look as much at home in a college faculty meeting as he does mapping building strategy in his four-room office-apartment suite in Manhattan's West 58th St." *Ibid.*, 133.

Emery Roth & Sons was uniquely successful among the firms that partook heavily of this wave of postwar office development, a list that included Kahn & Jacobs, Harrison & Abramovitz, and Skidmore, Owings & Merrill, among others. The firm had gained a reputation as an office singularly able to translate the economics of development efficiently and effectively into tiered tower volumes that maximized flexible rental space and minimized cost for design and construction, based not least on its ability to quickly and accurately estimate construction costs to within two or three percent of the final total. The result of these methods was, as *Business Week* characterized it, “not daring or maverick design, but a routine brand that the Roths turn out almost on a production basis.”³² Such articles praised the success of this “Architect For Business In a City of Towers” as Grand Central City (now Pan Am), the firm’s most prominent office commission to date, neared completion. (Fig. 4.6)

True to the image of deep affinity between the interests of corporate client and corporate architect, published commentary by Emery Roth & Sons on its practice mirrored those of writers like Stanley who defended the economic imperatives of developers like Wolfson, one of the firm’s main repeat clients.³³ Richard Roth, the design principal of Emery Roth & Sons, described his company’s approach to commissions in terms that echoed Stanley’s defense of Pan Am, arguing that

ours is not a field of architecture in which we try to create masterpieces. The entire endeavor in our office is to create the best that can be produced within the restrictions that are placed upon us; and these restrictions are seldom those of our client, but rather of lending institutions; economics; and municipal authorities’ laws.³⁴

Colleagues stressed the suitability of the firm’s approach to the needs of its clients. According to one unnamed builder, “Roth designs for the client who has to rent his building on the basis of a place to work in, not as a monument to posterity.”³⁵ This attitude was especially tailored to the problems of

³² “Architect For Business In a City of Towers,” *Business Week*, September 1, 1962: 54–55.

³³ On Wolfson, see Ogden Tanner, “Grand Central’s Wolfson”; “A Sixth Sense for Construction,” *Engineering News-Record*, May 28, 1959: 55–57; “Builder of Skylines: Erwin S. Wolfson,” *Time*, February 22, 1960: 92; “Intellectual Builder: Erwin Service Wolfson,” *The New York Times*, September 8, 1960: 30.

³⁴ Richard Roth, “High-Rise Down to Earth,” *Progressive Architecture* (June 1957): 196.

³⁵ “Architect For Business In a City of Towers”: 55.

the speculative office building for non-specific tenants, which constituted the bulk of Emery Roth & Sons' work in these years. Roth succinctly summarized the abstract, anonymous economy of these commissions: "We're in the business of designing buildings for businessmen who put up buildings for other businessmen."³⁶

Grand Central City

The ineluctable constraints of the Grand Central City project would challenge the seeming isomorphism of Wolfson and Emery Roth & Sons, the structural alignment between corporate client and corporation-architect that had functioned so seamlessly on other sites in midtown Manhattan. While the urban consequences of this balanced equation of finance and architecture had already been called into question by critics like Jacobs and Huxtable, this image of identity would run aground on a site that demanded the production of iconic visual form, as the only product ultimately capable of rescuing the project from the economic and spatial constraints that burdened it.

The severe economic challenges of the plot acquired from the New York Central Railroad by Wolfson were determined largely by its location directly above the rail lines to Grand Central Terminal, necessitating costly and logistically difficult structural work to allow any building to be built above the tracks without disrupting train service. A new building would be expected to accommodate circulation for some 25,000 office workers and 250,000 passengers per day to and from the Terminal through its lower levels, including access to the concourse level of the Terminal, one floor above the tower's ground level, as well as the elevated vehicular lanes of Park Avenue that would continue north around the Terminal and through the Grand Central tower before rejoining at street level to the north.³⁷ Popular scientific and business magazines reveled in the complexity of

³⁶ Ibid. A version of this sentence is quoted anonymously in "The Skyline Factory," *Newsweek*, September 18, 1967: 98.

³⁷ These figures are given in Armen P. Armagnac, "The Most Complicated Building Ever Built," *Popular Science* (September 1960): 67–72, 216.

these constraints, illustrating the project with cutaway drawings that detailed the enormous logistical challenges of the project.³⁸ (Fig. 4.7–4.8) These demands set extreme minimums for the size, height, and bulk of the tower that would be required in order to make the land pay for Wolfson: it was originally projected to be the largest office building in the world, with some four to five million square feet of rentable space.³⁹ Such extreme magnitude, which was required to make the project economically feasible by keeping costs per square foot within an acceptable range for prospective tenants, would give any building on the Grand Central site a singular visual and economic presence in New York City, regardless of its architectural quality.

In its urban setting, however, the tower's bulk would be constrained both by the presence of the Grand Central Terminal building, which now stood to be preserved following protests by Douglas Haskell and other prominent critics, and by the tower of the New York Central Building immediately to the north, putting any new building into a close spatial and visual relationship with these two volumes. This site stood at the crosshairs of what Jacobs identified as the three major zones of corporate office construction by the late 1950s: the area around Grand Central to the south and east, the area around Rockefeller Center and Madison Avenue to the west, and Park Avenue above 42nd street—particularly the stretch between 50th and 60th Streets—as this merged into the other two zones. The Grand Central City site lay precisely at the intersection of these three zones, binding at once the two major prewar examples of multi-level, multi-block urbanism (Rockefeller Center and the Grand Central development) with the major urban axis along Park Avenue, along which Emery

³⁸ See especially “The Most Complicated Building Ever Built” and “Sky-High Deal For a Skyscraper,” *Fortune* (December 1960): 141–143, 266–268, 271; Stanley, “Growth of a Giant,” *Real Estate Forum*, Sept 30, 1962: 37–58.

³⁹ This scale (similar to that of Zeckendorf and Pei's scheme, which was projected to house more than five million square feet of space) would have been roughly twice the size of the Empire State Building, with some 2.25 million square feet of floor space. Contemporary articles listed the Empire State Building as having 1.8 million square feet of rentable space at the time, and the RCA Building, now 30 Rockefeller Plaza, as having 2.3 million square feet. See “Plan 50 Story Office Bldg. in New York,” *Chicago Daily Tribune*, May 8, 1958: D8. The Grand Central City building would have been comparable in scale to Merchandise Mart in Chicago (4 million square feet) and the Pentagon in Washington, D.C., with some 3.7 million square feet of offices within a a complex of 6.5 million square feet.

Roth & Sons had left their mark so heavily over the preceding decade.⁴⁰ Furthermore, the site's singular placement on the central axes of both Park Avenue and 44th Street, facing mid-street on all four sides rather than being continuous with the building fabric, would give any tower built there unparalleled visual prominence both north-south and east-west within the Manhattan grid. (*Fig. 4.9*)

Located at both the spatial and conceptual terminus of the wave of corporate building that had preceded it, then, Grand Central City at once constituted the apotheosis of this building boom and a site whose anomalous visual, physical, and economic constraints would necessitate a reconfiguration of the mechanisms that had served so well on these other sites. The tower would not be merely another surface or corner within a city block of adjacent buildings, as with many of Roth and Wolfson's previous projects, but would stand in isolation on its site, facing street axes on three sides and the low volume of Grand Central Terminal on the fourth. The project thus threatened to be an undistinguished speculative building designed on a site that implicitly demanded an iconic form, as public reception would soon make clear.

The first scheme for Grand Central City released by Wolfson and Emery Roth & Sons made clear the burdens of this singular site and the inadequacy of the design approach that these partners had employed so profitably on less conspicuous sites in midtown Manhattan. Unlike the project that had preceded Wolfson's for the Grand Central site—developer William Zeckendorf's project with I. M. Pei to replace Grand Central Terminal itself with a structurally daring form that would have been the world's tallest tower—the Grand Central City project lay closer to the more generic buildings built elsewhere in midtown Manhattan by Wolfson and Emery Roth & Sons.⁴¹ A tempera rendering

⁴⁰ This status was reflected in Pan Am's prominence in the later Regional Planning Association urban plan for midtown Manhattan of 1969, for which it provided the central example of the multi-level, vertical urbanism advocated by the plan. See Regional Plan Association, *Urban Design Manhattan* (April 1969).

⁴¹ On the Zeckendorf and Pei project, see "The Hyperboloid, New York, New York 1954–1956 (Unbuilt)," in Philip Jodidio, Janet Adams Strong, *I. M. Pei, Complete Works* (New York: Rizzoli, 2008): 45 ff. The real estate firm led by Zeckendorf, Webb & Knapp, had first formed as a company in 1922 to assist the NY Central Railroad in managing its leases after it was ordered by the city to cover its railroad tracks along Park Avenue from 96th to 45th Streets, creating a real estate boom in midtown Manhattan along with Park Avenue in its subsequent landscaped form. See Zeckendorf and Edward McCreary, *Zeckendorf: The Autobiography Of the Man Who Played a Real-Life Game of Monopoly and Won the Largest Real Estate Empire in History* (New York: Plaza Press, 2014): 35 ff.

by Robert Schwartz, first published in newspapers and architectural journals in February 1955, depicted a nearly pure extrusion of the permissible building envelope that was given within the existing zoning law and the site constraints, with four to five million square feet of space.⁴² (*Fig. 4.10*) At its top, the 65-story mass was stepped back slightly along its east and west sides, resulting in a timid compromise between the tiered volumes of the generic speculative buildings built to satisfy zoning constraints and the desire for a slender, more rectilinear profile that would relate to the iconic towers already standing along Park Avenue. The long direction of the tower was aligned north-south to Park Avenue, while the short direction was set roughly to the width of the New York Central Building, suggesting an attempt to make its volume disappear behind the Warren & Wetmore tower at the same time that the dramatic rendered perspective conveyed the desire to project an iconic image. The design appeared to be caught between its status as a background—for Grand Central Terminal to the south and the New York Central Building to the north—and this singular appearance. This conflict became evident in the parti wall that appeared as a pure white backdrop for the volume of Grand Central Terminal, as a prophylaxis that served to separate the one from the other. Seen from the east and west, the building would appear much like the tiered, glass and steel facades of the adjacent Wolfson and Roth buildings that lined the streets of midtown Manhattan, stepped back in three shallow planes from base to top. Viewed from the north and south along more prominent axis of Park Avenue, the tower would mimic more closely the profile of recent iconic

⁴² The Emery Roth & Sons scheme appeared, illustrated by the Schwartz rendering, in “New Plan Studied on Grand Central,” *The New York Times*, February 8, 1955: 20 and “Grand Central’s Outdoor Concourse,” *Architectural Forum* (February 1955): 116–119. The Schwartz rendering constituted the primary image of the building prior to its completion, along with photographs of the large-scale model built by Norman Briskman and displayed in Grand Central Terminal in November 1959 and reproduced in various other media thereafter. The revised version of the Schwartz rendering that appeared in 1958 was clearly intended to be comparative, and was constructed so as to provide a visual catalog of the precise changes that marked its difference from the first scheme. These included the reorientation of the slab perpendicular to Park Avenue, its faceting into an octagonal slab, its more richly developed facade and the breakup of its massing into vertical sections and through the “infinite” edge of its roof profile, the modifications to the base, and the elimination of the blank backdrop framing Grand Central Terminal. A similar attempt was made to visually separate Pan Am from the terminal, achieved via the glowing effect of a pronounced halo behind the terminal. The architectural effect here was now one in which the lower edge of the tower and the cornice of Grand Central would appear to slide past each other dynamically, a modernist gesture of compositional tension to counteract the otherwise symmetrical layout of the tower and base on its site.

corporate buildings like Lever House, with a lower volume (though more cubic than horizontal) that spanned between the two Grand Central buildings as the base for a thinner vertical profile rising above. The uneasy negotiation between these differing profiles resulted in an awkward, ungainly mass, one whose most prominent visual features were the two blank walls that bookended the lower volume to act as backdrops for the Grand Central terminal and tower respectively.

The fate of the Wolfson and Roth proposal after its announcement in early 1955 pointed to the limits of both developer and architect in relation to the extreme demands of the Grand Central site. While Wolfson had been the first developer to convince the new chairman of the New York Central Railroad, Robert Young, to lease the Grand Central site for building in the fall of 1954, his proposal with Emery Roth & Sons was effectively usurped even prior to its publication in February 1955 by Zeckendorf and Pei, whose far more heroic scheme for the site, designed specifically for large corporations, was apparently more compelling to Young as more commensurate with the “monumental idea” that would be required to justify demolishing Grand Central Terminal, as Young advertised at the time.⁴³ (*Fig. 4.11*) The Zeckendorf and Pei scheme, which remained unpublished at the time, ultimately foundered following a sustained public campaign led by Douglas Haskell, the editor of *Architectural Forum*, to save the concourse within the terminal at minimum as part of any new scheme for the site—and possibly by Zeckendorf’s difficulties in financing the huge scheme. Wolfson and Emery Roth & Sons took this as an opportunity (as apparently did other architects, possibly including Frank Lloyd Wright) to release their scheme in February 1955 as a means of

⁴³ Pei described the loss of Grand Central as a monument as acceptable if in service of a “monumental idea.” See Clausen, *The Pan Am Building and the Shattering of the Modernist Dream* (hereafter *Pan Am*): 45, 47. On the design of the scheme specifically for large corporations, see “80-Story Building Planned Atop Grand Central Station,” *The Washington Post and Times Herald*, Sep 8, 1954: 23.

capitalizing on public desire to save the Terminal, even as the Zeckendorf plans for the site remained the ones publicly described by Young for some months afterward.⁴⁴

While the Emery Roth & Sons proposal was initially praised by Haskell as an example of how Grand Central Terminal and its concourse could be saved, he soon expanded his purview to the area around Grand Central as a whole, shifting focus to the unwelcome increase in density and congestion such a quantity of new office space would impose on this pressured site.⁴⁵ Though it spared the Terminal building from destruction, Haskell wrote, in its visual bulk and undistinguished profile, the Roth scheme negatively impacted “the almost equally magnificent space” of the city surrounding it. In particular, such a building would overwhelm the scale of the Grand Central tower that, Haskell wrote, terminated the traditional vista of Park Avenue gracefully, “containing and dignifying its surroundings” and thus “keeping the city from being endlessly impersonal and terrifying.”⁴⁶ A generic office building like the Emery Roth & Sons scheme would destroy this unity, he warned, making the area around Grand Central no “more than a collection of separate, coolly efficient buildings.”⁴⁷ As Haskell and others increased their advocacy for public space around Grand Central against the interests of the real estate developers who sought to densify the area, the Wolfson and Roth project lay dormant for three years before its republication in May 1958 as “Grand Central City,” reduced in scale to a 50-story tower with three million square feet of space, following an

⁴⁴ Shortly after the Zeckendorf and Pei plans to develop the Grand Central site were announced, a publicly released proposal by the firm of Fellheimer and Wagner presented an alternative scheme for the site focused mainly on restoring street through-traffic that had been blocked by the original Grand Central complex, and which also included demolition of the Terminal. Clausen, *Pan Am* claims that several architects, including Frank Lloyd Wright, made proposals for the Grand Central site following the abandonment of the Zeckendorf and Pei project, but does not cite any evidence of these projects.

⁴⁵ “Grand Central’s Outdoor Concourse”: 116–119.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

unexpected inquiry from a potential tenant looking to lease offices in a building on the Grand Central site.⁴⁸ (Fig. 4.12)

By the time the reduced Wolfson and Roth scheme was revived in early 1958, the failure of the scheme to gain either critical or financial traction suggested the need for some additional mediating entity, outside the previously harmonious relationship between anonymous developer and anonymous builder. The Grand Central City scheme exposed, in particularly legible terms, the incapacity of this approach in providing anything beyond a mere expression of economic and zoning constraints on a site that evidently demanded a more convincing display of civic building if the project were to succeed, whether for investors, tenants, or the public. In this sense, the close symmetry between Wolfson and Emery Roth & Sons, the firm most associated with the mediocrity of the speculative building boom by the late 1950s, seemed to confirm the fears of critics who warned of the consequences of such architectural complicity in the production of profit for an increasingly abstract class of corporate financiers, as these expanded to include more diffuse consortia of developers, real estate operators, life insurance companies, and other groups of investors. Something more was required to differentiate the Grand Central project from the wave of speculative building whose culmination it would inevitably mark, whether for the investors and high-class tenants that the development would have to attract in order to make such a risky investment pay, or

⁴⁸ Glenn Fowler, "Grand Central 'City' Is Planned," *The New York Times*, May 8, 1958: 1. The project was announced simultaneously in three other newspapers on the same date: "50-Story Office Building: Will Be World's Largest," *The Boston Globe*; "Builder Plans 50-Story \$100 Million Skyscraper On Grand Central Site," *The Wall Street Journal*; and "Plan 50 Story Office Bldg. in New York," *Chicago Daily Tribune*. Clausen cites the publication of a revised rendering by Schwartz in the *New York Times* article, based on the original 1954 rendering, as evidence that neither Wolfson nor Roth saw anything wrong with the original scheme. Clausen, *Pan Am*: note 69. Furthermore, she describes the May 8, 1958 *Times* article as "illustrated with the same rendering that had been published three years earlier." *Ibid.*, 49. Yet there were significant changes between the 1954 and 1958 schemes, clearly visible in the two renderings. These included the reduction in height of the tower from 65 to 50 stories, and changes in the profile of the base to form an L-shaped mass, lower to the north and taller to the south, as a screen for Grand Central Terminal. The revised 1958 rendering appeared as late as November 1958 in Tanner, "Grand Central's Wolfson": 133, with a caption noting that "Tower treatment is being restudied." Such changes, and the apparent haste with which the renderings were revised and re-released upon the reactivation of the project in early 1958, may equally suggest that the inadequacy of the original scheme, and its need for revision, was well understood by Wolfson.

for public discussions that increasingly centered on the question of whether development on such a sensitive site could ever be more than negative.⁴⁹

Artist-Architect

In attempting to overcome this impasse, Wolfson and Roth sought what was in essence a supplement: a figure that would not be primary to the production or realization of Grand Central City, yet one that could address the apparent lack that threatened the dissolution of the project. This remedy would come through the identification not of a replacement architect but a consultant who might lend a more convincing authorial presence to the project that would serve to reinforce, rather than undermine, its basic economic and developmental premises.⁵⁰ In her history of the Pan American Airways building, Meredith L. Clausen describes Wolfson and Roth as seeking an “artist-architect,” invoking the term used by Huxtable in opposition to the large organizations whose practice had served to “reduce the art of architecture to a commercial operation,” as well as by Hudnut, to describe the type of anti-corporate architect on whom “the fate of the new building rests.” A list of such “artist-architects” was provided to Wolfson by Richard Roth—perhaps compiled by Roth’s son, Richard Roth Jr., who was then a recent architectural graduate from the University of Miami and, perhaps, seen by developer and architect to be more attuned to contemporary creative

⁴⁹ Clausen suggests that Wolfson doubted “whether another Roth building would draw the kind of high-class tenants he was hoping—and financially needed—to attract.” Clausen, *Pan Am*: 51.

⁵⁰ *Ibid.*, 59. Clausen characterizes the decision as follows: “Given the increasingly *public* awareness of the critical nature of the site, the importance of a reputable architect, and the magnitude of the economic factors at stake... [and] to blunt further criticism as well as enhance his chances of securing financing for the huge project, Wolfson needed a highly respected design architect, preferably one with a big name, who could provide him with a ‘prestige’ building that would ‘sell better to the money people.’ As Richard Roth was a close personal friend as well as long-standing business partner whose professional efficiency and economy Wolfson valued, he proposed their bringing in an ‘artist-architect’ to work with the Roth firm as design consultant.” *Ibid.*

practitioners.⁵¹ This list, which may have included Gordon Bunshaft of SOM and Edward Durrell Stone, also included figures that carried a particular academic imprimatur, beyond or perhaps even independent of their architectural work: Walter Gropius, who had retired as chair of the Harvard Graduate School of Design in 1952; Josep Lluís Sert, his successor at Harvard, and Pietro Belluschi, then dean of the department of architecture at MIT.

The criteria by which Gropius and Belluschi were chosen as consultants from this list is unclear, as is the precise role that Wolfson and Roth envisioned them playing in developing the Emery Roth & Sons scheme that was hastily modified and republished in May 1958. An announcement of Gropius and Belluschi's involvement in *Architectural Forum* implied that Gropius and Belluschi's presence was not intended to bring major alterations, claiming that "Some changes will be made in the preliminary plans first issued by the Roth office but no change is contemplated in total size."⁵² For his part, Belluschi acknowledged his later conviction that Wolfson's motives in hiring him and TAC as consultants were ultimately driven by marketing concerns, describing the decision as "primarily a public relations move."⁵³ Citing the difficulty Wolfson had faced both in attracting the necessary investment in such a risky endeavor and increasingly in defending the project on urban and sociological grounds as criticism mounted, Belluschi also pointed to the difficulty of

⁵¹ The number of architects that appeared on this list is unclear. A list of fifty architects is claimed in "Gropius and Belluschi Advise On Grand Central Tower Design," *Architectural Forum* (September 1958): 47. A list of "leading architects" provided to Wolfson by Roth is cited in Ogden Tanner, "Grand Central's Wolfson": 200. Richard L. Stanley cites a list of ten "distinguished architects" in "Genesis of a Giant," *Real Estate Forum*, September 30, 1962: 22. Clausen claims that Roth Jr. drafted the list for his father, and that Wolfson, the supposed aesthete, was "unfamiliar with an of the names mentioned." Clausen, *Pan Am*: 59–60 and note 92.

⁵² "Gropius and Belluschi Advise On Grand Central Tower Design": 47.

⁵³ Clausen cites the source of this quote as "Interview: Pietro Belluschi," *Progressive Architecture* (June 1990): 122–123. However, this quote does not appear in the text of the interview, conducted by Jim Murphy with "valuable assistance" provided by Clausen. It is unclear whether Belluschi's quote comes from the full transcript of the conversation or from another interview conducted by Clausen.

this consulting role in addressing these demands without challenging the fundamental constraints that determined the project: “It was intrinsically an impossible job aesthetically.”⁵⁴

In contradistinction to such unstated motives, public promotion of the project on behalf of Wolfson clearly attributed the decision to hire Gropius and Belluschi as consultants to the desire for evidence of signature that, implicitly, could not be provided by Emery Roth & Sons. A press release confirmed the intention to stamp the project with their imprimatur: “Manhattan’s world famous skyline will receive *the touch of acknowledged masters* in the panel of eminent architects who are collaborating” on the Grand Central City scheme; “With this appointment, Drs. Gropius and Belluschi will, for the first time, *lend their genius* to the design of a Manhattan skyscraper.”⁵⁵ Richard Stanley, Wolfson and Roth’s advocate in *Real Estate Forum*, argued that altruistic motives alone lay behind the decision, claiming that “Roth felt, and Wolfson agreed, that the job was of such magnitude and the structure’s impact on the skyline and the immediate neighborhood was so significant that it deserved more than one mind or one group of talents to work on it.”⁵⁶ A profile of Wolfson in *Architectural Forum* reinforced the idea that while the developer’s previous office buildings had, “in effect, been designed by highly competitive rent schedules, by New York’s ancient ‘wedding-cake’ zoning envelope, and by the present widespread fixation on bland, shiny curtain walls,” in choosing Gropius and Belluschi for Grand Central City, he sought “to balance economics against esthetics and come up with a truly significant piece of civic architecture.”⁵⁷ Photographs by Carl Mayden, taken in August 1958, offered a literal image of this provision of imprimatur by

⁵⁴ “Interview: Pietro Belluschi”: 123. Belluschi argued that “the Pan Am building was a very difficult thing, because first of all you have such a visible project, and you have many objections. You have an owner who’s going to invest hundreds of millions of dollars, and you have a tremendously technically difficult thing, so you have to make compromises which are not quite of the same kind.” Ibid., 122.

⁵⁵ J. P. Lohman Organization, press release prepared for Erwin S. Wolfson, Herbert and Stuart Scheffel, and Alfred G. Burger, Belluschi Papers. Cited in Clausen, *Pan Am*: 61.

⁵⁶ Stanley, “Genesis of a Giant”: 22. Clausen claims that Wolfson’s choice was more cynical, quoting Roth’s son, Richard Roth Jr., on the developer’s reasons for hiring Gropius and Belluschi: “It wasn’t altruism, I can promise you that.” Ibid.

⁵⁷ Tanner, “Grand Central’s Wolfson”: 200.

Gropius and Belluschi, who were portrayed conferring over sketches of the project with pencils in hand—a clear staging in the case of Gropius, who was known not to draw.⁵⁸ (Fig. 4.13–4.14)

This image of authorship in service to enlightened patronage, conferred by the academic pedigrees of Gropius and Belluschi as much as by their built work, served to elide the significant differences in approach that the naming of these two consultants would provide in practice. In choosing this pair of names, what Wolfson received were not two artist-architects of the type called for by Huxtable and Hudnut, but a collaborative firm and a professional consultant-architect who had retired from signature practice, respectively. Belluschi's self-declared specialization as a consultant may have offered the figure of an architect who could provide the required image of authorship without the problems of an architect seeking stronger control over the design—an acquiescence perhaps signaled by the double remove of Gropius, the first consultant chosen, suggesting a second, Belluschi, to the project architect and developer.⁵⁹ Yet what Wolfson sought in Gropius—and what subsequent critics would look for in his presence—turned out to be significantly different from the role that TAC, the team-based firm of which he was a part, ultimately played in the development of Grand Central City.

⁵⁸ Another photograph from the office of James Ruderman, taken at the first joint meeting of Gropius and Belluschi with Roth and Wolfson in New York (sometime prior to September 1958) after signing the contract formalizing their involvement on July 18, 1958, shows a large sketch perspective of a modified massing based on the Emery Roth & Sons scheme and with the same viewpoint as the Schwartz renderings. Organized in three tiers closer to the wedding-cake type on its east and west sides, this version of the tower is far thinner for much of its height, suggesting this scheme may have been intended to reduce the building's profile behind Grand Central Tower. The Ruderman photograph appears in Clausen, *Pan Am*: 96. The photograph is similar to one from the same meeting that appears in "Gropius and Belluschi Advise On Grand Central Tower Design": 47. While this meeting may have taken place in August 1958, it is evidently not from the same occasion as the photographs by Mayden, as Gropius and Belluschi are dressed differently between the two sets.

⁵⁹ Clausen cites Gropius's notes from a meeting with Wolfson in June 1958 to suggest that Gropius recommended Belluschi as a second consultant, rather than Wolfson having picked both together from the list made by Roth or Roth Jr.: "he [Gropius] was also shown the list of potential design consultants... It was evidently Gropius who at this point suggested bringing in one other consultant and recommended Belluschi, with whom he had previously worked. Wolfson agreed, and Belluschi was asked to join them." Clausen, *Pan Am*: 60.

Speculative Development and Prestige Building

TAC and Belluschi initially sought to modify the signification and meaning of Grand Central City by effecting a subtle shift among the corporate building types that were available for critical interpretation during the New York City building boom of the 1950s. The Grand Central City commission stood at the intersection between two financially distinct forms of corporate architecture which, prior to the revisions to the city's zoning laws in 1961, were typologically distinct as well. The first was the speculative office building, built for initially unspecified future tenants and generally designed to maximize generic, flexible rental space that would fill the permissible building envelope on a given site. Wolfson and Roth's previous projects almost exclusively took this form, which was typically marked by tiered building profiles that critics like Huxtable disparaged as the "wedding-cake" type, stepped back above set heights to conform to zoning laws that required the access of light and air to street level.⁶⁰ (*Fig. 4.15*) The second, more prominent type was the prestige tower, built for owner-occupant corporations that sought the brand value of an iconic headquarters, both for marketing purposes and for attracting and retaining staff.⁶¹ These typically featured more tailored profiles that required a reduction in the total area of the tower compared to the wedding-cake form, sacrificing rental space in order to provide more singular volumes capable of giving visual identity to their owners. Prior to the 1961 zoning law, the primary models for this latter type were Lever House (completed in 1952), which combined a low, elevated horizontal base with a slender vertical slab

⁶⁰ Huxtable, "Towering Question": 69. She names the type based on the fact that "In effect, the law specifies a shape—an empty 'wedding cake' mold—into which the builder may push his structure until the mold is filled. By filling the mold completely, he makes the greatest profit." Ibid.

⁶¹ Frederick Gutheim described the benefits of the iconic headquarters as follows: "To the director of personnel the characteristics of the space assigned to him in a new building may be less important than the capacity of the building itself to attract good applicants for employment and reduce costly turnover among critical classes of employees. This was a major objective in Lever House.... Specialists in advertising or publicity may keenly appreciate that the design of a building or the fame of its architect can exceed in effectiveness any other device for securing favorable public attention for the company or its product." Put another way, the difference between speculative and prestige building was in some sense a difference in marketing audience: the qualities of speculative office space were designed to be advertised to potential future tenants, while the aesthetic benefits of the signature tower were meant to be marketed to current and future employees within the corporation itself. Gutheim et al., "The Corporate Client": 108.

above, and the Seagram Building, set back at street level to form an urban plaza defined by the facade of the tower rising behind it. (*Fig. 4.16–4.17*) Published drawings of Lever House by Skidmore, Owings & Merrill clearly demonstrated its difference from the generic massing of the speculative building, showing a section through the SOM tower along Park Avenue contrasted against a silhouette of the wedding-cake massing that represented the maximum buildable area on its site. (*Fig. 4.18*)

Contemporary discussions of the corporate construction boom in New York City were clear about the inequalities between these two types of commissions, and particularly about their differing possibilities for the creation of a meaningful aesthetic contribution to the city. In her article on the New York building boom, Jacobs acknowledged that while “Proud buildings in proud context are proved as solid, durable investments,” at the time, “the only New York office building based on this premise is that undertaken by a few owner-occupant firms.”⁶² Such possibilities for “proud building” were unavailable to speculative buildings from the leasing conditions that condemned most speculative buildings, financed by insurance companies, to the ungainly profiles that were required to maximize their rental returns. While Jacobs did not name the “half a dozen or so stars” that she felt could be distinguished among the general mediocrity of the corporate construction boom, this list was implicitly composed of signature towers such as SOM’s Lever House, Union Carbide, and Chase-Manhattan buildings and Ludwig Mies van der Rohe and Philip Johnson’s Seagram Building, all of which were featured among the forty-one illustrations of towers completed or planned in Manhattan after 1947.⁶³ Huxtable was even more explicit in contrasting the forms of speculative building, generic and financially determined, to the exceptionalism of the prestige tower:

⁶² Jacobs, “New York’s Building Boom”: 113. Jacobs described the economic structure underlying speculative buildings as follows: “In this boom, the office buildings are financed by insurance companies, and their mortgage commitments do not become effective unless and until about 75% of space is signed for in advance by financially responsible tenants on long leases. The limit to building is leasing.” *Ibid.*

⁶³ *Ibid.*, 107.

Unfortunately, the “wedding cake” mold is extremely homely, but the law dictates that it is the real architect of the city’s buildings. A straight tower or a soaring shaft, like the Seagram Building, slices off the profitable sides of the cake, leaving only the center piece. Needless to say, this kind of esthetic altruism does not appeal to the speculative builder. . . . At present, better design can be achieved only through this kind of financial sacrifice. Lever House, the Seagram Building, the Pepsi-Cola building and the new Union Carbide headquarters—all prestige structures on Park Avenue—are exceptional examples in which rentable space has been given up voluntarily by building less than the law allows.⁶⁴

Huxtable drove home the comparison by invoking a building by Emery Roth & Sons, at 400 Park Avenue, as “a standard product of the present law,” one that “hiccups its way upward, tight against adjacent buildings, squat and square below, zigzagging uneasily above.” “Its undistinguished commercial profile,” she concluded, “is a striking contrast to Lever’s slender architectural distinction.” For his part, Richard Roth made no bones about the constraints that governed his firm’s speculative buildings—sometimes described as “Rothscrapers” to denote their ubiquitous wedding-cake profiles⁶⁵—in contrast to these signature commissions. “Unlike the buildings that are built for single large-corporation occupancy, (Lever House, Canada House, House of Seagram, Johnson Wax, *et al*),” Roth wrote, “ours are a combination of the art of architecture and the economics of big business.”⁶⁶ (*Fig. 4.19*)

Critics were equally clear about their valuation of the prestige tower over the generic speculative building as a type that could mediate the presence of the corporation in the city and, in so doing, confirm architecture’s traditional role in creating identity for its patrons. A 1955 article in

⁶⁴ Huxtable, “Towering Question”: 69.

⁶⁵ The term “Rothscrapers” is from “The Skyline Factory,” *Newsweek*, September 18, 1967: 98. While authorship of this article is credited to Ada Louise Huxtable in both Clausen, *Pan Am* and Robert A.M. Stern, Thomas Mellins, David Fishman, *New York 1960: Architecture and Urbanism Between the Second World War and the Bicentennial* (New York: The Monacelli Press, 1995), the text of the article itself has no byline. Instead, it only quotes Huxtable: “as New York Times architectural critic Ada Louise Huxtable sees it, Emery Roth & Sons is ‘as responsible for the face of modern New York as Sixtus V was for baroque Rome.’”

⁶⁶ Richard Roth, “High-Rise Down to Earth”: 196. Tom Schachtman quotes a more informal exchange between the younger Richard Roth Jr., a recent architecture graduate, and the developer Percy Uris about the Seagram Building, which was visible from the offices of Uris Corporation: “I said something about the Seagram’s Building being beautiful. . . and Percy retorted that ‘The only beautiful building is the one that’s fully rented.’” Schachtman, *Skyscraper Dreams: The Great Real Estate Dynasties of New York* (Boston: Little, Brown, 1991): 199.

Architectural Forum on the corporate client noted the difficulties of grappling with the claiming that “American architecture is still getting acquainted with its newest and most valuable client—the large-scale organization.” In this adjustment to the exigencies of diverse corporate building types, its authors lamented, as yet “too many of the largest and most important buildings are at best mute, unable to speak for the high ideas and purposes that called them forth *but were unable to give them shape.*”⁶⁷ In this complex, the tasks of the prestige building would be to provide these large organizations with what “its architecture now typically lacks... it must, in the words of the advertising fraternity, ‘build character.’ *The buildings must give this individual organization its individual face for all to see.*”⁶⁸ Such longing for the “individual” client—though now mapped onto the body of the corporation—formed a natural corollary to the urging of Hudnut, Huxtable, and others for the mediating role of the “artist-architect” in relation to this increasingly corporate clientele. Only such a relationship, it was hoped, could restore the traditional structure of architectural production between patron and designer at a moment when both threatened to transform into more diffuse, abstract entities.

The Grand Central City project rested uncomfortably between these two poles of corporate production. While the physical and financial imperatives of the commission were those of the speculative building, its unprecedented site and urban prominence seemed to demand the image of the prestige tower. Furthermore, the union of Wolfson and Roth—whose previous experience together had essentially been solely in speculative office construction—was particularly ill-suited to negotiate this slippage between the conditions that precipitated the project and the symbolism it was implicitly required to produce. Burdened by these problems of signification, the design of the project would have to negotiate this difference between the mode of its production and its visual appearance.

⁶⁷ Gutheim et al., “The Corporate Client”: 106. Italics mine. The article formed part of a ten-part series on “Architecture in America,” appearing in *Architectural Forum* from October 1955 to August 1956. Subsequent articles in the series explored the impact of contractors, engineers, laborers, lenders, and real-estate operators on the design and building industry.

⁶⁸ *Ibid.*, 110. Italics mine.

The arrival of TAC and Belluschi as consultants, and the team's subsequent modifications to the Grand Central City scheme, went hand in hand with the attempt to reconcile this misalignment between form and content. In this sense, shifting the massing of the building into a clearer configuration of slender tower and low base can be regarded as a strategy to reorient its signification to that of the prestige tower, and so to meet the demand for corporate iconicity in comparison with its signature predecessors along Park Avenue.⁶⁹ Perhaps, it was hoped, the form of the tower might read as if built for a single occupant-client, attentive to the particular aesthetic and urbanistic demands of the site—even though it had been designed for initially unknown tenants, at a scale determined not by single occupancy but by the need to provide maximum rental space in order to justify the cost of its construction.

In this respect, photographs of an early model of the TAC and Belluschi scheme, developed prior to November 1958 and apparently preferred by TAC, are telling.⁷⁰ (*Fig. 4.20*) The model shows a more extreme version of the base-and-slab type common to the prestige tower, with a low, two-story base extending beneath a thinner, more slender tower that hovered above it, the tower's short sides extending over the east and west faces of the base to rest on thin columns that continued the vertical divisions of the facade to the ground. Like Lever House, this version included a courtyard

⁶⁹ Phyllis Lambert relates a story of Gropius and TAC being considered to design the Seagram Building circa August 1954, included on a list prepared by Eero Saarinen with three categories: "could but shouldn't," "should but couldn't," and "could and should." TAC, she claimed, was listed in the "could and should" category. According to Lambert, "By reputation... Gropius should have been on this list, but in design, he always relied on others, and his recent Harvard Graduate Center was less than convincing." Lambert also recounts visiting TAC houses and schools near Boston, where members of the office "showed me houses and schools using the lift-slab technique of which they were inordinately proud." She describes Gropius and Saarinen as the only two architects who "made appointments with me in which they made direct proposals.... Gropius asked to meet me on his return from Japan when I was about certain that Mies should be the architect, and I told him so. I was extremely disconcerted when, as I left him at LaGuardia airport, having visited with him a house in Long Island that TAC had designed, he pleaded with me to let him design the building." Lambert, *Building Seagram* (New Haven and London: Yale University Press, 2013): 34–35 and note 74. On contemporary rankings of architects by their contemporaries according to talent and creativity, see Pierluigi Serraino, *The Creative Architect: Inside the Great Midcentury Personality Study* (New York: The Monacelli Press, 2016).

⁷⁰ Clausen claims TAC preferred this version. Clausen, *Pan Am*: 97. This photograph also appears as the first image in TAC's description of Pan Am in its monograph, *The Architects Collaborative 1945–1965* (Teufen: Arthur Niggli, 1966), displayed prominently on the title page of the Pan Am entry. This version is referred to (though unillustrated) in "Grand Central's Wolfson," which noted the scheme was being restudied (as of November 1958) for having too little square footage.

within the two-story base, though it is unclear whether this extended to ground level, as with its precedent, or remained an elevated space for the upper floor alone. The lower volume of the base, combined with the more dramatic cantilever of the tower on its short sides, would have produced a more independent relationship of solids between the tower and Grand Central Terminal, with the two volumes sliding past each other vertically more forcefully than in the built version. Sketches dated to an August 19, 1959 meeting between Gropius and Belluschi were used to study the relation between faceted slab and base, in configurations that ranged from a thin horizontal reveal between them to interpenetrations of the two volumes. (*Fig. 4.21*) Other schemes explored the idea of demolishing the New York Central Building to the north entirely, in order to create a public plaza at the terminus of Park Avenue for which the Grand Central City tower would be the new backdrop, a solution reminiscent of the Seagram Building as the alternate precedent for the massing of the prestige tower. (*Fig. 4.22–4.23*) In this case, however, this solution was compromised by the elevated lanes of Park Avenue that ran around Grand Central Terminal and would be required to ramp around the edges of the plaza to reconnect with Park Avenue to the north, as well as by the developer's inability to cede this amount of space as a loss of rental income.

Despite TAC and Belluschi's attempts to make the project conform more closely to the available types of the prestige tower, the desire for a slender tower on a low base ran up against the constraints that required an unprecedented scale in order to be feasible at all. By Wolfson's calculations, the minimum square footage required for a return on his investment would alone make the building the largest office tower in the world. The first TAC and Belluschi proposal, which contained a "mere" 1.5 million square feet of rentable space—slightly less than the Empire State Building—was insufficient. The revised proposal, close in form to the building as built, kept the same basic profile of faceted slab and base but simply enlarged its basic elements, increasing the base to six floors and thickening the tower to provide the necessary bulk. The result was a compromise: a building too large to mask its status as a speculative building on its crowded Grand Central site, yet

one designed to convey the formal structure of a prestige building that might transcend its status as mere development. (*Fig. 4.24*)

Corporate Identity

The gap in signification between the generic economics of the speculative building and the demand for iconicity on the Grand Central site became further exposed following the arrival of Pan American Airways as the anchor tenant for the building in 1960.⁷¹ As the tower came to be known as the Pan Am Building, the name under which it opened in 1963, the application of corporate symbols to the building marked the difference between the architecture of Grand Central City, which required the addition of explicit advertising in order to speak on behalf of its corporate tenant, and owner-occupant headquarters that could be tailored from the outset to embody the image and character of their clients. While the designers of such prestige buildings were tasked with providing images that could intrinsically communicate the specific nature of the corporations they represented—as in the whiskey-colored bronze patina of the Seagram Building or the lapidary, soap-bubble skin of Lever House—Pan Am could only extrinsically name its primary renter of office space, through the

⁷¹ Juan Trippe, the president of Pan American Airways, began secret negotiations with Wolfson to be the lead tenant at Grand Central City on July 28, 1960. A 160-page agreement was officially signed on September 28, 1960 for Pan Am to provide \$117M rental payments in excess of 25 years, in exchange for 629,004 square feet of offices, including two of the larger floors of the base, the fourth and fifth floors of the tower and the balance of office space below the 51st floor, and a major sales office at the corner of Vanderbilt Ave and E. 45th St. A \$25 million electronic reservations and communications center for Pan Am was installed on the fourth floor, designed by IBM. The agreement with Pan Am put the building over the 50% rental mark at the time, including previous rental agreements with corporations including Westinghouse and Alcoa. Stanley, “Genesis of a Giant”: 13–15.

supplement of logotypes that sought to give the project an identity beyond the financial abstractions that had brought it into being.⁷²

The major architectural features of Grand Central City were already determined by the time of Wolfson's agreement with Pan Am in September 1960, leaving the application of branding as the only significant means to tailor the appearance of a building whose aesthetic qualities otherwise bore little meaningful relation to the characteristics Pan Am sought to associate with travel. According to Richard Stanley, originally Wolfson "had sought diligently for a General Motors, General Electric, U.S. Steel or I.B.M." to lease twenty-five to forty percent of the project's rentable space in exchange for the ability to brand its architecture, confirming that the tower's architecture had little to do with any specific corporate identity prior to Pan Am.⁷³ Though Stanley claimed that Juan Trippe, the president of Pan American Airways, liked the building's architecture, Trippe's interest in the Grand Central City project apparently derived primarily from his recognition of the tower's unique scale and location as a billboard along the four axes of the Manhattan grid: as "a shrewd businessman," Stanley wrote, Trippe "was not unaware that there was a million dollars worth of advertising a year for Pan American World Airways in having its name on so prominent a building."⁷⁴ The intercontinental character of its financing (with the British investor Jack Cotton joining Wolfson in October 1959, possibly the first case of significant foreign investment in a real estate development in

⁷² Given Pan Am's late arrival as anchor tenant, after the fundamental design decisions for the building had been made, I omit a fuller discussion of Pan Am as a corporation, its international philosophy in relation to the discourse of Pan-Americanism, or how these expansionist ambitions became manifest in the company's buildings, including Trippe's establishment of InterContinental Hotels in 1946. On these themes see "Pan Am Signs On," Clausen, *Pan Am*, 128–138 and Ana Miljački, "Intercontinental Comfort: Little Americas Abroad" and related magazine articles reproduced in Eva Franch i Gilabert, Miljački, Michael Kubo, Ashley Schafer, ed., *OfficeUS Atlas* (Zurich: Lars Müller, 2015): 426–427 ff. On Pan Am and InterContinental, see "Intercontinental Hotels: Design for Tourism," *Architectural Record* (October 1953): 14–15 and Ruth Sheldon Knowles, "Enterprise & Diplomacy: Pan Am Airways' Hotel Unit Helps Itself by Aiding Nations," *The Wall Street Journal*, April 14, 1964: 18.

⁷³ Stanley, "Genesis of a Giant": 13. A contemporary article in the *New York Times* noted that it was customary for tenants to be able to name such office buildings if they rented one third or more of the total floor space. See "Tenant Can Pick Building's Name," *The New York Times*, January 4, 1959: R1.

⁷⁴ Stanley, "Genesis of a Giant": 14.

the U.S.) also matched Pan Am's expansionist ambitions, as "Trippe liked the idea that there was British money in the project, giving it an international flavor appropriate to his own company."⁷⁵

As Pan Am gained the ability to brand Grand Central City in its image, the problem of corporate identity thus fell from the realm of architecture to that of the logotype, which was now tasked—in place of the role *Architectural Forum* had earlier claimed for corporate architecture itself—with the need to “give this individual organization its individual face for all to see.”⁷⁶ The process of interpolating these symbols onto the facades of the Grand Central City design exposed the mis-fit between these two modes of signification, as well as between the architectural intentions of its designers and the brand imperatives of its new sponsor. Negotiations on branding began in August 1960 between TAC and the designers of Pan Am's branding, Edward Larrabee Barnes and Charles Forberg, both former students at Harvard under Gropius; Forberg was also Gropius's son in law.⁷⁷ Gropius sought to defend the architectural character of the tower against the unwelcome intrusion of billboard-like signage, arguing that “the dignity of the building” would be compromised by the large, thirty-foot tall signs initially desired by Pan Am.⁷⁸ Trippe, on the other hand, requested that the Pan Am name appear on each of the building's eight faceted facades. The members of TAC continued to push to limit the branding to the north and south faces of the tower only, commensurate with the broader scale of the facades facing up and down Park Avenue. Both sides agreed in May 1961 to a compromise in which the Pan Am name would appear on the north and south facades while its

⁷⁵ Ibid. On Jack Cotton as an investor in the Grand Central City project, see “Britain's Energetic Investor,” *Architectural Record* (January 1960): 14–16 and Clausen, “Wolfson Financing,” *Pan Am*: 86–88.

⁷⁶ Gutheim et al., “The Corporate Client”: 106. On the rise of “corporate identity” design programs and the role of the logo in this period, see Nan Adams, “Corporate Identity as a System,” *Dot Zero 2* (1966): 14–21; Lester Beall, “The Trademark: A Graphic Summation of Individuality,” *TRADEMARKS/USA*, exhibition catalogue (Chicago: Society of Typographic Arts, 1968); “Walter McQuade, “The Search for Corporate Identity,” *Fortune* (December 1970): 140–141. On the relationships between corporate identity programs and art practices in this period, see Caroline Jones, “Frank Stella: Executive Artist,” in *Machine in the Studio: Constructing the Postwar American Artist* (Chicago: University of Chicago Press, 1996): 114–188; Buzz Spector, *Objects and Logotypes: Relationships between Minimalist Art and Corporate Design* (Chicago: Renaissance Society at the University of Chicago, 1980).

⁷⁷ Forberg married Ati Gropius, the adopted daughter of Walter and Ise, in 1947; the couple later divorced. In 1981 Ati Gropius married the architect John M. Johansen, a student at Harvard under Walter Gropius from 1939 to 1942.

⁷⁸ Memorandum, August 1960, cited in Clausen, *Pan Am*: 138. Both sides eventually agreed to fifteen-foot tall signage.

globe symbol, designed by Barnes and Forberg, would appear on the building's shorter east and west sides.⁷⁹ Gropius continued to insist that these signs remain visibly independent of the architectural elements of the building, protesting to Roth and Wolfson that a proposal to install the globes flush with the vertical mullions on the east and west facades would give the tower the appearance of a billboard.⁸⁰ As built, the lack of coordination between the architecture of the tower and the Pan Am branding was particularly evident on these east and west faces, where the radius of the globes extended below the band of the mechanical floors at the top of the tower to overlap with the lintel that separated this band from the office floors underneath. (*Fig. 4.25*) Combined with the redesign of the tower's roof to accommodate a heliport well after the building was already under construction—an alteration that, as Gropius wrote, “destroys the effect of the open [vertical] mullions silhouetted against the sky” that had been a prominent feature of the 1958 rendering—the result was an awkward compromise between signage, mechanical, and facade elements at the building's roofline.⁸¹

If more fundamental changes to the building's profile and orientation had failed to fully shift Grand Central City from the appearance of a speculative building to the iconicity of a prestige building, the Pan Am signage constituted a retrospective attempt to transmute its architecture into a signature image, one that would henceforth represent its major tenant rather than its developer or investors. In this sense, these symbols essentially formed a communicative bridge that was required to mask the gap between the underlying financial structure of the project and its public expression. This need for the building's naming to perform as a brand-image began even before the design of the Pan Am logo had been settled, as evidenced by the generic typeface used in advertisements and model photographs of the building prior to the design of the final Pan Am font by Barnes and

⁷⁹ Memorandum, May 1961, cited in Clausen, *Pan Am: 196–199*.

⁸⁰ Walter Gropius, letter to Emery Roth and Erwin S. Wolfson, cited in Clausen, *Pan Am: 196–199*.

⁸¹ Clausen, *Pan Am: 196–199*.

Forberg.⁸² (*Fig. 4.26*) Beyond the addition of the heliport, the only other exterior expression of Pan Am's corporate identity, later branding efforts extended to the building's interior spaces, including the Pan Am ticketing office and communications center, also designed by Barnes and Forberg and, at the level of public art, through Richard Lippold's sculpture, titled "Flight," installed in 1963.⁸³

Marvel or Monster?

Further problems in the reception of the final design for Pan Am were caused by persistent ambiguities regarding the building's authorship. While the solicitation of Gropius and Belluschi was intended to give an intellectual stamp to the future development of the project through the addition of these names, it remained unclear to critics how to assign authorship over the project between Emery Roth & Sons, Gropius, TAC, and Belluschi. This consortium was alternately described as consisting of three co-equal designers (with Richard Roth standing in for the Emery Roth & Sons firm), or as a corporate firm advised by two academic practitioners, or as a joint effort of two team-based firms (Emery Roth & Sons and TAC) along with a professional consultant (Belluschi). Some sources, like *Architectural Forum*, initially described the team as wholly subsidiary to Wolfson rather

⁸² The large-scale cutaway model of Grand Central City, built by Norman Briskman, was originally displayed to the public in Grand Central Terminal prior to the Pan Am branding in November 1959 and appeared in photographs in various other media without the logo, as for example in Andreas Feininger's photographs of Gropius, Roth, and Wolfson with a similar model in February 1959. See "Model of Grand Central City Shown," *The New York Times*, November 3, 1959: 35. A similar (possibly the same) model subsequently appeared with Pan Am branding, but with a generic typeface for the Pan Am name, in photographs of Wolfson and Trippe following their agreement in September 1960 and thereafter. See for example "Sky-High Deal For a Skyscraper": 140. The 1962 *Real Estate Forum* issue on Pan Am included numerous advertisements and images that indiscriminately mixed renderings, drawings, and photographs with no branding, the generic typeface, and the final Pan Am font and logotype. On Briskman, the Grand Central City model, and other models designed for Pan Am, see "Building Models [All] Business," *The Times Record*, August 9, 1960: 12; Jane Jacobs, "The Miniature Boom," *Architectural Record* (May 1958): 106–111, 196.

⁸³ Lippold was criticized on much the same grounds as TAC for his involvement with Pan Am, as an artist willingly complicit with corporate interests. See Alice T. Friedman, "Through the Network of Wires: Portsmouth Abbey, Richard Lippold, and Postwar Syncretism," *Interiors*, Vol. 6, No. 3 (2015): 235–258.

than authors as such, referring to a more equivalent “three-man ‘advisory panel of architects’” in service to the developer.⁸⁴

These ambiguities of authorship were in evidence on multiple registers within the development of Pan Am, owing not just to the structure of this three-way consortium but to the nature of the entities involved. As we have seen, the collaborative model of TAC and the discursive binary of Gropius and TAC themselves presented critical problems for Pan Am, as with other work by the firm. So, too, did the relative anonymity of the Roth partnership and its large-scale organization, even as Richard Roth was occasionally called upon to serve as a voice for this corporate body.⁸⁵ TAC and Belluschi had both previously collaborated as team members on large-scale projects, particularly for the Back Bay Center in Boston (1953), an air-rights development that shared a number of similar features with the later Pan Am project.⁸⁶ Nor did Belluschi, the lone individual designer among the group, present a conventional image of architectural authorship. While Belluschi seemed to represent the figure of Gropius’s “primadonna” architect—a “fiercely ambitious” designer who, though he relied on a support staff to execute his designs, “rarely acknowledged the participation of others in his work”—his methods for achieving this control in practice were complicated by his specialization as an architectural consultant to other design firms after leaving his Portland office in 1951. In contrast to TAC’s holistic approach, Belluschi’s firm had been hierarchically organized, “highly stratified and staffed by skilled architects who worked for him under his supervision, with [Belluschi] firmly in

⁸⁴ “Gropius and Belluschi Advise On Grand Central Tower Design”: 47.

⁸⁵ See Roth, “High Rise Down to Earth” and “The Forces That Shaped Park Avenue,” *Perspecta* 8 (1963): 97–102.

⁸⁶ Clausen claims that “The impact of the Pan Am project as a whole on the TAC office—its size, organization, direction, and reputation—which, my sense is, was profound, has not been examined.” Clausen, *Pan Am*: 397, note 119. While it is clear that Pan Am was important for the expanding TAC office in the early 1960s, such claims ignore the context of TAC’s work in these years. As discussed in Chapter 5, TAC’s commission to design the University of Baghdad in 1957 far exceeded Pan Am both in program and in the international logistics required to execute it, requiring, for example, the opening of a branch office in Rome in 1959. So too, TAC had begun to gain significant commissions in Germany and elsewhere in Europe after its Interbau housing block (1956) and the U.S. Embassy in Athens (1959). While it is beyond the scope of this chapter to explore the specific impact of the Pan Am project on the functioning of the office, it is more likely that the combination of these various international commissions, combined with Pan Am in the U.S., had a far greater importance for the structure of the TAC office in these years.

control,” a model of organization that Belluschi conceived of as “like an SOM in miniature.”⁸⁷ After beginning his tenure as dean at MIT in 1951, however, Belluschi—who later declared that he had “had enough of this ‘business’ of architecture” at the time—gave up his practice, transferring his Portland office to SOM and choosing to specialize as an architectural consultant to other design firms.⁸⁸ While the shift may have been intended to consolidate Belluschi’s authorial control over the design aspects of buildings as distinct from their execution, this specialization presented the contradictory image of a signature architect placed in a subsidiary role within larger project teams like that of Grand Central City. In this sense, despite Wolfson’s explicit attempt to leverage their reputations to create an imprimatur for the project, neither Gropius nor Belluschi offered an easy image of creative genius to critics who sought to situate Pan Am among the signature towers rising in midtown Manhattan.

Unsurprisingly given this distributed authorship, both contemporary and later writing on Pan Am revealed difficulties in assigning agency over the design decisions that determined the tower’s final form. Some authors—particularly those in business magazines and real estate publications—continued to describe the project as primarily a product of Emery Roth & Sons, even after the arrival of Gropius and Belluschi. Other accounts emphasized the role of Belluschi, even while acknowledging that he abandoned a significant role in the project relatively early.⁸⁹ Numerous critics identified the tower above all with Gropius, seeking to situate it as the third in a trio of towers associated with the European modernist masters in New York City in the 1950s.⁹⁰ Few gave

⁸⁷ Clausen, *Pan Am*: 70.

⁸⁸ Ibid. The SOM quote is from “Interview: Pietro Belluschi”: 122. Belluschi claimed his Portland office had around thirty employees prior to its transfer to SOM. Ibid. On Belluschi’s specialization as a consultant, see Meredith L. Clausen, *Pietro Belluschi: Modern American Architect* (Cambridge, MA: MIT Press, 1999): 198 ff.

⁸⁹ In this respect, it is significant that Meredith Clausen was Belluschi’s biographer prior to writing *The Pan Am Building and the Shattering of the Modernist Dream*, the only dedicated book on the history of the project.

⁹⁰ The others were the Seagram Building, designed by the office of Ludwig Mies van der Rohe with Philip Johnson (1958), and the United Nations complex (1952), designed by the office of Wallace K. Harrison following notorious disputes over its authorship with Le Corbusier, a member of the international Board of Design Consultants convened for the project.

significant attention to the role of The Architects Collaborative other than as a subsidiary to Gropius, often through the typical locution of “Walter Gropius with TAC,” giving the elder partner primacy over the firm.⁹¹

These authorial difficulties were compounded by the changing stakes of TAC and Belluschi’s involvement with the development of the project after 1958. According to Meredith Clausen, the contract that Gropius and Belluschi signed with Wolfson in June 1958 designated Gropius as “‘leader’ and final arbiter of the design” for Grand Central City, as *primus inter pares* within the team.⁹² Clausen ascribes this decision both to the presence of the TAC team and to the shared belief, articulated by both TAC and Belluschi prior to 1958, that individual authority to make final decisions was required as a counter to teamwork—a principle all the more important here given the role of Wolfson’s preferred architects, Emery Roth & Sons, within the team.⁹³ Indeed, Clausen cites Richard Roth, Jr. on the Roth firm’s hope that TAC and Belluschi’s input would be largely limited to the four-month schematic design phase, to be finished by December 1, 1958.⁹⁴ In fact, Gropius and TAC gained agency as the project developed while Belluschi’s decreased, a fact that was evident in subsequent publicity photos of the project’s ostensible authors. (*Fig. 4.27*) According to Roth, Jr., after a few months Belluschi “just left” the project, remaining as a critic but abdicating a more

⁹¹ Other TAC partners that were heavily involved with Pan Am included Norman C. Fletcher and Alex Cvijanovic, who wrote the project description for Pan Am in the *Walter Gropius Archive*. See Cvijanovic, “Pan American World Airlines Building, New York City,” in John C. Harkness, ed., *Walter Gropius Archive, Vol 4: 1945–1969, The Work of The Architects Collaborative* (New York and London: Garland Publishing Inc., 1991): 352–353.

⁹² Grand Central Building, Inc., letter to Walter Gropius, representing The Architects Collaborative, and Pietro Belluschi, July 18, 1958, cited in Clausen, *Pan Am*: 397, note 119.

⁹³ Clausen chooses to identify this joint belief with Belluschi alone, ascribing it to his business sense rather than to TAC’s statements on the creative need for individual decision-making as a counterpart to group criticism: “Gropius... equipped with an office as Belluschi was not, was to have the final word on design, as in their words (most likely Belluschi’s) it had ‘been proven good business practice to have the design decision made by one person as the coordinator.’” Clausen, *Pan Am*: 60. Further, she incorrectly claims that the principle of individual decision-making following group criticism at TAC was only articulated after the Pan Am project, using this assessment—possibly based on her reliance on *The Architects Collaborative 1945–1965* (1966) as a source of statements on the firm’s methods—to suggest that this method was only “adopted as a wise procedure as a result of the experience with Belluschi” at Pan Am. As discussed in detail in Chapter 2, articles on TAC as early as 1947 described the firm’s internal rule of assigning one partner with final responsibility to each project, as well as the structure of group criticism and decision-making in the weekly partners’ meetings.

⁹⁴ Interview with Richard Roth, Jr., May 25, 1994, cited in Clausen, *Pan Am*: 61 and 376, note 100.

significant role in the final design work, while, in Belluschi's words, Gropius and TAC "took over."⁹⁵ Paradoxically, Clausen ascribes this to the refusal of Belluschi, the auteur, to fight for control and credit within the team-based structure of Grand Central City, contrasting this to the supposedly "headstrong, assertive, domineering personality" of Gropius, the proselytizer of non-hierarchical collaboration.⁹⁶

Despite initial claims such as those of *Architectural Forum* that TAC and Belluschi's input on the Grand Central City scheme would be limited to "Some changes... in the preliminary plans," the arrival of TAC and Belluschi instead triggered a fundamental redesign of the massing, orientation, and appearance of the project.⁹⁷ Designed to shift the signification of the tower as a corporate emblem, these modifications would have equally profound consequences for both Pan Am's urban impacts and its subsequent reception. Yet the result of the team members' shifting roles was a sequence of design decisions that could not easily be ascribed to a single set of authorial intentions, yet which were expected nevertheless to cohere aesthetically and urbanistically. The desire to rotate the tower ninety degrees to face Park Avenue has been credited to Gropius, though how this choice was made within the TAC team remains unclear.⁹⁸ Clausen claims the Roth office was initially resistant to this reorientation, citing the increased structural and logistical costs for the tower to span additional railway tracks across Park Avenue as outweighing the benefits of orienting more of the interior office spaces panoramic to views up and down Park Avenue. In contrast, TAC principals Alex Cvijanovic and Norman Fletcher both later credited Belluschi with the octagonal faceting of the tower, ascribing this to a desire to reduce the visual bulk of the tower by breaking up its profile.⁹⁹ To similar ends, TAC was credited with the idea to express the mechanical floors via windows recessed

⁹⁵ Cited in Clausen, *Pan Am*: Chapter 1, note 126.

⁹⁶ *Ibid.*, 104.

⁹⁷ "Gropius and Belluschi advise on Grand Central tower design": 47.

⁹⁸ Clausen, *Pan Am*: 98 ff.

⁹⁹ Cvijanovic, "Pan American World Airlines Building, New York City": 352. Clausen credits Belluschi for the octagonal profile, and describes his interest in the contemporary Pirelli building, including his suggestion to Wolfson to visit the building on a trip to Europe.

behind the tower's perimeter columns, breaking the tower's shaft vertically into thirds.¹⁰⁰ The appropriate scale of the facades for these revisions in the tower's profile and direction, however, was apparently subject to disagreement between TAC and Belluschi. According to Cvijanovic, Gropius and TAC favored a more forceful, plastic exterior treatment to match the visual prominence of the reoriented tower and, perhaps, to differentiate the building at the far scale from the glass curtain walls that increasingly surrounded it along Park Avenue. Clausen claims that Belluschi preferred a "more lacy, finely textured" facade with smaller windows to offset the bulk of the tower, a decision to which Gropius eventually agreed. The detailed design of the building's facades, based on a system of precast "Mo-Sai" concrete and quartz panels, was subsequently developed by TAC with Belluschi's input.¹⁰¹ (*Fig. 4.28*)

The inability to identify authorial intent with the various features of Pan Am's final form gave ammunition to the idea that its signature qualities were simply copied, second-rate versions of other signature precedents. Contemporary authors typically ascribed the building's form either to the contemporary example of the Torre Pirelli in Milan (Gio Ponti with Pier Luigi Nervi and Arturo Danusso, 1950–58), well publicized in the international architectural press around the time of TAC and Belluschi's first involvement with the Grand Central project in 1958, or further back to the faceted, hexagonal office tower projected by Le Corbusier for Algiers (c. 1936–38), as part of the *cite d' affaires* he proposed in various versions following his Plan Obus of 1933–34.¹⁰² (Le Corbusier's interest in the free-standing, six-sided slab continued after World War II in his town plan and civic

¹⁰⁰ Clausen, *Pan Am*: 98 ff.

¹⁰¹ *Ibid.*, 100 and note 39.

¹⁰² A profile of the Pirelli Tower was published in *Architectural Record* in December 1956, and certainly would have been known to TAC and Belluschi thereafter. The building subsequently appeared in mainstream U.S. and British journals including *Progressive Architecture* (September 1959), *Architectural Design* (December 1960), *Architectural Forum* (February 1961), and *Architectural Review* (March 1961). The project had appeared previously in European journals beginning with *Domus* in March 1956 and continuing thereafter in *Baumeister*, *l'Architecture d'Aujourd'hui*, *Werk*, *Zodiac*, *Casabella*, and numerous other sources. In turn, the faceted, octagonal slab of Portland House, in London (Howard Fairbairn & Partners) may have taken inspiration from Pan Am. Construction began in 1960, and the project was completed in 1963. The first proposal for Portland House was circa 1956, but may have been modified after. See "Portland House," *Concrete Quarterly*, No. 57 (Summer 1963).

center for St. Dié, c. 1945, which was also published in U.S. architectural journals.)¹⁰³ (Fig. 4.29–4.30) Douglas Haskell, for example, viewed Pan Am’s faceted profile not as evidence of authorial intent but rather as a derivative formal device, citing this seeming unoriginality as proof of the corporate character of Pan Am’s design. Haskell wrote that the building’s prismatic form only demonstrated that “once again a speculative job has been imitative rather than enterprising, for this creation on the best corner of New York is really a clumsy copy of a Le Corbusier building of 1931 [sic], enlarged and wrapped in a bear rug.” He thus regarded the building’s octagonal shape as evidence of its architects’ “self-betrayal” in copying this Corbusian prototype, though he conceded that the resulting form “does have a vivid presence, being a shape scarce in New York.”¹⁰⁴

Yet the provenance of Pan Am’s profile was more complex than mere copyism would suggest. Both TAC, and TAC and Belluschi jointly, had previously proposed multiple projects involving faceted, slab-like towers as far back as 1952, suggesting that the design of Pan Am was less an example derived from other sources than a reflection of these architects’ interests in finding a tower form that would be memorable enough to function as an adequate visual terminus for the Grand Central City complex. The most immediate precedent for both the specific complexities of the Pan Am site and the form of its tower was the Back Bay Center scheme for Boston, developed in 1953 by a consortium of TAC, Belluschi, Walter F. Bogner, Carl Koch & Associates, and Hugh Stubbins Jr.¹⁰⁵ (Fig. 4.31) Both the context and the design of the Back Bay project shared striking similarities with the economic and physical determinants of Pan Am. It was an early example of air-rights development over rail and automobile lines, a crucial feature of the constraints that later governed

¹⁰³ The St. Dié project was published in *Architectural Record* (October 1946): 78–80 and *Domus* (June 1953): 1–6.

¹⁰⁴ Haskell, “The Lost New York of the Pan American Airways Building”: 110–111.

¹⁰⁵ On the Back Bay Center, see “Firm Organized to Build Back Bay Civic Center,” *The Christian Science Monitor*, May 22, 1953: 2; W. Clifford Harvey, “Hynes Bids Bostonians Aid Civic Center,” *The Christian Science Monitor*, September 11, 1953: 1; Harvey, “Proposed Boston Center Acclaimed for Design,” *The Christian Science Monitor*, January 29, 1954: 11; Walter F. Bogner, “The Boston Back Bay Center Project: General Description of Project” and Hugh Stubbins Jr., “The Process of Design,” *Journal of Architectural Education*, Vol. 10, No. 1 (Spring 1955): 43–44; “Boston Center,” *Architectural Forum* (November 1953): 104–115; “Boston’s Back Bay Center for Stevens Development Corporation,” *Architectural Record* (October 1953): 143 ff.; “Proposed Back Bay Center Development for Stevens Development Corporation,” *Progressive Architecture* (January 1954): 73–86.

the Grand Central site. The project was designed to be built over the freight yard of the Boston & Albany Railroad, a subsidiary of the New York Central Railroad company whose decision to sell its parcels around Grand Central would instigate the building boom along Park Avenue and the development of Grand Central City. Furthermore, the developer for the Back Bay Center, Roger L. Stevens of the Stevens Development Company, would be designated along with Zeckendorf in 1955 as the real estate agent for the New York Central in the sale and development of its land holdings around Grand Central.¹⁰⁶ The Back Bay Center complex would have had a total scale close to that of Pan Am, with 1.4 million feet of offices and 900,000 square feet of retail space.¹⁰⁷ Like Pan Am, the project was anchored by a slab-like, polygonal tower (hexagonal rather than octagonal in this case), placed directly over and oriented perpendicular to the line of the incoming transit lines so as to be visible at a distance for travelers entering Boston by highway.¹⁰⁸ Both the Pan Am and Back Bay towers were thus oriented to face the longest urban axis in each case, presenting themselves as monumental forms at the urban scale.

While Belluschi has commonly been credited with suggesting the octagonal form of the tower as a means of reducing its visual bulk, the joint involvement of both Belluschi and TAC in the Back Bay Center lends weight to the notion of sympathy between both consultants on this aspect of the design. Furthermore, an earlier TAC project shows that the office was already interested in the potentials of a faceted slab as an urban form prior to the Back Bay project. In its design for the

¹⁰⁶ Clausen, *Pan Am*: 44.

¹⁰⁷ W. Clifford Harvey, "Hynes Bids Bostonians Aid Civic Center," *The Christian Science Monitor*, September 11, 1953: 1.

¹⁰⁸ On air-rights precedents in this period, see David Gissen, "Megastructures and Environmental Gentrification," in *Manhattan Atmospheres: Architecture, the Interior Environment, and Urban Crisis* (Minneapolis: University of Minnesota Press, 2014): 29–66 and Elihu Rubin, *Insuring the City: The Prudential Center and the Postwar Urban Landscape* (New Haven and London: Yale University Press, 2012). Like the Back Bay Center and the Prudential Center, the project eventually built on the Back Bay site, Pan Am became a precedent for subsequent air-rights projects in other cities. Wolfson and Jack Cotton joined again while Pan Am was in construction to propose an air-rights development flanking Union Station in Chicago, over the rail tracks of the Chicago Union Station Company. See Thomas Buck, "Skyscrapers Planned on Air Rights Site," *Chicago Daily Tribune*, July 20, 1961: 3 and Austin C. Wehrwein, "Air Right Project Slated in Chicago," *The New York Times*, July 20, 1961: 43. Haskell, "The Lost New York of the Pan American Airways Building" discusses previous precedents in NYC for multi-level (if not strictly air-rights) large-scale developments, particularly Rockefeller Center and the original Grand Central development.

headquarters of the American Academy of Arts and Sciences (AAAS) in Washington, D.C. in 1952, TAC proposed a slab-like, six-sided office building that was shaped to fit the irregular polygon of the site.¹⁰⁹ (*Fig. 4.32*) John C. Harkness described the faceting of the building to fit the site as being of particular interest to Gropius, as a solution that placed “greater emphasis on the urban context as a generator of the form of the building” versus rectilinear and triangular schemes that were also tested by the office.¹¹⁰ Unlike Back Bay and Pan Am, the long facades of the slab were here oriented along the street rather than facing the long axis of Massachusetts Avenue, perhaps constrained by required setbacks on the irregularly-shaped site.

Following the Back Bay and AAAS projects, TAC’s interest in the faceted slab continued in their unbuilt scheme for a proposed Government Center in Boston in late 1958, coincident with the firm’s initial involvement with Pan Am and just prior to the subsequent planning of the Government Center area by Adams, Howard & Greeley (1959) that was later developed by I. M. Pei & Partners.¹¹¹ On the same site for which TAC would later design the John F. Kennedy Federal Building (1961–66), the firm again proposed the hexagonal slab form for a private office building, in this case oriented perpendicular to the primary view facing the Boston waterfront, hemmed in by civic and retail buildings on three sides. (*Fig. 4.33*) Within the developed Government Center plan after 1961, the federal office building that TAC designed on the same site was reoriented ninety degrees to face the open plaza in front of Boston City Hall, now facing the major axis of arrival from Congress Street.¹¹²

¹⁰⁹ The site, on Scott Circle, is incorrectly described as being on Dupont Circle by in the Walter Gropius Archive. A building for the AAAS was ultimately built on the same site by Faulkner, Kingsbury, and Stenhouse in 1955.

¹¹⁰ John C. Harkness, ed., *Walter Gropius Archive, Vol 4*: 59.

¹¹¹ See “New Plan for Oldest Boston: Architect's Version of Proposed Government Center,” *The Christian Science Monitor*, October 15, 1958: 1; “TAC Proposes Government Center for Boston,” *Progressive Architecture* (December 1958): 33.

¹¹² The story of the repositioning and reorientation of the JFK tower from the schematic version included in the Pei master plan, in dialogue between Gropius, Fletcher, and Henry N. Cobb of Pei & Partners, is told in Norman C. Fletcher, “The John F. Kennedy Federal Office Building in Boston,” in J. Carter Brown, ed., *Federal Buildings in Context: The Role of Design Review* (Washington, D.C.: National Gallery of Art): 39-43. In the same volume, see also David Crane, “The Federal Building in the Making of Boston’s Government Center: A Struggle for Sovereignty in Local Design Review”: 21–38.

This lineage of projects reflects TAC's developing interest throughout the 1950s in both the office tower as a type and the faceted slab as a monumental urban form.¹¹³ While the hexagonal profiles of these towers and their urban orientation clearly took inspiration from Le Corbusier's Algiers and St. Dié projects, contemporary accusations of copyism by architectural critics both undermined the interests that TAC and Belluschi invested in the project and, perhaps, betrayed an inability to evaluate these formal aspects of the project in the absence of clear statements of authorial intention among the various collaborators. Even the most proximate source for Pan Am's form, the Pirelli Tower in Milan—completed in 1958 and published in American architecture journals after 1956, two years before TAC's involvement at Pan Am—was insufficient for explaining the utility of the faceted profile as a specific solution to the Grand Central site. (*Fig. 4.34*) The shift from the hexagonal shape of TAC and Belluschi's previous tower projects to the octagonal form of Pan Am can perhaps best be explained as a formal acknowledgment of its singular site, with four facades oriented axially to the four street directions faced by the tower, interpolated by four diagonal, chamfered facades. A comparison of the floor plans of the towers makes clear that the basic organization of Pirelli, a prestige building that was itself conceived as a modification of U.S. office prototypes, was essentially unavailable in the case of a speculative office building at the scale of Pan Am, requiring its small circulation cores to be pushed to the edges of the floor plates in order to enable such a slender profile. In this sense, Pan Am shares more in common with the earlier prototype of Le Corbusier's Algiers tower, similarly based on central elevator cores oriented parallel to the shorter dimension of the slab and surrounded by open floor plates. (*Fig. 4.35*)

¹¹³ This lineage of projects additionally goes against Meredith Clausen's claim that Gropius and TAC had not worked on office tower projects before or were "out of touch" with American business. This is particularly true in the case of the Back Bay Center, a large-scale development similar in scope to Pan Am which continued for three years before falling victim to Stevens' inability to gain favorable tax abatements from the City of Boston for the scheme. This lineage also includes TAC's unbuilt proposal for the McCormick office building in Chicago (1953). The fact that these projects remained unbuilt is not, in itself, evidence for the notion that Gropius lacked engagement with U.S. business concerns.

Appearance or Disappearance

Compounded with the anonymity of its corporate patronage, these ambiguities of authorship and influence over the major features of Pan Am's design contributed to the project's unsettling lack of resolution in the public eye. Critics of the building pointed repeatedly to these perceptual difficulties in assessing the overall effects of Pan Am's massing, orientation, profile, scale, and design details. The project was commonly judged to be alternately too monumental in scale or too small in detail and in its urban and architectural ambitions, overscaled in mass and underscaled in its textured facades, both prominent foreground and relentless background.¹¹⁴ While contemporary articles regularly employed terms like "giant," "behemoth," and "monster" to describe the building as it neared completion, for example, Douglas Haskell regarded the project's corporate imperatives as insufficiently ambitious for the monumental urban potential of the Grand Central site.¹¹⁵ "Actually what is wrong with Pan Am is not that it is so very big or that it might produce extreme congestion or that the forces which produced it are so very formidable," Haskell wrote, but rather "The trouble is, on the contrary, that its underlying ideas are so inadequately small, and are formed to the lowliest kind of business imagination."¹¹⁶ Similarly, in *The Heart of Our Cities*, architect and urbanist Victor Gruen described Pan Am as a "disappearing" monument, despite its massive scale and expense. In "Appearance or Disappearance? That Is The Question," Gruen elaborated his conviction that sheer physical or economic scale were not in themselves synonymous with effect, defining urban *appearance* as "the inherent quality of an object itself plus its impact on those who experience the

¹¹⁴ Rem Koolhaas later recognized the paradoxical nature of Pan Am in precisely these terms, describing the building as "both unavoidable and hard to locate.... a disappearing act, an apotheosis of background." Koolhaas, "Enabling Architecture," in Robert E. Somol, ed., *Autonomy and Ideology: Positioning an Avant-garde in America* (New York: The Monacelli Press, 1997): 292–299.

¹¹⁵ See Stanley, "Genesis of a Giant"; James T. Burns, Jr., "The Pan Am Building: A Behemoth is Born," *Progressive Architecture* (April 1963): 61–62; Ada Louise Huxtable, "Marvel or Monster? Grand Central City is Mass Architecture," *The New York Times*, January 24, 1960: X13.

¹¹⁶ Haskell, "The Lost New York of the Pan American Airways Building": 108.

object through their senses.”¹¹⁷ Speculative office buildings, particularly designed via group authorship, was particularly susceptible to such accusations of failure in achieving a meaningful—that is, perceptible—impact on their urban surroundings, regardless of their scale or specific design features. Viewed in these terms, Gruen regarded Pan Am as a monumental failure of planning and execution, writing that

The new Pan American building in Manhattan, with its 2,000,000 [sic] square feet of building area, is the largest office building ever constructed. It has not improved the appearance of Manhattan: rather, it has diminished it, and this in spite of the act that untold millions of dollars were involved, that two of the most famous American architects (Walter Gropius and Pietro Belluschi) were retained as design consultants, that its builder, the late Erwin S. Wolfson, was motivated, at least to some degree, by praiseworthy aims. The fact is that by virtue of its location this building contributes to a deterioration of those prerequisites which are vital to a city.¹¹⁸

The contradictions of Pan Am’s ambiguous scale—at once generic and monumental, too minutely detailed and too massive—filtered into other reviews as well. James T. Burns, Jr. noted that “The new building forms a vast anonymous background” for Grand Central Station and the Grand Central tower, “but at the same time dwarfs them with its intensity, making them appear insignificant.”¹¹⁹ Even proponents of the building, like Mildred F. Schmertz of *Architectural Record*, acknowledged “The Problem of Pan Am,” pointing to the interpretive impasses of patronage, authorship, and form

¹¹⁷ Victor Gruen, *The Heart of Our Cities: The Urban Crisis: Diagnosis and Cure* (New York: Simon and Schuster, 1964): 168.

¹¹⁸ *Ibid.*, 170.

¹¹⁹ Burns, Jr., “The Pan Am Building: A Behemoth is Born”: 62.

that complicated critical assessments of the building.¹²⁰ Ada Louise Huxtable also identified these conundra in her review of the revised Grand Central City design following TAC and Belluschi's involvement, questioning how the project should ultimately be judged: "Marvel or monster?"¹²¹ Huxtable captured the paradoxical status of Pan Am's scale and appearance in a subsequent review of the building after its completion, describing it as "a colossal collection of minimums"—a massive urban form built out of reductive commercial efficiencies, one whose ambiguous scale and authorship were seemingly insufficient to overcome its status as a fundamentally anonymous speculative building at a monumental scale.¹²²

In attempting to reconcile the unsettling urban and architectural form of Pan Am, later authors searched for signs of intent in Gropius's own statements on the tower form in relation to the democratic obligations of the architect and the changing character of postwar urban life in the U.S. Two months after signing the contract to join the Grand Central City team, Gropius argued, in "The Curse of Conformity," for the role of the artist-architect in providing symbolic forms that could overcome the abstract, dehumanizing aspects of an increasingly technocratic, business-oriented society.¹²³ In seeking "to find the humanized image for society's aspirations and ideals, Gropius

¹²⁰ Mildred F. Schmertz, "The Problem of Pan Am," *Architectural Record* (May 1963): 151–158. Schmertz pointed astutely to the contradictions of criticism that governed reviews of Pan Am upon its opening: "Newspapers whose real estate pages are models of indifference to the social and esthetic implications of the events they report have given free rein to their art critics and editorial writers, who have been blasting away at Pan Am with holy zeal.... All have pronounced the building ugly, of course, for how could it be otherwise? This universal disparagement of Pan Am is extremely unfortunate for two important reasons. The journalistic criticism it so far has received does not contribute to anyone's understanding of the real forces which shape cities and buildings. To understand all is not necessarily to forgive all, but to know more is to cope better, and the economic and social dynamics behind Pan Am should be better comprehended by both citizen and architect. As serious as the failure of this type of criticism to educate is its unfairness to the architects of the Pan Am Building, Walter Gropius, Pietro Belluschi and Richard Roth, and to its late owner, Erwin Wolfson. If a painting or sculpture fails as a work of art, it fails as a thing of consequence, excuses are irrelevant, and it does not deserve our regard. If a building is less than a total aesthetic success, however, it may be a brilliant compromise with incontrovertible forces which reasonable criticism must consider. Pan Am is such a brilliant compromise." *Ibid.*, 153.

¹²¹ Huxtable, "Marvel or Monster?": X19.

¹²² Ada Louise Huxtable, "Architecture Stumbles On: Recent Buildings Are Nothing Much to Brag About," *The New York Times*, April 14, 1963: 119.

¹²³ Walter Gropius, "The Curse of Conformity," *The Saturday Evening Post*, September 6, 1958: 18–19, 51–52, 54. This text was subsequently published as "Unity in Diversity" in Gropius, *Apollo in the Democracy: The Cultural Obligation of the Architect* (New York: McGraw-Hill, 1968): 21–32.

wrote, “By virtue of his ability to give visible symbols to significant order, the artist may once again become society’s seer and mentor, and as custodian of its conscience solve the American paradox.”¹²⁴ In grafting these philosophical statements onto Pan Am, critics sought to understand the project as an attempt by Gropius, as singular author, to provide just such a “visual symbol” of order in the rapidly corporatizing context of midtown Manhattan, increasingly the spatial center of the postwar U.S. business boom.

A text by Gropius on the project in the year prior to its opening, “The Pan Am Building in its Urbanistic Context,”¹²⁵ seemed to provide evidence for this one-to-one relationship between intention and realization. (*Fig. 4.36*) In it, Gropius reiterated the idea that “We have to invent our own significant standards of beauty by creating a new urbanistic order from the realities of American life.”¹²⁶ Citing the changing character of the area as it became “a commercial center of big corporations,” Gropius wrote that in accepting the Grand Central City commission, “The unbalanced appearance of the present Park Avenue called for the creation of a strong point of reference for the unbalanced building masses” that increasingly crowded the Grand Central site.¹²⁷ Two years after the completion of Pan Am, Gropius described the use of scale to control the visual form of buildings in terms that recalled TAC’s push to reorient the tower to create a sufficiently prominent form in its urban setting. “The effect of a building will be intense,” Gropius wrote,

¹²⁴ Gropius, “Unity in Diversity”: 32.

¹²⁵ Though Gropius made similar arguments for Pan Am in quotes and correspondence that appeared in other articles in these years, the text in *Real Estate Forum*, a professional trade magazine, seems not to have gained traction in architectural or public press in these years. Neither this issue of *Real Estate Forum* nor Gropius’s text, for example, are cited in Clausen’s otherwise comprehensive list of publications on Pan Am in this period. Gropius’s essay appears to be quoted in Schmertz, 157, though without attributing the written source.

¹²⁶ Walter Gropius, “The Pan Am Building in its Urbanistic Context,” *Real Estate Forum*, Sept. 30, 1962: 61.

¹²⁷ *Ibid.*, 60. In a text inset below the Gropius essay, Paul Zucker, a professor at the New School who had defended Pan Am in a conference there in 1961, similarly praised its monumental scale as providing a “unifying factor” and a necessary “point of reference” in its urban context. Clausen cites Gropius’s correspondence in March 1961 requesting Zucker to write an article in defense of the project, yet claims incorrectly that “there is no evidence that Zucker ever wrote or published the article.” Clausen, *Pan Am*: 193–194.

only when all requirements for human scale have been fulfilled for any potential distance or point of view. From far away the silhouette of a building should be simple so that it can be grasped as a symbol even by an ever-so-primitive spectator... When we approach more closely, we start to distinguish protruding and receding parts of a building, and their shadows will serve as scale regulators for the new distance. And finally, standing close by and no longer able to see the whole edifice, the eye should be attracted by new surprises in the form of refined details and textures.¹²⁸

Read in these terms, the changes made by the TAC team to the form of the tower—reorienting it to face the long Vista of Park Avenue in order to restore the visual balance with the corporate buildings rising around it—seemed to confirm the desire to make Pan Am transcend its status as a speculative building to function as an urban icon. Despite the presence of more pragmatic arguments for these design changes, including the real estate benefits of improving views from the building as well as simplifying the layout of its floor plates, critical reception has focused less on these prosaic concerns—which would require a greater attention to the role of TAC and Emery Roth & Sons in the design process—than on reinforcing the imprimatur of Gropius by emphasizing Pan Am’s status as an emblem not just of its clients, but of U.S. commercial and technological culture at large.

The interpretation of Pan Am has been burdened by the paradox of reconciling such statements by Gropius on overcoming the corporatization of urban life with the building’s history as a speculative enterprise, built to satisfy the profit motives of a commercial developer and later branded by a multinational corporate tenant. For Manfredo Tafuri, this misalignment between theory and practice constituted proof of the decline of Gropius’s authorial and sociological commitment in the postwar context, as an architect willing “to legitimize with his signature ostentatious urban paradoxes like the Pan American Building of 1958.”¹²⁹ In this view, buildings like Pan Am served as crucibles for the complicity or resistance of architects in facing the cultural

¹²⁸ “Architectural Details: Walter Gropius,” *Architectural Record* (February 1965): 133. Compare this with James T. Burns, Jr.’s negative assessment of these differences in near and far scale at Pan Am: “Since the building sits on a crowded site, one must get some distance away in order to see it as a whole. Then it becomes apparent that the precast, three-dimensional elements introduced onto the facade to give interesting effects of light and shadow blend into each other to give the impression of just another curtain wall.” Burns, Jr., “The Pan Am Building: A Behemoth is Born”: 62.

¹²⁹ Manfredo Tafuri and Francesco Dal Co, *Modern Architecture* (Milan: Electa, 1976): 307.

contradictions of postwar capitalism, a test that Tafuri identified with their attitudes toward the U.S. skyscraper as a fundamentally mute expression of these forces within the city. Citing Gropius and Adolf Meyer's entry for the Chicago Tribune Tower competition of 1922, Tafuri claimed that "It is the indifference of the skyscraper which Gropius [sic] understands as the ultimate reality and that, in spite of everything, he tries to defy."¹³⁰ In the case of the Tribune tower, Tafuri argued, this was achieved through a syncopated rhythm of projections and recessions within the facade, "articulations that make every attempt to restore a communicative dimension to this structure, in itself indifferent and completely inarticulate."¹³¹ (*Fig. 4.37*) In applying this framework to Pan Am, critics searched for an authorial position on the corporate imperatives of the office building through these decisions concerning the scale and visual prominence of the building, ultimately condemning the project, and its architects, for the inability to make the tower "speak" in its urban setting. Anna Vallye has summarized the consequences of this interpretive dialectic for the status of both author and building, writing that "Nowhere had the thematics of form and disappearance around the figure of Gropius coalesced more publicly and with greater symbolic force than in the "travesty" of the Pan Am (later MetLife) Building."¹³² As Vallye notes, the range of responses to the building tended to reinforce "an irresolvable conflict between form and its negation, vision and its occlusion," restating these formal and interpretive dialectics under different guises: appearance or disappearance, muteness versus

¹³⁰ Manfredo Tafuri, "The Disenchanted Mountain: The Skyscraper and the City," in Giorgio Cucci, Francesco Dal Co, Mario Manieri-Elia, Tafuri, *The American City: From the Civil War to the New Deal* (Cambridge: MIT Press, 1979): 405.

¹³¹ Ibid. Tafuri identifies the realism of Rockefeller Center development—which, as later at Grand Central City, "came into being on the basis of an analytic study of its economic possibilities"—as marking "the end of any utopian ideal of comprehensive public control over the urban structure," and thus as "the definitive eclipse of the 'skyscraper as an individual," freed from the need for iconicity as with its antecedents. Yet he also identifies Rockefeller Center as a victory for the 1916 New York City zoning law, precisely the mechanism later came under criticism at Pan Am for its ineffectuality in preventing a large-scale development on the Grand Central site. Like Rockefeller Center, Pan Am aligned with what Tafuri describes as "a rational organization of the constituent elements of the city—local traffic, pedestrian traffic, underground transportation, parking, commercial areas, skyscrapers, leisure and recreation." Tafuri, "The Disenchanted Mountain": 484–485.

¹³² Anna Vallye, "A Figure Covered with Labels': The Reception of Gropius's American Work," in *Design and the Politics of Knowledge in America, 1937–1967: Walter Gropius, Gyorgy Kepes*, Ph.D. Dissertation, Columbia University (2011): 50.

signification, indifference versus communication, speculative building versus prestige tower, background or foreground, marvel or monstrosity.¹³³

The irreconcilable ambiguities of Pan Am's site, form, and authorship are evident in a photograph that appeared three years after the building's opening in *The Architects Collaborative 1945–1965*, as something of a definitive view of the building in its urban setting. (Fig. 4.38) Of unknown authorship, this image does not appear in any other press on Pan Am or publications of TAC's work, and the evidence suggests that it was commissioned specifically for the monograph as just this sort of definitive representation.¹³⁴ The photograph is taken from a unique position compared to the more commonly circulated images of the building, either looking frontally down Park Avenue, or upward from street level.¹³⁵ Given pride of place in the monograph, the elevated view places the building between the iconic vertical shafts of the Chrysler and Empire State buildings behind, and the New York Central tower in front. This perspective is clearly intended to monumentalize Pan Am, as the newest among New York City's vertical icons. Yet its profile is very different: lower and wider, without a crown—a faceted slab rather than a slender, tiered pinnacle. It sits uneasily among its neighbors, hovering between prominent surface and mute object, neither fully foreground nor background. In placing Pan Am relative to these signature buildings, the photograph suggests the critical demand for an equally iconic tower on one of the most prominent sites in the city. At the same time, it makes clear how the wall-like mass of Pan Am was prevented from meeting

¹³³ Ibid., 51.

¹³⁴ The photograph appears uncredited in *The Architects Collaborative 1945–1965*. A list of photographers is included in the back matter of the monograph, but these are not correlated to specific photographs as they appear in the book. It may be by J. Alex Langley, whose name appears on this list, and whom the 1962 issue of *Real Estate Forum* lists as the official photographer for Pan Am. Langley took various aerial photographs of the Pan Am building for *LIFE Magazine* around the time this photograph may have been taken, circa June 1963. An uncropped slide of this photograph appears uncredited in the TAC office slide library, Loeb Special Collections, Harvard Graduate School of Design. While other photographs of Pan Am by Joseph Molitor appear in the TAC monograph and in other publications, this photograph is not included among the negatives in the Molitor papers, Avery Architectural & Fine Arts Library, Columbia University.

¹³⁵ There are only two locations from which the photograph could have been taken, offering further proof of the intentionality of this viewpoint. Either from an upper-level roof terrace of the Waldorf-Astoria just up Park Avenue—compare this for example with Armin Landeck, “View of New York” (1932), a lithograph that show nearly the same perspective as the later photograph; or from the Emery Roth & Sons tower that rose just south of the Waldorf in the year after Pan Am was completed, from which one would have nearly the same view.

this demand by the flawed urbanistic and financial premises from which it had taken shape. In this regard, both TAC and the consortium of firms that designed the building were uniquely ill-suited to provide this sort of landmark. Committed to the avoidance of signature, the collaborative stakes of its architects were fundamentally at odds with the public desire for iconicity, a paradox that would condemn Pan Am to stand as both the apotheosis of TAC and the turning point in Gropius's status among the modernist masters.

Chapter 5

Bureaucracy and Genius at the University of Baghdad 1957–1983

Because there are so few technically-trained professionals in the countries concerned, there has been a great call on technicians from the West.

—Raglan Squire¹

Oil, of course, is a great historymaker these days, but only when it is converted into something constructive does it make a real mark.

—Ise Gropius, letter to Ellen and Nizar Ali Jawdat²

Export Practices

The steady expansion of U.S. architectural practice after the 1950s frequently followed the path of geopolitical and economic interests abroad. As the shifting dynamics of the Cold War implicated new territories as puzzle pieces in the global map of U.S. and Soviet influence, the newly post-colonial states of the Arab and Persian Gulf gained importance both as potential allies within the developmental framework of U.S. technical assistance, and as sources for the increasingly valuable strategic currency of oil.³ Governmental and financial aid programs like Point Four sought to embed U.S. influence within national modernization efforts in these states, while pro-U.S. alignments like

¹ Raglan Squire, “Architecture in the Middle East,” *Architectural Design*, March 1957: 74.

² Letter from Ise Gropius to Ellen and Nizar Ali Jawdat, November 20, 1957. Harvard University, Houghton f 2013M-29.

³ The majority of oil consumed in both the U.S. and the Soviet Union in the 1950s continued to be produced from domestic sources. The strategic interest of the U.S. in the oil resources of the Gulf lay primarily in ensuring stability of supply to Europe within the framework of the Marshall Plan, particularly to avoid the potential consequences of political instability caused by disruptions or dramatic price fluctuations in the supply of petroleum. For a discussion of the objectives of the Point Four program in Iraq, see Henry Wiens, “The United States Operations Mission in Iraq,” *Annals of the American Academy of Political and Social Science*, Vol. 323 (May 1959): 142-3; “The United States in the Middle East,” in James L. Gelvin, *The Modern Middle East: A History*, 4th ed. (Oxford and New York: Oxford University Press, 2015): 300–316.

the Baghdad Pact—established in Iraq in 1955 along with Turkey, Iran, and Pakistan as a territorial hedge against Soviet incursion into the Middle East—competed with other transnational formations in the region, particularly the Pan-Arabist movement embodied by the rise of Gamal Abdel Nasser in Egypt that culminated with the creation of the United Arab Republic after 1958. (*Fig. 5.1*) In parallel, consortia of U.S. and European oil companies extended their interests beyond the major prewar sources of foreign petroleum (including Venezuela, Colombia, and Indonesia) into the Arab and Persian Gulf states after World War II. While concessions in these oil-producing territories had often been gained by U.S. and British interests in the early twentieth century, their capacities were only fully understood and exploited in the postwar period.⁴ At the same time, these newly independent states, freed from direct British and French control, increasingly contested and renegotiated the terms of prewar concessions on the way to full nationalization of their oil interests, generating lucrative new revenue streams that could be used to support ambitious national programs of modernization and development. Such renegotiations paralleled the decline of British colonial influences (along with British planners and architects) in favor of U.S. interests in the postwar period, particularly under regimes whose authority was directly indebted to the British prior to World War II (as with the Hashemite monarchies in Iraq after 1932 and Jordan after 1946) or subsequently to the U.S. and Britain (as with the rule of Mohammad Reza Pahlavi in Iran after 1953).

Foreign architects quickly came to play a crucial role within this intersection of Cold War diplomatic entanglements, the global infrastructures of petroleum and finance, and the expanding developmental efforts of post-colonial nations. By the mid-1960s, many of the U.S. firms established or newly enlarged in the years immediately after World War II had gained significant commissions in the Arab and Persian Gulf states. The expanding presence of U.S. architects in the region included

⁴ On the history of U.S. oil companies in the Arab and Persian Gulf, see Robert Vitalis, *America's Kingdom: Mythmaking on the Saudi Oil Frontier* (New York: Verso, 2009); Anthony Sampson, *The Seven Sisters: The Great Oil Companies and the World They Shaped* (New York: Bantam Books, 1979); Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power* (New York: Simon & Schuster, 1991).

projects by Sert, Jackson and Gourley (after 1955) and The Architects Collaborative (after 1957) in Iraq; Brown Daltas & Associates (after 1957), Edward Larrabee Barnes Associates (after 1958), and Victor Gruen International (after 1965) in Iran, and Minoru Yamasaki Associates (after 1958), Skidmore, Owings & Merrill (after 1962), Caudill Rowlett Scott (after 1964), and Edward Durell Stone (after 1965) in Saudi Arabia.⁵ Such commissions played a fundamental role in the expansion in size and scope of these architecture practices to become large, often corporately organized firms in these years, including the establishment of international branch offices, as in the case of TAC in Rome after 1959.⁶

In addressing the problems and the potentials of these newly competitive territories for architectural work, U.S. firms sought both to navigate the shifting geopolitical currents particular to each nation—including countries like Iraq, where public hostility to U.S. and other foreign influences culminated in the coup d'état of July 14, 1958—and to stake out differing modes of practice that would enable them to pursue, and gain, significant commissions in the region. In addressing the cultural, aesthetic, and technical questions particular to these new contexts, then, aspects of the discursive and competitive terrain of practice that had marked prewar competition in the U.S. reasserted themselves. In this landscape of position-taking, two types (or tropes) of U.S. and European practice emerged as particularly well-suited to address the desires of governmental and institutional clients in the Arab and Persian Gulf states. One was the figure of the signature architect, invited to “give form” to modernizing national aspirations, often through the design of monumental cultural complexes and new government centers, such as Le Corbusier in Chandigarh, India after

⁵ An initial timeline of these and other projects by U.S. architects in the Gulf states is given in Michael Kubo, “Petroleum Power: Architecture and Oil,” in Eva Franch i Gilabert, Amanda Lawrence, Ana Miljački, Ashley Schafer, ed., *OfficeUS: Agenda* (Basel: Lars Müller, 2014): 160-167.

⁶ These efforts were paralleled by the involvement of large architecture-construction-engineering firms in both infrastructural and architectural work in the Arab and Persian Gulf states, including the presence of conglomerates such as Bechtel Group, Frank E. Basil, and Metcalf & Eddy Inc. See Richard Finnie, *Bechtel in Arab Lands: A Fifteenth-Year Review of Engineering and Construction Projects* (San Francisco: Bechtel Corporation, 1958). On Bechtel’s work in Saudi Arabia, including the firm’s involvement with The Architects Collaborative in the design and construction of Jubail New Town, see Jeffrey Craig Smith, “Mega-Project Construction Management: The Corps of Engineers and Bechtel Group in Saudi Arabia” (Ph.D. Dissertation, Massachusetts Institute of Technology, 1991).

1947, Frank Lloyd Wright, Le Corbusier, and Alvar Aalto in Baghdad, Iraq after 1956, and Louis I. Kahn in Dhaka, Bangladesh after 1962.⁷ In contrast to such heroic figures, corporate bodies like Skidmore, Owings & Merrill (SOM), and Caudill Rowlett Scott (CRS) pursued commissions through the image of technically sophisticated, “expert” practice, as firms capable of building the nation and its economic and cultural infrastructures more prosaically through universities, medical centers, housing, urban and regional planning, military complexes, and airports, among other projects. Some U.S. architects, like The Architects Collaborative (TAC), in effect worked across both ends of this discursive spectrum, often gaining commissions through the genius model (as embodied by Walter Gropius, one of the firm’s founding partners), but developing them in practice through more bureaucratic forms of organization. At the same time, the U.S. government enlisted architects on both sides of this spectrum to build diplomatic facilities abroad, including Sert, Jackson & Gourley’s U.S. Embassy in Baghdad (1955–61) and Edward Larrabee Barnes’s U.S. Embassy in Tabriz, Iran (1958–66), while U.S. companies like Hilton and InterContinental mirrored these geopolitical agendas through international hotels that sought to promote the virtues of American culture abroad.⁸

In competing to participate in national modernization in the Arab and Persian Gulf states, U.S. architects encountered cultural and technical issues that would challenge both the changing nature of their practices and the universalizing rhetoric of architectural modernism in relation to these efforts. In their assessment of the course of modern architecture in the Middle East, Sandy

⁷ Le Corbusier, for example, wrote with regard to his Olympic stadium and sports complex in Baghdad that “I am sure the Iraq authority will appreciate this double thing: my work and my name.” Letter from Le Corbusier to the Director of Major Projects, Baghdad. May 10th, 1963, Fondation Le Corbusier, P4 (3) 340; cited in Mina Marefat, “Le Corbusier in Baghdad,” *Brownbook*, No. 55 (January-February 2016).

⁸ On the U.S. Embassy in Baghdad, see Sandy Isenstadt, “‘Faith in a Better Future’: Josep Lluís Sert’s American Embassy in Baghdad,” *Journal of Architectural Education*, Vol. 50, No. 3 (February 1997): 172–188. On the international geopolitics of Hilton and InterContinental Hotels, see Annabel Jane Wharton, *Building the Cold War: Hilton International Hotels and Modern Architecture* (Chicago: University of Chicago Press, 2001); Ana Miljački, “Intercontinental Comfort: Little Americas Abroad” and related magazine articles reproduced in Miljački, Kubo, Franch i Gilibert, Lawrence, ed., *OfficeUS Atlas*, 426–427 ff.; “Intercontinental Hotels: Design for Tourism,” *Architectural Record* (October 1953): 14–15, and Ruth Sheldon Knowles, “Enterprise & Diplomacy: Pan Am Airways’ Hotel Unit Helps Itself by Aiding Nations,” *The Wall Street Journal* (April 14, 1964): 18.

Isenstadt and Kishwar Rizvi have described the “burden of representation” that confronted foreign practices in newly post-colonial contexts, as they were tasked “to find forms that would make sense of the novel configurations of land marshaled under new flags and the varied combinations of ethnic groups that were expected to cohere under new systems of law.”⁹ Such firms engaged these political and cultural concerns through the architectural issues of construction and labor, as evident, for example, in decisions to employ technically sophisticated, transnational materials like reinforced concrete over locally produced materials like brick. Through such choices, these architects sought to mediate between the communication of a universalizing technics, implicit in the international language of modernism itself, and self-conscious efforts to signal their understanding of, and adaptation to, local or regional aesthetic traditions. In this fashion, Isenstadt and Rizvi suggest, U.S. and European architects implicitly acknowledged the cultural problematics that accompanied notions of modernization in post-colonial contexts, by seeking ways in which “modern architecture, when it took up some notion of local heritage, could represent itself as the healing praxis for that which it had injured.”¹⁰ While corporate firms projected what Sibel Bozdoğan has described as a “supranational aesthetic of bureaucratic efficiency” as a means of mediating these tensions, other architects operated through modes of creative signature that, they claimed, were better able to meet the cultural demands of nation-building efforts in these countries.¹¹ On the architectural front, then, the notion of a “rule of experts” was contested as foreign firms pursued commissions through the competing modes of bureaucracy and genius in this expanded geopolitical and cultural context.¹²

⁹ Sandy Isenstadt and Kishwar Rizvi, “Introduction: Modern Architecture in the Middle East: The Burden of Representation,” in Isenstadt and Rizvi, ed., *Modernism in the Middle East: Architecture and Politics in the Twentieth Century* (Seattle and London: University of Washington Press, 2008): 20.

¹⁰ Ibid.

¹¹ Sibel Bozdoğan, “Democracy, Development, and the Americanization of Turkish Architectural Culture in the 1950s,” in Isenstadt and Rizvi, ed., *Modernism in the Middle East: Architecture and Politics in the Twentieth Century*: 119.

¹² See Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley and London: University of California Press, 2002).

A revealing case study for these dynamics of authorship and cultural signification is TAC's design for the University of Baghdad (1957-1983), among the earliest examples of involvement by U.S. firms in the Arab and Persian Gulf states.¹³ (*Fig. 5.2*) TAC's commission to design the University campus formed part of an extensive modernization program under the Iraq Development Board, created in 1950 to expend seventy percent of the country's expanding oil revenue on national development, first through infrastructural projects and after 1956 through iconic cultural projects by foreign architects including Le Corbusier, Alvar Aalto, Frank Lloyd Wright, and Gio Ponti. While the majority of these projects ended in 1958 following the overthrow of the U.S.- and British-affiliated Hashemite monarchy, TAC's commission for the University continued. The project proceeded in fits and starts through major political and economic shifts in Iraq into the country's second building boom under Saddam Hussein in the late 1970s and early 1980s, and continued even after the end of the oil boom in 1983, possibly extending to the First Gulf War of 1990–91. So too, this initial involvement led to the firm's expanding presence in the Arab and Persian Gulf states throughout this period. As described in the next chapter, within a decade of the beginning of the Baghdad commission the TAC office was heavily dependent on work throughout the region, with commercial and cultural commissions first in Kuwait and eventually in Jordan, Saudi Arabia, Iran, and the Emirates from the 1960s until the end of the second boom in crude oil prices in 1983. These included subsequent commissions to design major university campuses in Iraq (an unbuilt project for Mosul University) and further abroad in Libya and Tunisia.

Revisiting the origins of TAC's regional involvement through the University of Baghdad poses key questions regarding the broader dependency of U.S. architects on projects in the Arab and Persian Gulf states after World War II and the impacts on the size and scope of their practices at home. In particular, how did the firm's increasingly bureaucratic organization allow it to continue

¹³ The shift away from British planners and architects by the 1950s and the parallel entry of U.S. and continental European architects (including Aalto, Le Corbusier, Ponti, and Willem Dudok) reflected a broader geopolitical transition from the British colonial apparatus through which Iraq had been established in 1932 in to Cold War framework of the Baghdad Pact and Marshall Plan-affiliated countries in Europe, such as Italy, France, the Netherlands, and Finland.

working through changing political and cultural currents in Iraq, particularly after the coup d'état of July 14, 1958, which spelled the end of the monarchy and its allegiances to the U.S., along with the eradication of the Development Board and most of the projects by international architects it had commissioned for Baghdad? A crucial factor in TAC's continuity across political regimes was their success in self-positioning as an expert practice, in contrast to other modes of address that sought to navigate this new landscape through the rhetoric of cultural synthesis and artistic genius. The continuation of the commission also depended on the firm's stakes in shaping the educational as well as the physical structure of the first consolidated university in Iraq—including the first department of architecture in the country—as a crucial infrastructure for national development. In this context, the increasing corporatization of TAC reflected the broader imperatives placed on U.S. firms that sought to meet the transnational complexities of these cultural and architectural demands.

The Genius University

The cultural and discursive context in which the University of Baghdad took shape can be illuminated by comparison with the proposal that immediately preceded it: Frank Lloyd Wright's Plan for Greater Baghdad (1957), which included a university as part of a larger cultural complex for the city, on the same peninsula in Karada where TAC would be offered its commission in 1957.¹⁴ (*Fig. 5.3*) The presence of two projects for similar programs on the same site pitted two paradigmatic examples of postwar practice against each other: the self-styled, authorial persona of Wright against the collective body represented by TAC. These two projects made vastly differing claims for agency within the Iraqi context. While Wright's scheme offered a personal appeal to the Iraqi monarch,

¹⁴ In the comparison that follows, I rely on Neil Levine's comprehensive history of Wright's Plan for Greater Baghdad, and the context of the Minoprio & Spencely and Macfarlane master plan for Baghdad within which the other Development Board projects were conceived, in Levine, *The Urbanism of Frank Lloyd Wright* (Princeton, NJ: Princeton University Press, 2015): 334–384. I am grateful to Levine for his comments on an early presentation on the University of Baghdad in his seminar on Baghdad at Harvard University in 2013 as well as in subsequent discussions, and particularly for his generosity in making available archival materials from his research on Wright and the Development Board projects to his seminar students.

Faisal II, and the mythologization of his rule through a symbolic cultural landscape of historical references, TAC's University project constituted a demonstration of expertise within the developmental framework of foreign technical assistance by U.S. firms. The consequences of these differing political and cultural stakes became evident following the overthrow of the Hashemite monarchy on July 14, 1958, an event that instigated a decade of subsequent regime changes that would culminate in the Ba'th Party's rise to power after 1968. The political flexibility of TAC's work allowed the firm to continue designing the University project throughout these numerous political changes, constructing the campus into the second Iraqi building boom under Saddam Hussein from 1979 to 1983, by which time TAC's work had expanded to include large-scale urban planning and architectural commissions in Baghdad, Mosul, and Basra.¹⁵ In contrast, the prospects for Wright's grand urban scheme—which fully ended with the architect's death in 1959—had likely faded even prior to the 1958 coup d'état, and this disfavor may have provided the immediate impetus for the Development Board's commissioning of TAC to design a university on the Karada site.

The authorial differences in the mode of production of Wright's and TAC's schemes for Baghdad, which ultimately governed both their final forms and their opposing legacies after 1958, have also reinforced differences in the terms on which these projects have been understood. Beyond the evident aspects of orientalism that attach in different forms to both projects, Wright's Plan for Greater Baghdad has typically been placed in relation to his *oeuvre* through the lens of creative signature. Informed by a personal catalog of literary and cultural references, Wright drew his design

¹⁵ TAC's continuing work in Iraq after the overthrow of Abd al-Karim Qasim in 1963 and through the regime of the Ba'th Party after 1968 included a scheme for the University of Mosul (unbuilt, c. 1966–78); Sheraton Hotels for Mosul (unbuilt, c. 1976–80), Baghdad (c. 1977–82), and Basra (c. 1977–82), and a master plan for the development of Khulafa Street in Baghdad (c. 1978–82), including building designs for Al Khulafa Mosque Extension, Shorja Square Underpass, Maidan Square Transportation Center, and Maidan Square Apartment Building. All of these projects were developed with Hisham Munir & Associates as local consultant. Munir lists work on the University of Baghdad as continuing all the way to the Iraqi invasion of Kuwait in 1990 and the subsequent First Gulf War, at which time Munir left the country. An overview of the Khulafa Street projects, the Ishtar Sheraton Hotel, and the planned extensions to the University of Baghdad campus is given in "Medinaat Al Salaam: Baghdad 1979-1983," *PROCESS:Architecture* No. 58 (May 1985): 27–36, 66–67, 90–93. On the Khulafa Street master plan, see The Architects Collaborative, *Urban Design Study: Khulafa Street Development Project, Prepared for Amanat Al-Assima, Baghdad, Iraq* (1982) and TAC with Giorgio Lombardi, Ove Arup & Partners, Suhair al-Mosully (consultants), *Ahmadiya Area Revitalization, Prepared for Amanat Al Assima, Baghdad, Republic of Iraq* (1982).

from multiple periods across the pre-Islamic and Islamic history of Iraq, seeking to to make these allusions legible both symbolically and spatially in the final design. By contrast, attempts to situate TAC's university in relation to Walter Gropius's career have often led to judgments of the design as banal or derivative in authorial terms, technocratic in conception and unconvincing in execution, including, as will be discussed, buildings supposedly copied from the firm's previous work. The historiographic separation between Wright's signature practice and TAC's team-based approach, and the critical tendency to regard the university as designed by Gropius rather than TAC, have thus prevented a direct comparison of the two schemes, despite their similarities.

Understood within a framework of competition between two modes of U.S. architectural practice in Iraq, however, Wright's plan and TAC's university immediately bear comparison as projects to develop the same basic educational program (though conceived very differently) for the same location, designed within a year of each other by the only two U.S. firms invited to participate in the Development Board program in Baghdad in these years. Furthermore, the two commissions may have been regarded as competitive by the Development Board more directly than previous accounts have suggested. Indeed, there is evidence of a direct temporal relationship between these two projects, and it is possible that the demise of the one was linked to the commissioning of the other.¹⁶

In adopting differing modes of address to the Hashemite monarchy and the bureaucratic apparatus of the Development Board, respectively, the competition between Wright's Plan and TAC's University uncannily replayed the discursive and professional dichotomy between the architecture of genius and the architecture of bureaucracy, framed a decade earlier by Henry-Russell Hitchcock in

¹⁶ The origins and timeline of the University of Baghdad commission have not previously been sufficiently well established to explore the question of whether these two practices were evaluated by the Development Board in direct comparison for the university site at any point. This has been due in part to the unavailability of the documentary material discussed later in this chapter, particularly the correspondence from Walter and Ise Gropius to Ellen and Nizar Ali Jawdat, through which a far more precise chronology of the initial development of the TAC commission can be determined.

the context of U.S. and European postwar practice.¹⁷ Hitchcock might not have anticipated that this dialectic would structure the presence of foreign architects in Baghdad, through projects that catered alternately to the monarch's desire for legitimization or to the Development Board's search for foreign expertise. In this sense, a comparison of TAC and Wright's competing engagements in Baghdad reveals both the contestation between bureaucracy and genius in practice and the migration of these interpretive categories to the Arab and Persian Gulf states, as part of a globalizing discourse on modernism in the postwar period. Their differing political and social affiliations also reveal vastly differing interpretations of Iraq's cultural heritage and postwar modernization, and of the concepts of internationalism, technical assistance, and expert practice in relation to national development.

Wright's Plan for Greater Baghdad was developed as a personal appeal to Faisal II, the nominal Hashemite ruler of Iraq prior to 1958 in conjunction with 'Abd al-Ilah, the crown prince and former regent before Faisal came of age in 1953, and Nuri al-Said, the powerful statesman who served multiple terms as Prime Minister in the decades prior to the July 14 coup d'état. In choosing the site for the project he was offered in early 1957, to design a cultural center including an opera and civic auditorium, Wright made much of the fact that he was granted two meetings with Faisal II on his first trip to Baghdad in May 1957, the only one of the international architects invited to Baghdad to be awarded this privilege. Furthermore, Wright claimed that he was granted an aerial tour of the city in Faisal's private plane in order to select possible sites for his commission, and that the island he chose for the cultural center, then owned by the royal family, was given to him personally by the monarch. It was on this tour, Wright later recounted to the fellows at Taliesin, that he identified the island on the Tigris, adjacent to the Karada peninsula provisionally marked for a university by the

¹⁷ Henry-Russell Hitchcock, "The Architecture of Bureaucracy and the Architecture of Genius," *Architectural Review* (January 1947): 3-6.

Development Board, as his preferred site for a cultural center over the location he had originally been given, on the site of the British Trade Fair in Karkh immediately south of the British Embassy.¹⁸

(Fig. 5.4)

It was rhetorically meaningful for Wright to stress that the transactions of site and program had been between genius and genius, granted through the hand of Faisal II as patron. After having been notified that the unoccupied island site he had coveted from the air was owned by the royal family, Wright reported, he appealed directly to the monarch, after which “he put his hand on this island place on the map and looked at me with an ingratiating smile and he said, ‘Mr. Wright, it is yours.’”¹⁹ In the same talk, Wright reiterated the potential of “this little island the king put his hand on and gave to me specifically,” then called Pig Island but promptly reconceived in Wright’s imaginative map as the Isle of Edena.²⁰ This contact with the ruler clearly impressed Wright: in his words, “Now that converted me to monarchy right then.”²¹ He subsequently dedicated his project to the king and the crown prince, declaring that “in IRAQ monarchy has proved worthy.”²²

Wright’s claim that he had been awarded the island by the king himself—a site that he would quickly surmount to absorb the university planned for the Karada peninsula—thus legitimized the

¹⁸ It remains unclear whether Wright actually toured the city in Faisal’s private plane or if this was an artistic reimagining of his more prosaic arrival in Baghdad via commercial airline. In his talk at Taliesin upon his return, Wright did not clarify the nature of his aerial tour: “Flying over [Baghdad] I saw an island, unoccupied, practically in the heart of the city.... when I came down and looked at the map there was that island with nothing on it whatever.... So I went after that island. And they said, ‘Oh no, Mr. Wright, we cannot, we assure you, do anything with the island. The island belongs to the imperial household.’” Pfeiffer, *Frank Lloyd Wright: His Living Voice*: 51. Levine cites interviews with Nezam Amery and William Wesley Peters, both of whom were with Wright in Baghdad on his May 1957 trip, as claiming that Faisal “lent him his plan so that he could see the land” (Amery) and that the site was chosen only after Wright had arrived in Baghdad, not on the flight there (Peters). Levine, 426, note 112. A contemporary article in *Time* implied that this aerial viewing of the site took place upon Wright’s arrival: “Circling in over Baghdad by airplane, he spotted a long narrow island in the middle of the Tigris. He discovered that it was royal property, went straight to King Feisal II. Recounts Wright: ‘The young king took me by the arm, smiled and said, ‘It is yours.’” “New Lights for Aladdin,” *Time Magazine*, May 19, 1958: 82.

¹⁹ “A Journey to Baghdad,” transcript of Wright talk at Taliesin Fellowship, June 16, 1957, in Brooks Pfeiffer, ed., *Frank Lloyd Wright: His Living Voice* (Fresno: Press at California State University, 1987): 51.

²⁰ *Ibid.*, 50.

²¹ *Ibid.*, 52.

²² Frank Lloyd Wright, “Proposed—This Nine-Year Plan for the Cultural Center of Greater Baghdad,” June–July 1957, MS 2401.379 M and “Transcript of Tape Recording of Mr. Wright’s Speech,” typescript of talk given to Iraqi Society of Engineers, May 1957, MS 2401.377–78 C, Frank Lloyd Wright Foundation Archive; cited in Levine, 426, note 160.

authority behind his expanding ambitions in much the same way that his design, in turn, would offer a legitimization of Faisal II's rule. The Plan for Greater Baghdad mythologized the monarchical state by incorporating a catalog of historical references drawn from Sumerian, Babylonian, and Abbasid periods in the region's history, implicitly positioning the Hashemite monarchy as the inheritors of this fictionalized Islamic and pre-Islamic past.²³ A central symbolic element in this nexus of references was the Round City built under the Caliph al-Mansur (714–755 AD), which Wright misattributed to Harun al-Rashid (763 or 766–809 AD), the fifth Abbasid Caliph, thus conflating the mythological foundation of the city of Baghdad with its flowering under the Caliphate, a period recorded in the *Thousand and One Nights* beloved by Wright as a child.²⁴ The Round City provided the organizing pattern for the university within Wright's plan, grafting the symbolism of the first planned architecture for the city of Baghdad onto the design of an educational complex that would implicitly usher in a new golden age of development under the Hashemite monarchy. This constructed lineage thus positioned Faisal II as the contemporary genius of Iraqi modernization, an al-Mansur (or, in Wright's imaginary, a Harun al-Rashid) for his time.

In seeking to glorify the monarchy for which the Plan for Greater Baghdad was produced, the stakes of Wright's project would seem to have reinforced the political aims that underlay the Development Board's decision to invite foreign architects to design cultural buildings as public signs of national progress. This shift in priorities, inaugurated by the Development Board's second six-year plan (1955–60), reflected the government's growing need to produce visible symbols of

²³ The Hashemite monarchy indeed claimed lineal descent from Fatima, daughter of the Prophet Muhammad. Levine cites a contemporary guide, *An Introduction to the Past and Present of the Kingdom of Iraq* (Baltimore, MD: Lord of Baltimore Press, 1946), which stressed this legitimization in terms similar to Wright's: "With the establishment of the Kingdom of Iraq under King Faisal I in 1921, not only did Iraq gain her political entity... but by choosing a Hashemite as head of the State she also restored to the throne the very family from which the Abbasid Caliphs themselves had sprung." *An Introduction to the Past and Present of the Kingdom of Iraq*: 3.

²⁴ Wright openly acknowledged both his personal, mythological interpretation of Baghdad's history and his projection of this literary imaginary onto the contemporary reality of the city. As he told the Taliesin fellows, "I've been very sentimental about this journey because when I was a chap, oh long before I was your age, I was enamored of Hashid [sic], Aladdin and the wonderful lamp, Sinbad the Sailor, and scores of those tales of the Arabian Nights. Of course that was Baghdad to me. And Baghdad of course is there now, but not the Baghdad I dreamed of then." Pfeiffer, *Frank Lloyd Wright: His Living Voice*: 50.

modernization in order to pacify an increasingly unsettled urban population, the cultural superstructure to be built atop an infrastructural base of irrigation, flood control, and water storage that had been the focus of the first six-year plan (1951–56). (Fig. 5.5) Lord Salter, a British advisor to the Development Board, warned in 1955 that “popular resentment, caused or aggravated by the failure to devote a substantial part of the public revenues from oil to work giving widespread and visible benefits quickly, may increase political instability.”²⁵ At the same time, however, a major cause of these public grievances was the perceived dependence of the monarchy on British, and increasingly U.S., influence, a situation that dated from the installation of the Hashemite family by the British upon Iraq’s official independence from the Mandate in 1932. As reaction against foreign interference grew in the 1950s, a design like Wright’s thus posed a particular problem of signification, as a project by a U.S. architect designed explicitly to legitimize the historical narrative upon which Hashemite rule was based.

For his part, Wright had himself inveighed against the commercialism of the West and warned against its encroachment in Iraq as part of the country’s development. “If we are able to understand and interpret our ancestors,” Wright argued, Baghdad need not “adopt the materialistic structures called ‘modern’ now barging in from the West upon the East.”²⁶ In arguing against the other foreign offices that had been given commissions by the Development Board, Wright attacked what he regarded as both the materialism and the professionalization of Western culture and its architects, an assessment for which a firm like TAC would have provided a ready example. In *Genius and the Mobocracy* (1949), Wright had already warned against the false community of collective architectural practice in the U.S., warning that “professionalism is parasitic—a body of men unable to do more than band together to protect themselves.”²⁷ Indeed, in a letter to the prime minister and the Development Board, Wright lamented that he had already “come too late to save [the country]...

²⁵ Lord [Arthur] Salter, *The Development of Iraq: A Plan of Action* (Baghdad: Iraq Development Board, 1955): 118.

²⁶ “New Lights for Aladdin,” *Time Magazine*, May 19, 1958: 82.

²⁷ Frank Lloyd Wright, *Genius and the Mobocracy*, 4.

from the invasions of the Professional [sic] Architecture of the West.”²⁸ Instead, in a talk given to the Iraqi Society of Engineers during his May trip, he appealed for Iraqis to look “deep... [into] your [own] inheritance,” interpreting this heritage as encompassing both the pre-Islamic and the Islamic history of the region.²⁹ He argued that these references offered an intrinsic connection to the *genius loci* of the place—in his words, “a genius of itself”—and demanded that “an architect should not come in and put a cliché to work.”³⁰ In this formulation, the genius of the site was thus bound to the genius of the architect as its interpreter, and to the genius of the client as his patron.

Though an educational program was never officially included by the Development Board as part of his commission, Wright’s imaginative conception of a university mirrored the ethos of creative genius that he sought to express in the more monumental forms of the opera and cultural center on his Isle of Edena. Lacking a brief, and determined to avoid the emphasis on professionalization that typified contemporary universities in the U.S., Wright’s scheme instead articulated an organic educational model that stood apart from the Development Board’s comparatively narrower interest in training a class of specialists to participate in the country’s modernization. Wright had outlined this holistic conception of pedagogy in the decade prior to his arrival in Baghdad, arguing in *Genius and the Mobocracy* that “Until architecture, philosophy, and religion become one as they are in organic architecture,” Wright claimed, “we are not going to be able to make such fruits of science as we already know in abundance, really constructive.”³¹ Further, he asked, “What hope have we for indigenous culture when even our ‘universities’ are not founded upon study of the principles and aesthetics of innate—organic—structure.”³² In Baghdad, Wright saw this “indigenous culture” as comprising a dense overlay of literary and archaeological references

²⁸ Wright, “To the Minister and His Development Board, City of Baghdad, Iraq” (draft), n.d. (1957), MS 2401.379 BB, Frank Lloyd Wright Foundation Archive; cited in Levine, 426, note 118.

²⁹ “Transcript of Tape Recording of Mr. Wright’s Speech,” typescript of talk given to Iraqi Society of Engineers, May 1957, MS 2401.377–78 C, Frank Lloyd Wright Foundation Archive; cited in Levine, 426, note 114.

³⁰ *Ibid.*

³¹ Frank Lloyd Wright, *Genius and the Mobocracy*, 11.

³² *Ibid.*

—a palimpsest to which the formal elements of his university and cultural center, he might well have imagined, could provide the key for the educated Iraqi citizen of the future.

The form of the university that appeared within the Plan for Greater Baghdad mapped this organic conception literally into a circle of faculties attached to a ring road, a “Ziggerat [sic] of Parking” that demarcated the boundary of the campus at the same time that it conflated a Sumerian prototype with the plan of the Abbasid Round City of Baghdad. (*Fig. 5.6*) Within this circular enclosure—the “curriculum,” in Wrightian double entendre—the university departments were laid out in counter-clockwise fashion, proceeding (in sequence from the entrance arch at the street that connected the campus to the opera house and cultural center) from fine arts to architecture, sociology, government, law, engineering, religion, athletics, gymnasium, sciences, and agriculture. Unlike TAC’s later proposal for the University, the allocation of these departments and their adjacencies were metaphorical rather than based on identifiable needs, organizing the faculties in a conceptual sequence from the arts, to secular and spiritual governance, to the human, physical, and natural sciences. Given both his preference for genius and his opposition to technocratic conceptions of education, Wright may have imagined this cyclical progression from culture to nature as a diagram for the cultivation of a genius appropriate to modern Iraq, parallel to the flowering of the arts his opera and cultural center would inaugurate. A triangle of broadcasting studios for radio and television at the center of the campus suggested the dissemination of these fruits of genius to the nation, with towering profiles that celebrated the creation of the region’s first Arab-controlled television network in Iraq the year prior to Wright’s plan.³³ (*Fig. 5.7*)

Given the ineluctable association of the Plan for Greater Baghdad with Faisal II, it is perhaps little wonder that the project failed to win the approval of the Development Board, particularly given the rising public dissatisfaction with British and U.S. influence on the monarchy. The authorial relationship of genius architect to genius ruler that Wright proposed was thus politically contingent

³³ See William A. Rugh, *Arab Mass Media: Newspapers, Radio, and Television in Arab Politics* (Westport, CT: Praeger Publishers, 2004): 186.

on the survival of the Hashemite monarchy as well as on the continued lack of resistance to the foreign interests that lay behind it. Wright's arrogation of both the Karada site and the university program beyond the scope of his original commission made him the only one of the foreign architects invited to Baghdad to willfully disregard the confines of the master plan for Baghdad, produced in 1956 by the British firm of Minoprio, Spencely, and Macfarlane, that governed the sites offered by the Development Board. Indeed, Wright may not have held much hope that his efforts would lead to a commission for the university on the Karada peninsula, or that his prospects for the cultural center for which he had originally been commissioned would not be adversely affected by this gambit.³⁴ Thus both the university and the cultural center in Wright's scheme relied, each in their own way, on political and spatial conditions that failed to obtain even prior to the demise of Faisal's rule. The inability to reconcile the Plan for Greater Baghdad within the framework of the other Development Board projects is suggested by the Board's invitation of Hugh Spencely, a co-author of the master plan for Baghdad, to review Wright's proposed choice of both the Island and Karada sites in late September 1957, a month after Wright submitted his project. By September 7 the Development Board had apparently already decided to offer TAC the university on the Karada site, and the firm received news of the commission at nearly the same moment that Wright's plans were being reviewed.

Ambassadors Abroad

In contrast with Wright's personal appeal to Faisal II, TAC's commission for the University of Baghdad was gained through contacts formed in the interstices between U.S. professional training, the bureaucratic channels of the Development Board, and the emerging terrain for modernist

³⁴ At the time Wright was working on the cultural center and the university, he claimed: "I do not know that there is very much hope for the Baghdad projects. This is really my proposition to them.... I sort of came in on the tail end of things [sic], so what impression I can make now, I do not know—but I am going to try." Wright, "YOUTH OF AMERICA: THE POETIC PRINCIPLE (Monona Terrace, State of Wisconsin, Baghdad," Talks to Taliesin Fellowship, 23 June 1957," reel 189, 1, 7, MS 1502.258, Frank Lloyd Wright Foundation Archive; cited in Levine, 426, note 119.

architectural practices in Iraq in the 1950s. The key interlocutors in this transnational exchange were Ellen and Nizar Ali Jawdat, architects who had studied under Gropius at the Harvard Graduate School of Design from 1942 to 1947—a period when women and foreign students made up a significant portion of the student body during wartime—before returning to practice in Baghdad, where they became advocates of Gropius and TAC for the Development Board commissions taking shape in the 1950s. (*Fig. 5.8*)

The Jawdats epitomized the elite class of foreign-educated professionals, increasingly trained in the U.S., that comprised the generation of young Iraqi architects who began their practices after World War II. Ellen Jawdat (née Ellen Stone Coan) was born in Srinagar, India in 1921 to Janet Tyron Stone and Frank Speer Coan, then a YMCA secretary in Lahore and Hyderabad, and later the general secretary of the English-Speaking Union of the United States (1935–42) and a Near and Middle East Expert for the U.S. Office of War Information after 1942.³⁵ After receiving a degree in art history from Vassar in 1942, Ellen enrolled at the Harvard Graduate School of Design under Gropius, where she graduated in 1947. Nizar Ali Jawdat, born in Damascus, Syria in 1921, was the son of ‘Ali Jawdat al-Ayyubi, then the governor of Aleppo and later Prime Minister of Iraq through rotating terms in 1934–35, 1949–50, and June to December 1957, the period in which TAC was officially commissioned to design the University.³⁶ During Jawdat al-Ayyubi’s appointment as the first Iraqi ambassador to the U.S. from 1942 to 1947, his son Nizar Ali enrolled at the Harvard Graduate School of Design, where he and Ellen met and were married. After returning to Baghdad, Ellen began her practice as an architect—the first woman to do so in Iraq—while Nizar Ali worked

³⁵ Ruth Coan Fulton, ed., *Coan Genealogy 1697–1982* (Portsmouth, NH: Peter E. Randall, Publisher, 1983): 346–347.

³⁶ These terms as Prime Minister were often rotated with other political officials representing other social, ethnic, and religious constituencies within the Iraqi elite, including frequent terms by Nuri al-Said, with whom Jawdat al-Ayyubi had studied in the Ottoman military college in Istanbul prior to Iraqi independence. See Hanna Batatu, “Prime Ministers Under the Monarchy (23 August 1921 to 14 July 1958),” in Batatu, *The Old Social Classes and the Revolutionary Movements of Iraq: A Study of Iraq’s Old Landed and Commercial Classes and of its Communists, Ba’thists, and Free Officers* (Princeton, NJ: Princeton University Press, 1978): 182–184 ff. Batatu identifies al-Ayyubi’s class origin as “official lower middle-class, son of a chief sargeant in the gendarmie.” Batatu, 180-181. A *Time* article from 1957 described Jawdat al-Ayyubi’s term in that year as a function of “the custom of summer replacements” for Nuri al-Said, his “longtime comrade in arms.” “Out of the Heat,” *Time Magazine*, Vol. 70, No. 1 (July 1, 1957): 26.

as architect for the Iraqi Railways office in fulfillment of his five years of public service, required in exchange for the government's sponsorship of his studies at Harvard. The couple practiced together intermittently on projects in Baghdad, including the Women's Headquarters of the Red Crescent (1948–50) and the Jawdat's own house, originally built as student housing in 1948 and modified by the couple for their private use after 1955. (Fig. 5.9) Ellen continued to practice architecture independently while Nizar Ali established a company as a supplier and contractor for the building industry, including the first provision of air conditioning technology in Iraq.³⁷ As part of her advocacy for expanded opportunities for modernist architects in Baghdad in these years, in 1954–55 Ellen organized an invited international competition for the National Bank of Iraq, won by William Dunkel and completed in 1956, as the first competition in the country to feature a developed brief and anonymous submissions.³⁸ (Fig. 5.10)

The correspondence between Walter and Ise Gropius and the Jawdat from 1948 to 1969 sheds considerable light on both the origins of the University of Baghdad commission and its subsequent history.³⁹ Following the Jawdat's return to Baghdad in 1947, the couple remained cordial with their former professor at Harvard, as evidenced by Gropius's reply in December 1948 to a letter from Nizar in that year, thanking him for sending news from Baghdad. "I am very glad indeed to hear

³⁷ "Out of the Heat," *Time Magazine*, Vol. 70, No. 1 (July 1, 1957): 26; "Nizar Ali Jawdat," obituary, *The Washington Post*, January 29, 2017. The Jawdat's built projects together appear in Raglan Squire, "Architecture in the Middle East," *Architectural Design*, March 1957: 96 ff., along with Ellen Jawdat's American School for Girls in Baghdad (1956).

³⁸ Ellen Jawdat in interview with the author (2013); Nizar Ali Jawdat and Ellen Jawdat, curriculum vitae, after 1986, personal papers of Ellen Jawdat, Washington, D.C. Though it was not sponsored by the Development Board, Neil Levine describes the National Bank of Iraq competition as "a trial run for the Development Board's program" after 1955. Levine, *The Urbanism of Frank Lloyd Wright*, 424, note 62. The competition was preceded by the Rafidain Bank, on Shorja [Bank] Street adjacent to the future site of the National Bank, designed by Philip Hirst and completed by 1956.

³⁹ Among the letters described here, those written by Walter and Ise Gropius to the Jawdat in particular have not appeared in any previous account of the University of Baghdad. I first became aware of their existence during an interview with Ellen Jawdat at her home on June 24, 2013, when she provided me with a folder of these letters from her personal files. These letters correspond closely to the letters sent by Ellen and Nizar to Walter and Ise, which are preserved at Harvard University among the Walter Gropius papers, 1925-1969 [MS Ger 208, Houghton Library]. Following the interview, I worked with Ellen Jawdat and Leslie Morris of the Houghton Library to arrange for these letters to be absorbed into the Harvard collections in 2013, thus reuniting both sides of the correspondence for the first time. I am exceedingly grateful to Ellen Jawdat for providing access to these letters and for her assistance in interpreting them, as well as for her generosity in giving them as a gift to Harvard University.

from you,” Gropius wrote, wishing the couple the “hope that you both are happy and can do some constructive work for your country.”⁴⁰ The correspondence continued informally for six years thereafter, when the Jawdats apparently wrote once again to the Gropiuses around February of 1954, serendipitously just two months before their Rockefeller Foundation-sponsored trip to Australia, the Philippines, and Japan in April of that year. In reply, Ise ventured to the Jawdats the possibility of adding Baghdad to the list of cities to be visited on their return from Japan in August and September (the final arrangements also included Hong Kong, Bangkok, Calcutta, Karachi, Athens, Rome, and Paris).⁴¹ Indeed, the Gropiuses traveled to Baghdad from August 19th to 24th, 1954, between Karachi and Athens, staying at the Tigris Hotel on the recommendation of the Jawdats.⁴² Burdened by the heavy professional demands of their two months in Japan, where, Ise lamented, “we can hardly manage to see the place for the hundreds of people who want to talk to [Walter],” the couple expressed the desire only to see Baghdad as tourists; as Ise wrote to Nizar, “We hope, therefore, that no news of modern architecture and W. Gropius has come to Iraq yet, except [sic] to your personal friends, and that we shall enjoy the unusual chance of being left alone to explore the city or whatever else may be of interest.”⁴³

Events, however, conspired to prevent the Gropiuses from the prospect of an anonymous visit, and eventually to draw them into discussions of the projects then being planned by the Iraq

⁴⁰ Letter from Walter Gropius to Nizar A. Jawdat, December 1, 1948. Harvard University, Houghton f 2013M-29. In the letter Gropius also responds to an apparent request from Nizar to join CIAM, suggesting that he write, with Gropius as a reference, to Sigfried Giedion, then General Secretary for the group, to propose establishing a CIAM working group in Iraq.

⁴¹ “In two months we shall leave for Australia where Grope was invited by the architectural organisation and from there we go to Japan for two months on request of the Rockefeller Foundation. Maybe we can dip down into Baghdad on the return trip via Europe. It would be a tempting thought, but I don’t know how we shall stand up to all the rigors of travelling as public figures.” Letter from Ise Gropius to Nizar and Ellen Jawdat, February 2, 1954. Harvard University, Houghton f 2013M-29. The letter alludes to a description by the Jawdats of having divided their practice in Iraq into an architectural design office (presumably run by Ellen) and a contracting office (presumably run by Nizar), likened favorably by Ise to Walter’s fight against AIA rules in the U.S. preventing architects from engaging in contracting work. See Gropius, “Gropius Appraises Today’s Architect,” *Architectural Forum*, May 1952: 111-112, 166, 170, 174, 178, 182.

⁴² Letter from Walter Gropius to Ellen and Nizar Ali Jawdat, April 13, 1954; Letter from Ise Gropius to Nizar Ali Jawdat, May 26, 1954; Letter from Ise Gropius to Ellen Jawdat, July 29, 1954; Harvard University, Houghton f 2013M-29.

⁴³ Letter from Ise Gropius to Nizar Ali Jawdat, May 26, 1954. Harvard University, Houghton f 2013M-29.

Development Board. David D. Newsom, then Public Affairs Officer for the U.S. Embassy and director of the United States Information Service (USIS) in Baghdad as well as a friend of the Jawdats, was informed by Ellen of the impending visit by the Gropiuses, and wrote formally to Walter in June 1954 to suggest holding a photographic exhibition of examples of modern American architecture to coincide with his visit, suggesting he might attend the opening in lieu of a more formal lecture.⁴⁴ Newsom noted the presence of “an active group of young architects in Iraq who would consider it a distinct honor to have the privilege of meeting you while you are here,” and hoped that Gropius’s presence there “would give... the opportunity to meet some of those in the architectural and engineering world on an informal basis.”⁴⁵ Photographs of the event, held on August 22nd or 23rd, show Gropius indeed giving a lecture to an assembled group of guests on the lawn of the U.S. Embassy with Ellen and Nizar in attendance, flanked by presentation boards with mounted photographs of contemporary U.S. architecture.⁴⁶ (*Fig. 5.11*) A guest list for an accompanying lunch at the U.S. Embassy and dinner following the opening (possibly at the Jawdats’ house) named a roster of governmental and cultural figures including Abdul Jabbar Chelebi, the director of the Development Board; Sayid Nedim al’Pachachi, then Minister of Economics; Dr. Abdul Aziz Dury, Dean of the College of Arts and Sciences and listed as a “perpetual promoter of University idea”; Sd. Yusuf Gailani, Director General, Ministry of Foreign Affairs, and Henry Wiens, director of the U.S. Point Four program in Iraq.⁴⁷

⁴⁴ David D. Newsom, letter to Walter Gropius, June 18, 1954. Bauhaus Archiv, GN Kiste Nr. 3, Mapped 123.

⁴⁵ *Ibid.*

⁴⁶ Bauhaus Archiv, Werkverzeichnis 151, Baghdad University. That these photographs are from the August 1954 trip is confirmed by a letter from Newsom to Walter Gropius on September 15, 1954, enclosing the photographs and thanking Gropius for his “kindness in attending and speaking to the architects at our center last month.” Bauhaus Archiv, GN Kiste Nr. 1, Mapped 4.

⁴⁷ Harvard University, Houghton Library, MS Ger 208, folder 956. This list is undated, but is almost certainly from the August 1954 visit by the Gropiuses, corresponding to the exhibition opening and lecture. The occupations and titles listed for various of the guests, such as Henry Wiens, confirms that these events took place in 1954 rather than 1957, the only other visit by Gropius prior to the July 14 coup d’état. Furthermore, the dinner is listed as having taken place on a Sunday night, corresponding to August 22, 1954, one of the two dates given by Gropius to Newsom as his preferred days for the exhibition opening. The list was likely prepared by Ellen Jawdat for Gropius.

In arranging the exhibition and lecture, Newsom presumably hoped to appeal to the same elite, educated class of U.S.-affiliated professionals of which Nizar and Ellen were already a part. The guest list named a number of young, Western-trained architects including Qahtan Awni (trained at the University of California Berkeley), Jaafar Allawi (trained at the University of Liverpool), and Rifat Chadirji (trained at the Hammersmith School of Arts and Crafts in London), described as “son of head [sic] of Socialists.”⁴⁸ English and U.S. policy tracts later cited by TAC as guides to the region, like William Polk’s *What the Arabs Think* (1952), similarly pointed to the importance of these “Western-educated men and women of the younger generation who are the doctors, lawyers, professors, engineers and white-collar workers of the Arab world,” and in particular to the feeling among U.S. professionals that “they are the most vocal section of the population and to a large extent are bound to be the key to the Arab world’s immediate future.”⁴⁹ Such attempts to foment positive feeling for the presence of U.S. actors in Iraq would additionally have to overcome the fact that, as Polk wrote, “in spite of the excellent libraries, music collections, films and scholarship

⁴⁸ Ibid. Kamil al-Chadirji was the leader of the National Democratic party, prominent among the socialist parties that gained power under Qasim after the July 14 coup d’état. In a letter to the Gropiuses from Rome on October 4, 1958, following the coup d’état, Nizar Ali Jawdat wrote that Rifat Chadirji had replaced Mahmoud Hasan, previously Director of the Second Technical Section of the Development Board, and that “His father heads one of the major parties which are in power now,” noting, “you have met him in my house.” Harvard University, Houghton Library, MS Ger 208, folder 956.

⁴⁹ William R. Polk, *What the Arabs Think* (New York: Foreign Policy Association, 1952): 18. This pamphlet was cited in the bibliography of the TAC *Report on the University of Baghdad* of 1959, in which Polk, then a professor at the Center for Middle Eastern Studies at Harvard, is also cited as a consultant expert on “General Arab Conditions and the Educational Approach.”

programs which USIS offers, many young men and women boycott USIS.... In short, many of the USIS offices are hard put to attract an audience.”⁵⁰

By the time the Gropiuses returned to the U.S. in September 1954, their attitude had evidently shifted to a more explicit interest in participating in the building program taking shape in Baghdad. Replying for the first time on TAC letterhead rather than on personal stationery, Walter wrote to the Jawdat immediately upon their arrival home in Cambridge:

I have been so happy in Baghdad that I would greatly enjoy, if an opportunity should arise, to do architectural work for your country. I have pondered whether it was not wrong not to have thrown overboard my itinerary and to try to go and see your King, but you can't imagine what an upheaval changes in our itinerary would have caused, particularly regarding plane reservations.⁵¹

Gropius also followed up on a discussion that apparently took place in Baghdad to send promotional materials on TAC's work for the Jawdat to circulate in Iraq, offering “to send you the promised material as propaganda weapons in favor of modern architecture to be used for your King, or

⁵⁰ Ibid., 54. Newsom later described the difficulties of promoting U.S. interests in Iraq in this period: “I have never been [in] a country that was as cynical as Iraq was then. Many Iraqis—the educated elite—were intensely pan-Arab in outlook. They thought that Iraq was an artificial creation resulting from [the] infamous Sikes-Picot [sic] agreement which enabled France and Great Britain to carve up the Middle East after World War I.... The Iraqis had a strong belief that the Cabinet, which was periodically reshuffled, were made by either the British or American Embassies. It was believed that we were still manipulating events in Iraq. There was very little distinction made between the U.S. and Great Britain. We were both the ‘Gray Eminences’ in Iraq.... It was a classic situation, seen in other parts of the world, of a government in power, which was friendly to us [the U.S.] and with which we believed we could work, but which ruled over a population and an elite which was resentful of both the government and the perceived foreign interference.” [13] The Association for Diplomatic Studies and Training Foreign Affairs Oral History Project, interview with David D. Newsom by Charles Stuart Kennedy, June 17, 1991 (published 1998), <http://www.adst.org/OH%20TOCs/Newsom,%20David%20D.toc.pdf>.

⁵¹ Letter from Walter Gropius to Nizar and Ellen Jawdat, September 9, 1954. Harvard University, Houghton f 2013M-29.

whoever may be interested.”⁵² Gropius cited the firm’s proposal with I.M. Pei for Hua Tung Christian University in particular as “good evidence for our capability to adapt to the conditions of foreign countries,” and this project would later be invoked as a comparative precedent for the University of Baghdad campus plan.⁵³ In response, Ellen Jawdat expressed her intent to promote Gropius for a role within the architectural development taking place in Iraq:

I can’t tell you what a boost to our spirits your few days with us were. Not only we, but everybody who met you reacted in the same way—we felt as though a large window had been opened.... for all of us your visit brought such a wealth of new ideas, wise advice, and most of all a kind of calm optimism, that we must find some way of reviving the experience.... So it was indeed refreshing to watch your instinctive understanding of the situation, in no way minimizing the problems, yet not being overwhelmed by them. *We are more than ever convinced that we must find some way for you to make your contribution to this country*, for in addition to the architectural contribution, that is that immeasurable added dividend.⁵⁴

Ellen further suggested an appeal to Faisal II directly as the means to push for Gropius’s involvement in Iraq, noting that “The King returns from England in a month, and I hope that he will be in a receptive frame of mind. Nizar visited him in the north a few weeks after you left, and he expressed the keenest interest.”⁵⁵ This discussion would have taken place just prior to the commissioning of

⁵² Ibid. These documents can be determined based on a corresponding list marked “Nizar Ali Jawdat, Baghdad, Iraq, September 9, 1954” accompanying a carbon copy of this letter in the Bauhaus Archiv. These were: Gropius, “Blueprint for an Architect’s Training,” *Kokusai-Kentiku*, Vol. XVIII (1951): 61-67; two copies of Gropius, *Architecture and Design in the Age of Science* (New York: Spiral Press, 1952); special issue of *l’Architecture d’Aujourd’hui*, February 1950 on “Gropius et son école”; “The Architects Collaborative,” *l’Architecture d’Aujourd’hui*, December 1953: 50-51; “Boston Center,” *Architectural Forum*, November 1953: __ and photographs by Robert D. Harvey of the Back Bay Center model; “Harvard Builds a Graduate Yard,” *Architectural Forum*, December 1950: 61-71 and photographs by Walter R. Fleischer and Fred Stone of the Harvard Graduate Center; “Hua Tung Christian University,” January 1952: 66-79 and seven large black and white photographs of Hua Tung Christian University; unidentified “Gropius Exhibition pamphlet, Berlin.” A letter from Ellen Jawdat to the Gropiuses, January 14, 1955 thanks them for sending “the superb Giedion book” among these documents—presumably Giedion’s *Walter Gropius: Work and Teamwork* (New York: Reinhold, 1954), indicating that this was sent as well—and confirms that these materials were “going the rounds” in Baghdad. Harvard University, MS Ger 208, folder 956. In a subsequent letter from Ise Gropius to Ellen Jawdat on May 6, 1955, Ise indicated that the Gropius had also requested that a copy of the newly-released *Scope of Total Architecture* (New York: Harper, 1955) be sent to the Jawdats by the publisher. Harvard University, Houghton f 2013M-29.

⁵³ Ibid. Emphasis mine. Hua Tung appears among the comparative plans in *The Architects Collaborative, Report on the University of Baghdad Designed by The Architects Collaborative, Cambridge, Massachusetts, U.S.A.*, c. January 1959, along with Harvard, MIT, Oxford, and the University of Mexico.

⁵⁴ Letter from Ellen Jawdat to Walter Gropius, October 3, 1954. Harvard University, MS Ger 208, folder 956. Emphasis mine.

⁵⁵ Ibid.

Minoprio & Spencely and P. W. Macfarlane by the municipality of Baghdad to develop a master plan for the city in late December, at the beginning of the development process that would proceed in earnest with the official launch of the Development Board's program of cultural buildings two years later, in December 1956.

The advocacy for Gropius's involvement in planning and architectural work in Baghdad appeared to operate not through a direct appeal to Faisal II, however, but rather via the more informal bureaucratic channels of influence that circulated around the Development Board. Possibly as early as 1952, the Jawdats prepared a short essay along with an accompanying information sheet on Walter Gropius, apparently to be circulated by Ahmed Jabbar Chelebi, a friend and the director of the Development Board, arguing for the appointment of a coordinating regional planner of international stature to oversee the Board's expansive efforts.⁵⁶ (*Fig. 5.12*) "It has been suggested," the Jawdats wrote, "that with the vast amount of architectural work being undertaken by the Development Board throughout Iraq, it is essential that there be one supervisory office to coordinate these individual projects, and to schedule their design and construction as parts of a coherent long-range scheme for the filling of the country's architectural needs."⁵⁷ In so doing, the Jawdats articulated the need for a scope of ambition that would exceed the master plans that were soon produced for individual cities in Iraq (including plans by Minorio, Spencely, and Macfarlane

⁵⁶ Typescript of essay and information sheet written by Ellen Jawdat, n.d. Harvard University, Houghton f 2013M-29. Ellen Jawdat later confirmed in emails to the author (2013 and 2017) that these documents were written for Chelebi, who intended to promote Gropius for the University project, following a visit by Nizar to his office at the Development Board "to urge him to consider what a perfect choice Gropius would be to design the University complex." Chelebi, she suggested, must have asked Nizar to prepare a written memorandum, which Ellen then wrote. It is unclear whether or how these documents were subsequently circulated; Ellen recalls that Chelebi intended to hand these in person to "a close friend," rather than to submit them more formally to the Development Board. The date of these documents remains a mystery. Ellen Jawdat stated in both emails and interview with the author (2017) her conviction that these were prepared prior to 1954, and as early as 1952, in the first year or so after national oil revenues became available to the Development Board and Chelebi began laying the ground to solicit international architects for commissions in the country.

⁵⁷ Typescript of essay and information sheet written by Ellen Jawdat, n.d. Harvard University, Houghton f 2013M-29. Though the originals seem not to have survived, copies of this essay and the accompanying information sheet were included in Ellen Jawdat's personal file of correspondence with the Gropiuses prior to the absorption of these papers into the Harvard collections.

for Baghdad, Mack Lock and Partners for Basra, and Raglan Squire and Partners for Mosul), arguing instead for coordinated planning at a territorial scale:

Based on reports and the advice of economists, irrigation experts, specialists in population studies, health and education authorities, etc., Iraq's building schemes should be studies with a view charting a master plan which takes into account the relation of cities to towns, towns to villages; the expansion or change of such units as they are affected by industrial or agricultural progress; the logical settlement of tribes in new villages, and the provision of adequate housing, education, medical, sanitary, and community facilities; the relation of Iraq's vast irrigation schemes to the growth of agricultural populations; and transportation links (air, rail, road, and waterways) between the various communities in the country.⁵⁸

In proposing that these expanded planning efforts take place via the creation of "one central architectural office in the Development Board, producing work of a single high standard," the Jawdats named two international figures as the only ones capable of overseeing such a comprehensive task: Le Corbusier and Gropius.⁵⁹ Of the two, Gropius was clearly preferred by the Jawdats, leading them to propose his appointment as either the director of or consultant for such a coordinating office:

It is apparent that the coordination of schemes of such a vast scope should be entrusted not only to a superior architect, but to a regional and town planner of recognized excellence and wide experience.... Le Corbusier, the eminent French Architect and City Planner, has been appointed by the Government of India to fill a similar need in that country. The only other architect-

⁵⁸ Ibid. Indeed, it can be argued that this expanded regional scope was taken up by the Development Board in part through the commissioning of Constantinos Doxiadis in October 1955, on the recommendation of the International Bank for Reconstruction and Development, to provide "a large-scale housing and community development program not just for Baghdad but for several cities throughout Iraq." Levine, 351. This was in contrast to the more limited scope of the master plan for the city of Baghdad by Minoprio & Spencely and P. W. Macfarlane, who were commissioned in late 1954 by the lord mayor of the municipality of Baghdad, Fakhruddin al-Fakhri, not by the Development Board. Levine, 340.

⁵⁹ In an interview with the author (2017), Ellen Jawdat has claimed that Gropius was discussed from the beginning only in relation to the university commission, notwithstanding the presence of her essay

planner of this generation of similar stature is Walter Gropius. The suggestion is therefore made that Dr. Gropius be asked to undertake such work for the Development Board of Iraq.⁶⁰

Such a direct solicitation for the introduction of a foreign architect into the Iraqi context appears to have operated within a network of exchanges in which individuals involved with the Development Board each advocated for specific international architects, for both the planning and architectural work being developed by the Board in these years. It remains unclear whether more formal or coordinated efforts lay behind the roster of international architects that were eventually invited to participate in the IDB building program in these years or whether, as in the case of Jawdat and Gropius, different actors argued independently for their preferences.⁶¹

⁶⁰ Ibid. The accompanying curriculum vitae of “Data Concerning Dr. Walter Gropius” listed his planning and architectural work from the founding of the Bauhaus to his “Practice in partnership with Architects Collaborative (group of six [sic] young architects under 35 yrs.),” though incorrectly giving 1948 as the date for the establishment of TAC. It also listed the following as “Personal qualifications” for Gropius:

“Adaptability: Has worked under many different conditions, and in many countries, and is primarily interested in finding building methods and styles suitable to special conditions [of] the society, climate, etc. in question.

Administrative Ability: ability to delegate authority

Extreme Modesty

Possesses great imagination, vision, and enthusiasm

Personal interest in Arab Countries and in the ways they are utilizing and developing their resources.”

Harvard University, Houghton f 2013M-29. The personal nature of the appeal and the various errors in data both lend weight to the suggestion that the Jawdat prepared this document, rather than Gropius or TAC.

⁶¹ Rifat Chadirji, in particular, has claimed that he in particular among a group of young architects including the Jawdat was involved in proposing international architects to the IDB in this period. Mina Marefat cites an account by Chadirji from 1997, listing him additionally as having joined the technical division of the Development Board as of 1952:

“I noticed they had some projects like Baghdad Central Station, the Parliament, and the Palace, which were commissioned to British architects whose work were conventional and not modern.... This was a concern among us, young architects. In a meeting between Allen [sic] Jawdat, Nizar Ali Jawdat, Qahtan Awni and myself, we decided to approach the authorities and state our concerns. A meeting was arranged to see the then minister of planning, Dr. Nadeem Pachachi. We met him privately in his home and after expressing our concerns, it was agreed that a list of international architects be prepared and submitted to him.... I prepared the list and it was submitted personally by Qahtan Awni to Dr. Nadeem Pachachi. (May [have] been submitted by Ellen Jawdat).” Letter from Chadirji to Marefat, October 18, 1997, cited in Marefat, “1950s Baghdad—Modern and International,” *TAARII Newsletter*, No. 2-2 (Fall 2007): 6. Elsewhere, Marefat cites a 2007 interview in which Chadirji reduces this account to a personal appeal by him and Awni to Pachaci: “When I saw the list of who they are commissioning to do buildings... it was all by old-fashioned British architects, mostly third-rate... I made an appointment to see the Minister of Planning, with my colleague [Qahtan] Awni.... ‘You are inviting people to design prestigious buildings and spending money. Why not invite the best?’ So he said, ‘Who are the best?’” Marefat, “From Bauhaus to Baghdad: The Politics of Building the Total University.” *TAARII Newsletter*, No. 3-2 (Fall 2008): 2-3. According to Neil Levine, Chadirji claimed in 1992 that these events took place in 1952 (aligning with Ellen Jawdat’s belief that her documents advocating for Gropius to Chelebi were written around the same time). Levine also cites Mohammed Makiya as claiming in July 2012 that in fact “there were never anything more than some informal discussions.” Levine, 424, n. 63. In contrast, Ellen Jawdat claimed in an interview with the author (2017) that Makiya was the main advocate for including Wright among the invited architects.

It is also unclear when discussions of Gropius's involvement first came to center on the university commission in the years between 1952 and 1957.⁶² While their personal correspondence continued regularly through October of 1955, it was not until September 1957 that Walter Gropius received a letter from the Jawdats relaying that an offer of the commission to design the University of Baghdad campus was due to come from the Development Board. Gropius replied enthusiastically on TAC letterhead on September 20th, in a manner that suggested the news was unexpected:

What a surprise to receive your letter! This project would indeed have greatest interest for all of us in TAC, and I shall be glad to come over as soon as we have received the official invitation from your Development Board.... The task to design a new University will be most thrilling to us and closest to my own design ambitions, particularly as it will be dedicated to education which is, in my opinion, the backbone of culture in any country.

Today I write only to thank you for your decisive help which I take from you as a most precious present.⁶³

Indeed, Walter Gropius and Robert S. McMillan traveled to Baghdad from November 2nd to 10th, 1957 to discuss the commission. Gropius wrote again to Ellen and Nizar upon his return to the U.S.,

⁶² An undated letter prior to 1957 from Ellen to the Gropiuses [Harvard University, MS Ger 208, folder 956] describes plans for a university scheme in Baghdad in a manner indicating that this was already known to Gropius, though noting that the project had been delayed: "The university scheme is temporarily halted until the English firm of Minoprio-Spenceley have made their recommendations for the Baghdad City plan & have settled on the site for the university center. So it sits... & we keep talking." It is unclear, however, whether this was meant to refer to Gropius's possible involvement. Neil Levine suggests that the letter dates to "prob. mid-1955" [Levine, 424, n. 71]. The letter describes two events which correlate to a letter by Ise Gropius of October 3, 1955, seemingly confirming them as having taken place before that date: a delivery of goat-hair rugs to Cambridge to explore selling such Iraqi rugs through Design Research, discussions of which had been ongoing since the Gropiuses' arrival in Athens in late August 1954 following their Baghdad trip [see postcard sent by Walter and Ise to the Jawdats from Athens, c. August 25-28, 1954]; and the expected arrival of the Jawdats' fourth child in October (Hammad Jawdat, born November 1, 1955). Harvard University, Houghton f 2013M-29. The Jawdat letter also refers to the completion of "The big school whose plans you saw" as set "to open in the fall," as the last of Ellen's projects to be finished before she closed her formal architectural practice (a decision she described to the Gropiuses as of January 14, 1955, citing medical reasons). This may refer either to the Women's Headquarters of the Red Crescent, complete as of the project's publication in *Architectural Design*, March 1957, or more likely to the American School for Girls, which was described in the same publication as "already being used, [but] far from complete." Raglan Squire, "Architecture in the Middle East," *Architectural Design*, March 1957: 96.

⁶³ Letter from Walter Gropius to Nizar and Ellen Jawdat, September 20, 1957. Harvard University, Houghton f 2013M-29. This was only the second letter to the Jawdats written on TAC letterhead, following the letter of September 9, 1954 in which Gropius first openly suggested his interest in architectural work in Iraq. Gropius's letter also mentions "an announcement of the Board's decision in The Iraq Times of September ninth." The article mentioned is "Board Decisions," *Iraq Times*, September 9, 1957, cited by Levine as stating September 7 as the date of the Development Board's decision to commission TAC. Levine, *The Urbanism of Frank Lloyd Wright*, 424, note 72. The letter from the Jawdats with news of the University commission appears not to have survived.

reiterating “my most emphatic thanks for everything you have done for us in Baghdad.”⁶⁴ The trip, he wrote, “could not have been more satisfactory, for we have covered a lot of ground collecting facts and data which will enable us to go ahead immediately with the design as soon as we get the green light from the Development Board.”⁶⁵ Discussions of the contract and payments continued between Gropius, McMillan, and the Development Board through December, and by April 1958 Gropius reported to the Jawdats that “We are amidst the work on the University, particularly on the educational approach to the whole problem.... This is a most formidable but highly interesting task.”⁶⁶

Around the time of Gropius and McMillan’s departure for Baghdad in late October, Ise Gropius wondered in a letter to the Jawdats whether Frank Lloyd Wright, or his staff, remained convinced as of that fall that the university commission was still theirs.⁶⁷ In fact, the timing of the Jawdats’ letter of September 20 informing Gropius of the impending Development Board commission strongly suggests a direct relationship between the official demise of Wright’s Plan for Greater Baghdad and the decision to offer TAC the University on the Karada site. Wright submitted his completed scheme in August, and Minoprio and Spencely were asked to review the drawings in late September, just after the official decision to commission TAC was apparently made and just

⁶⁴ Letter from Walter Gropius to Nizar and Ellen Jawdat, November 21, 1957. Harvard University, Houghton f 2013M-29.

⁶⁵ Ibid. In a letter from Kahtan Hassan Fahmi Al-Madfai to Ellen Jawdat on September 29, 1957, Al-Madfai confirms news of Gropius’s selection for the University and offers himself if Gropius and TAC will require the services of Iraqi architects: “I heard that there is a possibility that Dr. Gropius may visit Baghdad and take over the project of the University, for which I thanked all the Oriental and the Occidental Gods.” Private collection of Ellen Jawdat.

⁶⁶ Letter from Walter Gropius to Nizar and Ellen Jawdat, April 3, 1958. The contract is discussed in Gropius’s letter of November 21, 1957, and in a subsequent letter by Robert S. McMillan to Nizar Ali Jawdat on December 12, 1957. Harvard University, Houghton f 2013M-29.

⁶⁷ Ise Gropius wrote to Ellen Jawdat on October 27, 1957, in advance of Walter and McMillan’s trip to Baghdad, describing visits by students to their house in Lincoln that fall to see “the oldest modern.” When “a young Swiss together with an American student from Taliesin showed up,” Ise wrote, “I asked them how Mr. Wright had enjoyed his trip to Baghdad. I also asked what building Aalto had been asked to do (‘Time’ had mentioned that Aalto, Corbu & Wright were busy in Baghdad) and mentioned that Walter was just leaving to look into the planning for the Arab university. The young men looked surprised and said that Mr. Wright had already designed that as well as the building Aalto was supposed to do and we looked sort of sheepishly at each other and then laughed it off. Wonder what situation Walter will actually find when he gets there.” Harvard University, Houghton f 2013M-29.

before or coincident with the Jawdat's message to Gropius. In light of this timing—and the fact that Wright's was the only one of the internationally commissioned projects for which Minoprio and Spencely were asked for comments—it is tempting to speculate either that the Wright scheme had fallen into disfavor by this time, leading to the Development Board to contact Gropius soon thereafter, or, conversely, that an impending decision to offer the University to Gropius created a conflict with Wright's attempt to absorb both the site and the program of the University into his own plans, thus necessitating Minoprio and Spencely's review as authors of the master plan that governed the distribution of these competing projects. Such a request suggests the possibility that Spencely's description of Wright's drawings as “fantastic” in his review of the project was meant, perhaps, to imply that the project was *fantastical*: that is, unable to be realized within the confines of the master plan for Baghdad or the government's developmental ambitions for the country.

Companies of Scholars

Unlike the personal, poetic character of Wright's Plan for Greater Baghdad, TAC's presentation of the University of Baghdad scheme spoke the bureaucratic language of expertise from its origins. The project was developed in two phases on either side of the July 14 coup d'état, though both were officially presented to the Iraqi government only after the military general 'Abd al-Karim Qasim had come into power. The first scheme, which the original contract called on to be delivered by August 1958, was reported to be ready by late September and was submitted by TAC in its *Report on the University of Baghdad* of January 1959, a 104-page technical report accompanied by a pilot plan and

floor plans for the campus, model photographs, and six colored perspectives.⁶⁸ Following a meeting in Baghdad the following month to discuss whether to proceed with the project, a revised second scheme of the project was submitted a year later on January 20, 1960, with a preliminary design drawing set supplemented by an detailed 155-page description of the building program titled *Preliminary Design Report, The University of Baghdad*. (Fig. 5.13)

While there were significant changes to the organization of the campus and the architectural expression of its major buildings between the first and second schemes, including a considerable increase in the program and number of students to be accommodated by the new university, the fundamental task that TAC was assigned remained the same across these two phases. In approaching the creation of the first consolidated university in Baghdad, TAC was responsible for planning the administrative and departmental structure of the university, as well as the complete design of the campus and its facilities. Unlike European and U.S. universities that had developed piecemeal over time (the January 1959 report gave Harvard, MIT, Oxford, and the University of Mexico as comparative examples for the Baghdad plan, along with TAC's unbuilt proposal for Hua Tung University in Shanghai), the commission for the University of Baghdad offered an "opportunity which has been given to no other similar institution" in either East or West. "For the first time," the anonymous text of the TAC report suggested, "it might be possible to plan a total university—both the physical plant and the philosophy of education—to make use of and profit from the experience

⁶⁸ Ise Gropius's letter to the Jawdat of April 3 indicated that "payments due to [TAC], according to the contract, for over 2 months have not been forthcoming," suggesting that the contract was signed around February 1958. Ise subsequently wrote to Ellen on April 30 that "the contract called for delivery of the plans 6 months after the agreement was made"—i.e., around August 1958—but worried that these plans would be delayed by the lack of payment, a fact that was confirmed by Walter in a letter to the Jawdat of May 29, 1958. While the *Report on the University of Baghdad* is undated, the January 20, 1960 text references "the preliminary design report submitted by the Consultants [TAC] in January 1959" and confirms that "General approval for the project was given by the Prime Minister at a meeting with the Consultants in February, 1959 after his review of the preliminary design plans." The report further references a meeting of the Development Board on February 15, 1959 in which changes and additions to the original program were specified. TAC, *Preliminary Design Report*, 1-2.

of major Western universities and at the same time to cater to the particular needs and desires of the people of Iraq.⁶⁹

The central question in conceptualizing this “total university” was its expected role in the country’s ongoing modernization efforts, particularly through the expansion of an elite, educated class of graduates that could serve in the future tasks of national development. While its participation in the university as a technically sophisticated office of coordinating experts directly reinforced these aims, TAC cautioned in its initial report against a conception of the future university as dedicated solely to the production of technicians. The firm argued that it was crucial for the government to avoid an exclusive focus on the immediate provision of expertise, in favor of a more flexible, integrated educational program encompassing a humanistic curriculum beyond the narrow scope of professional training:

It is possible that in Iraq today, there are many who think in terms of immediate needs. Many in America do. Yet, our past experience suggests some dangers to be avoided. Forty years ago, when America was undergoing a rapid industrial expansion and we felt strongly the need for new roads, railroads, dams, and our cities were growing higher and broader, there were many who demanded that our universities produce engineers. Today, we are still aware of our imperative need for scientists and doctors. Yet, gradually, we have come to realize that we will produce better engineers, scientists, and doctors if we give them broad education than if we simply train them in their specialties. With this in mind, it is well to emphasize that a university, above all human endowments, is a gift of the present to the future.⁷⁰

Instead of the tendency toward professionalization, TAC proposed a pedagogical structure that would oppose the technocratic emphasis on specialization that, in its view, increasingly plagued the culture of education in the U.S. as well. “As specialization of knowledge has increased and professional schools within a university have multiplied,” the firm wrote in the *Report*, “the concept of a unity of knowledge or of a synthesis of the great variety of specializations has been almost overwhelmed by the ‘success’ of specialization and analytical methods. . . . We would suggest therefore

⁶⁹ The Architects Collaborative, *Report on the University of Baghdad Designed by The Architects Collaborative*, Cambridge, Massachusetts, U.S.A., c. January 1959, 1.

⁷⁰ *Ibid.*, 3-4.

as a root concept the balance of unity and diversity, of synthesis and analysis, of integration and differentiation.”⁷¹ Furthermore, the rapid expansion of the University’s program in relation to national development and the disaggregated character of its existing facilities and departments left TAC wary of projecting the future structure of departments or facilities as a mere extrapolation of current needs for specific fields of knowledge. “In considering the problem of designing facilities for 5,000, 8,000, or 12,000 students,” TAC wrote,

we are first led to ask—In what schools or for what professional degrees? In an area which is absorbing technological facilities as rapidly as the countries in the Middle East, there may be expected to be rather rapid shifts in the number and nature of professional people needed in the various stages of development. Nor can all of these be predicted accurately at the present time. . . . Should engineers be given a priority over agriculturalists even though the country’s future appears to indicate a continued reliance on agriculture? Might not engineers be even more important than doctors and public health officials even in the area of the control of communicable diseases? And how fast are elementary and secondary schools to be made available? The approach to a plan for a University in terms of enrollments of individual colleges appears tenuous, especially as the relationship among the units of the university might well shift over a period of time.⁷²

These problems of projection thus returned TAC to the question of whether to plan the university’s administrative and physical structure according to departments with separate facilities, or with a more integrated structure that would allow for flexibility and change over time. Conceptually, the report asked, “Are [universities] agglomerations of college buildings per se or are they companies of scholars devoted to common professional pursuits?”⁷³ Partner Robert S. McMillan echoed this terminology in describing the firm’s approach to the University of Baghdad, likening the problem to

⁷¹ *Ibid.*, 7-8.

⁷² *Ibid.*, 12-14. Both the difficulties of projection and the desire for an expanded humanities curriculum beyond professional specializations were supported by a comparative table of enrollments in institutions of higher learning in Iraq in 1954 and 1957, in which the largest increase was in the College of Arts and Sciences (a nearly three-fold increase from 295 to 802 students), with more modest increases in most other departments. The only departments with decreases in enrollment were the College of Commerce and Economics (1164 to 493 students), the Law School (1000 to 562 students), and the College of Religious Jurisprudence (101 to zero students).

⁷³ *Ibid.*, 14.

that of designing “a ‘single industry town’—the industry being education.”⁷⁴ In organizing the Baghdad campus around shared facilities rather than separate departments, these “companies of scholars” would become the organizing principle for the University as a whole. The terms of this conception of the university thus bore a specific parallel to the holistic creative model on which TAC itself had been established, as a collaboration among generalists rather than an organization of discrete specializations.

Among the few contemporary architectural critics to offer a detailed analysis of the educational theory that underlay TAC’s design for Baghdad, Giulio Carlo Argan identified the sociological parallels between the proposed structure of the university and the firm’s own self-conception, as well as its effective function in modeling a social organization that would be reproduced within educated Iraq society.⁷⁵ Pointing to the central importance of pedagogical theory within Gropius’s practice both in Germany and in the postwar context of the U.S. university, Argan wrote that “Gropius is finally going to erect in Baghdad his ideal project—the university town:”

For thirty years he has been preaching that education is the primary function of today’s society, that of its self-development. And it is in this direction that he and his group, The Architects Collaborative International have worked. The university is the school at its apex; it is here that the gap between the ideal society and the real society is bridged. The university is a community that fulfills the very highest of the productive functions, *the production of its own structure*.⁷⁶

In pursuing this ideal, Argan reiterated the firm’s argument that the model for the University should emulate a communal, non-specialized model close to that of TAC itself: “as a unified community,” he claimed, the University “should not be subdivided into air-tight departments, nor foster a specialization which does not have at its base a common culture.” As a model of professional

⁷⁴ Robert S. McMillan, “Visual Problems in Town Planning: The ‘University Town’ at Baghdad,” transcript of paper delivered at “The New Metropolis in the Arab World,” an international seminar sponsored by the Congress for Cultural Freedom and the Egyptian Society of Engineers, Cairo, December 17-22, 1960: CAI/15, 3.

⁷⁵ Argan later pointed to Gropius as the paradigmatic figure of a sociologically progressive modernism in *Walter Gropius e la Bauhaus* (1951), a seminal text in Italy on the connection between politics and architectural modernism in the postwar period.

⁷⁶ Giulio Carlo Argan, “A town for scholarship [“La città-scuola”], *Casabella continuità*, No. 242, August 1960: vii. Translation original; emphasis mine.

expertise, Argan wrote that in the Baghdad scheme, “Gropius, the theoretician of an integrated society, and his educational advisers have avoided such fragmentation; they regard this community of young people as a kind of ideal society in nucleo.”⁷⁷

In a longer, unpublished manuscript of this article that was read and commented on by the Gropiuses prior to publication, Argan went further in outlining the paradoxes inherent in designing a University for “a society with an ancient structure and deeply rooted traditions,” yet one “whose extraordinary riches in petroleum offer the possibility of very rapid technical progress.”⁷⁸ In the context of expanding modernization efforts in Iraq, he argued,

The University evidently has the two-fold duty of preparing the cadres of leaders, but also of preventing an overspecialized and essentially technical training from cutting them off from what should be the cultural evolution of the country; from making them unresponsive to the concrete problems of a society not yet organized for such new tasks; and finally from imposing those cadres on society as a rigid and constrictive superstructure.⁷⁹

Argan thus identified the conflicting demands of a university program tasked with the production of an expert class of technicians, yet designed by architects who hoped to temper these needs through an emphasis on liberal education as a sign of national development.

Diagrams of the administrative and physical organization of the university in the 1959 *Report on the University of Baghdad* made clear how TAC sought to relate its pedagogical ideals to the spatial structure of its campus on the Karada site. (*Fig. 5.14*) Dividing the university administration into two major functions, instruction and operations, the report proposed that most university instruction be placed under the aegis of a single Dean of Arts and Sciences, rather than splitting these two domains into separate deanships on the model of the typical U.S. university. The Dean

⁷⁷ Ibid.

⁷⁸ Giulio Carlo Argan, “Walter Gropius and the design of the University of Baghdad, Iraq,” typescript with manuscript corrections, Walter Gropius Papers, Houghton Library, Harvard University (MS Ger 208, folder 314), typescript p. 4. Two carbon copies of this text appear in the Walter Gropius papers, differing in sequence from the published version and with handwritten comments possibly by Ise Gropius, suggesting that these were sent to the Gropiuses prior to publication.

⁷⁹ Giulio Carlo Argan, “Walter Gropius and the design of the University of Baghdad, Iraq,” typescript p. 4.

would be further responsible for coordinating both general and discipline-specific studies, each supported by an assistant dean, thus avoiding the need to appoint a separate Dean of General Studies without authority over departmental faculty.

This administrative pattern corresponded to a physical structure of shared teaching facilities across departments, rather than a campus based on separate faculties in which each would have discipline-specific classrooms, libraries, and offices. Instead, the report proposed that buildings be grouped together essentially by type, in rings extending outward from a campus center toward the river on three sides. The campus center would contain the university library, theater and auditorium, central administration building, faculty club, and mosque, joined by covered passages around an open plaza. (*Fig. 5.15*) This central precinct would be surrounded by a mat of connected blocks of classrooms and laboratory spaces, respectively. While each school would have a permanent headquarters within this matrix—for example allowing physics, chemistry, and astronomy offices to be located closer to the laboratory areas while the humanities and social sciences were grouped into a single office block along with education, engineering and architecture, law, business, and economics—TAC argued that this structure of shared facilities would better accommodate future changes in departmental sizes and space needs, as well as preventing the effective segregation of different schools into permanent, discrete sections of the campus over time. Teaching spaces would be surrounded in turn by three clusters of student residences served by a ring road, with individual faculty and administrative housing located along the river at the western edge of the campus. The radial pattern of housing clusters connected back to the campus center via paths based on an existing network of 10-foot high dykes that remained on the site following its reclamation, a feature that was rendered into the pilot plan as a means of providing level changes within the campus. (*Fig. 5.16*) This pattern of “spoke lines” thus provided a legible symbol of the flood control efforts that had marked the first

phase of the Development Board's work, now incorporated as both a rhetorical device and a primary structuring element within the university plan.⁸⁰

The Expert University

In contrast to such appeals to the broader humanistic character of a new university for the nation, both the Development Board and the U.S. interests that operated in Iraq prior to 1958 were aligned in the expectation that the University of Baghdad would produce an educated class of experts, in much the same terms of "immediate need" that its architects had warned against. The guests Gropius had met on his 1954 trip to Baghdad included Henry Wiens, responsible for the Point Four program as Director of the United States Operations Mission (USOM) to Iraq from 1954 to 1956. In a defense of the Point Four program published in the aftermath of the July 14 coup d'état, Wiens confirmed that among U.S. aims, "In education, emphasis was placed on technical training."⁸¹ These efforts included the provision of advisors for a series of special technical schools established prior to 1958, as well as for governmental efforts to emphasize agricultural and technical work in the city's public schools, and the sending of Iraqi officials, technicians, and students to the U.S. for university observation and training programs. Such educational efforts were seen to be of paramount importance for economic and developmental efforts in Iraq, a country in which only twenty-three percent of the school-age population was enrolled in educational institutions and some ninety percent of the population remained illiterate as of 1950.⁸²

The desire to train technicians for national development was key among the factors that enabled TAC to continue work on the university project following the coup d'état that brought

⁸⁰ The Architects Collaborative, *Report on the University of Baghdad Designed by The Architects Collaborative*, Cambridge, Massachusetts, U.S.A., c. January 1959, 32.

⁸¹ Henry Wiens, "The United States Operations Mission in Iraq," *Annals of the American Academy of Political and Social Science*, Vol. 323, Partnership for Progress: International Technical Co-Operation (May 1959): 142-3.

⁸² Phebe Marr, *The Modern History of Iraq* (Boulder, CO: Westview Press, 1985): 110.

Qasim to power, an event that signaled the official demise of the majority of cultural projects sponsored by the Development Board during the monarchy. Among the commissions that had begun under Faisal II, only those explicitly associated with concrete governmental and social needs under Qasim were chosen to continue, while others, such as Aalto's museum and Wright's opera house and cultural center, were abandoned. The new regime proceeded with Gio Ponti's headquarters for the Development Board itself, now purged of its U.S. and British advisors and reorganized as the Ministry of Planning. So too, Le Corbusier's project for a national stadium and sports complex initially continued until the architect's death in 1965, before its eventual revival and the construction of the gymnasium portion of this complex between 1974 and 1980 by one of Le Corbusier's former associates, Georges-Marc Présenté.⁸³ The TAC university proposal was the only other of the Development Board projects to continue after 1958, and the only project by a U.S. firm, a particularly difficult proposition in the pro-Soviet context of the Qasim regime.

Unlike cultural programs seen to be of dubious value for post-revolutionary Iraq, like opera or art, the national tasks assigned to the university were not only continued, but significantly increased under Qasim's government. Already regarded by some within the monarchy as potential sources of both leftist dissent and nationalist sentiment opposed to foreign influence, educational institutions took on expanded importance within governmental plans after 1958, modeled in part on a Soviet-style planned economy as a spur to national economic development.⁸⁴ In December 1959, just prior to TAC's submission of its revised second scheme for the University on January 20, 1960, Qasim announced a "provisional revolutionary plan" that included significantly increased investments in education along with housing and healthcare, as forms of social welfare that were seen to be crucial

⁸³ On the history of Le Corbusier's Olympic complex after 1958, see Mina Marefat, "Mise au Point for Le Corbusier's Baghdad Stadium," *Docomomo*, No. 41 (September 2009): 30–40; Marefat, "Le Corbusier in Baghdad," *Brownbook*, No. 55 (January-February 2016), and Cec "The Le Corbusier Gymnasium in Baghdad: discovery of construction archives (1974–1980)," May 30, 2012, <http://ifpo.hypotheses.org/3560> (accessed January 26, 2013).

⁸⁴ Phebe Marr, *The Modern History of Iraq*, third edition (Boulder, CO: Westview Press, 2012): 100. On nationalist ideology and the tradition of leftist dissent in education in Iraq prior to 1958, see Reeva S. Simon, *Iraq Between the Two World Wars: The Creation and Implementation of a Nationalist Ideology* (New York: Columbia University Press, 1986).

to national development, in contrast to the emphasis on irrigation and agriculture that had marked the Development Board initiatives prior to 1958.⁸⁵ These changes included nearly doubling the national budget devoted to education between 1958 and 1960.⁸⁶

Despite its problematic status as a U.S. firm in the post-revolutionary context of the new Iraqi republic, TAC sought to negotiate these political shifts by appealing to the expanded role of education within the new planned economy under Qasim. After delivering the preliminary scheme for the University in January 1959, delayed for four months amid the political turmoil following the coup d'état, members of TAC traveled to Iraq to present the design to the new government in February 1959, unsure of the fate of the project.⁸⁷ Qasim gave general approval for the project during the meeting, though not without requesting changes that would significantly enlarge the national scope of the university program. These included substantial increases in the number of students to be accommodated by the campus, from 8,370 to 12,000—a figure that would later be expanded to 18,000—and corresponding changes to the sizes of the library (increased from 400,000 to one million volumes), auditorium (increased from 1,800 to 5,000 seats), dormitory and dining facilities, classrooms and laboratories, infirmary, elementary school, faculty houses, and guest houses

⁸⁵ Marr, *The Modern History of Iraq* (2012): 100.

⁸⁶ This budget was increased from almost ID 13 million (\$36 million) in 1958 to ID 24 million (\$67 million) in 1960. Marr, *The Modern History of Iraq* (2012): 100.

⁸⁷ Following the resolution of issues concerning payments to TAC by May 1958, as Ellen Jawdat reported in a letter to Ise Gropius that month (Houghton Library, MS Ger 208, folder 956), Walter Gropius wrote in a letter of May 29 that “we [TAC] plan to come to Baghdad with the finished representation about in September.” Ise confirmed in a letter to the Jawdats on September 9 that, while Walter had planned to present the project in Baghdad that month, under the political circumstances “He is not going, of course, as TAC has not heard directly what the men who are now in charge are planning. But he has kept his part of the bargain, the plans for the first phase are finished and he will ask now whether they want to see them and read the report.... TAC has no direct information from Baghdad yet and they are told that the new men are so busy trying to get into the picture that quite a while may elapse before they will get around to university plans.” Harvard University, Houghton f 2013M-29. Nizar Ali Jawdat, then relocated with Ellen to Rome following the coup d'état, reported to Walter Gropius in a letter of October 4, 1958 that “The Development Board are, I understand, anxious to continue with some of the main schemes, I am sure ~~consideration~~ [crossed out] The University will fall under that category.” Houghton Library, MS Ger 208, folder 956. Nizar Ali wrote again to Walter on Nov 18, 1959 that “I am glad to hear that the project is progressing well, and I hope that all will go smoothly at the time of presentation in Baghdad.” Bauhaus Archiv, GS 19, 284.

to be built for the campus.⁸⁸ The new plan also called for the addition of a Women's College for 500 students to be added to the university campus.

More significantly for the form of the new university as a whole, Qasim apparently requested the addition of a tower as a prominent vertical element that would make the construction of the campus visible at a distance—and, more specifically, visible to Qasim from his office within the Ministry of Defense—thus signaling the cultural importance of the university at once to both its client and the general public as a symbol of national progress.⁸⁹ This imperative led to the addition of an administrative tower as an anchor for the heart of campus in the revised scheme of the university that was delivered a year later in January 1960, standing on axis with the entry road as it turned toward the ring road that enclosed this central precinct. (*Fig. 5.17*) TAC also sought to leverage its professional expertise to facilitate the smooth conduct of the university commission within this uncertain climate, as the firm's June 2, 1959 contract for the University required a deposit of \$1 million in the first year and \$2.3 million in the second year to a Swiss bank account in order to guarantee regular receipt of payments from the Iraqi government.⁹⁰ Work continued, and by July 1961, international contractors had responded to the first bid tender for University construction (then with a budget of \$80 million), which included the administrative tower and the entry gate to the campus.⁹¹ Yet such attempts to ensure the uninterrupted progress of the project remained subject

⁸⁸ TAC, *Preliminary Design Report, The University of Baghdad*, January 20, 1960: 6.

⁸⁹ Louis A. McMillen, "The University of Baghdad, Baghdad, Iraq," in John C. Harkness ed., *Walter Gropius Archive, Vol. 4: 1945–1969, The Work of the Architects Collaborative* (New York and London: Garland Publishing Inc., 1991): 189.

⁹⁰ TAC, microfilm of contract, June 2, 1959, with renewals in 1961 and 1964, MIT Rotch Library [now relocated to MIT Museum], cited in Marefat, "The Universal University: How Bauhaus Came to Baghdad," in Pedro Azara, ed., *Ciudad del espejismo: Bagdad, de Wright a Venturi = City of mirages, Baghdad, from Wright to Venturi* (Barcelona: Universitat Politècnica de Catalunya, 2008): 158 and note 15. Marefat also claims here that TAC "had considerable help from the Jawdats and their connections in developing contract language" adapted to the Iraqi context.

⁹¹ "Everybody's Baby," *Time Magazine*, Vol. 78, No. 2 (July 14, 1961): 66.

to continued political instability in Iraq, as suggested by communications with the Jawdat after the fate of the project following the Ba'th coup d'état of February 1963 in which Qasim was killed.⁹²

Not least among the forms of technical expertise that would be enabled by the new university program was the first dedicated school of architecture in Iraq, established in 1959 as a separate faculty within the department of engineering, coincident with the planning and design of the consolidated University of Baghdad campus. Unsurprisingly given his pedagogical interests, Walter Gropius evinced a particular interest in the value of an architectural curriculum from the beginnings of the University commission. According to Fuad Uthman, a member of the faculty of architecture from 1961 to 1969, Gropius expressed his thoughts on the potential creation of a faculty of architecture in Baghdad in 1958. "Concerned about the shoddy quality of most buildings in the country," Uthman recalled, Gropius "strongly recommended that the school deal with the development and improvement of local construction techniques," suggesting "that the country needed a school of building construction more than one of architecture."⁹³ Such a program would have particular cultural value in a national context in which "Most new buildings continued to be poor imitations of modern western buildings," one in which Gropius "saw the age-old building traditions of the Middle East, slowly perfected over generations, rapidly being replaced by new materials and construction methods which neither builders nor designers had mastered adequately."⁹⁴

Such ambitions to foment a national building tradition that would be simultaneously indigenous and modern, however, continued to rely on models of imported expertise. Robert

⁹² Ise Gropius wrote to Ellen Jawdat on October 27, 1963 of Walter Gropius's concern regarding difficulties with the progress of the University project, alluding to news from Nizar Ali Jawdat (then about "the Rome-Baghdad situation." Ise cautioned, however, that "you know he is a man who absolutely never gives up and as long as the financial situation permits he will not abandon this scheme." The nature of these difficulties is unclear. By January 11, 1964, Ise reported to Ellen that "Gropius wants Nizar to know that TAC has come to a compromise with the Iraqis and work is going on again. There was a very polite letter from the minister and they have given it in writing that the necessary changes for the plan are going to be paid for." Harvard University, Houghton f 2013M-29. It is unclear whether "the Rome-Baghdad situation" also referred to the effects of Robert S. McMillan's departure from the TAC Rome office around April 1963 to establish his own practice.

⁹³ Fuad A. Uthman, "Exporting Architectural Education to the Arab World," *Journal of Architectural Education*, Vol. 31, No. 3 (February 1978): 27.

⁹⁴ *Ibid.*

Mather, a professor of architecture at the University of Texas who came to the University of Baghdad in 1963 as a visiting professor, described the school's initial faculty of architecture as composed equally of U.S. and British-trained Iraqi architects.⁹⁵ Classes were conducted in English, in some cases necessitating “the development of an Arabic architectural vocabulary where none had previously existed”—a translation problem paralleled by the need to establish a positive term for the figure of the architect, or architectural engineer (*muhandis mimari*), in a context in which the engineer (*muhandis*) had traditionally represented the dominant form of building practice.⁹⁶ By 1978, of the 200 architects practicing in Iraq, some 180 had been trained at the University of Baghdad, with the remainder having studied in the U.S., the U.S.S.R., and European schools on both sides of the Cold War divide.⁹⁷ As the first faculty of architecture in the Arab and Persian Gulf states, graduates of the University of Baghdad also proceeded to populate subsequently created departments of engineering and architecture throughout the region, including the college of engineering at Kuwait University, established in 1966.

The specific U.S. model for the University's pedagogy after 1963, including the faculty of architecture, was provided by the University of Texas at Austin. Even prior to this official relationship, the foundational architectural curriculum had been modeled on the five-year sequence

⁹⁵ Robert Mather, “A New Program at Baghdad,” *AIA Journal*, December 1965: 57–60. According to Uthman, in his role at the University of Baghdad, Mather “addressed himself largely to the issues Gropius had raised when he was in the country.” Uthman, “Exporting Architectural Education to the Arab World”: 28.

⁹⁶ Uthman, “Exporting Architectural Education to the Arab World”: 29. Uthman describes the unsatisfactory nature of the two primary Arabic expressions for the architect at the time the faculty of architecture was established, *muhandis mimari* (translated in English as architectural engineer) or *mimar* (translated as builder or contractor, and seen as “down the social ladder” from the engineer, or *muhandis*). He suggests that *muhandis mimari* constituted an acceptable compromise, leveraging the association with engineering to increase the prestige of the architectural field, and that by the time of the article in 1978 the term had “become accepted not only in Iraq but [in] most of the Arab world as the professional term for architect.” Uthman: 27. Ellen Jawdat wrote in 1957 of a growing “public appreciation of the special role of architect: a realization that his [sic] training equips him to do more than embellish the bare structure provided by a contractor and that his services include an attempt to solve the demands of climate, social function, aesthetic preferences and budget of the client.” In contrast to Uthman's terminology, however, Jawdat claimed that “This model of the architect, clearly patterned on U.S. professional models, was distinct from the traditional primacy in the Arab world of the master builder [*mimar*], the synthetic figure that “serves all the categories of builder, mason, engineer and architect.” Ellen Jawdat, “The New Architecture in Iraq,” *Architectural Design*, March 1957: 79.

⁹⁷ Uthman, “Exporting Architectural Education to the Arab World”: 30.

of typical U.S. undergraduate architecture programs, and was drafted in 1959–60 by Hisham Munir, who had received his B.Arch. from the University of Texas in 1953 prior to attending the University of Southern California.⁹⁸ Kenton W. Keith, a USIS officer in Baghdad in the mid-1960s, later described the broader alliance between the University and its Texas counterpart in these years as “a kind of twinning relationship” that involved exchanges of both students and professors, one deep enough that “it had a life of its own and it was operating outside the context of our official relationship.”⁹⁹ He noted that this exchange was encouraged on both sides as “a relationship that was of benefit to the Iraqis and of benefit to the long range interests of the U.S.” Keith further suggested a desire to continue this connection even after the Arab-Israeli war of 1967 that made any public affiliation with the U.S. government impossible in Iraq, claiming that “the Iraqis actually signaled that they would like to keep that relationship going even as they were breaking diplomatic relations.”¹⁰⁰ Such exchanges testified to the degree to which TAC’s ambitions for the educational and physical structure of the campus had succeeded in creating an expert university for the training of experts, including forms of professional training fashioned after the same U.S. models of architectural practice that were embodied in TAC’s own presence in Iraq.

From Rome to Baghdad

Beyond the TAC office in Cambridge, the development of the University of Baghdad project relied on the formation of a transnational network of expert practices, ranging from draftsmen and engineers in Rome to local architects in Baghdad, climate consultants in Princeton, and environmental data drawn from Phoenix. Key to this network was TAC’s creation of a branch office

⁹⁸ Ibid., 29.

⁹⁹ Kenton W. Keith, USIS Rotation Officer, Baghdad (1966-1967), interviewed by Charles Stuart Kennedy, 1998. The Association for Diplomatic Studies and Training Foreign Affairs Oral History Project, “Iraq Country Reader,” adst.org/wp-content/uploads/2012/09/Iraq.pdf, 164.

¹⁰⁰ Ibid.

in Rome in 1959 to execute the Baghdad commission, possibly the first international branch office of a dedicated architectural firm in the U.S.¹⁰¹ (*Fig. 5.18*) Rome had geographical advantages for projects in the Middle East, cutting the travel time to Baghdad in half (via connections in Athens, Istanbul, and Beirut) with the expansion of international airlines like Pan American and affiliated regional carriers like Lebanese International Airways. Equally importantly for TAC's work, Italy presented an inexpensive labor force of draftsmen compared to the U.S.¹⁰² The Rome location also increased proximity to the firm's collaborators, like the Italian civil engineer Umberto Vannini, employed by TAC in residence between Italy and Iraq, and Panero-Weidlinger-Salvadori, the engineers for the University of Baghdad and itself a branch office for Weidlinger Associates, based in New York City.¹⁰³ In these years Rome also acted as a home for U.S. expatriate artists and architects, particularly centered around the American Academy, some of whom, like James Wines, would become involved in TAC's work in Baghdad through this geographical proximity.¹⁰⁴

¹⁰¹ TAC S.p.A., alternately TACROM or The Architects Collaborative International Ltd., was listed with a location at Via Nomentana 126 in the information given for Robert S. McMillan among the conference participants at "The New Metropolis in the Arab World," held in Cairo, December 17-22, 1960. The office location appeared on TAC letterhead as Viale Gorizia, 24/c as of June 1965. See letter in Bauhaus Archiv, June 19, 1965, GN Kiste Nr. 3, Mappe 113.

¹⁰² Robert S. McMillan later claimed that after the TAC Rome office was formed following the Baghdad commission, "Most of the architects were brought from the United States for the job." "U.S. Firm Radiates from Rome," *Progressive Architecture*, October 1964: 239. Though large, the size of the TAC Rome office in these years is unclear, as is the question of whether there was a differentiation between architects, possibly largely from the U.S. as McMillan claimed, and draftsmen.

¹⁰³ Mina Marefat claims that it was Nizar Ali Jawdat who suggested the formation of an office in Italy to Gropius, and that Panero-Weidlinger-Salvadori, S.A. already had an office in Rome at the time. Marefat, "The Universal University: How Bauhaus Came to Baghdad," in Pedro Azara, ed., *Ciudad del espejismo: Bagdad, de Wright a Venturi = City of mirages, Bagdad, from Wright to Venturi* (Barcelona: Universitat Politècnica de Catalunya, 2008), note 19. It is equally possible, however, that this engineering office was established in Rome specifically to work with TAC on the University of Baghdad, as a branch of Weidlinger Associates in New York City. Matthys P. Levy, an engineer at Weidlinger Associates, suggests that this was the case, describing "our work with Walter Gropius at The Architects Collaborative (TAC) on the University of Baghdad, a huge project for which we prepared preliminary designs in New York [at Weidlinger Associates] and passed them to an office we had set up in Rome called Panero Weidlinger Salvadori." Levy, "Matthys P. Levy," *The Structural Design of Tall and Special Buildings*, No. 14 (2005): 197.

¹⁰⁴ See "Haven of Art and Study: Americans Live and Work at American Academy in Rome," in "America's World Abroad," special issue of *LIFE Magazine*, December 23, 1957. The article includes James Wines, then a sculptor, among U.S. artists living and working in Rome. Wines later worked on a large fountain sculpture for the central area of the University of Baghdad c. 1961—see letter from Wines to Gropius October 4, 1961 ff., after a visit by Gropius to Wines's studio in Rome, asking Gropius to write a letter of recommendation for his application for a Guggenheim Fellowship, which he received in 1962. Bauhaus Archiv, GN Kiste Nr. 3, Mappe 113.

In establishing a base in Rome, the TAC office joined a community of foreign architects and artists for whom the city served as a waystation to large-scale commissions in post-colonial nations including the Arab and Persian Gulf states. A 1963 article in *Time* charted the links between this “colony of American firms” in Rome and the governments of post-colonial “emerging nations” that, rather than severing ties with U.S. actors after independence, had increasingly “found a more useful path to national pride: hiring foreign architects to design government buildings, hospitals, universities, and even cities.”¹⁰⁵ For development authorities in Middle Eastern and African countries seeking the labor of foreign firms, *Time* suggested, Rome offered “the nearest reservoir of technical talent and the best transportation” to provide services for these “underdeveloped nations.”¹⁰⁶ The article further outlined the particular forms of knowledge that foreign architects and engineers were required to advertise in seeking such work, as both vendors of expert services and U.S. ambassadors abroad: “These firms, which constitute a sort of architectural peace corps, stress speed, diplomacy, language fluency and building techniques that can easily be learned by unskilled labor.”¹⁰⁷ While the U.S. offices listed in the article were largely engineering and architecture conglomerates, TAC may have been the only exclusively architectural practice among this group, choosing instead to collaborate with separate engineering firms like Panero-Weidlinger-Salvadori.¹⁰⁸

The TAC Rome office also provided the base for later practices that were sought to take advantage of these connections to work in Africa and the Middle East. These included Robert S. McMillan, a founding partner of TAC, who split off along with other members of the Rome office to

¹⁰⁵“Architects for the Developing [World],” *Time Magazine*, February 12, 1963: 94.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ Ibid. It is unclear whether the firms described in the *Time* article were located only in Rome, or whether, like TAC, these were international branch offices of U.S. firms. Among the firms included, Whiting Associates International arrived in 1953, described in the *Time* article as “the largest of the Rome-based American firms.” McGaughy, Marshall, McMillan & Lucas established a headquarters in Rome in 1963. These offices were later joined by firms like Brown Daltas (not included in the *Time* article), which relocated its base in 1974 from Tehran to Rome, having already set up a U.S. branch in Harrisburg, Pennsylvania in 1962. On Brown Daltas, see Michael Kubo, “Brown Daltas,” in Franchi i Gilbert, Kubo, Miljački, Schafer, ed., *OfficeUS Atlas*, 597 and “Americans Abroad: Brown and Daltas in Iran,” *Architectural Record* (October 1962). For Paul Weidlinger’s thoughts on collaboration with architects, see his “Cooperation Between Architects and Engineers,” *Progressive Architecture/Pencil Points*, June 1946.

establish his own firm, Robert S. McMillan Associates, in 1963.¹⁰⁹ In leaving TAC, McMillan sought “to satisfy the ever-growing demand for superior architectural services emanating from the newly independent countries of Africa,” particularly to serve clients “who are all too frequently given a pedestrian job by one or another of the large foreign architect-engineer firms that operate in the area, and who are often inclined to award commissions to an American firm rather than one from a country with a history of colonialism in Africa or the Near East.”¹¹⁰ Among the benefits of an office in Rome, the article noted that, as was the case for the TAC office, the location ensured “the opportunity to have a principal at a project site within 24 hours should any problems arise requiring major decisions or should a client request on-the-spot-consultation.”¹¹¹

In Baghdad, the ability to navigate the University commission through local constraints relied on the presence of Hisham A. R. Munir, the associate architect for the project from its early years until 1990, when he left for the U.S. amid the political turmoil of the First Gulf War.¹¹² (*Fig. 5.19*) Like the Jawdats, Munir was among the group of young Iraqi architects who embodied the new exchanges between U.S. architectural pedagogy and professional experience and the formation of

¹⁰⁹ “U.S. Firm Radiates from Rome,” *Progressive Architecture*, October 1964: 239. At the time of its founding in 1963, Robert S. McMillan Associates included fellow principal John H. Griffis and associates Riccardo Bonicatti, Barrie Dewhurst, Joseph H. Onuma, Herbert D. Rader, and Richard E. Swibold, all ex-members of TAC. Among the firm’s projects related to the University of Baghdad commission in type and form were the University of Lagos, Nigeria, and a mosque for the University of East Africa, Dar es Salaam, Tanganyika.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*, 240.

¹¹² A comprehensive account of Hisham Munir’s career, spanning from his first works in Iraq in the late 1950s to his departure in 1990, has yet to be undertaken. While such an assessment is beyond the scope of this dissertation, the brief description here is indebted to Sharon C. Smith and Michael Toler of the Aga Khan Documentation Center at MIT, with whom I worked in 2015 to establish an archive of Munir’s work as a basis for future scholarship. This work involved the creation of a database of Munir’s known projects, a series of interviews with Munir by the author and Michael Toler in Washington, D.C. in June 2015 to establish an oral history of these projects, and the collection of original materials held by Munir in Washington, D.C., as well as research by Smith and Toler into extant materials in Baghdad.

self-consciously modernist practices in Iraq.¹¹³ After receiving architecture degrees in Texas and California in 1956—in both cases designing buildings on Iraqi sites as thesis projects—and gaining experience by working for various offices in Dallas and Los Angeles, Munir returned to Baghdad in 1958 to seek the architectural and infrastructural commissions that were increasingly available in Iraq under the Development Board.¹¹⁴ Significantly, these were often highly technical in both building type and construction technology, as with his first project, a competition-winning entry for a tuberculosis hospital in Mosul, designed in reinforced concrete and completed in 1964.

After working in partnership with the senior architect Midhat A. Madhloom, the initial associate architect for the University of Baghdad, Munir eventually established his own practice, Hisham Munir & Associates, and continued with the commission. He continued to work as associate architect for all of TAC's projects in Iraq until his departure in 1990; this joint relationship was strong enough, according to Munir, that the firm eventually asked him to direct a TAC branch office in Baghdad, though he preferred to maintain a separate practice under his own name.¹¹⁵ Munir later acknowledged the professional impact of the TAC office on his work, crediting this collaboration with the expansion of the Munir office—possibly up to some 100 employees—and the build-up of its technical expertise in these years. Indeed, many of Hisham Munir & Associates' commissions showed affinities in form and construction with TAC's international projects after the 1950s. These included the firm's Government Guest House (1964–67)—built to house foreign dignitaries in anticipation of the government's unrealized ambitions to host a Pan-Arab conference in

¹¹³ Within a list of "The First 20 Iraqi Architects in 20 Years (1936-1956)," published in *PROCESS:Architecture* in 1985, all of the architects listed received their degrees from foreign schools, prior to the establishment of the first department of the first architecture department in Iraq at the University of Baghdad by Munir and others after 1959. All of the graduates prior to 1951 studied at schools in the U.K. (including Midhat Madhloom and Mohammed Makiya), with the exception of Numan Jalili, who studied at the University of Cairo. The graduates from U.S. schools after 1951 included Qahtan Awni (University of California—Berkeley, 1951), Hazim Al-Tak (University of California—Berkeley, 1951), Nasir Al-Asadi (University of Texas?, 1952), and Munir (University of Texas, 1953). "Medinaat Al Salaam: Baghdad 1979-1983," *PROCESS:Architecture*, No. 58 (May 1985): 132.

¹¹⁴ Hisham Munir, "Curriculum Vitae," n.d. (after 1989): 2. Aga Khan Documentation Center.

¹¹⁵ Hisham Munir in interview with the author, 2012.

Baghdad following the first Arab League Summit in Cairo in 1964—which bore formal parallels to TAC’s U.S. Embassy in Athens (1956–59). (*Fig. 5.20*)

Munir’s master’s thesis at the University of Southern California had been dedicated to the issue of climate, precisely the subject that emerged as a dominant instrument of exchange between U.S. and European discourses of technical and scientific expertise and questions of regional architectural aesthetics in the Middle East among other post-colonial contexts in this period. Munir argued in his thesis that this subject formed the very basis of national progress, claiming, “Of all the factors that help or impair the development of a nation, the most permanent is climate.”¹¹⁶ The problem posed for architects, he wrote, was thus “to develop and recommend means and methods of climate control that would lead to an indigenous regional architecture.”¹¹⁷ Through this focus on climate, Munir offered his thesis in the hope that it might “serve as a guide as well as a stimulant for the architects and people involved in the recent building movement in Iraq.” In seeking to apply this universalizing scientific framework in the Iraqi context, however, Munir argued that this would lead not to the replication of international modernisms but rather to the rejection of foreign influence and the cultivation of an “indigenous” national aesthetics:

It is only through such patience and honest approach to our problem that we would be able to develop architecture that we can call our own; and through patience and understanding we would be able to discard the foreign imports. Coupled with modern technique we should resort to our rich background for inspiration toward creative, healthy indigenous Iraqi architecture.... With these factors architects will be well protected and equipped with motives that will protect them against an invasion of all sorts of imported clichés and styles.¹¹⁸

Munir suggested that a new “climate consciousness” had been made possible by Iraq’s renegotiation of its oil treaty with the Iraq Petroleum Company from 1950 to 1952 and the availability of this

¹¹⁶ Hisham Munir, “Climate Control and Architecture in Iraq,” M.Arch. Thesis, University of Southern California, August 1956: 1.

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*, 2.

revenue to the Development Board that had been created in tandem.¹¹⁹ For the national building industry, the result was that this “Capital has also increased the purchasing power of suitable and expensive material”; in particular, “it has made possible the erection of national plants producing native cement, thus putting concrete at the architect’s disposal.”¹²⁰

Munir’s analysis of the Iraqi climate was based in part on a comparison with U.S. desert regions like Arizona (significantly, perhaps, where Wright’s Taliesin West studio was also located), a global parallelism of climatic data that would later play a role in TAC’s University project. Noting that “The arid climate of the southwest region of the United States has a great similarity to that of Iraq,” Munir pointed to the dam-building and flood control efforts of the Development Board’s first six-year plan to argue that “Iraq, however, has an advantage over its parallel in the United States; by virtue of the Tigris and Euphrates rivers, Iraq could possess large bodies of water that would modify the general dry climate through easier effort.”¹²¹ The result of these efforts, Munir predicted, was that “the settling and developing of the California desert and that of Arizona will have its parallel in the western desert of Iraq as the dam projects and artesian wells come within completion.”¹²²

As TAC developed the University of Baghdad design following Munir’s involvement as associate architect, the global exchangeability of climate data from Phoenix to Iraq was articulated by Victor Olgyay, a professor at Princeton University whom TAC listed as a part of the firm’s “extensive use of expert assistance” on the project.¹²³ A section of the January 1960 report that accompanied TAC’s preliminary drawing set titled “Abbreviated Climatic Evaluation of Baghdad,” likely produced

¹¹⁹ As oil production in Iraq increased by the early 1950s, the Iraqi government renegotiated with the Iraq Petroleum Company in October 1950 to increase its national share of oil revenue. A second agreement was reached in 1952, modeled on the “50/50” agreement that Saudi Arabia had negotiated with the Arabian-American Oil Company (Aramco) in December 1950, giving the government fifty percent of the IPC’s profits. Revenues to the Iraqi government increased from ID 14 million (\$32 million) to ID 40 million (\$112 million) from 1951 to 1952. Phebe Marr, *The Modern History of Iraq* (Boulder, CO: Westview Press, 1985): 110.

¹²⁰ Hisham Munir, “Climate Control and Architecture in Iraq”: 63-65.

¹²¹ *Ibid.*, 77-78.

¹²² *Ibid.* Munir also cited Wolfgang Langewiesche, “How to Live Comfortably in the Southwest Desert,” *House Beautiful* (April 1950): “What works in Baghdad and Damascus will work in Phoenix and Tucson.”

¹²³ TAC, *Preliminary Design Report, The University of Baghdad*, January 20, 1960: 6.

by Olgay, included comparisons to and data from Phoenix, which, as the report noted, “as a hot and dry region, has similar climatic characteristics as Baghdad.”¹²⁴ (Fig. 5.21) Like Munir’s thesis, Olgay’s charts expressed the character of such climatic analyses as at once universalizing and regional in their architectural ambitions, a combination of a globally applicable science with the promise that this technical method could yield design solutions that could be tailored to regionally specific conditions.¹²⁵ Later publications such as Olgay’s *Design With Climate* (1963) offered an image this dialectic between generalized expertise and an ostensibly enlightened localism, offering a “bioclimatic approach to architectural regionalism” that sought to bridge between a globally transferable scientific apparatus and the questions of regional architectural language that accompanied national modernization efforts of countries like Iraq. (Fig. 5.22) TAC’s second scheme for the University of Baghdad displayed the influence of this climatic expertise, with building facades featuring a variety of concrete brise-soleil that echoed the catalog of facade systems presented by Olgay in his book three years later.¹²⁶ (Fig. 5.23–5.24) So too, the urban pattern of “Hot-Arid Zone Housing” Olgay offered as an example in *Design With Climate* shared similarities with TAC’s campus plan for the university, with three clusters of student dormitories, with buildings grouped tightly to maximize shade, each anchored via a landscaped path to a civic center with administrative, educational, and

¹²⁴ TAC, *Preliminary Design Report*: 123. See also the bioclimatic chart of “Meteorological Data of Baghdad, Iraq (Above) Compared to Phoenix, Arizona, U.S.A. (Below)” included there. This section of the TAC report corresponds to a separate publication by Victor Olgay, “University of Baghdad; climatological evaluations,” in the possession of the TAC office. This appears to be a photocopy of earlier report, “Climatological Evaluation and Recommendation for the Baghdad Area.” The Olgay publication appears to have been bound, possibly after 1966, since the address for the TAC office listed on the front cover is 46 Brattle St., the headquarters the firm designed prior to that year.

¹²⁵ On Olgay and the global climate discourse in this period, see David Leatherbarrow and Richard Wesley, “Performance and Style in the Work of Olgay and Olgay,” *arq*, Vol. 18, No. 2 (2014): 167–176; Daniel A. Barber, “The Nature of the Image: Olgay and Olgay’s Architectural-Climatic Diagrams in the 1950s,” *Public Culture*, Vol. 29, No. 1 (2016): 129–164;

¹²⁶ TAC described the importance of climate in designing these facade systems in its January 1960 report: “Throughout the project, particular consideration has been given to the peculiar climatic conditions, specifically to the excessive sun heat in Baghdad. Systems of horizontal cantilevers and vertical baffles have been devised, the use of which changes according to the respective orientation of a facade. These devices protect the windows against direct sun rays and result also in substantial reduction in required air conditioning equipment. They offer simultaneously consistent and rich architectural details which will give the design a strong architectural character.” TAC, *Preliminary Design Report, The University of Baghdad*, January 20, 1960: 5-6.

recreational facilities. (*Fig. 5.25–5.26*) Such parallels confirmed the degree to which climate offered a unifying technical and aesthetic discourse across the collaborative geography that joined the U.S., Italy, and Iraq.

Universal and Regional Aesthetics

“Universitas means ‘wholeness,’” TAC reminded the Development Board in its initial proposal for the university in 1959. To that end, the firm argued, “the aim of the designers has been to achieve accordingly a ‘human pattern’ throughout the campus which can offer the creative setting for a full, well-integrated life of the students.”¹²⁷ For TAC, this design approach to a “total university” for Baghdad was ultimately intended to achieve a cultural synthesis that might mediate between foreign and local traditions in creating an educational structure that would be at once regional and global. Yet this notion of universality was weighted unequally between local and imported influences, as the introduction to the firm’s 1959 *Report* made clear. “What we are suggesting,” TAC explained,

is that it is all too easy to impose western patterns and social and philosophical values on eastern culture without remembering how much the East has to teach the West. A great gain might be made if the University of Baghdad were somehow to synthesize the materialistic and scientific gains and knowledge of the West with the mysticism, philosophy, and aesthetics of the East. Perhaps, therefore, a step forward in world understanding might be made if a university, situated between East and West, were to be so planned and developed as to provide both the intellectual, emotional, and physical environment to encourage synthesis of both types in the development of a world culture.¹²⁸

In arguing for symbiosis, TAC thus repeated the affiliation of material and scientific expertise with the U.S. and Europe—an affiliation that encoded its own position as an expert practice in the Iraqi context—opposing this technical capability to the “mysticism, philosophy, and aesthetics” of Iraqi

¹²⁷ *Ibid.*, 94.

¹²⁸ *Ibid.*, 8-9.

culture.¹²⁹ In the concluding section of the 1959 *Report*, a single page dedicated to the architectural character of the university, the firm elaborated on the principles of this intended synthesis between foreign technics and local aesthetics. “The architecture of the campus,” TAC claimed, would be “both contemporary and regional,” through the incorporation of “indigenous Arabic elements, flat roofs, patios, arcades, parapets, open staircases, open galleries, arches and vaults—but without imitatively borrowing adornment of the past.”¹³⁰ Through the employment and patterning of such elements, the firm argued, “The sequence and character of these buildings is meant to represent the national pride and the cultural dignity of the modern Arab.”

These sentiments were echoed by contemporary critics who sought to evaluate the adaptations of architectural modernism to the developmental context of modernization efforts in the Middle East. The dichotomy between foreign technocracy and national aspirations was subject in these years for contemporary philosophers like Paul Ricoeur, who contrasted the specter of “universal civilization”—abstracted beyond technics to “the scientific spirit itself” and thus associated with the philosophical framework of European enlightenment—with the need to protect national cultures, as “the strain of two different necessities which are both pressing.”¹³¹ In decrying the spread of uncritical, consumerist forms of modernization without regard for the past, Ricoeur identified the paradox that confronted foreign architects in post-colonial contexts: how to “become modern and to return to sources; how to revive an old, dormant civilization and take part in universal

¹²⁹ Giulio Carlo Argan repeated this dichotomy in his *Casabella* article on the University of Baghdad, characterizing the project as one in which “For the first time, typological and formal elements from an oriental tradition and yet in no sense ‘vernacular’ appear in an architectural projects signed by Gropius.” Argan praised what he regards as a successful search for “idiomatic integration” via a formal structure of “indigenous cadences in a closely-reasoned architectural composition, with the reasoning being unmistakably Western.” Argan, “A town for scholarship,” *Casabella continuità*, No. 242, August 1960: vii.

¹³⁰ The Architects Collaborative, *Report on the University of Baghdad*, 94.

¹³¹ Paul Ricoeur, “Universal Civilization and National Cultures,” *History and Truth* (Evanston, IL: Northwestern University Press, 1965): 271.

civilization.”¹³² Among architectural critics, Sigfried Giedion called similarly for the need to identify a “regional approach that satisfies both cosmic and terrestrial conditions,” a search that he admitted “meets its greatest problem in the so-called ‘technically underdeveloped areas’” of modernizing nations like Iraq.¹³³

In a 1960 review in *Casabella*, Ernesto N. Rogers—a colleague of Gropius and an architect whose own office, BBPR, would later be involved with planning and design projects in Kuwait and Saudi Arabia—attempted to situate TAC’s design among such attempts by U.S. and European architects to mediate between the universal “science” of modernism and regional architectural imperatives abroad. He regarded the aesthetic project of the modern movement as burdened by a language that remained “largely alien to local culture” in the Middle East, offering “only the signs of improvements in the aesthetics of technology” despite its greater constructional and functional honesty.¹³⁴ Rogers further reiterated the association of this technical culture with the U.S., and the corresponding conviction that the task of U.S. architects abroad would be to reconcile such images of technology with the demand for forms of national expression in the post-colonial context of countries like Iraq. He noted that “while hitherto these nations sought mainly the help of engineers for bridges, dams, and oil wells, now they want to be helped in creating a characteristic image of themselves: they call on architects to create the image of their human characteristics in the sense of

¹³² Ibid. Isenstadt and Rizvi point to this paradox, between an ostensibly ahistorical modernism and nationalist historical imperatives, as a defining one for the trajectory of modern architecture in the region: “In the Middle East particularly, a central tenet of postwar modernism—the irrelevance of the past for the problems of the present—swiftly came into conflict with an earlier ideal of nationhood rooted in ethnic genealogy but growing toward material progress.... In such ways, traditional forms were reintroduced by modernism itself; the immediately recognizable motifs could appear as a proof of their persistence, however denatured.” Isenstadt and Rizvi, ed., *Modernism in the Middle East*: 20.

¹³³ Sigfried Giedion, “The State of Contemporary Architecture I: The Regional Approach,” *Architectural Record*, January 1954: 132–137. See also Pietro Belluschi, “The Meaning of Regionalism in Architecture,” *Architectural Record*, December 1955: 131–139. At the time, Belluschi was chairman of the selection committee for the U.S. Office of Foreign Buildings Operations (FBO) which had chosen Josep Lluís Sert to design the U.S. Embassy in Baghdad. In his article, Belluschi praised Sert’s design as a positive example of “how a great modern artist can use his gifts toward a sensitive version of a regional architecture which is both creative and appropriate.”

¹³⁴ Ernesto N. Rogers, “Architecture for the Middle East” [“Architettura per il Medio Oriente”], *Casabella continuità* 242, August 1960, vii. Translation original.

their cultural aspirations.”¹³⁵ It was within this framework that Rogers praised the choice of Gropius and TAC to design the University of Baghdad, both for their interest in the structure of education and for their understanding of the need to provide Iraqis with just such a “characteristic image of themselves” as part of the country’s modernization efforts.¹³⁶ In navigating these tensions between foreign and local aesthetics, Rogers argued,

The University of Baghdad is a characteristic example of the dialectical evolution of history. One might complain of a few instances in which purity has been set aside, but it must be admitted that even certain liberties of vernacular [sic], a few local idiomatic forms, are due to the specific intention of not alienating a work designed to further the development of a given culture; and to do this by employing certain semantic values of that very culture, through which—by utilizing foreign cultures—it becomes more intelligible to those who must use it in order to strengthen it.¹³⁷

If the varying brise-soleil facades of the library and other buildings for the University expressed the universal technics of climate and its application to the University campus, other formal elements signaled TAC’s attempt to identify “semantic values” that would bind the modern architecture of the campus to national cultural imperatives. Not least among these devices was the use of a language of concrete arches, structural as well as rhetorical, among the buildings that comprised the campus center. In the first scheme for the university, this arched motif was employed in particular for the mosque and the campus theater and auditorium, respectively the spiritual and secular cultural icons of the campus. (*Fig. 5.27*) In the second scheme, the theater and auditorium preserved this language in modified form, while the mosque, relocated to stand in isolation outside the campus center, was redesigned as a free-standing dome resting on three points.

By the time TAC began design work on the University in 1957, the use of arches as a regionalist sign had become something of a trope in designs by U.S. architects for cultural buildings abroad, as for example in Paul Rudolph’s unbuilt design for a U.S. Embassy in Amman, Jordan

¹³⁵ Ibid.

¹³⁶ Ibid.

¹³⁷ Ibid.

(1954), the entry to Raymond & Rado's U.S. Embassy in Jakarta, Indonesia (1953–58), or the warehouse wing of Richard Neutra and Robert Alexander's U.S. Embassy in Karachi, Pakistan (1955–61). (*Fig. 5.28–5.30*) Such buildings testified to the growing awareness among U.S. architects of the tensions inherent in adapting modernist architectural language to satisfy nationalist demands for signification in foreign contexts, particularly within the geopolitical framework of the U.S. Embassy program. So too, the arch form had emerged as a motif among contemporary artists and architects in Iraq in this period, as later work by Rifat Chadirji, Mohammed Makiya, Hisham Munir, and others would attest.¹³⁸ Yet this language had begun to appear as a sign of regionalist rhetoric for commissions within the U.S. as well, as evidenced by TAC's unbuilt scheme for a civic center for Tallahassee, Florida (1955–56), the immediate predecessor for the auditorium at the University of Baghdad. (*Fig. 5.31*) The multi-purpose arena within the Tallahassee complex was inspired in turn by at least two canonical early modernist precedents: the rotating stage of Gropius's Total Theater for Erwin Piscator (1927), which provided the organizing principle for the circular seating plan in TAC's scheme; and Le Corbusier's unbuilt competition entry for the Palace of the Soviets (c. 1931), which offered the structural form of a monumental parabolic arch from which the radial roof structure of the Tallahassee arena was suspended. (*Fig. 5.32–5.33*) In TAC's design, however, the angular structure of steel beams in Le Corbusier's project was substituted for a language of concrete vaults, fanning outward over fixed seating areas on either side of a circular central platform that could be reconfigured for different events or subdivided to create smaller theater spaces.¹³⁹ These roof forms partook in turn of a growing array of experiments with serial vaults and other thin-shell concrete structures among U.S. architects by the mid-1950s, allied to a search for more monumental forms of

¹³⁸ On the possible provenance of the arch motif within Baghdad's art and architectural scene of the 1950s, see Amin Alsaden, "Architecture-Art-Architecture: Constructing Baghdad's Modernism," paper delivered at *Abstraction Unframed: Fourth Annual Conference of the Association for Modern and Contemporary Art of the Arab World, Turkey and Iran (AMCA)*, Abu Dhabi and Sharjah, May 22–24, 2016.

¹³⁹ The Architects Collaborative, *A Civic Center for Tallahassee*, Florida, August 1, 1956. The report specifies a contract of February 23, 1956.

structural expression appropriate to large-scale cultural buildings including stadiums, auditoriums, and airports.¹⁴⁰

In developing the Tallahassee arena into an auditorium for the University of Baghdad three years later, TAC's design underwent a series of subtle but meaningful modifications, first in the transition Florida to Iraq and then between first scheme for the University, submitted in January 1959, and the revised second scheme for the campus a year later. Perhaps most importantly for the building's signification, the initial design for the University auditorium eliminated the parabolic arch that acted as the major visual element of the Tallahassee design in favor of a simpler structure of reinforced concrete piers supporting the radial barrel vaults above. In abandoning the dominant structural motif of the earlier project and its explicit homage to Le Corbusier, the Baghdad design thus effectively altered the meaning of the arched concrete forms that remained, divorcing them from a modernist visual language of heroic structural form to serve as signifiers of regionalist adaptation, now among those "idiomatic forms" that Rogers had suggested were necessary to prevent the alienation of the project in the Iraqi cultural context. In contrast, the lighter, almost billowy profile of shallow concrete vaults in Tallahassee became tighter and more substantial through the two versions of the Baghdad scheme, perhaps to reaffirm visually that these continued to play a structural, rather than merely decorative, role. (*Fig. 5.34*) The design of the second scheme for the auditorium distanced it from Gropius's Total Theatre precedent as well, with the flexibility of the reconfigurable center stage based no longer on rotation (as in Tallahassee) but more simply on the ability to subdivide between smaller and larger theater spaces. (*Fig. 5.35–5.36*)

Despite these changes in the form and meaning of the auditorium as they were developed in the University scheme, later critics were quick to dismiss the Baghdad design as no more than a copy

¹⁴⁰ Many of these projects are summarized in *Proceedings of a Conference on Thin Concrete Shells* (Cambridge, MA: MIT, 1954), including Kresge Auditorium at MIT (1950–55). Eduardo Catalano, among the pioneers of thin-shell concrete structures in North America, began teaching in the graduate program at MIT in 1956.

of its predecessors, and its arched forms as superficial decorative motifs in the Iraqi context.¹⁴¹ Manfredo Tafuri, for example, derided such elements as “puerile environmental touches, which in reality are strictly from Disney,” appropriate to the “typical American export products” produced by TAC in Baghdad and elsewhere.¹⁴² For Charles Jencks, the forms of the University of Baghdad constituted proof that TAC was merely one among a class of “ever larger bureaucratic firms” that sought to “perpetrate a form of historicist kitsch in the Middle East.”¹⁴³ More contemporary historians have perpetuated these assessments as well, as in Gwendolyn Wright’s characterization of the buildings of the University campus as “orientalist fantasies in high-tech concrete.”¹⁴⁴ Yet the narrative of an unthinking translation from the Tallahassee arena to the Baghdad auditorium is complicated by the presence of numerous sketches in which members of the TAC design team explored both the structural form of the auditorium and its position relative to other major cultural buildings within the campus center, the mosque in particular.¹⁴⁵ (*Fig. 5.37*) In seeking to give meaning to the formal and spatial relationship between the auditorium and mosque as secular and religious gathering spaces within the campus center, these drawings suggest other precedents for TAC’s campus design, particularly Eero Saarinen & Associates’s complex of Kresge Auditorium and Chapel at the Massachusetts Institute of Technology in Cambridge, MA (1950–55), in which the technical structural expression of the auditorium and its thin-shell dome is set against the archaizing form of the non-denominational chapel, built in rough brick and supported by a ring of low

¹⁴¹ It is perhaps significant that while the TAC team have been readily characterized as bureaucratic copyists in using basing the University of Baghdad auditorium on the firm’s earlier Tallahassee arena, historians have been more generous in discussing the parallel case of Frank Lloyd Wright’s opera house within the Plan for Greater Baghdad, which provided the model for his later Grady Gammage Auditorium in Arizona. See, for example, Joseph M. Siry, “Wright’s Baghdad Opera House and Gammage Auditorium: In Search of Regional Modernity,” *The Art Bulletin*, Vol. 87, No. 2 (June 2005): 265–311.

¹⁴² Manfredo Tafuri and Francesco Dal Co, *Modern Architecture/2* (Milan: Electa, 1976): 307.

¹⁴³ Charles Jencks, *Modern Movements in Architecture*, second edition (Harmondsworth: Penguin Books Ltd, 1983): 8.

¹⁴⁴ Gwendolyn Wright, “Global Ambition and Local Knowledge,” in Inenstadt and Rizvi, ed., *Modernism in the Middle East: Architecture and Politics in the Twentieth Century*: 221.

¹⁴⁵ University of Baghdad, slides [#5728], Loeb Library Special Collections, Harvard University. The date and authorship of these sketches is unspecified in the slides. A similar sketch of the structural form of the Tallahassee dome, in the Walter Gropius Archive, is also unattributed.

concrete arches at its base. (*Fig. 5.38*) In the first scheme for the University, the visual contrast between the concrete vaults of the auditorium and the arcaded pergolas of the mosque took on additional meaning in the context of the Development Board's modernization efforts, as a display of the tensions between the universalizing language of modernism and the self-conscious attempt to identify traditional forms more appropriate to a national Iraqi architecture.¹⁴⁶ (*Fig. 5.39*)

Monument and Mosque

The legacy of the University of Baghdad has been complicated both by the difficulties of its realization amid shifting national politics after 1958 and by the problems of authorship that accompanied its corporate method of production, divided between architects, experts, and consultants in the U.S., Europe, and Iraq. If its predecessor, Wright's unbuilt Plan for Greater Baghdad, can be said to have a signature element to embody its appeal to genius as a mode of authorship, surely it is the statue of Harun al-Rashid that was projected to stand at the terminus of the Isle of Edena, at once laying claim to the genius of the Iraqi past and conflating this fictionalized history with the rule of its client, Faisal II, in the present. (*Fig. 5.40*) In contrast, TAC's university offers a less obvious monument to the bureaucratic ambition to produce a class of citizens educated along U.S. lines as a vehicle for national development. A candidate might be the administrative tower that appeared in the second version of the University scheme, placed on axis with the entry road as this turns toward the campus center and designed to be seen at a distance, following Qasim's request for a legible symbol of Iraqi modernization. (*Fig. 5.41*) For their part, TAC proposed the arched gateway to the the campus, titled the Open Mind, as an icon of Gropius's lifelong approach

¹⁴⁶ TAC's synagogue for Temple Oheb Shalom in Baltimore, Maryland, a design coincident with and likely completed just before the University of Baghdad commission, featured arches similar to the mosque and its entry courtyard in the first scheme for the University. The TAC job number for Temple Oheb Shalom is 5726 (the first two numbers refer to the year of the commission, while the last two appear to designate the order in which the projects came into the office in a given year), while the University of Baghdad is 5728, indicating that the Baghdad project began just afterwards. The design for Temple Oheb Shalom appears to have been essentially complete by September 1957, that is, at nearly the same time that TAC received the commission from the Development Board for the University.

to pedagogy as well as the Development Board's ambitions for the University as an infrastructure for national cultural development. Seemingly designed as a free-standing arch as an echo of the historicist language used for the auditorium and other campus buildings, the gateway is in fact a composition of two separate, cantilevered concrete forms, framing a thin, linear gap. (*Fig. 5.42*) TAC suggested that the form of these symmetrical arcs symbolized the openness of intellectual pursuit that the university would provide for the nation, evoking the lobes of the human brain or a pair of hands, sheltering the campus entry between them.

Beyond these bureaucratic and metaphorical totems, a more fitting synecdoche for the authorial and constructional complexities of the University of Baghdad might be its mosque, among the elements that underwent the most significant changes between the first and second schemes for the campus. (*Fig. 5.43*) Between these two proposals, the conservative design of courtyard and dome that had originally faced the auditorium was replaced by a self-consciously modernist form, placed in isolation on a site beyond the ring road that encircled the campus center. This displacement effectively secularized the main precinct of cultural buildings at the heart of the university, at the same time that it shifted the meaning of the dome from a marker of regionalist accommodation to a heroic structural form as a sign of national progress. Like the broadcast towers that stood as technical images at the center of Wright's plan, this change involved a series of substitutions between spiritual elements and modern, secular variants. While a clock tower served as the vertical icon in TAC's first scheme for the university, the second scheme reintroduced a minaret-like structure as a pure sculpture adjacent to the mosque, separated by a reflecting pool. By these means, TAC argued, an image of this traditional religious form, "functional in the past," was "kept as a symbol" in the present.¹⁴⁷

The ambiguous provenance of the mosque among the network of collaborators inside and outside TAC further contributed to its status as an unwitting embodiment of the bureaucratic

¹⁴⁷ TAC, *Preliminary Design Report, The University of Baghdad*, January 20, 1960: 81.

complex in which the University was conceived. Indeed, the inability to discern its authorship would seem to lay bare the gap that Henry-Russell Hitchcock had suggested in his 1947 essay between the types of commissions that were seen to be appropriate to the authorial modes of genius and bureaucracy, respectively. While other campus buildings like the administrative tower, classrooms, and dormitories fell neatly among the building types that Hitchcock regarded as amenable to the techniques of the bureaucratic office, prosaic in expression and requiring competence and consistency in execution, the mosque would necessarily be an iconic symbol of the campus, one that, in Hitchcock's view, would ideally require the synthetic hand of the genius. H. Morse Payne Jr., an associate at TAC and a member of the design team for the University, later claimed this artistic mantle, stating that he was the singular author of the mosque that appeared in the second scheme for the project.¹⁴⁸ Yet Payne specifically denied any knowledge of Kresge Auditorium, the most immediately proximate precedent for the three-pointed structure of the mosque, despite the fact that he was an alumnus of MIT, graduating in 1950—the year that Eero Saarinen & Associates began working on the Kresge dome—and that the building was located just down the street from the TAC offices in Harvard Square, where he began working in 1952.¹⁴⁹

The available evidence suggests that other members of the TAC collaborative played a role in the design of the mosque. TAC partner Louis A. McMillen, a director of the University of Baghdad project, credited the first version of the project to the firm's research into traditional building types in Iraq, such as Al-Kadhimain Mosque, which he and Gropius had visited on their trips to Baghdad. (*Fig. 5.44*) Partner Robert S. McMillan, also among the directors of the University project from the TAC Rome office, later designed a mosque for the University of East Africa at Dar es Salaam, Tanganyika (c. 1968) after forming his own practice that echoed the Baghdad version in the form of

¹⁴⁸ H. Morse Payne Jr. in interview with the author, October 2012.

¹⁴⁹ A seminal conference on thin-shell concrete construction took place at MIT in June 1954; Kresge Auditorium was completed in 1955, two years before the University of Baghdad commission. See J. William Plunkett and Caitlin T. Mueller, "Thin Concrete Shells at MIT: Kresge Auditorium and the 1954 Conference," paper delivered at Fifth International Congress on Construction History (June 2015), <http://digitalstructures.mit.edu/files/2015-08/plunkett-mueller.pdf>.

its free-standing dome, reconceived structurally as a composition of mosaic-tiled, pre-cast concrete units.¹⁵⁰ (*Fig. 5.45*) An even more likely source for the form of the Baghdad dome is Hisham Munir, whose design thesis at the University of Texas in 1953 had been not only for a mosque, but for one designed as a concatenation of thin-shell concrete domes, each resting on four, rather than three, points. While no contemporary images of the design survive, these forms soon reappeared in Munir's thesis at the University of Southern California in 1956, which included a design for a hospital that featured an entrance pergola composed of thin-shell concrete forms, each also resting on four points. (*Fig. 5.46–5.47*) Yet Munir later claimed that he neither directly advocated for this structural form within the TAC team nor presented his Texas or USC projects to the office, though he may have expressed dismay with the conservative, historicist language of the mosque in TAC's first version and admitted to being pleased with the decision to pursue a more radically modern form in the final scheme.¹⁵¹

In its built form, the shifting status of authorial claims over the mosque has been compounded by the fact that it was never realized as TAC conceived it. The version that was eventually constructed, by unknown hands at an unknown date sometime after the 1960s, is a hollow echo of the design that appeared in TAC's second scheme for the campus, illustrated in its January 1960 report with a dramatic rendering by Helmut Jacoby. (*Fig. 5.48*) The existing building replaces the pebbled mosaic surface of the original design with a cheap veneer of rectangular panels, and abandons the structural heroism of its arched, lightly glazed portals for a clunky structure of visible edge beams framing smaller, more conventional openings. The building has additionally fallen into

¹⁵⁰ "Mosque – University of East Africa, Dar es Salaam, Tanganyika," *Robert S. McMillan Associates*, office portfolio, c. 1968, n.p.

¹⁵¹ Hisham Munir in interviews with the author, June 2013 and August 2015.

disrepair, perhaps testifying to its relatively marginal role within the cultural life of the campus.¹⁵²

(*Fig. 5.49*)

Relegated from the center of the campus to its periphery, radically modified in its form and signification between TAC's first and second schemes for the university, and ultimately realized anonymously as a pale echo of the original, the mosque stands as a historiographic cipher for the cultural stakes of authorship and expertise that marked the development of the University of Baghdad. Heroic in aspirations yet marginalized within the campus in its realization, the final form of the mosque condenses the dynamics of its creation into an ambiguous figure, one that oscillates among the dichotomies between spiritual and secular humanism, regionalism and universality, historicism and modernism, and genius and bureaucracy. In this sense, it serves as an unlikely monument to the difficulties of expertise and authorship that have marked the history of the site and its university.

¹⁵² Photographs of the library and other central buildings circa 2008, taken by Pedro Azara, showed the center of the University campus to be in fairly good repair at the time, unlike the mosque on its isolated site. I am grateful to Azara for providing me with these photographs. Azara further suggested after his visit that the campus has been protected through recent conflicts in Baghdad by its relative inaccessibility, surrounded by the river on three sides and entered via a single gate on the fourth. The disrepair of the mosque thus appears to be a function of neglect or unfinished construction, rather than of willful destruction.

Chapter 6

Architecture and Oil in the Gulf States 1973–1983

The projects are immense, and so are the problems. But the builders, many of them Americans, are devising ingenious solutions.

—Walter McQuade¹

TAC must now engage in work overseas and pursue other markets far from our home office for this is where most of the work is to be found. The international marketplace however, places new pressures, tensions and dilemmas at TAC's door.

—H. Morse Payne Jr.²

The New Client: U.S. Firms and the “Oil-Rich Mid-East”

Within a few short years after the start of the global spike in crude oil prices after 1973, a raft of journal articles in the United States had begun to speculate in earnest about the new opportunities for architects to build in the expanding economies of the Middle Eastern Gulf states. Governmental complexes, vast military cities, new towns for oil workers, international airports, banking towers, commercial centers, and luxury hotels were among the vast array of commissions on offer for foreign firms able to navigate this new market, financed by a spectrum of public and private clients made wealthy by national oil revenues. Written in the manner of apprehensive but enticing field guides to the region, such articles sought to outline the opportunities, risks, and intricate protocols that Western architects would have to negotiate if they hoped to chase the specter of petroleum-fueled development and the tempting yet often precarious finance economies to which it gave rise. In *Architectural Record*, Charles K. Hoyt wrote of the “oil-rich Middle East... the new frontier for

¹ Walter McQuade, “The Arabian Building Boom is Making Construction History,” *Fortune* (September 1976).

² H. Morse Payne Jr., “President’s Report,” in TAC Inc., *1976 Annual Meeting of Stockholders*, March 25, 1976. MIT Museum Archives.

professional services,” and asked with both anticipation and unease: “is this the new client?”³ (Fig. 6.1) In *Fortune*, Walter McQuade warned that “for the eager American construction men involved, there are rich rewards to be earned, but there are also immense difficulties.”⁴ (Fig. 6.2) *National Geographic* offered a guide to Gulf countries that were riding “a magic carpet of petrodollars... to undreamed-of prosperity and influence,” and wondered: “Who are those oil-rich Arabs, and what are they doing with all that money?”⁵

What these articles chronicled above all were the speculative dimensions—potentially lucrative yet risky—of this desire by Western architects to enter the global market for architectural commissions in the Gulf. Reaching its peak between the oil embargo that followed the Middle East war of October 1973 and the series of intertwined political and economic events that marked the end of the Gulf construction boom after 1982, the heaviest presence of U.S. firms in the Gulf states paralleled both the spike in crude oil prices and the corresponding recession in the United States and Europe in this decade. (Fig. 6.3) This desire thus formed a natural corollary to the desperation of many Western architects to escape the increasingly precarious conditions of practice in their own countries, on the opposite side of the revised formulas of oil and capital exchange that had so enriched the Gulf states. In this way the involvement of U.S. architects in the Gulf acted as a hinge between the collapsing space of Western building practice and the coveted but also economically risky territories of the Middle East, where these firms hoped to chase those same sources of wealth that had been suddenly evacuated from architectural commissions at home.

The notion of *speculation* provides a useful framework for understanding the cultural and economic forces that governed both both sides of this equation. The term alludes on the one hand to the processes of speculating for oil reserves, which had generated the national wealth of the Gulf

³ Charles K. Hoyt, “The Oil-Rich Mideast: The new frontier for professional services?” *Architectural Record* (June 1975): 101.

⁴ Walter McQuade, “The Arabian Building Boom is Making Construction History,” *Fortune* (September 1976): 112.

⁵ John J. Putman, “The Arab World, Inc.,” *National Geographic* (October 1975): 494.

states so precipitously after World War II. On the other, it refers to the global mechanisms of financial speculation that were erected on top of this oil revenue, which included the creation of new state and parastatal institutions in the Gulf from banks and investment companies to international aid organizations, as well as private companies like the engineering and construction conglomerates that would prove crucial in mediating the relationship between foreign firms and local projects. In this exchange, the search by U.S. architects for commissions in the Gulf constituted a related form of financial speculation, a process that often carried significant levels of professional risk as much as potential benefits.

Speculation carried additional meaning in the context of Kuwait, among the first and most extreme examples of large-scale urban transformation in the Gulf states following the master planning and demolition of much of the existing center of Kuwait City after 1952. Here it resonates with the idea of *spectacle*, which historian Farah Al-Nakib has posited as a by-product of Kuwait's extended modernization by the 1980s. Exploring the ideological construct of *al-nadha* (the awakening) as the main driver of the processes of modernization in Kuwait after 1950, Al-Nakib argues that beyond the government's attempts to plan a functional city center through the demolition of the existing fabric, development in Kuwait was driven by the desire to create the urban spectacle of "a cityscape that would serve as the definitive symbol and visual reflection of Kuwait's newfound modernity."⁶ (Fig. 6.4) These ambitions were emblemized early in Kuwait's modernization by the Fahad Al-Salem Street development after 1957 and later by the iconic Kuwait Towers (Sune and Joe Lindström of VBB and Malene Björn of Björn & Björn Design, 1965–77). At the same time, the term resonates with the contemporaneous sense of Kuwait as a *speculum*, or mirror, for the changes taking place in architectural practice in the West. Forming the obverse of the corporate images of an abstract finance economy based on the distant specter of "oil" that circulated in the U.S. in this period, there lay the parallel conviction among visitors to the Gulf that in its

⁶ Farah Al-Nakib, "Kuwait's Modern Spectacle: Oil Wealth and the Making of a New Capital City, 1950–90," *Comparative Studies of South Asia, Africa and the Middle East*, Vol. 33, No. 1 (2013): 9.

urban spectacle, “Kuwait today is like a mirror of all that is totally modern in the western world.”⁷

(Fig. 6.5)

Kuwait Funds

Among the Gulf states, Kuwait played an early and outsized role in constructing these new global processes of exchange. The nation had been among the first Gulf states to fully nationalize its oil industry, with its rapid takeover of financial control of the Kuwait Oil Company (begun as a joint-venture between the American-owned Gulf Oil Corporation and the British-owned Anglo-Iranian Oil Company)—first negotiating 60 percent ownership in 1974 and then full ownership the following year—providing a model that was quickly exploited in Saudi Arabia, Iraq, Qatar, and Abu Dhabi.⁸ At the time Kuwait was the third-largest oil producer in the Gulf after Saudi Arabia and Iran and the sixth-largest in the world, extraordinary figures given its relatively minute size. Moreover, Kuwait provided a home for the entity directly responsible for the 1973 embargo and the ensuing price shocks that launched the “second” oil boom after World War II: the Organization of Arab Petroleum Exporting Countries (OAPEC), established in 1968 with Kuwait, Saudi Arabia, and Libya as its founding members.

Even more crucially for its regional importance, both the state’s inability to absorb the enormous quantities of oil revenue and the desire to ensure its protection among the Arab states (particularly relative to the territorial claims of Iraq) led the Kuwaiti government to establish an unprecedented framework for lending international aid for development projects in the Arab world, the Kuwait Fund for Economic Development (KFAED), immediately after achieving independence in 1961.

⁷ Gardiner, *Kuwait, The Making of a City*: 31. On the late modern mirror-glass buildings through which “the fetishism of ‘oil’ as pure liquidity, pure circulation” was reified and abstracted in the West in this period, see Reinhold Martin, “Materiality: Mirrors,” in *Utopia’s Ghost: Architecture and Postmodernism, Again* (Minneapolis: University of Minnesota Press: 2010): 93–122.

⁸ Robert Stephens, *The Arabs’ New Frontier* (Boulder, CO: Westview Press, 1976): 38.

(Fig. 6.6) Western observers of the Kuwait Fund in the 1970s reflected on the institution's uniquely "Arab character" and the remarkable success of its lending model in the Arab world as compared to traditional Western sources of development aid such as the World Bank. Within three years of its establishment, the list of Arab countries in which large-scale development initiatives backed by the Kuwait Fund were in progress or soon to be underway included Jordan, Egypt (then part of the United Arab Republic), Tunisia, Algeria, and Morocco, with projects ranging from irrigation and agricultural development to electrical power plants, mining, and tourist infrastructure.⁹ (Fig. 6.7) In the twelve years prior to the 1973 embargo, Kuwait was the world's largest donor of aid relative to GDP and the seventh-largest overall after the United States, the Soviet Union, Britain, Germany, Japan, and France, the traditional Cold War sources of international aid. An astonishing 15-20 percent of the country's national budget was given to foreign aid projects in these years. The result of this framework was that "it was the small Gulf oil state of Kuwait which was the first to make a more serious effort to use oil money constructively in the Arab world."¹⁰ (Fig. 6.8)

Yet the most immediately visible impacts of Kuwait's newfound wealth were at home. Within a few years of the discovery of the Burgan oil field in 1938 and its exploitation in earnest after World War II, the state embarked on an ambitious program of urban clearance and development beginning in the 1950s that would fundamentally alter the structure of the city center. The key mechanism for these efforts was a state policy of land acquisition and resettlement that enabled the almost complete demolition of the old town as specified in the first master plan for Kuwait, prepared in 1952 by the British town planners Minoprio, Spenceley, and Macfarlane.¹¹ (Fig. 6.9) The ensuing landscape of multi-lane streets and vacant urban parcels—many left empty for decades due to the extreme land

⁹ *The Kuwait Fund for Arab Economic Development*, promotional pamphlet (The Kuwait Fund for Arab Economic Development, June 1964).

¹⁰ Stephens, *The Arabs' New Frontier*: 33.

¹¹ See "Town Planning in Kuwait," *Architectural Design* (October 1953): 272–273. On the Land Acquisition Policy (LAP) of 1951 and its consequences, see Suhair A. Al-Mosully, *Revitalizing Kuwait's Empty City Center* (Ph.D. Dissertation, Massachusetts Institute of Technology, 1992) and Asseel Al-Ragam, "The Destruction of Modernist Heritage: The Myth of Al-Sawaber," *Journal of Architectural Education*, Vol. 67, No. 2 (2013): 243–252.

values that resulted from their initial purchase at artificially inflated prices—provided the ground for the construction of a vast array of governmental, institutional, and commercial projects through which the state sought to reconfigure the spatial and economic bases of a modern Kuwait on the world stage.

The role of foreign architects in creating this image of modernity was crucial. By the time of the second boom in oil prices in the 1970s, the city center of Kuwait had become the territory for what Lukasz Stanek has described as “a global market of architectural resources which, besides labour, included building materials and technologies, discourses and images... most often combined on the ground with resources from local and regional networks.”¹² For many observers of the steady influx of foreign architects to Kuwait, “the famous names that were appointed to build as a consequence” of the city’s modernization constituted “a veritable Who’s Who of the international giants, all candidates for the front cover of *Time* magazine. Nothing but the best.”¹³ Such commentary was typically reserved for the major civic icons of Kuwait’s development, a list that included Michel Ecochard’s National Museum of Kuwait (1960–83), Arne Jacobsen’s Central Bank of Kuwait (1966–76), Kenzo Tange’s Kuwait International Airport (1967–70), Jorn Utzon’s National Parliament (1972–82), Reima and Reilli Pietilä’s Sief Palace Complex (1973–83), and Arthur Erickson’s Al-Sawaber Housing (1976–81, though Erickson’s office was only involved until 1977). So too the roster of foreign luminaries encompassed the largely Team 10-affiliated group of architects invited after 1968 to submit visionary large-scale proposals for the city center, including the Pietiläs, Alison and Peter Smithson, BBPR, and Candilis-Josic-Woods.¹⁴ Largely in the background of these discussions were more anonymous, large-scale practices like The Architects Collaborative and

¹² Lukasz Stanek, “Mobilities of Architecture in the Global Cold War”: 366. Stanek describes this complex as part of broader processes of “mondialisation,” a term taken after Henri Lefebvre to refer to “the emergence of architecture as a worldwide techno-scientific phenomenon after World War II from within competing visions of global cooperation and solidarity.”

¹³ Neil Parkyn, “Kuwait Revisited,” *Middle East Construction* (September 1983): 40.

¹⁴ See “Proposals For Restructuring Kuwait” and “Kuwait: The Smithsons’ Scheme,” *Architectural Review* (September 1974): 179-190.

Skidmore, Owings & Merrill, as well as the heavy presence of professional architects from socialist European countries including Poland, Bulgaria, Czechoslovakia, Hungary, Romania, Yugoslavia, and Greece.¹⁵

In assessing the work of these international architects in Kuwait, contemporary Western critics combined astonishment at the sheer scale of the country's urban transformation with a persistent misgivings about the ability of such "star" designers to contribute meaningfully to these processes of modernization. Neil Parkyn, a British architect in Kuwait who returned in 1983 to assess the city's development after a five-year absence, admitted that "given the firm clues and themes there for the taking—strong light, privacy and formality, waterfront sites in some cases, abundant resources, competent contractors—some of the stars turned in their standard home performance, airfreighted to Kuwait Bay."¹⁶ ("Not," he was quick to venture, "that this was always inappropriate.") (*Fig. 6.10*) Others reflected on the speed and impact of urban change, reflecting on the ways in which "For good or ill [oil] has brought enormous material and moral changes to Kuwait, transforming it in little more than a decade from a quiet traditional desert town into a kind of Arab Los Angeles, spreading its highways and suburbs over the surrounding desert to take in the daily flow of its scores of thousands of big American cars."¹⁷ Such statements seemed to confirm the fears of architects like Parkyn that Kuwait's construction boom had become nothing more than a "showcase for the world's architectural prima donnas."¹⁸

Yet the office that best exemplified the imbrication of U.S. architects with Kuwait's large-scale urban transformation, The Architects Collaborative (TAC), was in many ways far more anonymous than the signature architects whose buildings provided a ready image of spectacle for both Western

¹⁵ An account of the socialist architects working in Kuwait in this period is Stanek, "Mobilities of Architecture in the Global Cold War."

¹⁶ Neil Parkyn, "Kuwait Revisited": 40.

¹⁷ Stephens, *The Arabs' New Frontier*: 39.

¹⁸ Neil Parkyn, "Kuwait Revisited": 39.

and Kuwaiti critiques. TAC's heavy presence in Kuwait began in 1968 with the commission to design the headquarters of the Kuwait Fund for Arab Economic Development, a project gained after a diplomatic trip by partner Louis McMillen to seek work in the Gulf states as an extension of the firm's ongoing involvement with the University of Baghdad in Iraq after 1957.¹⁹ The inauguration of the first Kuwait Fund building in 1974 began a period of thirty years of sustained work in Kuwait for TAC, so much so that the firm opened a dedicated branch office there in 1976 (the only international office run by the firm until its bankruptcy in 1995, aside from the one it had begun in Rome in 1959 to conduct work on the University of Baghdad project). (*Fig. 6.11*) TAC's dozens of projects in Kuwait over these decades included a series of commercial developments for the Kuwait Investment Company combining ground-floor souks with parking, offices, and housing (1973–79), the Kuwait Institute for Scientific Research (1979–83), the Kuwait News Agency (1981–87), the Kuwait Foundation for the Advancement of Science (1982–86), and the Public Authority for Civil Information (1986–92). This involvement in the Gulf reaped benefits in other countries in the Middle East as well, including numerous projects in Saudi Arabia, the United Arab Emirates, Iraq, and Jordan. (*Fig. 6.12*) While the bulk of the articles directed to U.S. architects in the 1970s reflected the palpable anxiety for those unfamiliar with the Middle East about how to access this market and negotiate its risks, the situation was clearly different for firms like TAC that had already been working in the region for two decades at the time of the oil embargo.

It is no coincidence that TAC's arrival in Kuwait came via an entity whose creation reflected a sophisticated philosophy of the relationship between Western technologies, local resources, and modernization efforts in the Arab world. The Director-General of the Kuwait Fund, Abdulatif Youssef Al Hamad, spoke of the reciprocal relations of dependence among the Arab countries, in

¹⁹ Interview with Sabah Al-Rayyes, May 29, 2013. Ironically, one of the initial motives for the Kuwait Fund's aid program to Arab countries had been to bolster international support for Kuwait in the face of territorial claims by Iraq under General And al-Karim Qasim, whose rise to power following the coup of July 14, 1958 had spelled the demise of nearly all of the cultural projects by international architects commissioned under the pro-U.S. Hashemite monarchy of Faisal II, with the notable exception of the University of Baghdad.

which Kuwait's need for territorial protection and its lack of natural resources could be remedied through the lending of developmental aid to foment support within the region: "We are a small country and rely on our neighbors for almost everything—food, teachers, labor. In turn we share with them what we have, money."²⁰ (*Fig. 6.13*) Abroad, Al Hamad lectured audiences in the so-called "first world" about the Arab perspective on the changing equations of trade that had enabled the creation of institutions like the Kuwait Fund and their role in revising the traditionally exploitative relationship of the Western powers to the oil-producing Gulf states:

For years our countries lived literally at the periphery of the world, too weak and too poor to protest against the management of national wealth by foreign private interests, against the low price of oil, against the rapid exhaustion of our reserves, against the draining away of export receipts, and the alienation of the whole oil sector from the national economy. History and the conjunction of several favorable factors began to change all this in the late sixties. We began to recover sovereignty over our national resources, to analyse the different aspects of the world oil markets, to accumulate knowledge, and this led finally to what we refer to sometimes as "the oil revolution."²¹

Instead of a unilateral model of resource exploitation, the conception and operation of the Kuwait Fund "envisaged a triangular cooperation between the technologically advanced oil-consuming countries, the oil producers with surplus funds, and the developing countries seeking to industrialize and modernize themselves. Oil money and Western technology would together transform the economies and societies of the Third World, including the Arab countries."²²

The construction of the Kuwait Fund's own headquarters made these triangular relationships explicit, involving a large U.S. architecture firm, a technologically sophisticated local consultant, and a client empowered to provide both an expressive and a functional symbol of the new role of oil

²⁰ Putman, "The Arab World, Inc.": 523.

²¹ "Some Aspects of the Oil Controversy: An Arab Interpretation," lecture given by Al Hamad at the Industrial Development Bank of Japan in Tokyo, May 8-9, 1975. The lecture was published as *Some Aspects of the Oil Controversy: An Arab Interpretation* (The Kuwait Fund for Arab Economic Development, May 1975).

²² Stephens, *The Arabs' New Frontier*: 65.

revenue in reshaping the modern Arab states.²³ (*Fig. 6.14*) The building consisted of square rings of offices suspended around an enclosed central courtyard, held by an outer ring of piers under an overhanging roof. (*Fig. 6.15*) This parti had appeared in earlier international civic buildings by TAC, first at the U.S. Embassy in Athens, Greece (1956) and later in their Library building for the University of Tunis School of Law (1962), developed for the United States Agency for International Development (USAID). What was new at the Kuwait Fund was the ziggurat-like stepping of the office floors and the simplified, monolithic character of its massing, with deep piers of sandblasted concrete merging into a solid upper floor punctuated by an irregular pattern of vertical slit-windows. (*Fig. 6.16*) Stephen Gardiner, the author of perhaps the sole book-length survey of Kuwait's modern architecture in these years, praised the stepping back of these platforms "to reveal the entire contents of the building—its space, contents, structure, materials." (*Fig. 6.17*) Contrasting the building's openness with the introversion of Jacobsen's Bank, which he likened to "the closed, heavily guarded world of finance," he related the Kuwait Fund building in turn to the international mission of its client, as a headquarters dedicated to "cultural exchange, education, discussion, ideas."²⁴ For Gardiner, its meticulous sand-blasted concrete and stone reflected a sumptuous headquarters in which "the outstanding excellence of the detail depends largely on the clear expression of materials—the simplicity with which weighty components like beams and columns are put together, and the

²³ In 1985 Al Hamad moved on to become director of Arab Fund for Social and Economic Development, an inter-governmental aid body created in 1974 as an expansion of the Kuwait Fund's country-specific purview to sponsor cooperative projects of multinational scope. There he extended his role as a sophisticated architectural patron with the creation of the exceptionally lavish Arab Organizations Headquarters Building, inaugurated in 1994 with TAC partner Louis McMillen as architectural consultant. In addition to headquarters of the Arab Fund, the building Inter-Arab Investment Guarantee Corporation (created with the help of the Kuwait Fund in 1974 to guarantee loans to Arab corporations against non-commercial risks), the Arab Maritime Petroleum Transport Company, and the global headquarters of OAPEC, the multinational agency that organized the global oil embargo in response to the Middle East war in October 1973.

²⁴ Gardiner, *Kuwait, The Making of a City*: 137. Robert Stephens, a British visitor studying the Kuwait Fund's institutional structure a few years after its opening, noted that while some of its employees had apparently held "misgivings for fear that it might lose something of the compact intimate atmosphere" of its previous offices on the outskirts of the city, the new headquarters ensured that "through imaginative architectural design and the determination of the staff, much of this atmosphere has been preserved in the new building while gaining in space, comfort and modern equipment." Stephens, *The Arabs' New Frontier*: 57.

candour with which the granite aggregate of the concrete is displayed.”²⁵ Many of these details became signature elements of TAC and PACE’s projects in Kuwait and throughout the Gulf, particularly its patterning of recessed slit-windows topped with circular arches, set within sheer concrete surfaces. (*Fig. 6.18*)

Local Expertise: Pan-Arab Consulting Engineers

A crucial element in the work of U.S. firms in Kuwait was the presence of consulting firms, large engineering and construction conglomerates that acted as mediators of foreign technical expertise and construction details with on-the-ground protocols. This differed from the situation in Saudi Arabia, for example, where much of the contractual and logistical work of U.S. firms was enabled by para-statal multinational clients like the Arabian-American Oil Company (Aramco) or more directly through Western proxies like Bechtel and the U.S. Army Corps of Engineers.²⁶ Key to TAC’s proficiency in the Gulf was their sustained collaboration with Pan-Arab Consulting Engineers (PACE), the consultant for nearly all of the firm’s projects in Kuwait as well as those of other large U.S. firms, notably Skidmore, Owings & Merrill (SOM). (*Fig. 6.19*) As with TAC and PACE, foreign and local firms frequently operated together through joint-venture agreements, a way of

²⁵ Gardiner, *Kuwait, The Making of a City*: 137–138.

²⁶ On Aramco, see Robert Vitalis, *America’s Kingdom: Mythmaking on the Saudi Oil Frontier* (Stanford, CA: Stanford University Press, 2007) and the various area guides for foreign workers published by the company, such as *Aramco Handbook: Oil and the Middle East* (Dhahran, Saudi Arabia: Aramco, 1968). On the role of the U.S. Army Corps of Engineers in Saudi Arabia, see Robert P. Grathwol and Donita M. Moorhus, *Bricks, Sand, and Marble: U.S. Army Corps of Engineers Construction in the Mediterranean and the Middle East 1947-1991* (Washington, D.C.: Center of Military History and Corps of Engineers, United States Army, 2009). On Bechtel in the Middle East up to 1958, see Richard Finnie, *Bechtel in Arab Lands, A Fifteenth-Year Review of Engineering and Construction Projects* (San Francisco: Bechtel Corporation, 1958).

satisfying the governmental regulation that foreign firms were required to work with Kuwaiti consultants for all construction projects in the country.²⁷

PACE's close association with TAC also began with the Kuwait Fund headquarters, one of the earliest projects taken on by the firm after its establishment in 1968.²⁸ Indeed, the growth of this relationship was crucial for PACE's emergence to become one of the largest consultants in the Gulf, as its founding members later credited their acquisition of drawing standards and design protocols in the first years of the office directly to their work with TAC.²⁹ (*Fig. 6.20*) Conversely, it was largely through the close relationship with such consulting firms that TAC grew into one of the largest architectural practices in the U.S. these decades, sustained by dozens of large-scale projects, both iconic and anonymous, in Kuwait.

Concrete was the material of choice in nearly all of these buildings. Indeed, precast and poured-in place concrete became the preferred materials for the vast array of large-scale commissions designed by U.S. firms in the Gulf States between the 1950s and the 1980s. Perhaps no construction material better embodied the relationship between large-scale architecture firms in the United States and the expanding economies of the Middle East. A synthetic material formed by the chemical interaction of ingredients produced through varying technical means, concrete solidified the complex exchanges among Western architectural specifications, global material networks, and local

²⁷ For example, the requirement for foreign firms to involve a local consulting office with the design and supervision of works in Kuwait was specified in a letter from Sabah Al-Rayyes of PACE to Louis A. McMillen of TAC regarding the contractual agreement for the Area 5 and 9 commercial parking garages (the Souk Al-Manakh and Souk Al-Safat), sent between June 14 and August 22, 1975. A draft of the joint-venture agreement between TAC and PACE for the Area 5 and 9 garages is dated August 26, 1975. Courtesy PACE Archives. SSH, one of the largest consultants in Kuwait, claims that the requirement for foreign firms to work with local consultants after 1973 was the result of lobbying by partner Salem Al-Marzouk, a U.S.-educated civil engineer then in the Ministry of Public Works and a member of the National Assembly. Rod Sweet, ed., *SSH Design: The First 50 Years* (http://issuu.com/sshdesign/docs/50_years_book): 47.

²⁸ The project number given to the Kuwait Fund project by PACE was 68006, with the first two digits indicating the year of the commission, indicating that this was the sixth project ever taken on by the firm in the year of its founding.

²⁹ Interviews with Tarek Shuaib, current head of PACE and son of founding partner Hamid Shuaib (August 1, 2012), and founding partners Sabah Al-Rayyes (May 29, 2013) and Charles Haddad (May 30, 2013).

construction firms through which the building economy of the Gulf states took shape in these decades.

A significant element of these transactions was the changing signification of concrete as a “local” material, one in which foreign technics and on-the-ground matter and labor were synthesized. In Saudi Arabia, Caudill, Rowlett & Scott (CRS), the architects of the University of Petroleum and Minerals in Dhahran (1964–82)—among the earliest large-scale projects by U.S. architects for Gulf clients after the University of Baghdad and Minoru Yamasaki’s Civic Air Terminal in Dhahran (1958–61)—had found that “in Saudi Arabia even the sand does not behave the same as sand elsewhere... wind-blown desert sand loses its sharp, irregular edges and does not bond well.”³⁰ Instead sand had to be obtained from the seashore and mixed with local limestone and cement to produce sufficient hardness. Yet for CRS the resulting composite still constituted “a Saudi product” despite its reliance on Western protocols of sourcing and assembly, one that was “sand-blasted to expose aggregate and matrix, color compatible with the *jebel* site.”³¹ (*Fig. 6.21*) Such buildings were often regarded by local architects as modern as much for their technical proficiency and material refinement as for any stylistic or architectural expression. In this way, in contrast to purely import materials like steel, concrete directly materialized the transnational mixture of expertise and matter at play in these buildings, literally hardening these flows into the image of a “local” architectural expression.

Cargo Cult: SOM and the Corporate Banking Tower

To the extent that specific architectural types can be identified with Kuwaiti modernization after the 1970s, two stand out as a particular legacy of the U.S. firms that participated in the construction of

³⁰ Jonathan King and Peter Langdon, ed., *The CRS Team and the Business of Architecture* (College Station, TX: Texas A&M University Press, 2002): 143.

³¹ Charles E. Lawrence, *Saudi Search* (Houston: CRSS Research, 1986): 9.

the city center. One was the office tower, emblematic of both the proliferating array of new financial institutions that dominated Kuwait's urban landscape and the cargo-cult of technological culture offered by corporate U.S. firms.³² The Kuwait Fund was among the first of these, adding a concrete office tower by TAC adjacent to its main headquarters, completed after 1981, that betrayed the influence of Araldo Cossutta and I.M. Pei & Partners's administrative tower for the Christian Science Center in Boston, Massachusetts (1964–73).³³

Three other new financial entities—the Bank of Kuwait and the Middle East, the Industrial Bank of Kuwait, and the Kuwait Real Estate Bank—came together to develop the Joint Banking Centre, a complex of three prismatic towers designed by SOM with PACE (1976–82). Among the U.S. firms that became major players in the Gulf, SOM's presence in earnest began relatively late with the design of the Hajj Terminal in Jeddah, Saudi Arabia (1975–82), a project that promptly led to prominent commissions for banking towers in Saudi Arabia, Kuwait, and Bahrain.³⁴ In these towers, attention to the harsh desert climate and an interest in uninterrupted mass led the firm to develop an aesthetic of what might be described as “Gulf monoliths,” simple geometrical solids whose power derives from an alternation of sheer blank surfaces in stone or concrete with overscaled, often deeply recessed openings. This series reached its peak in the hermetic National Commercial Bank (1977–83) in Jeddah, Saudi Arabia, a windowless triangular volume with offices facing onto interior courts

³² On the concept of architectural “cargo-cult” and the emblematic role of SOM office towers in signifying “nearness to the fountain of technological culture,” see Peter Smithson, “The fine and the folk: An essay on McKim, Mead and White and the American tradition,” *Architectural Design* (August 1965): 394.

³³ On the Christian Science Center, see Mark Pasnik, Michael Kubo, and Chris Grimley, ed., *Heroic: Concrete Architecture and the New Boston* (New York: Monacelli Press, 2015). The master plan for the Christian Science Center included TAC's Church Park Apartments (1967–73), directly across from Cossutta and Pei's complex.

³⁴ Among the U.S. firms with the heaviest presence in the Middle East by the 1970s, the earliest arrivals were TAC (the University of Baghdad, begun 1957), Minoru Yamasaki & Associates (the Civic Air Terminal in Dhahran, begun 1958), Brown Daltas (the Palace of Princess Fatemah in Tehran, begun around 1962), and CRS (the University of Petroleum and Minerals in Dhahran, begun 1964). Later arrivals included Leo A Daly (the Saudi Arabian National Guard Headquarters in Riyadh, begun 1973) and HOK (the King Saud University in Riyadh, begun 1975 in a consortium with CRS and three other foreign firms). SOM's first commission in the Gulf may have been an office building for ARAMCO in Dhahran (1962), though little about the project is known. A timeline of these and other projects by U.S. firms in the Middle East is given in Eva Franch i Gilabert, Michael Kubo, Ana Miljački, and Ashley Schafer, ed., *OfficeUS Atlas* (Zurich: Lars Müller, 2015): 750–753.

revealed on the exterior by three immense openings on its otherwise blank facades.³⁵ (Fig. 6.22–6.24)

The Joint Banking Centre was won by invited competition in 1976 over entries by TAC, Philip Johnson, and Kenzo Tange, though the scheme was subsequently redesigned by SOM. Its three banks are articulated as an offset composition of triangulated slabs, each occupying roughly one half of a square in plan, with the other half occupied by skylit banking halls at the base of each tower. The two short sides of each tower exposed to direct sunlight are windowless, with office windows subsumed into the long face of each tower, bracketed by monolithic stair cores. The result was regarded by Parkyn as a “striking abstract composition of solids in the sunshine, supported by immaculate detailing. No attempt at ‘Arabic’ forms or a false vernacular; a precise, telling statement to which nothing can be added or taken away.”³⁶ (Fig. 6.25) Outwardly expressive of the unity of Kuwait’s banking industry, the external uniformity of the three towers gives way to customized interiors particular to each bank, chosen among a remarkable twelve alternative schemes developed by SOM for the three banking halls (six options were developed for the executive floors). The result was a complex “considered the first ‘world class’ series of office towers in the third generation of Kuwait’s post-World War II building programs,” not least for an interior “palette of materials of enormous richness which this project demonstrates in such superbly sumptuous style.”³⁷ This sense of luxury was amplified to an extreme at the Al-Ahli Bank (1981–87), where stone-clad semi-circular cores flank spanning office floors whose decor befits the relatively more ostentatious character of a privately held, rather than state-affiliated, bank.

³⁵ Aybars Ascı, the senior designer for SOM’s Al Hamra Firdous Tower in Kuwait (2011), has described the current firm’s awareness of this Gulf aesthetic of monolithic forms and its explicit interest in reviving this lineage in their design for the Al Hamra tower. See his recent talk at the *Export Agendas* symposium at Northeastern University, Boston, February 25, 2015.

³⁶ Parkyn, “Kuwait Revisited”: 40.

³⁷ Maeve Slavin, “Blue Chip Banking,” *Interiors* (November 1984): 130, 141.

In devising a language of blank-walled, stone monoliths designed to adapt to the Gulf context, such buildings constituted an inversion of the fetishism that had accompanied SOM's repertoire of international bank towers in other countries. As the refined technological products of the epitome of U.S. corporate practice in these decades, these towers stood as objects of emulation abroad, well prior to the firm's desire to adapt the language of such banking buildings to the climatic and urban conditions of the Gulf states. In 1965, Peter Smithson, who with Alison Smithson would begin work on their urban proposal for the city center of Kuwait three years later, described the other-worldly impression upon European visitors of "machine-absolute" towers like SOM's Chase Manhattan Bank in New York.³⁸ Such technologically sophisticated emblems of U.S. practice, Smithson wrote, "arouse the strongest cargo-cult feelings in foreigners, and are truly hints of *une architecture autre*."³⁹ His term referred to the shock of Melanesian islanders at the sight of US warplanes and their cargo during World War II, and to the elaborate cult ceremonies they invented to copy the forms of these planes in bamboo and paint, hoping that such mimicry would bring the same abundance from the gods. Smithson interpreted the "rash of black towers" in the United Kingdom as signs of just such a cargo-cult mentality, intended to signify a "nearness to the fountain of technological culture." Henry-Russell Hitchcock linked the fetish character of such products with the professionalization of the firms, like SOM, that produced them, predicting that in the future it would be "not only the American skyscraper that has come to be adopted abroad but, up to a point at least, the methods of its design and production."⁴⁰

³⁸ Peter Smithson, "The fine and the folk: An essay on McKim, Mead and White and the American tradition," *Architectural Design* (August 1965): 394.

³⁹ Ibid.

⁴⁰ Henry-Russell Hitchcock, "The Rise to World Prominence of American Architecture," *Zodiac 8: America*, ed. Bruno Alfieri (Milan: 1961): 2.

Anonymity: The TAC Souks

The other building type that marked Kuwait's development in the 1970s was less iconic, yet far more consequential in its impact on the structure of the city center. These were the modern "souks," multistory structures built as infrastructural anchors for the large urban mega-blocks designated as urban "Areas," each one divided into smaller parcels for development. Referred to as souks on account of their enclosed shopping areas—and regarded as evolutions of the enclosed linear souks planned under Saba George Shiber in the 1960s—in reality these were commercial parking garages, new hybrids of lower-level commercial spaces, multistory parking garages, and upper-level offices and/or housing. (*Fig. 6.26*) As they developed in the 1970s, these new amalgams reflected the particular real-estate economics that resulted from the rapid demolition of Kuwait's city center in the 1950s and its interrelated products: artificially inflated land values, large empty spaces overrun with cars, and the urgent need to alleviate traffic congestion.

The Land Acquisition Policy of 1951 had provided the key mechanism by which the state was able to rapidly clear nearly the entirety of the old town center of its existing fabric of courtyard houses and narrow streets to make way for an ambitious modernization program of new roads and public buildings. Under this scheme, land was purchased from property-owning families within the old town walls (itself demolished to form the green belt that defined the new city center) at deliberately inflated rates, reputedly up to ten times above market value, as an expedient way both to distribute oil revenue and to bring development areas rapidly under state control. These families were then given corresponding plots by lottery and interest-free loans (originally 70,000 Kuwaiti dinars for the first to move after 1952) to build homes outside of the green belt, generally as single-family villas rather than traditional urban courtyard houses.⁴¹ The consequence of this policy was that land values in the city center remained permanently raised to such artificial levels that many parcels

⁴¹ Al-Ragam, "The Destruction of Modernist Heritage: The Myth of Al-Sawaber": 245.

remained undeveloped for decades, as “land speculation became a much more lucrative venture than construction for the private sector.”⁴² Combined with the extreme congestion that followed the opening of car traffic through the old center (among the main drivers of the Minoprio, Spencely, and Macfarlane master plan), the result was an urban landscape of multilane roads and half-empty megablocks, overrun with parked cars. (*Fig. 6.27*)

Faced with the urgency of combating these choking conditions of traffic congestion, the state sought to incentivize private developers to build public infrastructure on land that would otherwise remain empty for speculation. The solution was a decision to sponsor the construction of forty commercial parking garages for 1000 cars each within the green belt, a decision Gardiner criticized as “hardly a recommendation for planners of experience.”⁴³ (*Fig. 6.28*) Such structures had already been predicted in the studies for the city center submitted by BBPR to the Municipality in 1969, which called for a series of sixty-meter “landmarks” that would provide observation points and recreation areas, “supplied by large autosilos” below.⁴⁴ (*Fig. 6.29*) The mechanism for inducing private developers to build parking (on which little profit could be made) was a “build-operate-transfer” (BOT) arrangement in which sites were bid to developers to build commercial structures on twenty-five year leases before transferring their operation to the government, with twenty-five percent of their space allotted to profit-generating uses, i.e., rental offices and ground-floor souks. So ubiquitous were the garages built over the next decade that for Western visitors like Parkyn, by the early 1980s they had “come to represent, in a surprisingly short space of time, almost a ‘traditional’ Kuwaiti building form—small shopping units for rental grouped around an internal public concourse, topped by parking levels and office floors.”⁴⁵

⁴² Farah Al-Nakib, “Kuwait’s Modern Spectacle”: 13.

⁴³ Gardiner, *Kuwait, The Making of a City*: 42. The locations of these garages as built are recorded in a map by the State of Kuwait Ministry of Public Works, Roads Administration, Kuwait City, ca. 1980s. Courtesy MIT Dome.

⁴⁴ Studio Architetti BBPR, *The Future Development of the Old City of Kuwait*, report submitted to Ministry of Planning, Kuwait, 1969: 4.3.

⁴⁵ Parkyn, “Kuwait Revisited”: 40.

Foreign firms played a crucial role in realizing this new infrastructural type. The Kuwait Investment Company (KIC) and the National Real Estate Company, two of the many new financial institutions created in the wake of the oil boom, commissioned TAC to design three of these parking garages—Souk Al-Safat, Souk Al-Manakh, and Souk Al-Wataniya—between 1973 and 1979. Local consultants SSH designed two others with SOM, Souk Al-Kuwait and Souk Al-Kabeer (1973–76). Others were completed in conjunction with British firms (Souk Al-Muttaheda and Souk Al-Masseel, Jack Bonnington Partnership with KEO, 1973–79) or by expatriate Polish architects (Souk Dawliyah, Ryszard Daczkowski and Edward Lach for Gulf Engineering Office, completed 1978). These projects occasionally laid bare the intersection of differing demands and technical abilities between local and foreign firms, as when the concrete frame of the Souk Al-Kuwait collapsed while under construction (killing laborers who slept on the building’s open-air floor slabs at night), a failure rumored to have been caused by the contractor’s overzealous desire to increase the speed of construction.⁴⁶ (*Fig. 6.30*)

The BBPR study had envisioned an extensive “connecting framework” of elevated passages that would connect these and other buildings via “moving stairways, conveyor belts, and air-conditioned spaces” throughout the old city center between the Sief Palace and Safat Square.⁴⁷ By the early 1970s this scheme had been translated into a proposed monorail ringling the city center along roughly the same route, which would have connected Souk Al-Manakh, Souk Al-Kuwait, Souk Al-Safat, and Souk Al-Wataniya, among other buildings. No such elevated connections, however, were built. The result was a patchwork of urban interiors surrounded by empty spaces, tenuously connected to the existing network of souks that had been extended under Shiber.

Visitors seemed ambivalent about the impact of these new structures on the city. Parkyn, for example, could claim that via “the new multifunction souk superblocks... it is now possible to

⁴⁶ Interview with Sabah Al-Rayyes, May 29, 2013.

⁴⁷ Studio Architetti BBPR, *The Future Development of the Old City of Kuwait*: 4.1, 4.2.

traverse considerable sections of the downtown area *without* stepping onto the sunbaked sand or fragmentary pavements remaining from the First, or was it the Second, Great Surge of urban renewal in the '60s and '70s," while at the same time warning that "their proliferation and presumed success raises interesting issues not resolved in a city which still thinks in terms of single site development... At present they stand in isolation, having no 'back' or 'front,' often no planned linkage to the next one."⁴⁸ Seen as suffering from the same lack of urban cohesion that marked the city's more iconic "monuments-to-be," Parkyn wrote that as of 1983, most of the souks were still free-standing "among parked cars, the ruins of what remains of Kuwait's stock of single-storey courtyard family houses and the dusty walk-ups from the 1950s building boom.... they float like giant and beautifully constructed space stations in a sea of sand, although this sand is apparently some of the most expensive real estate in the world, on paper at least."⁴⁹ The most extreme example of the type was the Souk Al-Wataniya (1974–79), in which a mat of courtyard housing on the top floor provided a surreal afterimage of the traditional structure of the city center prior to 1952, now floating above the infrastructural blocks which had replaced it. (*Fig. 6.31*)

Speculative Consequences

It was another souk designed by TAC, the Souk Al-Manakh, that unwittingly became the decisive site—if not the symbol—of the speculative building economy and its hazards at the end of the boom in crude oil prices. (*Fig. 6.32*) Built across the street from the projected Kuwait Stock Exchange (John S. Bonnington, 1984), Souk Al-Manakh was organized with five levels of parking and top-floor offices above a commercial ground floor and mezzanine and two levels of parking below

⁴⁸ Parkyn, "Kuwait Revisited": 40.

⁴⁹ Ibid: 42. Among these isolated "monuments-to-be," Parkyn identified Utzon's National Parliament (1972–82), Mohamed Makiya's Kuwait State Mosque (1977–81), and John S. Bonnington Partnership and KEO's Kuwait Stock Exchange (1978–86).

ground. Though less exceptional than Souk Al-Wataniya and its mix of housing with commercial functions, this organization included an atrium cut through the parking levels to provide light to the shops on the ground floor, with the parking screened behind interior façades of concrete alternating with frosted vertical windows on all four sides of the atrium shaft. As proof of the urban connectedness envisioned in BBPR's studies for the city center, the southwest portion of Souk Al-Manakh was originally designed to accommodate a future monorail stop on the first parking level above the ground floor and mezzanine, a feature indicated in the drawing set as of September 1974.⁵⁰

The fortunes of both the Kuwaiti economy and TAC's presence within it were tied to a seemingly innocuous request in 1978, just before Souk Al-Manakh was complete, for TAC to redesign the first underground parking level of the building to accommodate extra office space for the Kuwait Stock Exchange. At once, the building's status within the city subtly shifted from commercial parking garage to the site where the real risks of the Kuwaiti finance economy soon manifested themselves in force.⁵¹ (*Fig. 6.33*) Within a year of its opening in 1979, the Souk al Manakh had become the site of a vast unregulated market for speculating on foreign companies that were prohibited from being traded on the official stock exchange, open to Kuwaiti citizens only and restricted to government bonds and securities on entities registered in Kuwait. The vast majority of these "companies" existed on paper only, fictional entities registered abroad by Kuwaitis in other Gulf states (particularly the Emirates) solely for the purpose of trading on the eponymous "Souk Al-Manakh exchange." By early 1982, storefront offices on the ground floor of the souk were selling to traders for up to \$50 million, and the government worried about the potential collapse of a black market that operated almost exclusively on post-dated checks and held more total investment than Kuwait's annual revenue from

⁵⁰ See drawing sheet A6, "Plan—Level 5 (Showing Future Monorail) 100 Cars," dated September 6, 1974. Courtesy PACE Archives.

⁵¹ Invoice from Moncef Eladhari (TAC) to Hamad Al Bahar (Kuwait Investment Company) for "conversion of level two parking floor in the Area 5 Commercial and Parking Building to office use for the Kuwait Stock Exchange and Associated Functions," December 18, 1978. Courtesy PACE Archives.

oil.⁵² The stock bubble finally burst in August of that year, by which time it had ballooned to absorb some \$94 billion in excess speculation.⁵³ Newspaper articles chronicled the spectacular rise and fall of the Souk Al-Manakh exchange, their titles indicating how the country's astonishing "stock souk" had become subject to an urgent bailout effort to prevent the collapse of the nation's economy at large.⁵⁴ (*Fig. 6.34–6.35*)

The sudden bursting of the Souk Al-Manakh bubble was perhaps the most dramatic of the events that spelled the end of the boom in construction by U.S. architects working in the Gulf after 1983. The demise of the stock exchange caused a fifty percent decline in construction in Kuwait within the year, an immediate and heavy blow to foreign firms, particularly TAC, that had overcommitted to work in the country. The ripple effects of the Souk Al Manakh combined with the economic impacts of the Iranian Revolution after 1979, the beginning of OPEC price quotas on oil production in 1982, and the deepening of the Iran-Iraq War to reveal the underlying volatility of financial and architectural speculation that dictated the rise and fall of U.S. firms in the Gulf. In Iraq, the end of the nation's second postwar building boom under Saddam Hussein coincided with the cancellation of a planned Conference of Non-Aligned Nations in Baghdad in 1982, marking the end of TAC's major commissions in both Iraq and Kuwait, its two primary areas of operation in the Gulf, in the same year.⁵⁵ Many of the other offices that had grown in size through the 1970s primarily due to work in the region similarly suffered the negative consequences of this involvement following the decline in crude oil prices.

⁵² "Kuwait's Bustling Stock Souk," *The New York Times*, April 5, 1982: D1.

⁵³ Ihsan A. Hijazi, "Kuwait in Bailout Effort After Market Collapses," *The New York Times*, December 20, 1982: 29, 32; Paul Lewis, "Kuwait's Market Bailout," *The New York Times*, February 18, 1983: D1, D7.

⁵⁴ "Kuwait's Bustling Stock Souk"; Hijazi, "Kuwait in Bailout Effort After Market Collapses."

⁵⁵ See Sajid Rizvi, "Iraq Concedes Non-Aligned Summit," *United Press International*, August 11, 1982. <https://www.upi.com/Archives/1982/08/11/Iraq-concedes-non-aligned-summit/4531397886400/>, accessed September 24, 2017.

For TAC, the compound effect of these rapid political and economic shifts in the Gulf states precipitated the slow but inevitable end not just for the firm's presence in the region, but for the survival of the corporation itself. Office memoranda registered the urgency with which the firm laid off waves of staff immediately after 1982, in tandem with ultimately unsuccessful attempts to shift its practice back to commissions in the U.S. Occurring at the same time that TAC's directors were engaged in debates over its future and organization as a large-scale entity with over 300 employees, discussed in Chapter 2, the demise of the firm's project base in the Gulf exposed the rift between the collaborative ideals of TAC's beginnings and the corporate imperatives of its global practice by the 1980s. Founding partner John C. Harkness continued to speak the language of collaboration in seeking a way out of the crisis, writing to "all members of TAC" in September of 1983 that while the previous eight months had been "troubling for all of us," he indicated his hope that a reduction in staff could keep the firm afloat through the downturn in Middle Eastern commissions.⁵⁶ (*Fig. 6.36*) At the same time, he outlined the firm's attempts to reorient its economy around domestic work, commending TAC's staff—its "members," in the language of its original partners—for the "energy, effectiveness, and dedication which so many people have brought to the task of finding new work to replace our traditional sources of income overseas."⁵⁷

Internal correspondence among the partners made evident the tensions between TAC's efforts to reducing its reliance on projects in the Gulf and its inability to gain re-entry into building markets in the U.S., like healthcare, which had specialized in the years since these had constituted a substantial portion of the firm's activity. The firm's *President's Report* for 1984 acknowledged that "1983 was a very difficult year for TAC financially," and reaffirmed its need "to collect as much as possible of the large sums due us from Iraq" in tandem with a decrease in staff and an increase in domestic work.⁵⁸ (*Fig. 6.37*) (The report noted, however, that the reduction in staff had been unequally distributed in

⁵⁶ Letter from John C. Harkness to All Members of TAC, September 28, 1983. MIT Museum Archives.

⁵⁷ Ibid.

⁵⁸ "President's Report." TAC Inc., *TAC Annual Report* (1984). MIT Museum Archives.

favor of the partners, “in line with our workload by without cutting into our stockholder group.”⁵⁹) Yet some partners still expressed hope that the downturn in Middle Eastern work might prove to be temporary, despite TAC’s urgent attempts to divest itself of commitments in the Gulf states. John F. Hayes wrote to the Board of Directors in November 1983 that while they could reassure the firm’s creditors “not to be concerned because we did not expect to invest more money in doing work in Iraq,” at the same time, “we also said we expected Iraq to be an important market when their current financial problems were resolved.”⁶⁰ (*Fig. 6.38*)

Such memoranda made clear that the firm’s concerns about foreign work had as much to do with maintaining its loans from the bank, which were increasingly necessary to keep the firm afloat, as with the sustainability of its workflow and project income. A summary of “Points Discussed with Bank of Boston” in July 1983 elaborated these financial issues while offering a defense of the firm’s commitment to working in the Gulf over the previous quarter-decade. (*Fig. 6.39*) “TAC has always had an international outlook,” the memo reiterated.⁶¹ While its authors detailed the office’s completion of “virtually all” of its Iraqi contracts and its refusal to take on any new projects in the country after 1981, they insisted that TAC’s expansive corporate model was directly tied to the global nature of its work:

We see our involvement overseas as a positive factor in providing a diversified income base, since economies overseas tend to be countercyclical to the U.S. economy. This diversification has allowed us to continue to grow at times when other purely domestic firms were having to retrench.

Our involvement in Iraq extends over 25 years; we have continued to work there through five different governments each of which came to power in a violent way. We are known there and understand the local scene. This gives us an advantage over a firm arriving to Iraq for the first time. Despite the difficult current situation in Iraq, we see it as an important market for us when

⁵⁹ Ibid.

⁶⁰ “Future Commitments in Iraq,” TAC office memorandum from John Hayes to Directors, November 28, 1983. MIT Museum Archives.

⁶¹ “Points Discussed With Bank of Boston,” TAC office memorandum, July 18, 1983. MIT Museum Archives.

the situation improves and we are putting great effort into maintaining good relations with our clients there.⁶²

Despite such expressions of faith in building abroad as a key component of TAC's practice over the previous twenty-five years, there was ultimately little that could be done to stem the effects of overcommitment to work in the Arab and Persian Gulf States by the early 1980s. The firm's woes stood in contrast to competitors, like CRSS, whose more diversified global portfolios allowed them to anticipate and absorb the decline in Middle Eastern commissions.⁶³ Within a year of the collapse of Souk Al-Manakh and the curtailing of its practice in Iraq, TAC had reduced from 390 employees to 220. Its staff kept declining, eventually down to fifty and then to a handful by the early 1990s. A final blow for the office came with the Iraqi invasion of Kuwait in August 1990 and the ensuing Persian Gulf War, when some \$2 million in payments for TAC's ongoing work were frozen in Iraqi banks. Unable to recoup its assets and suffering the continuing effects of the end of the construction boom in Iraq, Kuwait, and other Gulf states, the firm ultimately filed for bankruptcy in April 1995. After suffering through the prolonged decline of its corporate practice over the previous decade, TAC's demise came just before the next wave of petroleum-fueled development by U.S. architects in the Gulf after the mid-1990s, now taking place in the United Arab Emirates, Qatar, Bahrain, and other inheritors of the speculative economy of oil.

⁶² Ibid.

⁶³ According to the 1978 ranking of firms in *Building Design & Construction*, sixty percent of TAC's billings in the previous year came from foreign work, the vast majority in the Arab and Persian Gulf States. With the exception of Brown Daltas & Associates (whose work was exclusively conducted abroad), all of the other top ten U.S. firms listed received no more than ten percent of their billings from foreign work. Oliver W. Witte, "Learn from the Public Giants," *Building Design & Construction* (July 1978): 59.

Conclusion: The Legacy of the Architectural Corporation

If the story of The Architects Collaborative (TAC) offers a telling case study in the broader history of architectural practice and its incorporation in the United States after World War II, the firm's demise provides an equally useful benchmark for measuring the rise of multinational conglomerates that further redefined practice after the 1990s. As TAC went bankrupt in 1995—a victim of legal and economic shifts within the building industry as a competitive market after the 1970s and an inability to restructure its practice to take advantage of the renewed building activity of the Reagan era that followed—the largest design practices were simultaneously experiencing another massive leap in scope and scale, one that left behind the dedicated architectural corporations of the postwar era. Following the neoliberal economic boom that extended, with minor interruptions, from the 1980s to the Great Recession of 2008, a wave of even larger, more diversified entities began to subsume an increasing proportion of the building industries, with services ranging from architecture, construction, and infrastructure to economic planning and capital investment at a global scale.

These new multinational architectural conglomerates (which we might call MACs) were among the extended products of the legal and economic challenges to architectural practice in the 1970s that compelled large firms to integrate and diversify their services in order to survive, a phenomenon discussed in Chapter 1. The “merger mania” that accompanied these developments resulted in the consolidation of fewer, larger practices within the upper economic ranks of the design and construction fields, a phenomenon coupled with the increasing share of the industry held by such firms.¹ According to the chief economist for the American Institute of Architects (AIA), by 1998 the percentage of AIA member firms in the U.S. with more than 20 employees nearly doubled in a mere eight years, while firms of 50 or more employees already controlled nearly 40 percent of the building

¹ See Bradford McKee, “Merger Mania,” *Architecture* (June 1996): 151–155.

industry.² As these entities expanded, they were increasingly subject to the globalizing imperatives that faced the corporate world at large. This reality was summed up by C. Michael Armstrong, the CEO of AT&T, who declared in these same years that “in the future there will be two kinds of corporations; those that go global, and those that go bankrupt.”³

The reorganization of architectural practice via the multinational corporation took place just as firms like TAC, which epitomized the collective ethos of the postwar period and the corporatization of practice in the decades that followed, found themselves faltering in their attempts to adapt to this next wave of transformations in the economy of architectural production. In this sense, TAC’s collapse also marked the crisis of the collaborative architectural ideal, based on a generalist conception of architectural production and reflected in team-based offices with design staffs consisting primarily, if not exclusively, of architects. The rise of MACs signified a shift from the creative model of such dedicated architecture practices—classified as “A” firms within the annual rankings of trade journals like *Engineering News-Record* and *World Architecture*—to complex, globally distributed providers of a vast array of market services related to the building industry. As these entities have increased in size and obscurity, they have become known less through the production or reception of specific architectural works than by their market categorization as “AEC” firms, offering expertise in design as simply one component within this spectrum of services across the domains of architecture, engineering, and construction.

As the multinational architectural conglomerate took over a dominant portion of the professional field after the 1990s, the nature of what constituted “architectural” practice thus changed as well. The rise of such ultra-large firms—often orders of magnitude larger than their team-based predecessors—entailed even more challenging questions concerning the meaning and impact of corporate architectural production than those that had accompanied the rise of collective and

² Philip Langdon, “When Bigger Is Better,” *Architectural Record* (August 1998): 58.

³ C. Michael Armstrong, cited in Medard Gabel and Henry Bruner, *Global Inc.: An Atlas of the Multinational Corporation* (New York: The New Press, 2003).

collaborative offices after World War II. Beyond the issues of architectural authorship posed by such postwar firms, the MACs of the neoliberal era are increasingly no longer architectural practices at all in conventional disciplinary terms but rather diffuse, abstract corporate entities, with diversified operations extending across a wide range of services often only tangentially related to the built environment and its financial underpinnings. As such firms gained an increasingly outsized impact over the production of the built environment, the relative importance of “architecture” as a market segment within their own practices thus steadily diminished, often to the point of marginality. At the same time, the fate of the large-scale, dedicated architectural firm—the model represented by TAC’s collaborative structure—was left in an increasingly precarious position within this radically altered terrain of competitive practice.

If architectural historians and critics had largely abdicated their responsibility to develop a framework for theorizing the modes of collectivity that had reshaped practice by the 1980s, a phenomenon discussed in Chapters 1 and 3, then this lack of critical attention left few tools with which to take stock of this new class of more globally distributed yet less explicitly architectural design concerns. Trade magazines were left to repeat arguments made a half-century earlier about the nature of architectural practice, reminding readers that “American architecture is a business, and an increasingly collaborative one.”⁴ As journalist Philip Langdon outlined in *Architectural Record* in 1998, while the scale of such firms extended well beyond that of the postwar corporation, critical models remained focused on outdated notions of singular architectural creativity. “No matter how often critics may present the inspired individual as the source of lasting architectural achievement,” Langdon wrote, “the reality is that American architecture is increasingly the province of very large firms—those with 200 to more than 2000 employees and billings in the tens or even hundreds of millions of dollars.”⁵

⁴ Langdon, “When Bigger Is Better”: 58.

⁵ *Ibid.*

The most dramatic example of such mega-scale and scope is AECOM Technology Corp., currently the largest design conglomerate in the world. Established in 1990, AECOM has topped the annual rankings of multinational architectural corporations since at least 2011, with an annual revenue of nearly \$7.5 billion dollars—\$1 billion more than that of its nearest competitor—as of 2016.⁶ The firm’s acronym is emblematic of its abstraction as well as its size, referring not to the initials of partners but supposedly only to the range of services it provides: Architecture, Engineering, Construction, Operations, and Management. The corporation’s name is thus literally anonymous, evacuated of any message other than its market categorization beyond even the typical scope of the AEC firm.

The origins of AECOM lay in the decision by Ashland Oil, Inc. to expand its services in 1984 by acquiring five large architecture and engineering companies, renaming itself Ashland Technology Corporation in the process. These companies included Daniel, Mann, Johnson & Mendenhall (DMJM), established in 1946 by Phillip J. Daniel, Arthur E. Mann, and Kenneth S. Johnson, and joined by 1951 by structural engineer Irvan F. Mendenhall. DMJM had already structured its practice in order to seek large, complex projects at an international scale, offering a full range of services in architecture, engineering, planning, and consultation and later expanding its work into highly specialized technical domains including industrial engineering, statistics, and electronics.⁷ In its first fifteen years of practice, DMJM’s work extended from offices and institutional buildings to

⁶ “The Top 500 Design Firms,” *Engineering News-Record*, May 1, 2017: 64. By contrast, the largest dedicated architectural practice in the world as of 2017, Gensler, has an annual fee income of \$1–1.5 billion. “WA100 2017: The World’s Largest Architecture Practices,” *World Architecture* (January 2017): 14.

⁷ On DMJM’s organization and international expansion in these years, see “Organization for Efficient Practice 4. Caudill, Rowlett and Scott, Architects-Planners-Engineers,” *Architectural Record* (November 1960): 179–184; Norris Leap, “Engineer manages team of five talented architects to success,” *The Los Angeles Times*, October 9, 1960: E2; Tom Cameron, “Firm creates wide variety of projects,” *The Los Angeles Times*, July 26, 1964: J26; “Names: Daniel, Mann, Johnson and Mendenhall,” *Architecture and Engineering News* (June 1967): 104–105; “Architecture For Big Business Has Become Big Business,” *The Los Angeles Times*, April 6, 1972: II7; Ruth Ryon, “Los Angeles Companies Create Worldwide Impact,” *The Los Angeles Times*, June 4, 1978: VI1; “Profile. Daniel, Mann, Johnson and Mendenhall: A Summation of Parts,” *Progressive Architecture* (June 1972): 72–83; Michael Franklin Ross, “The Development of an Esthetic System at DMJM,” *Architectural Record* (May 1975): 111–120.

city planning, transportation, large-scale waterworks, well drilling, and other large-scale urban and environmental infrastructures. The firm grew large in particular through its expertise in executing military commissions, designing military housing, airbases, harbors, and communication centers in Guam, England, and Thailand, as well as domestic projects including missile installations for the Titan I and II missile silos at the Delta Nine complex near Wall, South Dakota. This extensive scope of practice was enabled by a managerial structure of coordinated yet autonomous departments with a partner in charge of each section, a structure that allowed all engineering and technical work to be done in-house.⁸ Yet within the architectural field, DMJM's reception after the 1970s was based less on its diversified array of services than on the development of an "esthetic system" through the firm's building division, led by designers Cesar Pelli and Anthony J. Lumsden.⁹ Contemporary articles on the practice, and on Lumsden in particular, promoted the image of a conventional architectural office led by signature designers, in contrast to the extensive range of more anonymous expertise offered by the firm.¹⁰ This discursive status was reflected in Pelli and Lumsden's role with the Los Angeles circle of architects that became known as the "LA Silvers," in reference to their use of slick, hermetic mirror-glass curtain wall systems distinguished by their equivalent treatment of thin horizontal and vertical mullions to produce a homogeneous or "two-way" grid effect.¹¹

⁸ A theorization of DMJM's practice model within the competitive landscape of U.S. architectural practice in the 1970s and 1980s is Aaron Cayer, "A Political Ecology of Practice: Daniel, Mann, Johnson, Mendenhall," paper presented at the Assembling Values: Architecture and Political Economy conference, Columbia Graduate School of Architecture, Planning, and Preservation, May 7, 2016.

⁹ Both Pelli and Lumsden left the emerging office of Kevin Roche John Dinkeloo, then completing Eero Saarinen & Associates's posthumous projects, to head DMJM's design division. Pelli was hired as the first director of design at DMJM in 1964, with Lumsden soon to follow as principal for design.

¹⁰ See for example Esther McCoy, "Post-Mies: Architecture di Anthony J. Lumsden," *Domus* (November 1975): 1–12; John Pastier and Michael Franklin Ross, "Anthony Lumsden, DMJM," *A&U* Vol. 5, No. 3 (1975): 61–160; Ross and Hayahiko Takase, "Anthony Lumsden, DMJM," *Space Design* (July 1979): 3, 5–44; Leon Whiteson, Takase, and Lumsden, "Recent Works of Anthony J. Lumsden/DMJM," *Space Design* (November 1993): 5–44.

¹¹ See Daniel Paul, "Westward Transitions: The Early Development of the Late- Modern Glass Skin in the Collaborative Works of Cesar Pelli and Anthony Lumsden," in Tom Marble, ed., *Forum Issue 7: Late Moderns* (2010), <http://laforum.org/article/westward-transitions/>.

When Ashland Technology Corporation decided to refocus on its petroleum refining business in 1990, an employee buyback program led by Richard G. Newman, the president of DMJM prior to the firm's acquisition, spun off the companies Ashland had acquired six years earlier into a new entity, christened AECOM Technology Corporation. A sweeping program of acquisitions of over forty companies since 1998 has allowed AECOM to diversify into an ever-increasing range of global geographies and markets, from courthouses and civic design to sports facilities, healthcare, aviation, land surveying, economic research, environmental services, infrastructural engineering, and capital investment.¹² The firm became a publicly traded company in 2007, reorganizing two years later to consolidate all of these entities into a single brand under the name AECOM. While its 2,100 architects alone as of 2015 made the firm the single biggest employer of designers in the world at the time, with over 45,000 employees by 2010, this number made up less than five percent of the firm's total staff.¹³ The company nearly doubled its size in 2014 with the acquisition of the engineering conglomerate URS Corporation, at the time the world's third-largest design firm by annual revenue, putting AECOM close to the 100,000-employee mark.¹⁴ As the firm metastasized in scale and scope, the abstraction of its increasingly diffuse network of corporate activities proved mystifying for architectural historians and critics who sought to grasp the nature and totality of the multinational conglomerate. Contemporary articles made evident both the urgency of assessing the meaning of this new category of practice and the critical difficulties inherent in doing so, offering that "with offices

¹² A diagram of AECOM's known acquisitions since its establishment in 1990 is provided in "AECOM Family Tree," in Eva Franch i Gilabert, Michael Kubo, Ana Miljački, Ashley Schafer, ed., *OfficeUS Atlas* (Zurich: Lars Müller, 2015): 954–955.

¹³ "WA100 2015: The World's Largest Architecture Practices," *World Architecture* (January 2015): 14; Aaron Seward, "Making It Big," *Architects Newspaper*, June 16, 2010: 11.

¹⁴ Stuart Pfeifer and Chris Kirkham, "Merger of Aecom and URS to Create Giant L.A. Construction Firm," *The Los Angeles Times*, July 13, 2014, <http://www.latimes.com/business/la-fi-aecom-merger-20140714-story.html>; AECOM, "AECOM completes acquisition of URS Corporation," press release, <http://www.aecom.com/press/aecom-announced-today-that-the-company-has-completed-its-acquisition-of-urs-corporation-with-broad-support-from-stakeholders-following-approval-of-the-merger-agreement-by-urs-stockholders-and/>.

around the globe and expertise in nearly every feature of the built and natural environment, AECOM is a giant in the field. *But what is it?*¹⁵

Understanding the transformative impact of the multinational architectural conglomerate over the last three decades requires a renewed attention to the conceptual and economic roots of collaborative and corporate architectural practice, born in the years during and after World War II. Such an endeavor is all the more crucial in a context in which, according to the United Nations, multinational corporations formed nearly half of the hundred entities with the highest gross national product (GNP) by the year 2000, greater than the majority of nation-states around the globe.¹⁶ As Alfred D. Chandler Jr. and Bruce Mazlish note, these new “leviathans” have come to play a predominant role in nearly all aspects of contemporary life, boasting “power and effects [that] are almost incalculable—not only to the economy but also to politics, society, culture, and values.”¹⁷

Not least among these cultural impacts is the outsized role of the multinational architectural corporation in reshaping the built and natural environments at a global scale. This status was already heralded by the rise of large, integrated design firms in the postwar period that sought to merge the practices of architecture, landscape architecture, and planning into newer, more powerful entities. In studying the rise and international extension of the architectural corporation after World War II, this dissertation is thus intended to provide a pre-history of the concepts and practices that both anticipated and produced the multinational entities of the neoliberal present. So too, it offers a historiographical framework for assessing the discursive and cultural stakes of incorporation within architecture’s modernity. In examining the history of The Architects Collaborative, among the firms that most fully embodied the ideals as well as the problematics of the architectural corporation in the

¹⁵ Seward, “Making It Big”: 11. Italics mine.

¹⁶ UNCTAD (United Nations Conference on Trade and Development). *World Investment Report 2002* (New York: United Nations, 2002), cited in Alfred D. Chandler, Jr. and Bruce Mazlish, ed., *Leviathans: Multinational Corporations and the New Global History* (Cambridge, UK: Cambridge University Press, 2005): 1.

¹⁷ Chandler, Jr. and Mazlish, ed., *Leviathans: Multinational Corporations and the New Global History*: 1. The term is borrowed from Thomas Hobbes’ analysis of the “Matter, Forme and Power” of the commonwealth, or state, in *Leviathan, or The Matter, Forme and Power of a Common Wealth Ecclesiasticall and Civil* (1651).

second half of the twentieth century, I hope to provide a means for understanding how architects have negotiated these issues within the structures (and strictures) of architectural practice itself, as a necessary first step in addressing the challenges of the corporation for historical and architectural practices in the present.

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- BA Bauhaus Archiv
- CCA Canadian Centre for Architecture Collections
- HUAM Harvard University Art Museums
- HHL Harvard University, Houghton Library
- FLL Harvard University, Special Collections, Frances Loeb Library, Graduate School of Design
- LVC The Louisa Vaughan Conrad Collection, 1913-2003. Special Collections, Frances Loeb Library, Graduate School of Design, Harvard University
- MCRP Mary Caroline Richards Papers, 1898–2007. Getty Research Institute, Los Angeles.
- MITM MIT Museum Archives
- MITR Massachusetts Institute of Technology, Rotch Library
- PACE PACE (Pan Arab Consulting Engineers) Archives, Kuwait City
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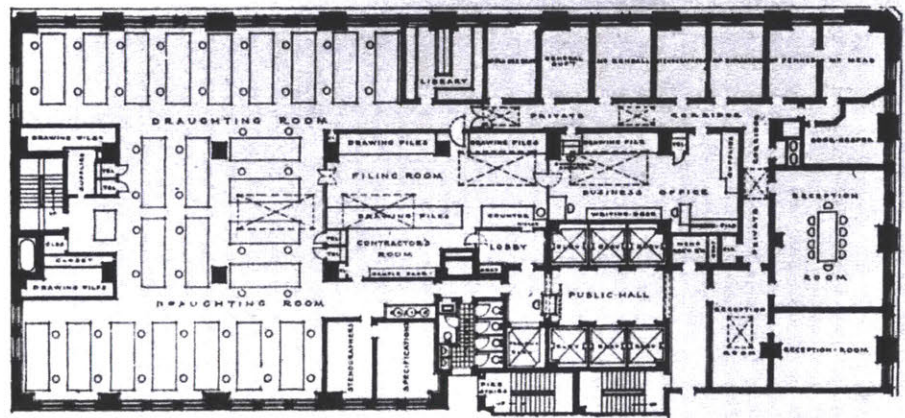
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PLAN OF NEW OFFICE IN THE ARCHITECTS' BUILDING.

Fig. 1.1 Plan and photograph of drafting room, McKim, Mead & White offices, 101 Park Avenue (The Architects' Building), New York. *The Brickbuilder*, December 1913

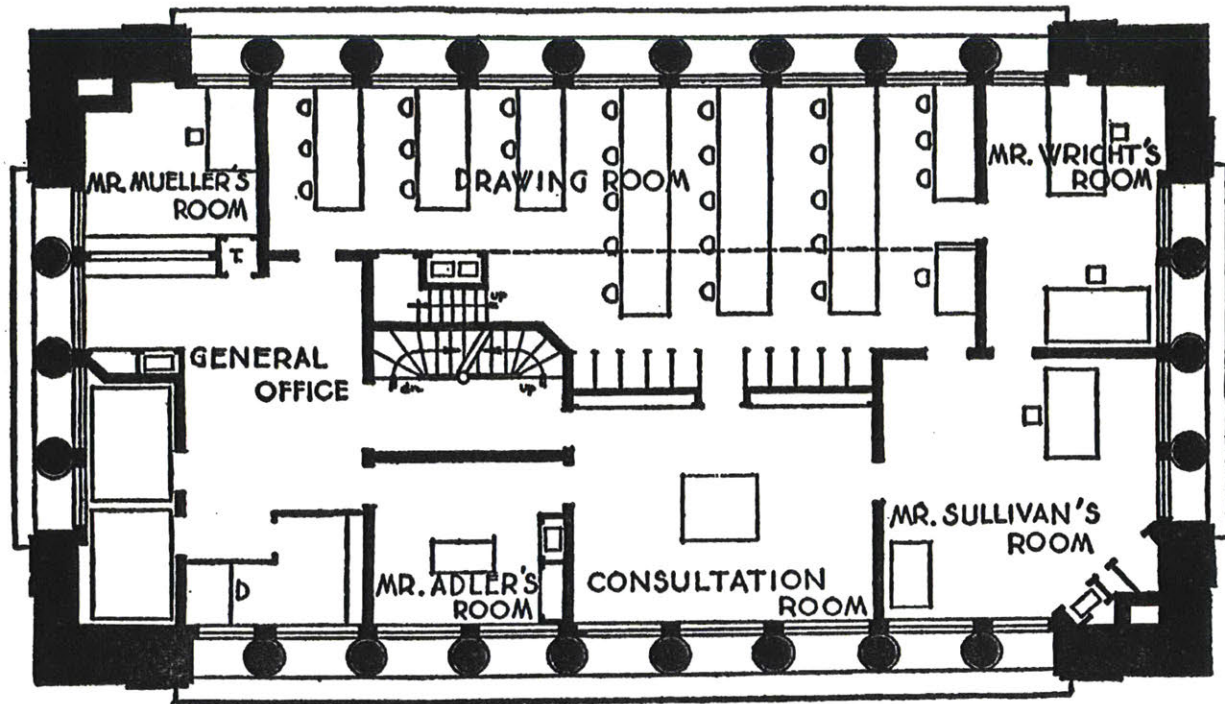


Fig. 1.3 Plan of Adler & Sullivan offices, Auditorium Building, Chicago, drawn by Frank Lloyd Wright, *Genius and the Mobocracy* (1949)

The Business Side of an Architect's Office.

WITH A DESCRIPTION OF THE ARCHITECTS' BUILDING, NEW YORK.

BY D. EVERETT WAID.

ONE Hundred and One Park Avenue, New York City, has been christened "The Architects' Building." It is one of the buildings completed this year which most assuredly has an unique interest to every one in the architectural profession. The attention of the building world has been attracted because it was built as the home of a large group of T square and triangle men; it was designed by them and is owned by them. Already some twenty-five architects and engineers have collected under this one roof. One Hundred and One Park Avenue is theirs, and it will be interesting to follow the method by which the scheme of co-operative offices was handled among so many and in a city where there is so much competition and such great activity in building. The fact that the building has accommodations for general and sub-contractors, decorators, material men, etc., would indicate a greater efficiency in handling the working forces of those who are fortunate enough to be numbered as tenants. One's office boy, with a tracing, can disappear into an elevator and in ten minutes bring back a blueprint hot and dry from an electrically lighted cylinder. Sets of drawings can be most conveniently delivered to contractors, and that contractor, called General, can quietly tap at the door and delicately insinuate that if F. S. details are not ready by such a date, the time of completion of the building will have to be extended. It seems quite ideal to be able to go next door for a critician, or to borrow a draftsman, or to admire a set of competition drawings.

One Hundred and One Park Avenue is interesting to the architectural profession because here its members can see the offices of several distinguished architects destined by themselves and undoubtedly expressive to a large degree of the taste and character of each. The building is interest-

ing to the building world in general, because here the architects were their own clients and presumably handled the whole enterprise in an ideal way from the architects' point of view—from the purchase of the ground to the solution of the office building problem, and finally, in the letting of contracts and execution of the work.

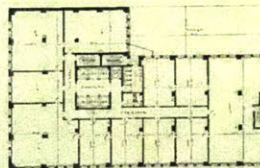
The real history of the enterprise is quite as interesting as one's fancy could wish. The scheme of co-operative offices for architects had been suggested by Charles Ewing seven years before, and, at that time, with the encouragement of John M. Carrère and others, had almost been realized. Now all signs seemed propitious. Mr. Mead gave strong support to the idea, and, with Ewing & Chappell and La Farge & Morris as the active leaders, it quickly assumed definite form. Mr. Burt L. Fenner, as president, headed a stock company composed of fifteen architects and seven engineers.

After a long search for a site one was finally selected, excellent as to its proximity to a great transportation center, the lot chosen being on the corner of Park Avenue and Fortieth Street, two short blocks from the new Grand Central Terminal. The building obtains a south and west frontage. This we may label surprise number one. In the outcome, however, considering the north court light for those who wish it, the long, sunny, breezy south front is voted altogether fortunate.

The financing scheme having been worked out, several general contractors were called upon for estimates. But they couldn't bring the cost down to fit the finances. Speculative builders have constructed the larger part of New York, and they came to the rescue in this case—surprise number two. A firm of builders who had begun with modest tenements and crowned their success as expert buyers of ground and labor and building materials for great hotels



PARK AVENUE FACADE.



TYPICAL FLOOR PLAN.

THE ARCHITECTS' BUILDING, NEW YORK CITY.
Ewing & Chappell, La Farge & Morris,
Associated Architects.

Fig. 1.4 D. Everett Waid, "The Business Side of an Architect's Office, With A Description of the Architects' Building, New York," *The Brickbuilder*, August 1913.

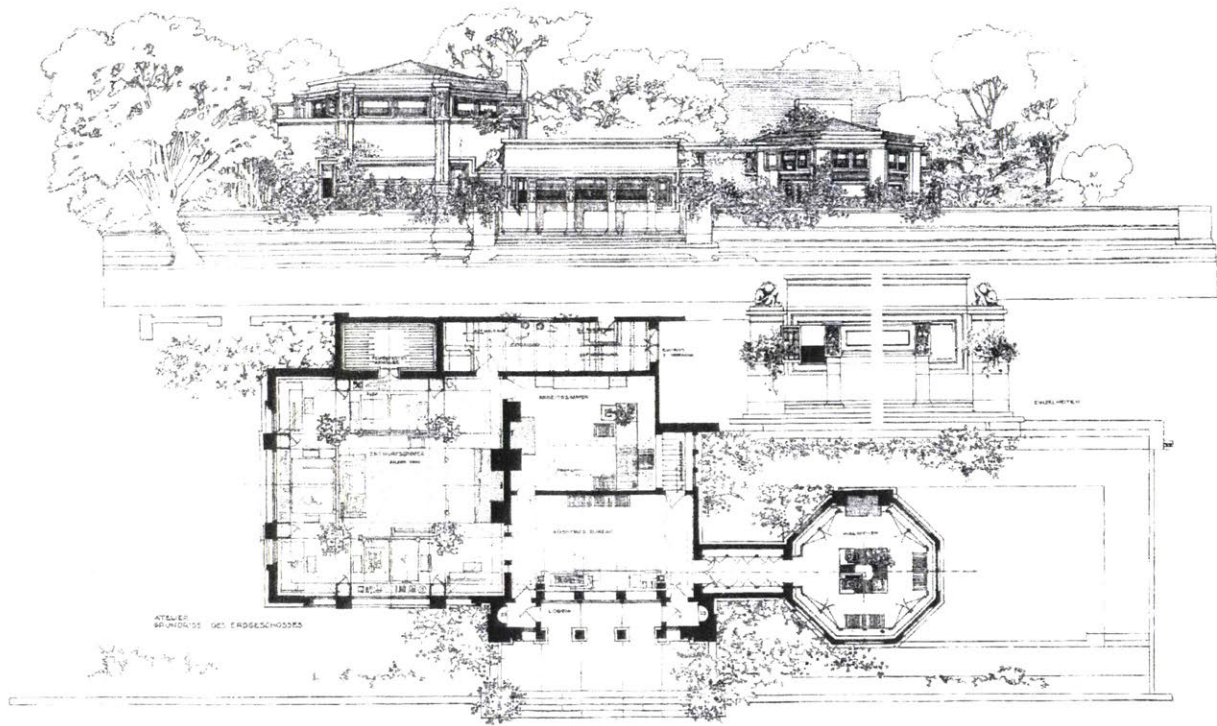


Fig. 1.5 Plan and perspective of Frank Lloyd Wright studio, Oak Park, Chicago (1889). Published in *Ausgeführte Bauten und Entwürfe von Frank Lloyd Wright* [Wasmuth Portfolio] (Berlin: Gedruckt und verlegt von Ernst Wasmuth A.-G., 1910)

Fig. 1.6 Nameplate, Frank Lloyd Wright studio, Oak Park. Photograph: Dave Williams

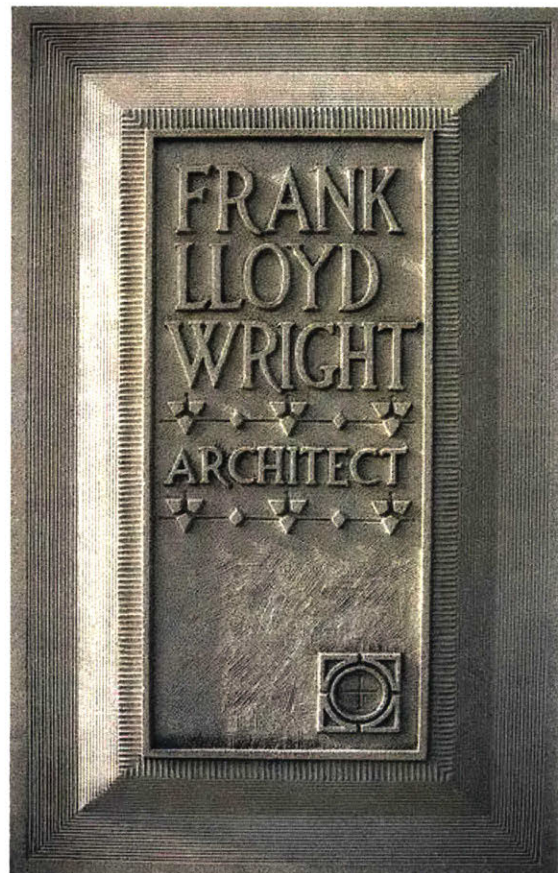




Fig. 1.7 Richard J. Neutra, *Wie Baut Amerika?* (1927)

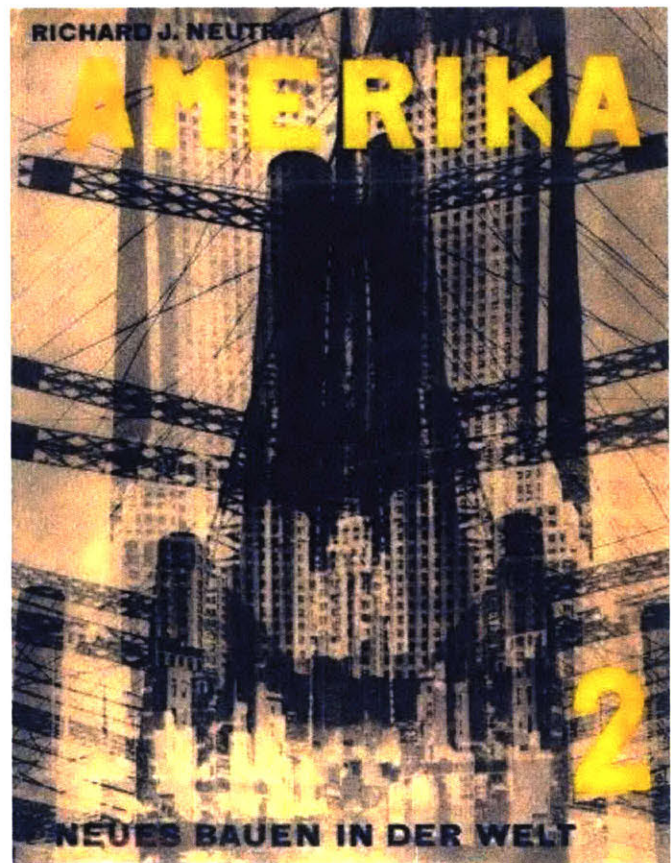


Fig. 1.8 Richard J. Neutra, *Amerika, Neues Bauen in der Welt, Vol. 2* (1930).



Fig. 1.9 Walter or Ise Gropius, photograph of Ford Motor Company, River Rouge plant, Dearborn, MI (Albert Kahn & Associates, 1917–27), 1928.

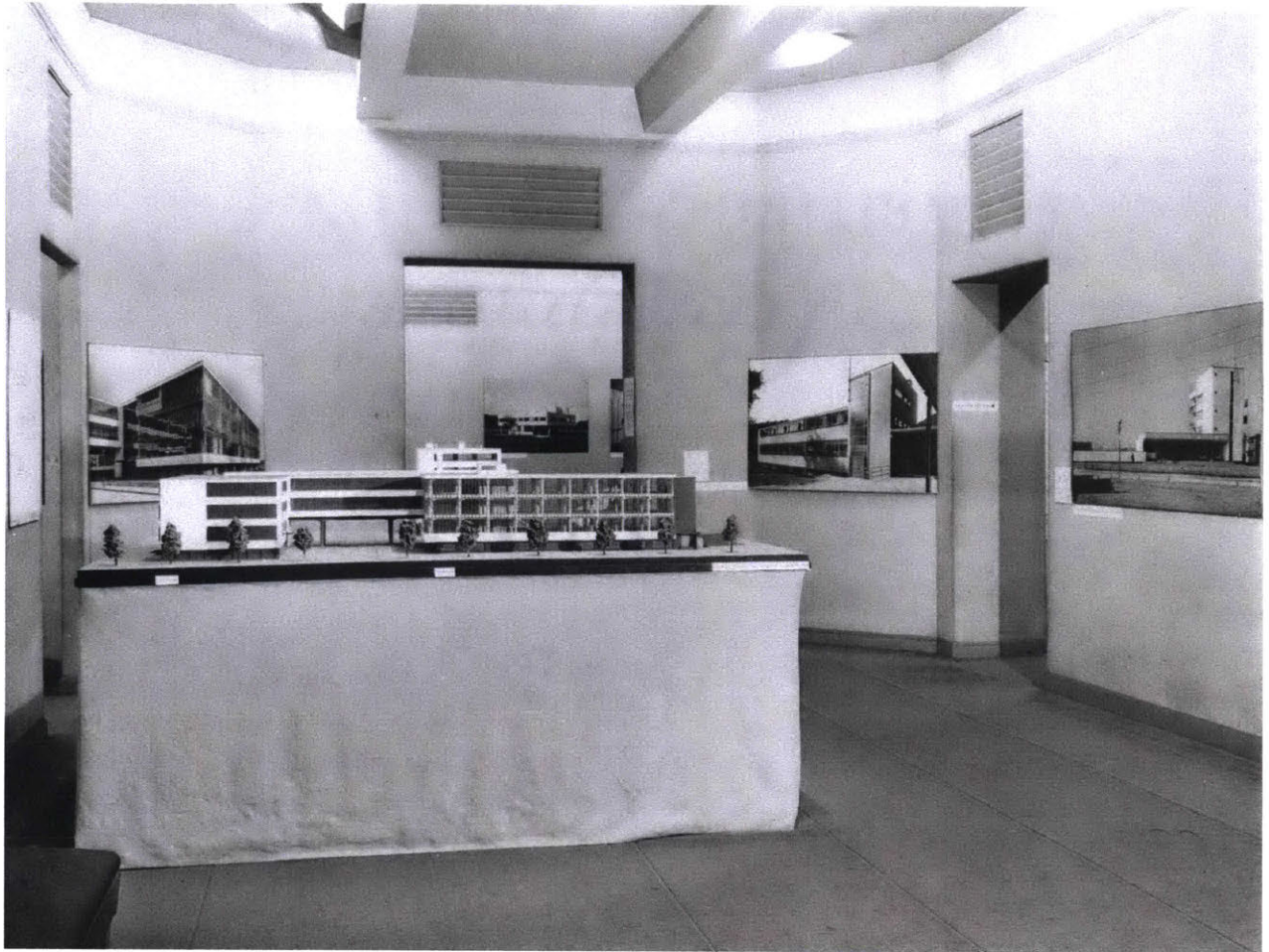
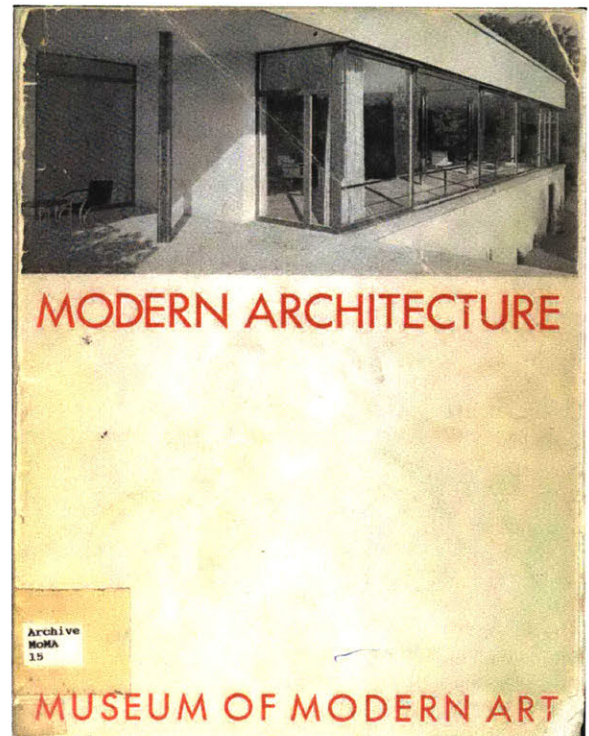


Fig. 1.10 Exhibition photograph and catalogue, "Modern Architecture: International Exhibition," The Museum of Modern Art, New York, February 9 to March 23, 1932.



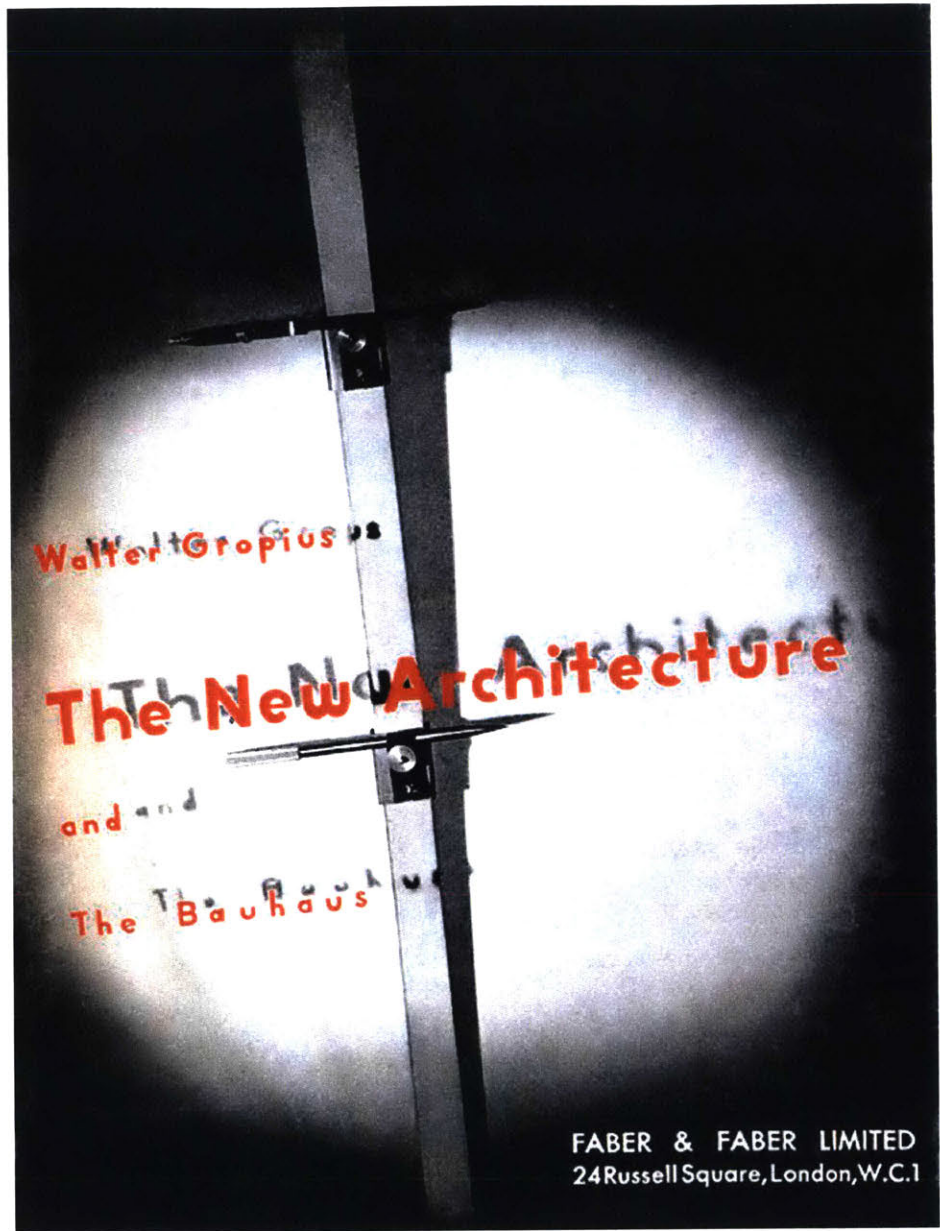


Fig. 1.11 Walter Gropius, *The New Architecture and the Bauhaus* (1935).
Book design by Laszlo Moholy-Nagy.

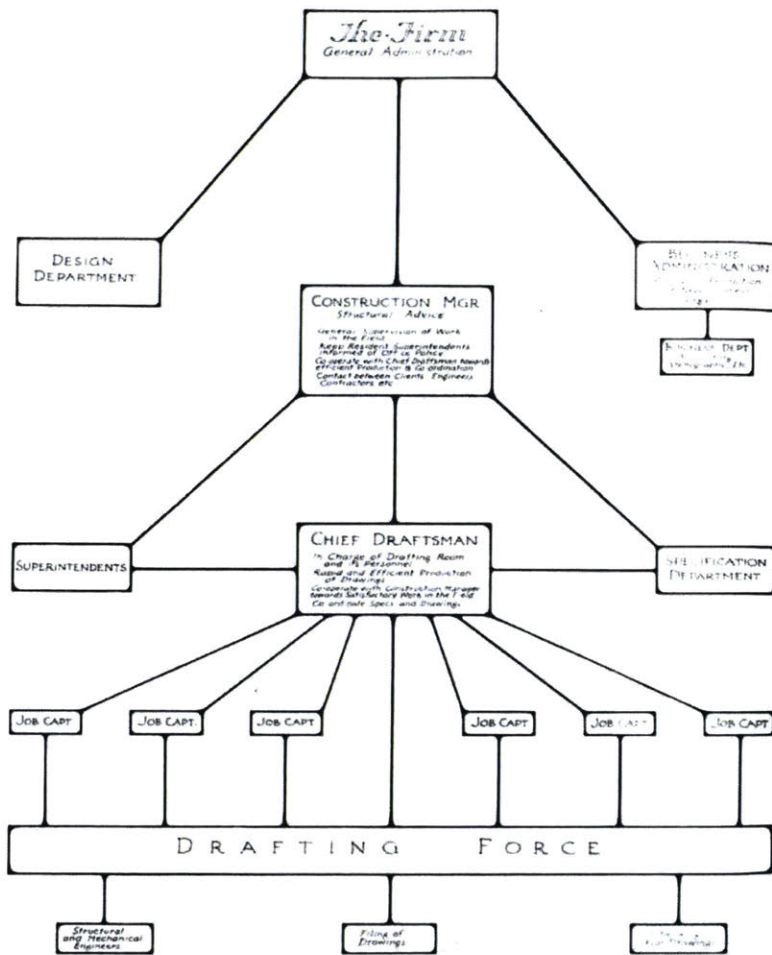


Fig. 1.12 Office organization diagram, John Russell Pope, Architect. Published in Parker Morse Hooper, "Office Procedure, I: Office Manual of John Russell Pope, Architect," *Architectural Record*, January 1931.

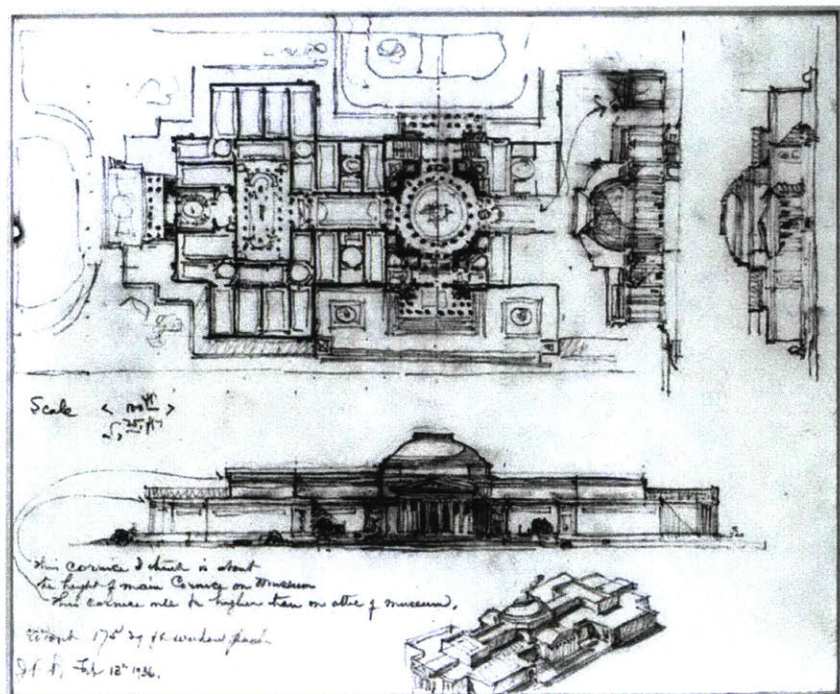


Fig. 1.13 John Russell Pope, conceptual sketch for the National Gallery of Art (1935–41) Washington, D.C., February 1936. National Gallery of Art, Gallery Archives

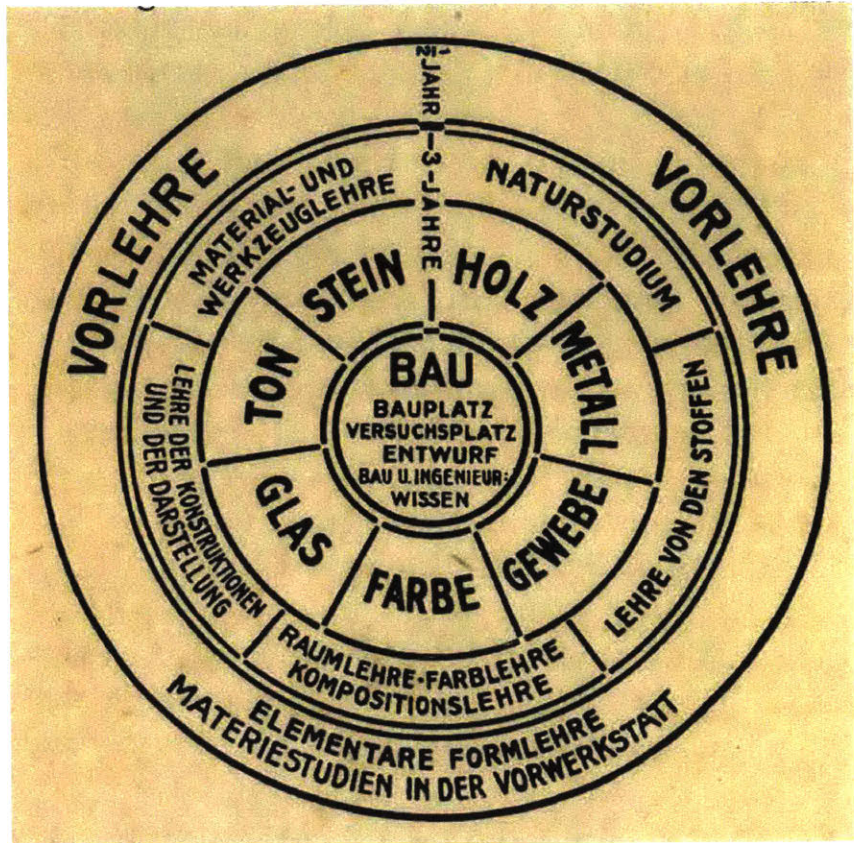


Fig. 1.14 Diagram of Bauhaus curriculum, published in *Staatliches Bauhaus in Weimar 1919-1923* (1923).

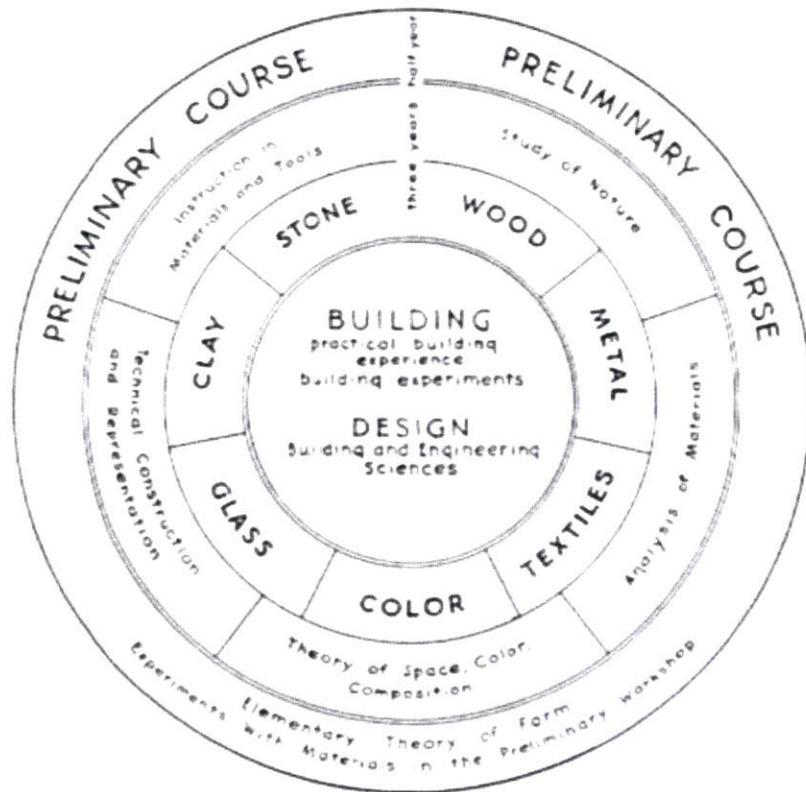


Fig. 1.15 Diagram of Bauhaus curriculum, published in *Bauhaus 1919-1928* (1938).



Fig. 1.16 Unidentified apprentices, Gropius Bauatelier, Staatliches Bauhaus, Dessau, Germany, 1927–28. Photograph: Edmund Colleijn

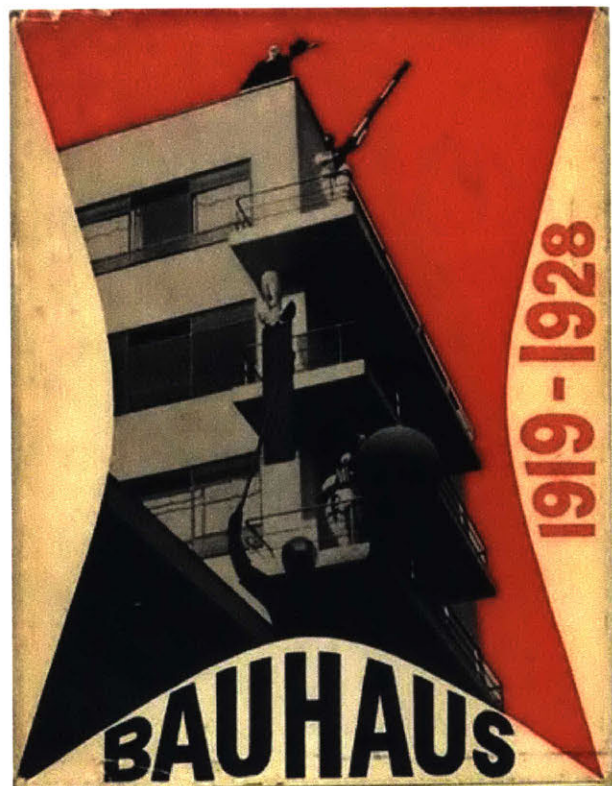
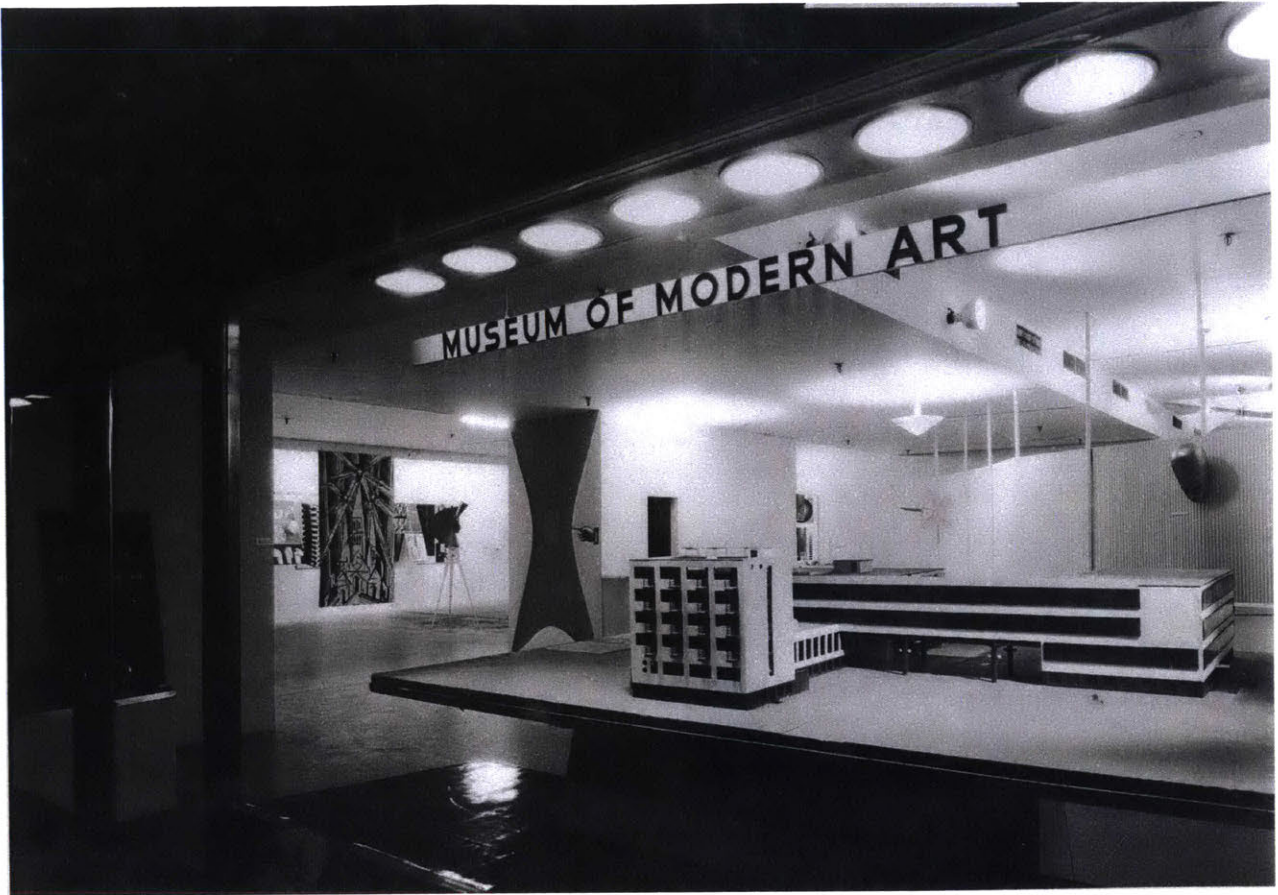


Fig. 1.17 Exhibition photograph and catalogue, "Bauhaus 1919–1928," The Museum of Modern Art, New York, December 7, 1938 to January 30, 1939. Exhibition and catalogue design by Herbert Bayer.

SYNTAX

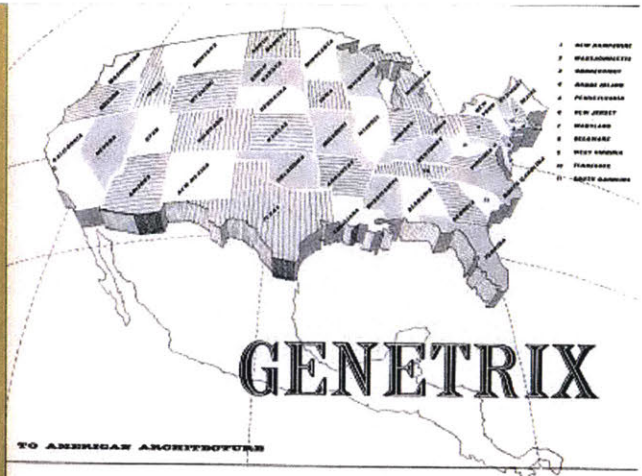
economical, weathertight, comfortable and good-looking buildings; much more than that the average man doesn't ask, indeed if he got that, the status of the architects and specialists who provided it would be very high indeed, but he too often fails to get it because without specialization it cannot nowadays be provided.

The position of the architect with outstanding creative ability (the artist-architect as he has been called here) is rather different. In common with all artists, society doesn't recognize its need of him quite as much as it does of the efficiency expert. His will often be the lonely struggle, aided perhaps by part-time teaching, and punctuated by competitions—until recognition comes. It may take him long to achieve this recognition or it may happen quickly; when he does achieve it, he may be over-valued or under-valued; he may even be valued for the wrong reasons; he may or may not make more money than the specialist; his status may be higher or it may be lower; to him this is, or should be, a matter of relative unconcern. The only thing we do know is that he's very valuable and there will be very few of him in any day and age. There are certain marks which distinguish him, though they sometimes turn out to be camouflage; however, what the public takes to be camouflage often turns out to be the mark of genius. Without him there would be no architecture, and without the lead of some of the greatest of his kind the anonymous architecture that has been the subject of discussion in this article would not have been worthy of consideration as the exciting and important new factor that it is.

PERSONAL CONTRIBUTIONS

2

- 90 Howard Chaykin 77
- 91 Robert Currier 87
- 92 William F. Weeks 87
- 93 William L. Bottom 87
- 94 Philip Johnson 87
- 95 Louis Kahn 87
- 96 Morris Lapidus 87
- 97 Richard Neutra 87
- 98 Marcel Breuer 87
- 99 Victor Kropf 87
- 100 Paul Schickel 87
- 101 Bruce Goff 87
- 102 Philip Johnson 87
- 103 Robert Currier 87
- 104 Stephen Jackson 87
- 105 Frank Gehry 87
- 106 Gordon Bunshaft 87
- 107 John A. Rice 87
- 108 Eric Breuer 87
- 109 Elio Pavesi 87



- 110 Henry Muth 87
- 111 Louis Kahn 87
- 112 Hugh Stubbins 87
- 113 Minoru Yamasaki 87
- 114 Carl Mosser 87
- 115 T. J. C. Lavigne 87
- 116 J. Quincy Davis 87
- 117 Ralph Rapson 87
- 118 Edward A. Bruce 87
- 119 Harry Hume 87
- 120 John Johnson 87
- 121 I. M. Pei 87
- 122 King Lee Wu 87
- 123 Paul Schickel 87
- 124 Roger Lee 87
- 125 Peter Biele 87
- 126 Frank Proulx 87
- 127 Raymond C. Knapp 87
- 128 Thomas Ladd 87
- 129 Peter Koenig 87

The first part of this issue concerned itself with an aspect of architecture which is a collective achievement, many individuals here, of course, contributed to it, but its chief value comes from the fact that as well as being popular, practical and generally applicable it tends to discourage 'personal' expression in favour of raising the architectural quality of a standard product.

The part that follows traces the isolated contributions of the individual, of the men who make a valid contribution to contemporary architecture through a personal vision; it attempts to trace each contribution to its source in a man's background, training, the vicissitudes of his career, his tastes, his outlook and his inner convictions. It is specially

Fig. 1.18 "Genetrix: Personal Contributions to American Architecture," *Architectural Review*, May 1957.

the architecture of
BUREAUCRACY

&

the architecture of
GENIUS

THE early twentieth century, in considering its own cultural phenomena, was much obsessed with time, or more precisely, with pace of development. Many who were not technically Futurists were all for rushing headlong into the future, while others, who admitted no antipathy in principle to technical or artistic change favoured only a slow and measured departure from the tried ways of tradition. As regarded architectural developments neither side, perhaps, fully realized the rapidly with which a new way of building was coming into general use regardless of their polemics: the real question was less whether the pace of technical advance should be forced or held back than how to cope architecturally with developments that had already taken place, in some cases several generations earlier! But criticism of architecture down almost to the war was frequently and tediously concerned with whether buildings were "advanced" enough or too "advanced."

In the twenties such great innovators of the beginning of the century as Perret and Wright were often castigated because their practice did not conform to the particular rigours of architectural expression which a younger generation were establishing. This was the more ironic because so many of the positive qualities of the new architecture derived from the work of these older men. It is worth while to compare such a house as Wright's Millard house in Pasadena, much criticized in the twenties, with the houses or even the projects of the same period of the early twenties by Le Corbusier, which were thought to have established a more advanced canon. In a retrospective view more than twenty years later, it is not the differences but the similarities which strike one. In both, the living rooms are raised off the ground and carried up two storeys, with the service accommodations and bedrooms on two separate floors behind; in both, the front of the living room opens through grouped doors and windows on to a raised terrace; and both use concrete with reinforcement throughout in a bold and ingenious way. Indeed, it was Wright, the "old master" (as he so hated to be called), whose system of construction, with the reinforcing rods in channels between precast blocks, was the more novel. Wright was technically free to cast his blocks in any way he wished, so long as he used only a few standard moulds. He had, moreover, been aware ever since his Unity Church of twenty years before of the graceless weathering of concrete, even with an exposed pebble aggregate. Therefore he provided his blocks with modelled surfaces in geometrical patterns, while Le Corbusier used smooth rendered surfaces, out of deference partly to the supposed nature of his type of construction and partly to an abstract aestheticism. Those patterns on Wright's blocks were, and to many still are, anathema. Yet time has, on the whole, justified Wright's use of them, even though when using concrete blocks in later years he has rarely given them such elaborate surface patterns. The smooth rendered surfaces of Le Corbusier's houses—and of many buildings by other architects throughout the world who followed his

The re-emergence of team-work in the planning and design of buildings in combination with the improved methods of factory production have resulted in a new architecture of bureaucracy. The procedure of work differs from that which went to produce the gothic building owing more to the development of scientific means for attaining mechanical precision than to any other factor. (Mechanical precision, it has been said, is the only really original contribution of our age to the works of man). But parallel with the development of this architecture, there are still the few individuals working independently to create the architecture of genius—that is, the prototypes that will set the standard in the next stage of bureaucratic development. In the following article Professor Hitchcock gives his reasons for using these terms to describe the two main tendencies in contemporary architecture, and illustrates his argument with examples from Europe and America.

By Henry-Russell Hitchcock

lead—are too often cracked and stained; so that they cannot be considered technically to represent good workmanship, while expressively they no longer provide the abstract effect originally intended. The Millard house, however, even after many years of relative neglect, has aged gracefully because the shadow patterns of the modelled blocks are so much stronger than any deterioration of their concrete surfaces. Thus the conviction, so generally held in the twenties and even later, that Le Corbusier was more advanced than Wright appears in this instance to be rather exaggerated.

As to which is the more romantic, there was and is little to choose between them, though Wright's somewhat nineteenth century romanticism about "Nature" is, paradoxically, perhaps less dated to-day than Le Corbusier's early twentieth century romanticism about the "Machine." There was, and there has continued to be, a marked difference of personal expression. However, Le Corbusier began about fifteen years ago to use rough timber in a house in South America and rubble walls, not only there and for a Riviera house, but even for a house near Paris, while Wright has raised more and more of his houses off the ground on piers and even projected them out into space by cantilevering. The two architects were not influenced each by the other; it was rather that both were exploring parallelly a comparable range of contemporary building possibilities. Though their minds were as different as the minds of two architects could well be and one was nearly a generation younger than the other, their innovations tended to follow similar paths, since each gave his imagination free rein within the range of technical possibilities of the age in a way that earlier doctrinaire writings would not always seem to sanction.

When the superficial appearance of modern architecture was more widely accepted as familiar and even agreeable by the public in the thirties, two sorts of derivative work appeared in increasing quantities. On the one hand there was all the worthy work of the younger men who were following the bold leadership of the first masters of the twenties, and of such older men as underwent a sincere conversion. On the other hand there was the "pseudo-modern," some of it unpretentious if conspicuous commercial work whose designers sought cheap popularity through the strident use of clichés. Quite as cheap, however, represented merely tongue-in-cheek modification and simplification of traditional stylisms by means of which the conservatives, now beginning to lose their assurance, attempted in practice (as earlier in theory) to compromise the differences between the new and the old architecture. With regard to the first sort of work it was sometimes just perhaps to say that it was "too modern." Both young inexperienced men and more mature converts were utilizing as conventions types of construction, of planning, and of expression which they had not as yet fully mastered technically, nor considered sufficiently subtly in relation to problems of setting and of climate. During a certain stage of adaptation and apprenticeship, a large body of architects got, almost literally, ahead of themselves. In attempting to emulate the startling innovations of the founders of modern architecture they sometimes essayed fan-

Fig. 1.19 Henry-Russell Hitchcock, "The Architecture of Bureaucracy and the Architecture of Genius," *Architectural Review*, January 1947.



Fig. 1.20 “Wright at 70,” photograph of Wright with apprentices at Taliesin, 1937. Photograph: Kenn Hedrich, Hedrich Blessing. Front row left to right: Benjamin Dombar, Kevin Lynch, Frank Lloyd Wright, James Thomson, Wesley Peters, Robert Mosher. Back row, left to right: Carey Carraway, John Lautner, John How, Eugene Masselink, Blaine Drake. Ellis Jacobs, E. Brookins, Herbert Fritz, Burton Goodrich, Edgar Tafel. Published in *Architectural Forum*, January 1938.

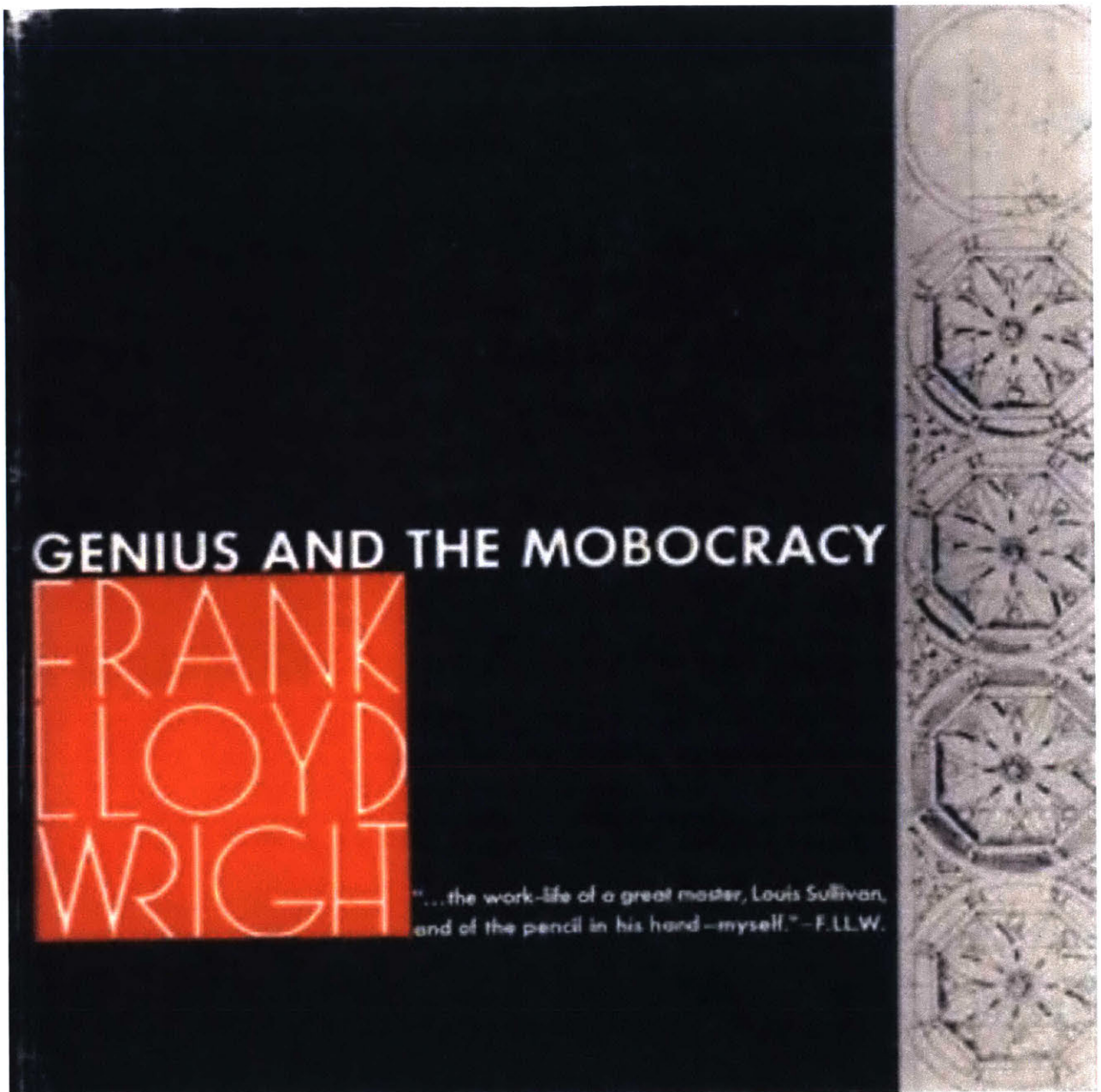
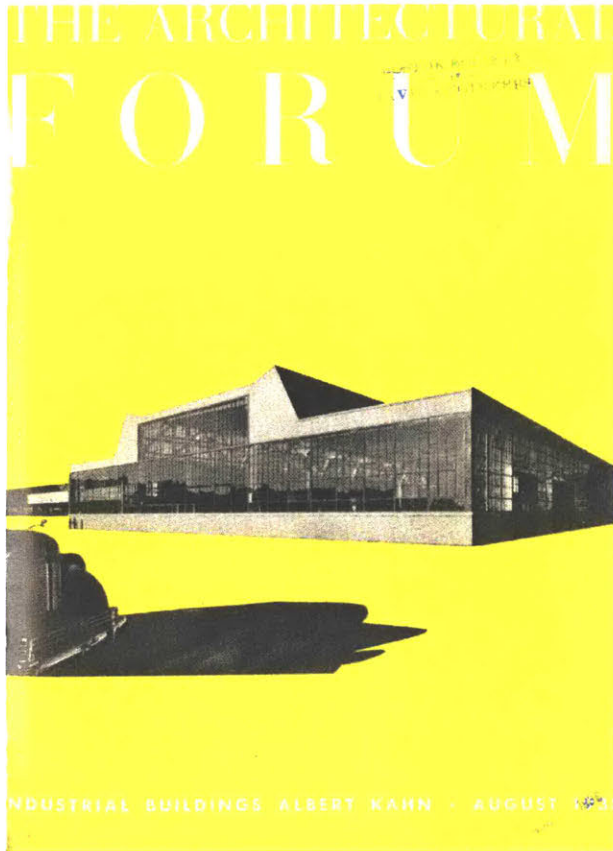


Fig. 1.21 Frank Lloyd Wright,
Genius and the Mobocracy (1949).



ORGANIZATION

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Administrators ALBERT MOHITZ, and LOUIS KAHN

LOUIS KAHN, chief executive, conducts weekly conference of department heads

Fig. 1.22 "Albert Kahn, Inc.,"
 Architectural Forum, August 1938.



ALBERT KAHN,
ARCHITECT

PRODUCER OF PRODUCTION LINES

IT WAS on Thursday, February 5, 1939, that Albert Kahn received a telephone call from the Glenn L. Martin Company, Baltimore.

"Can you furnish plans quickly enough for us to put up a 440,000 sq. ft. building by May 1?"

That was quite an order: a mammoth aircraft factory building to be ready for use in 84 days. But Kahn was prepared to answer, "Yes." Actually manufacturing began in that building on April 27, just 81 days after the call.

Mr. Kahn did not realize, then, that this request was to set the pattern and the pace for a program of war-impelled plant expansion such as industry had never seen before. Or that this order, one of dozens to come, was setting a pattern and a pace for building designers, which, though previ-

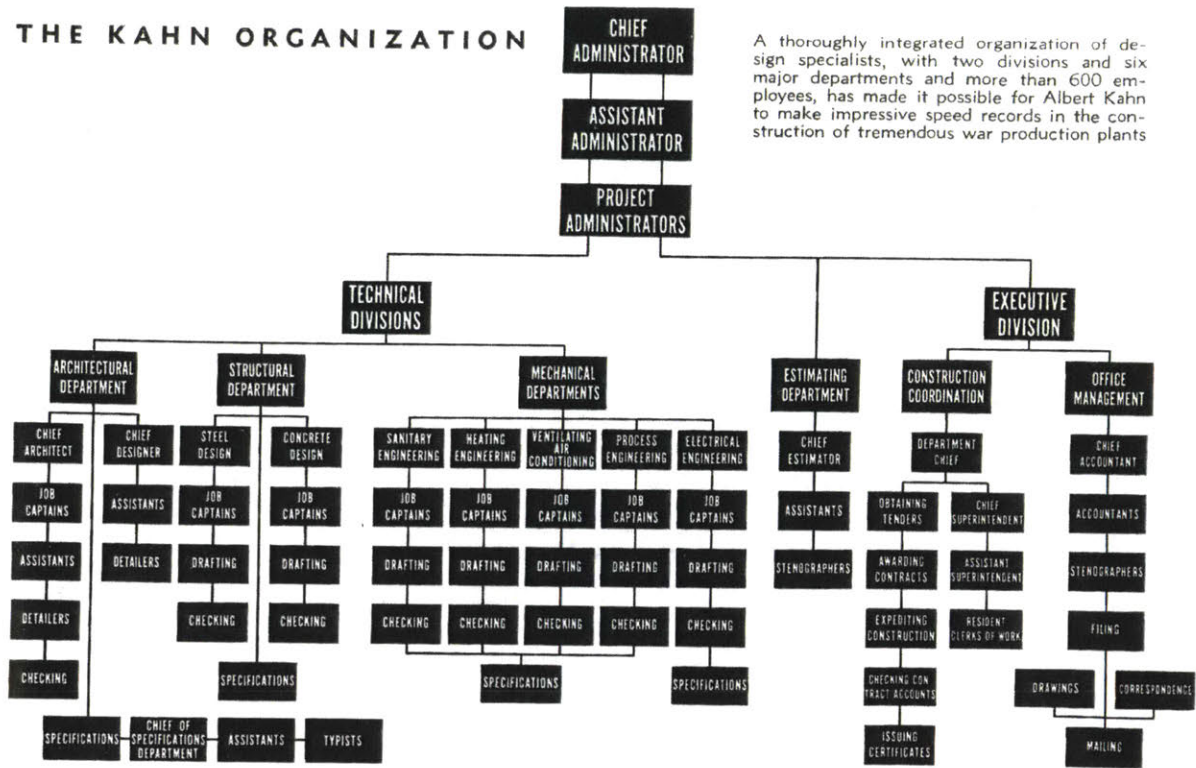
ously unheard of, would come to be accepted as the wartime obligation of architects and engineers.

Such miracles of speed in design and construction have not been wrought without greatly expanded planning organizations, and, more significantly, a highly developed coordination of planning procedures. They have required coordination not only within the architectural and engineering organization, but also among designers, contractors, manufacturers, and wartime clients.

Take the case of the Glenn Martin expansion. After receiving the long-distance call from Baltimore, Kahn and members of his organization left Detroit immediately for the East. They arrived at the Martin plant Friday morning, February 6, and set to work immediately, aided by a

Fig. 1.23 "Producer of Production Lines: Albert Kahn, Architect," *Architectural Record*, June 1942.

THE KAHN ORGANIZATION



A thoroughly integrated organization of design specialists, with two divisions and six major departments and more than 600 employees, has made it possible for Albert Kahn to make impressive speed records in the construction of tremendous war production plants

Fig. 1.24 Office organization diagram, Albert Kahn & Associates. Published in "Producer of Production Lines: Albert Kahn, Architect," *Architectural Record*, June 1942.

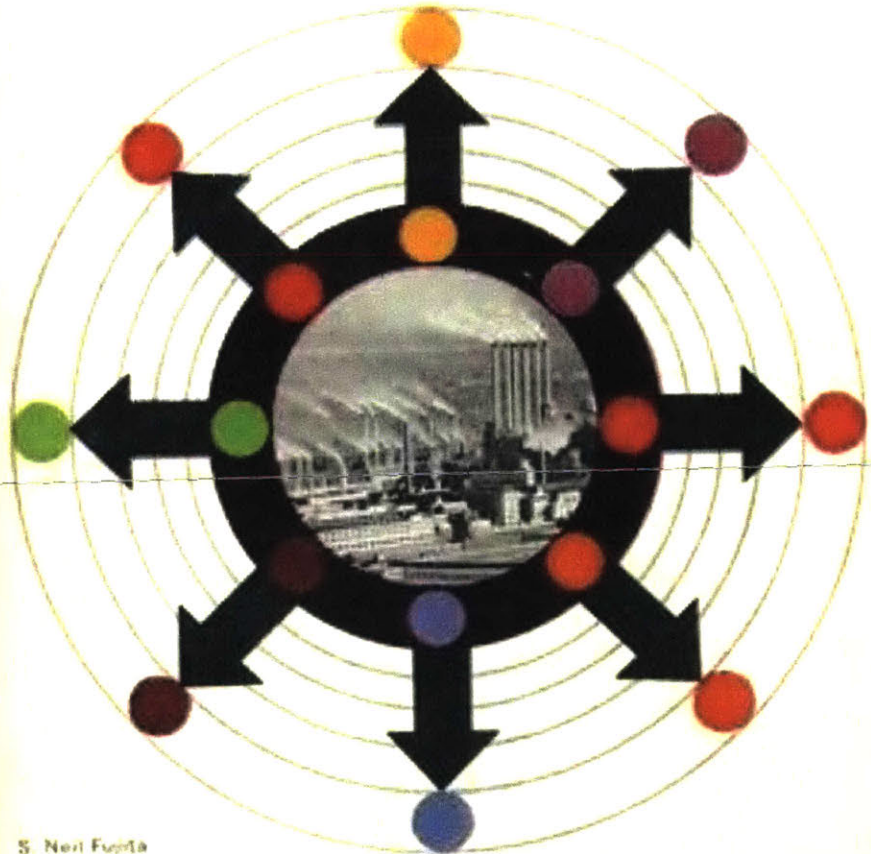
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THE CONCEPT OF THE CORPORATION

PETER F. DRUCKER

The classic study of the organization and management policies of General Motors—the company that has become the model for modern large-scale corporations across the world.



S. Neil Fujita

Fig. 1.25 Peter F. Drucker, *The Concept of the Corporation* (1946).

FIGURE 6: PERCENTAGE DISTRIBUTION OF ARCHITECTURAL FIRMS WITH RESPECT TO NUMBER OF EMPLOYEES · 1950

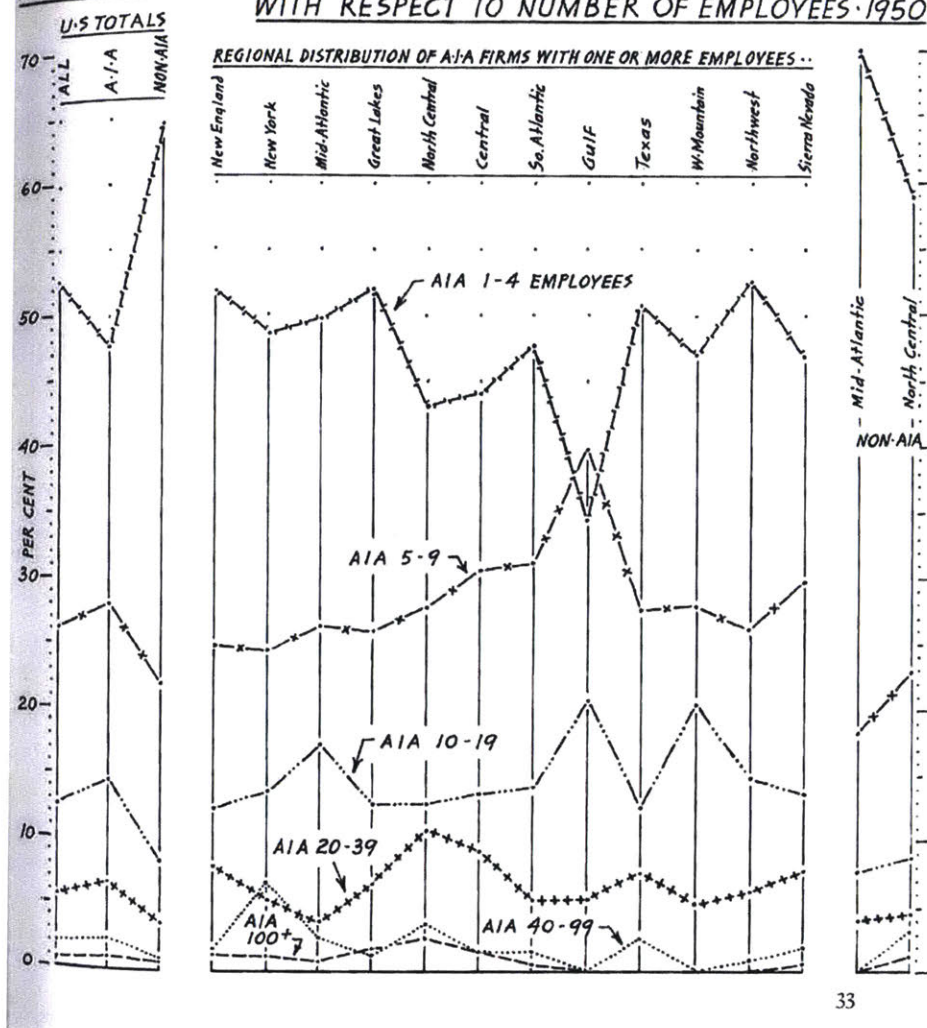


Fig. 1.26 "Percentage Distribution of Architectural Firms With Respect to Number of Employees, 1950," Turpin C. Bannister, ed., *The Architect at Mid-Century: Evolution and Achievement* (1949).

FIGURE 10 : ORGANIZATION OF A TYPICAL LARGE OFFICE WITH DEPARTMENTS

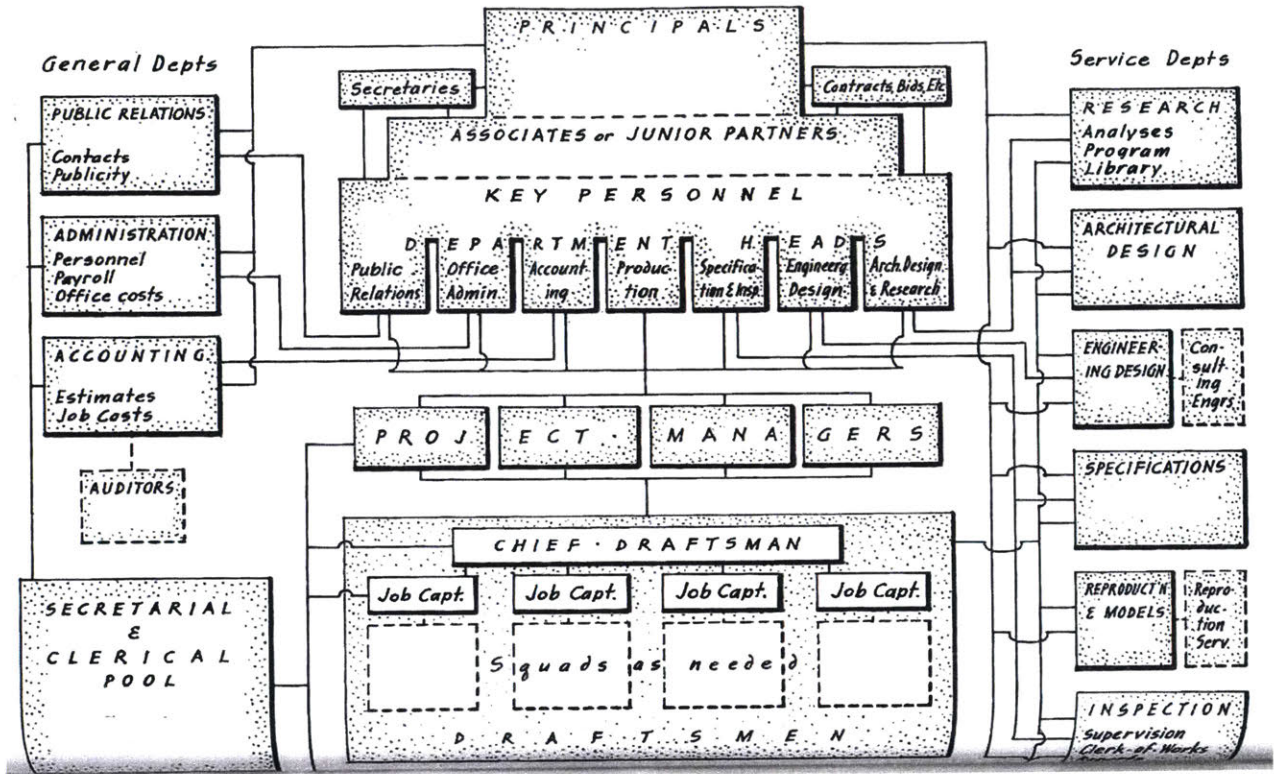


Fig. 1.27 "Organization of a Typical Large Office With Departments," Turpin C. Bannister, ed., *The Architect at Mid-Century: Evolution and Achievement* (1949).

FIGURE 11: ORGANIZATION OF A TYPICAL LARGE OFFICE WITH PROJECT TEAMS

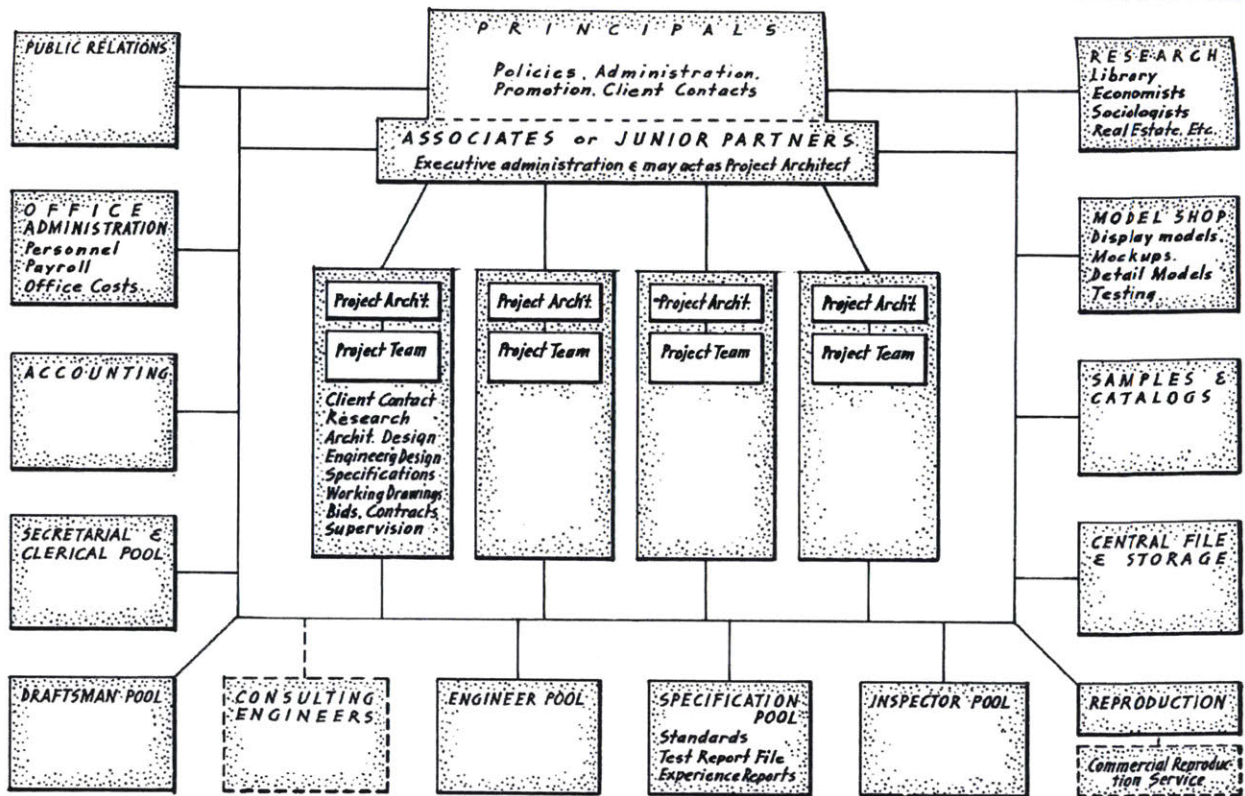


Fig. 1.28 "Organization of a Typical Large Office With Project Teams," Turpin C. Bannister, ed., *The Architect at Mid-Century: Evolution and Achievement* (1949).

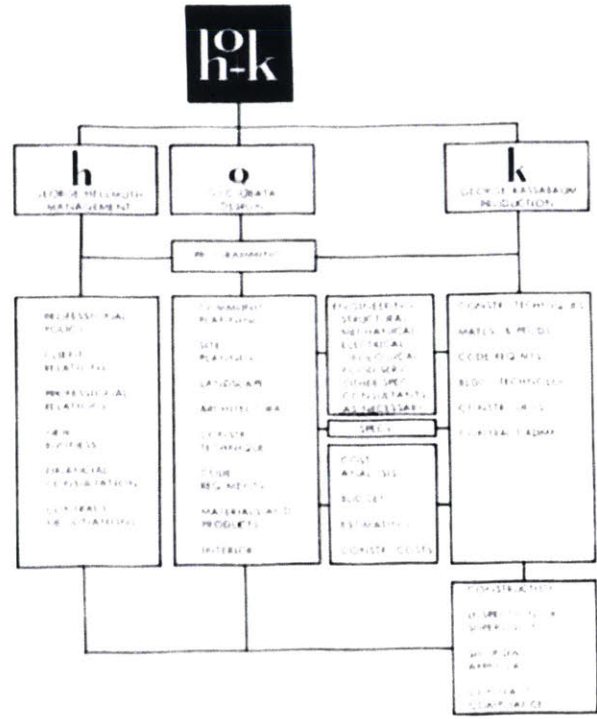
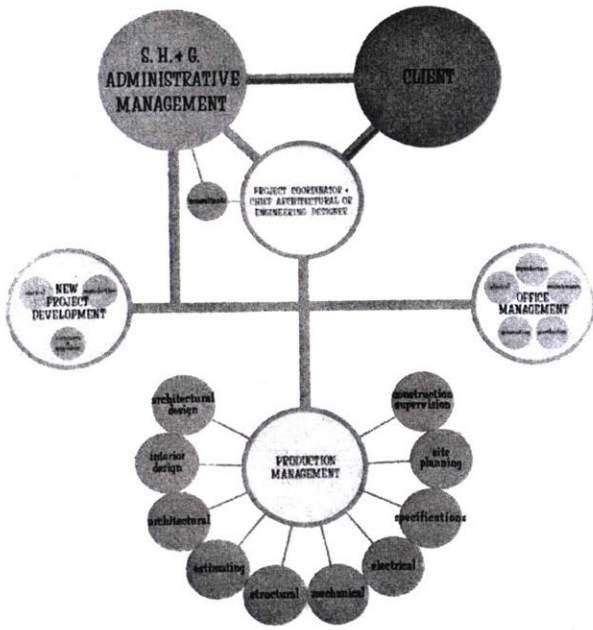


Fig. 1.29 Office organization diagram, Smith, Hinchman and Grylls, Associates, Inc. Published in "Organization for Efficient Practice" series, *Architectural Record*, August 1960.

Fig. 1.30 Office organization diagram, Hellmuth, Obata and Kassabaum, Inc., Architects. Published in "Organization for Efficient Practice" series, *Architectural Record*, February 1961.

Fig. 1.31 Office organization diagram, Eggers and Higgins Architects. Published in "Organization for Efficient Practice" series, *Architectural Record*, April 1960.

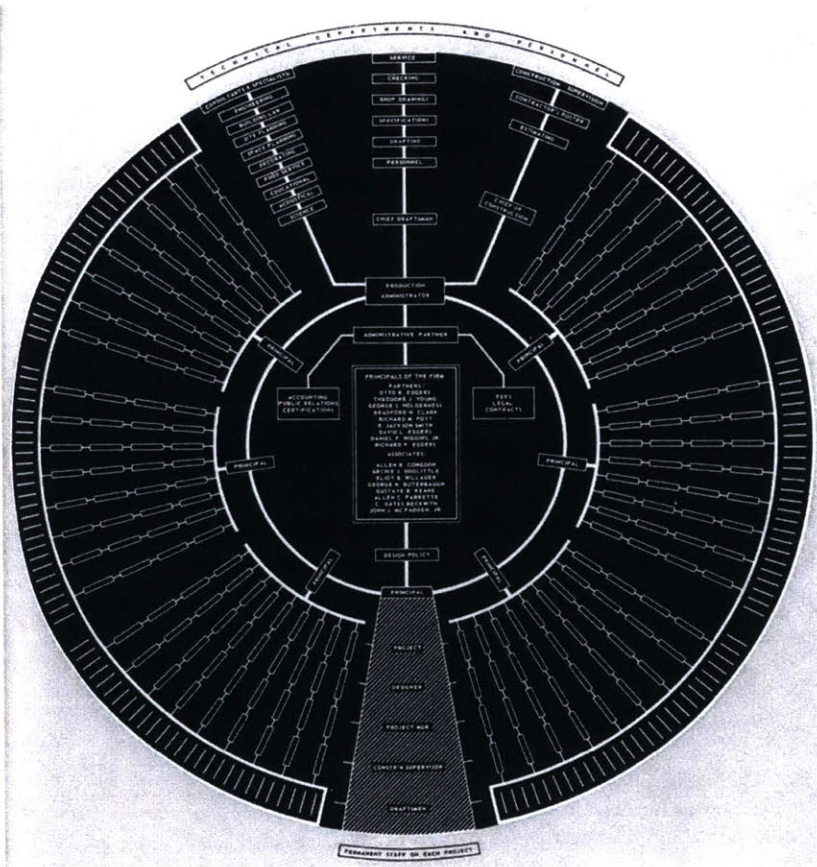




Fig. 1.32 Skidmore, Owings & Merrill offices in Inland Steel Building, Chicago, IL, 1958. Photograph: Ezra Stoller

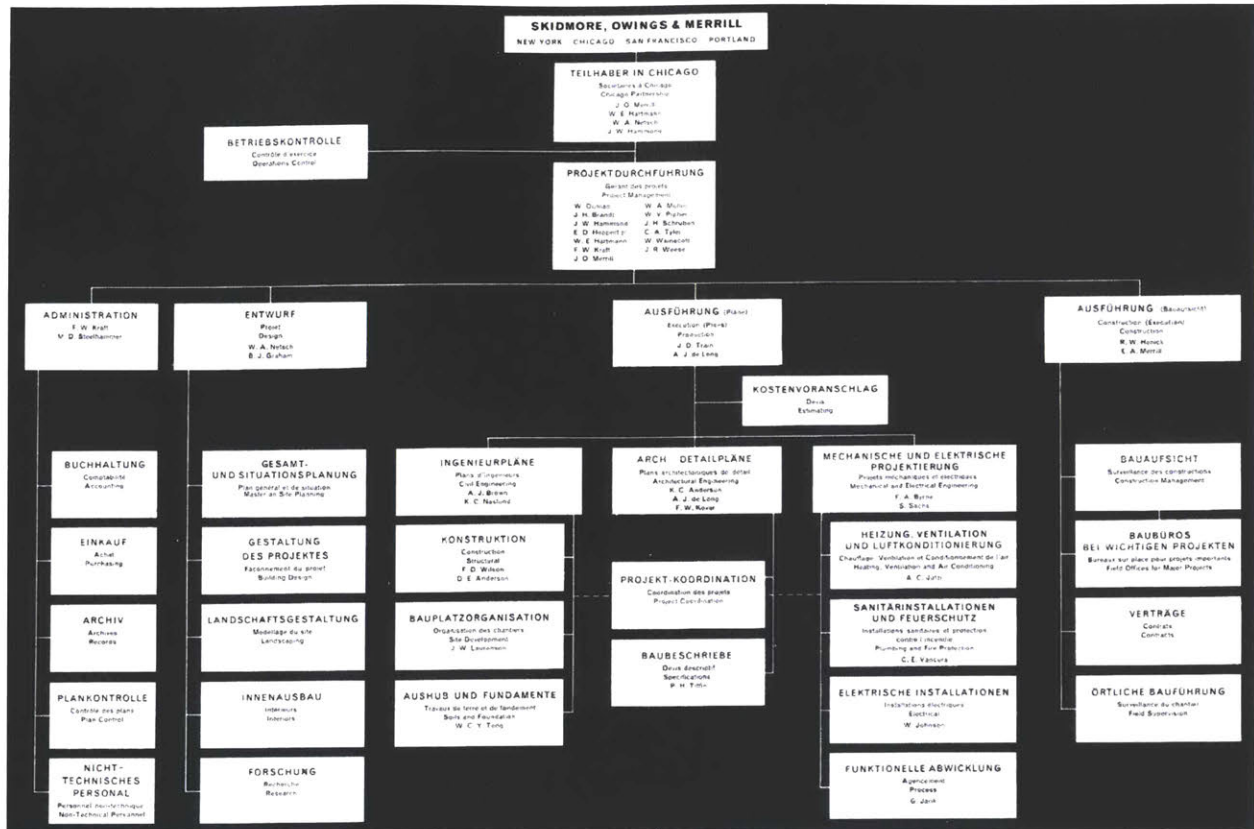


Fig. 1.33 Office organization diagram, Skidmore, Owings & Merrill (SOM). Published in William Hartmann, "S.O.M. Organization," *Bauen + Wohnen*, April 1957.

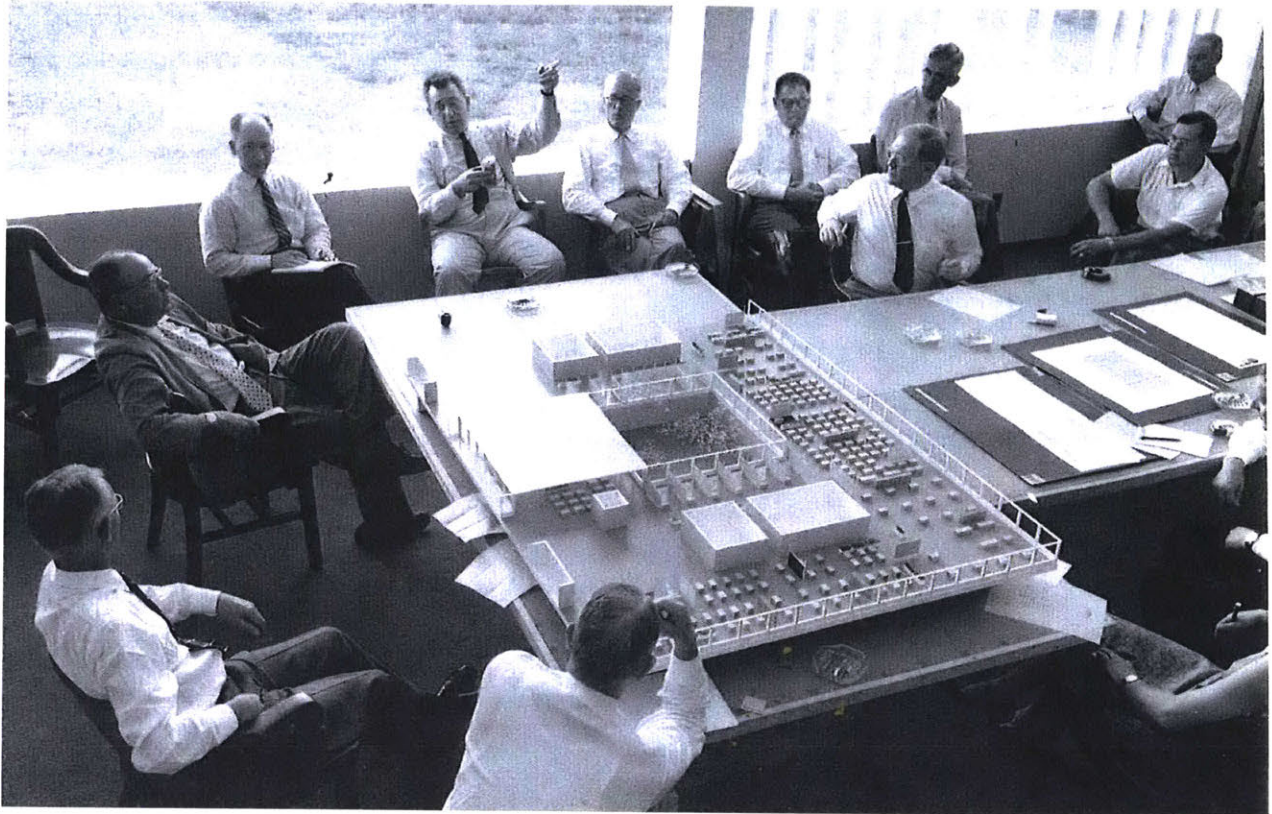


Fig. 1.34 Meeting to review proposed interior layouts for Connecticut General Life Insurance Company (SOM, Hartford, Connecticut, 1954–57), Gordon Bunshaft speaking with members of SOM, Turner Construction Company, and Connecticut General Life Insurance Company, n.d. Photograph: Victor Jorgensen

"Group Design" As Practiced by S.O.M.

The remarkable architects who produce some of the biggest and most advanced buildings in the U.S. blur their identities under the firm name of Skidmore, Owings & Merrill. Like the men who built the Gothic cathedrals of the Middle Ages, they work as a team, not so much because of personal modesty as because they think it is the best way to get things done. So the S.O.M. "designer" is several men, usually a general partner, a project manager, and a senior designer. On this and the opposite page are some current S.O.M. projects and the groups that are running them.



The Air Force Academy commission went to S.O.M. in 1954 when the Air Force selected it from a field of 147 competing firms to take full responsibility for master planning, design, and construction supervision. In addition to the academic area shown, accommodating 2,640 cadets, the 17,900-acre site near Colorado Springs will include a community to house 3,000 support personnel. S.O.M. has set up a 250-man field office in the area to supervise the forty general contractors who are doing the actual building.



Nathaniel A. Owings, S.O.M. founder and new head of the San Francisco office, is one of the partners involved in the academy project. His principal role is maintaining liaison with Air Force officials riding hard on the project.



John O. Merrill is partner-in-charge of the project. Senior partner of S.O.M.'s Chicago office, he is an architectural engineer who supervised the job that made S.O.M. planning and design the whole town of the Ridge, Tennessee.



William E. Harrison, managing partner of the Chicago office, is in charge of administration on the job. It is his responsibility for coordinating a chain of the work from site sketch through working drawings to an erection supervisor.



Gordon Brunshaft is acting as design architect on the academy project. He is the designer of the New York office, primarily in site planning and original site plan and "site" construction. He is the latest in their growing list of senior headquarters buildings, which include the Lever House.



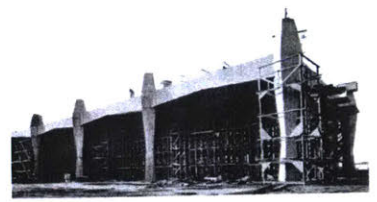
Walter A. Netsch Jr., Chicago, is young architect who are doing the actual design work. Netsch personally conceived the academy's contemporary character—a combination of modern and classical in atmosphere and plan.



William J. Watson is the working head of the team on this job, coordinating all of the work through construction. Senior partner Watson has been the manager on many S.O.M. jobs, including U.S. Hospital in Okinawa.



John G. Gendrich, project designer, is in charge of the light team with the sense of plastic form. He had while studying under Italian architect U. M. Ricci in Rome, before joining S.O.M.



United Airlines hangar in San Francisco, to provide temporary maintenance facilities for four DC-8's simultaneously, is a departure from S.O.M.'s usual "glass and steel" style. Reinforced-concrete pillars are being used because they could be designed for the special stresses they have to withstand. Hence fewer roof supports are required and unbroken space inside the building is correspondingly greater, for less money.



William S. Brown of the New York office is partner-in-charge of the United Nations project. He has presided over teams that produced some of S.O.M.'s most brilliant results in office buildings—e.g., Lever House, Connecticut General.

Robert K. Peery, project manager, coordinates the work of S.O.M.'s consulting engineers as the U.C. project as well as directs his own team. Associate partner Peery did a similar job on the Ford administrative building in Dearborn.

Natalie de Blois, senior designer, did the preliminary drawings of the United Nations tower and plaza, now executed by five junior designers who are working out the details. This is the first skyscraper that Mrs. de Blois has designed.

story tower is supported by columns on the building's exterior, thus providing extra rentable space; and a score of other notable corporate landmarks.

Some of the jobs have been huge. In the early 1950's, S.O.M.'s San Francisco office was designing and supervising construction of whole towns for the U.S. armed services in Okinawa while the New York office was doing much the same for U.S. air bases in Morocco. In 1954, S.O.M. was awarded one of the largest commissions ever given by the government to a single architectural firm: planning, design, and building supervision for the mammoth \$147-million (estimated) U.S. Air Force Academy, now going up near Colorado Springs. But commercial architects prefer to be used by their non-governmental work, and here S.O.M. can point to airline buildings, apartment houses, department stores, factories, hotels, hospitals, office buildings, research laboratories, and schools. Indeed, of the seventeen broad categories of architectural work recognized by the profession, S.O.M. has worked in all but one—private houses.

Over the past decade the dollar volume of the firm's business has soared as dramatically as one of S.O.M.'s own glass and steel towers. In 1947, S.O.M. completed work on buildings whose construction costs came to \$28 million. By 1952 this figure had risen to \$49 million. In 1957 the total was \$177 million. As a partnership, of course, S.O.M. need not disclose its earnings, but an educated guess would put its net for 1957 at less than 1 per cent of the completed construction figure, or about \$1,500,000. At the beginning of 1958, S.O.M. had a backlog of work totaling \$680 million in construction costs.

The precipitous growth of S.O.M. business was of necessity matched by a burgeoning of staff, from 480 in 1947 to 1,000 at present. The net effect is to leave the partnership with few competitors—in either size or quality of work—in the field it has almost preempted: the design of modern buildings for U.S. business. One competitor is Harrison & Abramowitz, which employs some 125 people in its New York office to handle local and national accounts, and has

produced work of very great distinction—e.g., the United Nations Building. But it is essentially an east-coast outfit. S.O.M. admires some of the work produced by the 600 people employed by the West Coast firm of Pereira & Luckman (Charles, late of Lever Brothers whose spectacular Park Avenue building is one of S.O.M.'s greatest achievements) in its Los Angeles main office and New York branch. But this firm is still in its infancy (only seven years old) and the S.O.M. partners think it still has a long way to go. There are also, of course, famous "one-man" operations—namely those of Frank Lloyd Wright, Mies van der Rohe, and Eero Saarinen. But those men are essentially brilliant designers who use the machinery of associate firms to help carry out large undertakings.

In contrast to all of its competitors, S.O.M. is national and decentralized in character: its four regional offices operate autonomously in their own areas but join forces as needed for national and international accounts, so there is considerable switching of specialists, facilities, and jobs

among offices. Whereas the average architectural firm consists of two or three partners who divide up the work no matter what the volume, S.O.M. is topped by a board of fourteen general partners, each bound to the others by a set of financial and working agreements unique in architecture. The partners, in turn, are backed by fifteen associate partners and thirty-nine participating associates, all of whom share in the firm's profits in varying degrees. (Since architects, like doctors and lawyers, perform a personal service, they are not permitted to incorporate and thus limit their liability.) From this galaxy of architects—each member of which, to one degree or another, has successfully blended his individual fire into the collective blaze—has come architecture of extraordinarily high quality.

Boas in a rascoun coat

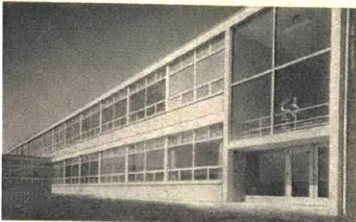
The start of all this was appropriate, but a bit preposterous. In 1930, Indiana-born Louis Skidmore was just back from Europe where he had been traveling on an M.I.T.

Fig. 1.35 "Group Design" As Practiced by S.O.M. Published in "The Architects From Skid's Row," Fortune, January 1958.

COMPANIES



FACTORY of United Biscuit Co. at Melrose Park, Ill., has wide windows contrasting with ribbed metal panels framed in steel. It extends a quarter-mile back from this end.



SCHOOL at Oak Ridge, Tenn., illustrates airiness achieved through use of glass and thin metal members. Skidmore, Owings & Merrill designed the whole town at Oak Ridge.



HOSPITAL of the Veterans Administration at Brooklyn shows crisp lines of SOM's interlocking-slab design. Hospitals are a big—and challenging—part of SOM's business.

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BUSINESS WEEK • Dec. 4, 1954

Skidmore, Owings & Merrill designed the buildings in these pictures. A prime example of their art is the Pan-American Life Insurance building, shown with its deep-set aluminum mullions. They are under way: Ford's new Dearborn office, the Chicago Development Plan, the U.S. Air Academy in Colorado Springs. But these are a showcase of



DESIGNERS These are the top men behind SOM's "design by conference"—the 10 general partners of the firm. Left to right, top row, are Nathaniel A. Owings, William S. Brown, J. Walter Severinghaus, Louis Skidmore, Gordon Brodhurst, bottom row, John O. Merrill, John B. Rodgers, Robert W. Cutler, William E. Hartmann, and Elliott Brown.

\$2-Billion Worth of Design by Conference

(Story continues on page 100)

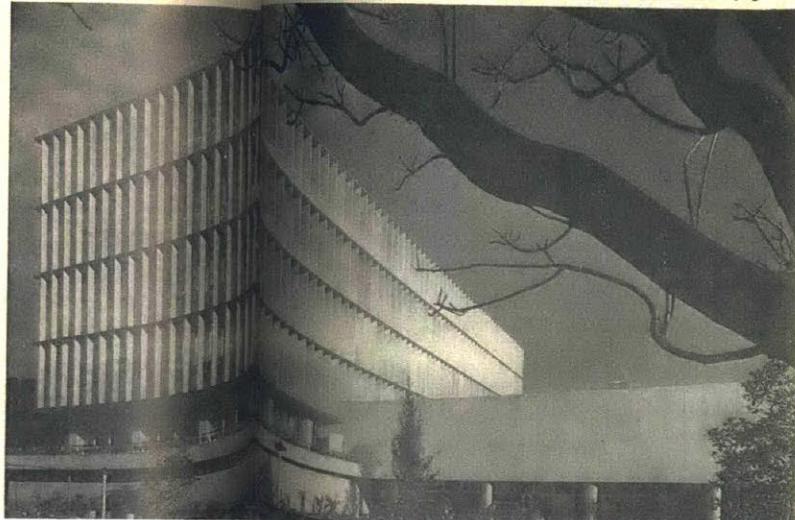


Fig. 1.36 "2-Billion Worth of Design by Conference," *Business Week*, December 4, 1954.

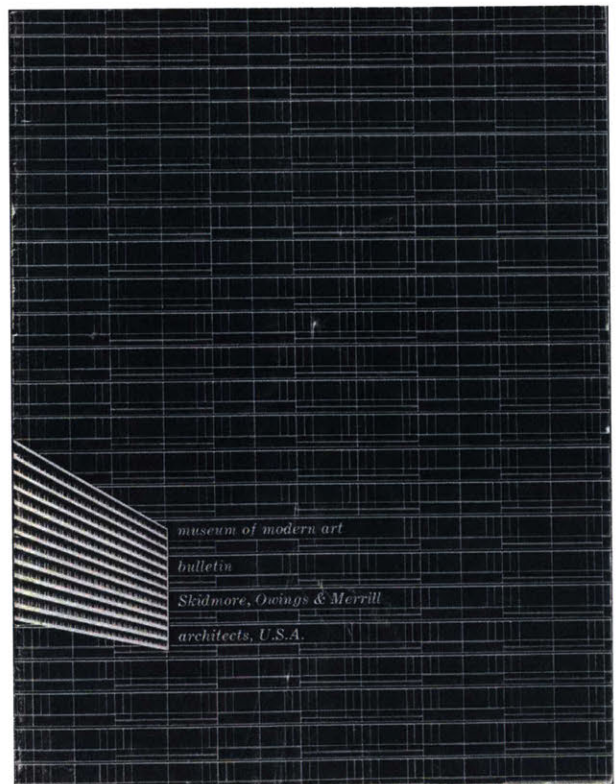


Fig. 1.37 Exhibition photograph and bulletin, "Architectural Work by Skidmore, Owings & Merrill," The Museum of Modern Art, New York, September 26 to November 5, 1950.

Skidmore, Owings & Merrill
Chicago, New York, San Francisco, Portland

| Building | Home | VP |
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VP
Parad
B

4 Bauen+Wohnen

Organisation, Aufbau, Projekte der größten amerikanischen Architekturfirma

Organisation, management et projets de la plus grande maison d'architecture américaine

The Organization, the Buildings and the Plans of the Leading American Architectural Firm

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Gutner's Meat Shop (Antenne-Ausstellungsraum) Grand Lakes, Illinois 136-137

Versammlungsgebäude der Kimberly-Cone Corporation, Neshaminy, Wisconsin 138-140

Wie ein Eisenort entsteht Chicago 124-130

Paradise City

Konstruktionsblätter

Construction + Habitation

Zürch / April 1957

Das Experiment S.O.M.

S. Sechs

Wahrscheinlich, dass dies das Waisenwaisen am Südpole von Manhattan zugeht ab: wie im tropischen Urwald versucht jeder Bau auf Kosten des anderen sich durchzusetzen. Aus den städtischen Straßen von New Amsterdam werden die Schluchten des Finanzzentrums der Welt. Erwartung wie ein Anwalt ein menschliches Begriffsraum städtische Überlagerung unter diesen Umständen ein Erdbebenrecht haben.

Und was geschicklich in großen Bauwerken Chicago? Es war, als ob es ein Samen fallen oder eine Chicago-Schicht gegeben hätte. Was der Loop, das Geschäftszentrum von Chicago, seit dem Ende der Chicago School im Architekturbau zum Erachen von Mies van der Rohe am Illinois Institute of Technology produzierte, ist für die Geschichte der Architektur insistent, wertlos. Alles schreut in Routinefahrwasser New York, gleichzeitig es es sich um die Hauptmittel der Wright-Bauern oder um die Kinogala der Chicago Tribune (1922) handelt, deren Häufigkeit täglich angekündigt wird. Es brauchte, um Sullivan dies 1903 herausgegeben hätte, ein halbes Jahrhundert, bis Chicago selbst wieder fähig war, auf seine eigene, innere Stimme zu hören.

Wie und warum gemacht wird?

Das Unternehmen S.O.M., das sich in den vergangenen Jahrzehnten über die USA und verschiedene Weltteile ausbreitete, ist im Grunde ein Experiment großer Stils, das in den letzten Jahren ein bestimmtes Problem gefunden hat es im heutigen Stadium der Entwicklung möglich, mit sachlicher architektonischer Mittel zu arbeiten, ohne daß die Aufregung der Bauern nehmen?

Experimente sind stets von zwei Faktoren abhängig: vom Beobachter und vom Beobachteten. Das Beobachtete ist in diesem Fall die Handlung ist so direkt skulptural, daß ein Gleichklang zwischen dem Wünschen des Auftraggebers und den Gelingen der heutigen Architektur entsteht, so wird das Experiment Zukunft hat. In Amerika ist das trotz des scharfen Konkurrenzkampfes leichter als auf europäischen Boden, denn der Klient hat mehr Vertrauen zum Fachmann als in Europa. Er macht nicht auch auf ästhetischem Gebiet alles besser zu verstehen als der beredene Architekt.

Der Experimentator hat sein eigenes am vorliegenden Anlaß am Gelingen des Experiments. Er muß darüber die Einsicht und den Mut besitzen, das Experiment konsequent durchzuführen. Das ist bei einem Unternehmen, das ungefähr 500 Angestellte umfaßt, durchaus nicht einfach.

Es ist ein Zufall, daß Skidmore, Owings & Merrill während der letzten drei Jahre in Chicago Fuß fassen? Ich glaube nicht. Es ist vielmehr ein Zufall, wie die sojourn Tat sache, daß es so konsequenter Avantgarde ist wie Mies van der Rohe schließlich im großen Stil in den offenen Chicago Raumrand eintrat. Es ist der markante Trieb, der architektonischen Wachstum günstig ist, mit größerer als der Moderne oder der Baukunst. Es ist heute immer noch ein Entfalten, Qualität gegen Kundengeschmack den Vorzug zu lassen, und doch besteht die Erfolg des Experimentes S.O.M. gerade darin.

Wie wird dies erreicht? In dem Anlaß einer Architekturfirma ist ein Architekturbüro nicht indem individuelle Planung und Gemeinschaftsplanung verbunden wurde. Stilleben wurden gegen lebendige Menschen ausgetauscht, von denen jeder sein Maß an kleinstädtischer Freiheit erhalt.

Lever House, New York

Wie dies in einzelnen geschicht, darunter geben die Beiträge Aussen, William E. Harrison, der Leiter des Chicago Office, über die Organisation im ganzen, Parford Clay über das Zustandekommen eines Entwurfs, Bruce Graham über die letzte Entwicklung der Verwaltung und Geschäftsabteilung, Walter Netsch über die Air Force Academy in Colorado Springs, die in die Regionalplanung einmündet (1750 acres in Fort Totten). Das Exposé ist die Möglichkeiten des einzelnen und auf gegebenen lokalen Verhältnisse über sich bereits in der Organisation. Sie ist regional vordringend. In San Francisco ist sie anders als in Chicago und in Chicago anders als in New York, obwohl alle diese miteinander kommunizieren. In New York ist es Gordon Bunshaft, der die Zügel führt und in allen Bauten sein architektonisches Profil zeigt. Er ist einer jener Architekten, die wissen, wie die moderne Kunst mit der heutigen Architektur zusammenhängt und daß Architektur und Malerei befruchtend einander nähern. Man kann sicher sein, ihm in den New Yorker Kunstausstellungen zu begegnen, die kurze Pläne in dem leicht schon genormten Gesichte, als wie die Manufacturers Trust Company Filiale in der Fifth Avenue gezeigt wurde. Er fragte ich, wie es möglich war, daß er im obersten Stockwerk des „Pent House“ in den Plänen des Präsidenten und des Verwaltungsrats Gebäude von Brague, Léger, Mies, de Chirico — bis zu Staroberg von aufwendig guter Qualität aufliegen konnte. Mir kam das nach Erfahrungen, die man etwa in die Schweiz sammeln kann, höchst unwahrscheinlich vor. Bunshaft sagte einfach: „Ich“ hat Vertrauen zu meinem Stil.“

Ihre dann New York gehen bis jetzt separaten Bau, das Lever-Büro-Haus (1955) in der Park Avenue. Die besondere englische Stilform Lever-Büro ist darauf angelegten, einen Teil des höchsten Terrains zu öffnen und in Platzraum für das Publikum zu verwenden. Dahinter steht die Überzeugung, daß

Fig. 1.38 Sigfried Giedion, "Das Experiment S.O.M.," *Bauen + Wohnen*, April 1957.



Fig. 1.39 SOM, Chase Manhattan Plaza, New York City (1961). Published in Henry-Russell Hitchcock, introduction to *Architecture of Skidmore, Owings & Merrill 1950–1962* (1962). Photograph: Erich Locker

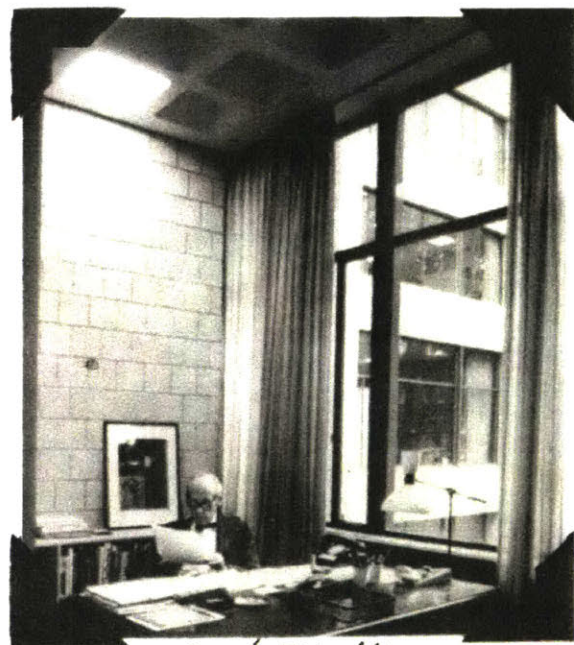


Fig. 1.40 The Architects Collaborative (TAC) offices, Cambridge, MA, 1967. Photograph: Ezra Stoller



Fig. 1.41 Celebration of 80th birthday of Walter Gropius with TAC members and invited guests, Cambridge, MA, 1963. Published in Gropius and Sarah Pillsbury Harkness, ed., *The Architects Collaborative 1945–1965* (1966).

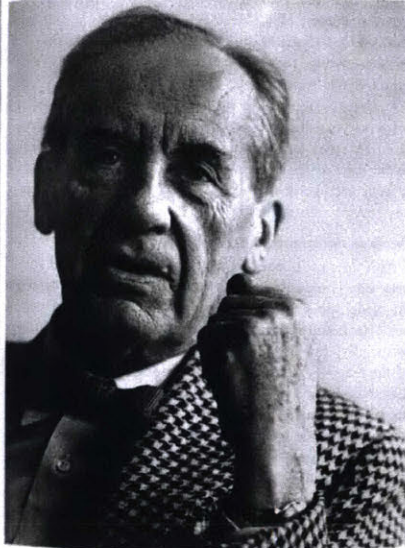
Fig. 1.42 “Gropius’s TAC office,” photograph published in *Collaborations* (TAC office journal), No. 32, May 1986.



File Photo

Gropius's TAC office

GROPIUS APPRAISES TODAY'S ARCHITECT as a "master builder,"



Courtesy Harper's Bazaar; Hans Knipsch

WHAT IS YOUR REACTION to this challenge by Walter Gropius, largely supported by Pietro Belluschi's remarks on the next page? We believe that not only architects, but also many builders, engineers and building owners will have interesting opinions pro and con this provocative appraisal of today's architect. We invite your comments for inclusion in a symposium in next month's FORUM. —The Editors.

ARCHITECTURAL FORUM • MAY 1952

finds him unmoved by the impact of industrialization, unruffled by AIA rules which prevent him from building

RECOMMENDATIONS:

closer contact with building production,
closer work with engineer and builder*

In the great periods of the past the architect was the "master of the crafts" or "master builder" who played a very prominent role within the whole production process of his time. But with the shift from crafts to industry he is no longer in this governing position.

Today the architect is not the "master of the building industry." Deserted by the best craftsmen (who have gone into industry, toolmaking, testing and researching), he has remained sitting all alone on his anachronistic brick pile, pathetically unaware of the colossal impact of industrialization. The architect is in a very real danger of losing his grip in competition with the engineer, the scientist and the builder unless he adjusts his attitude and aims to meet the new situation.

Complete separation of design and execution of buildings, as it is in force today, seems to be altogether artificial if we compare it to the process of building in the great periods of the past. We have withdrawn much too far from that original and natural approach, when conception and realization of a building were one indivisible process and when architect and builder were one and the same person. The architect of the future—if he wants to rise to the top again—will be forced by the trend of events to draw closer once more to the building production. If he will build up a closely co-operating team together with the engineer, the scientist and the builder, then design, construction and economy may again become an entity—a fusion of art, science and business.

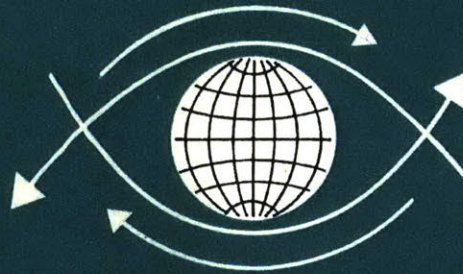
* Condensation of a statement by Dr. Walter Gropius, Chairman of Harvard's Department of Architecture, Graduate School of Design.

Fig. 1.43 Walter Gropius, "Gropius Appraises Today's Architect," *Architectural Forum*, May 1952.

WORLD PERSPECTIVES

edited by

Ruth Nanda Anshen



Walter Gropius

SCOPE

OF

TOTAL

ARCHITECTURE

a new way of life

Fig. 1.44 Walter Gropius, *Scope of Total Architecture* (1955).

Cast of characters

Architecture: The entrepreneurial profession

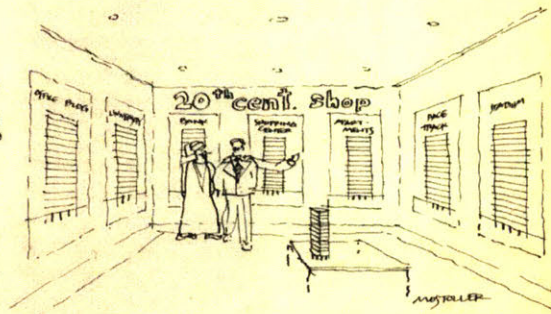
Robert Gutman

Research on the role of the architectural profession in society yields revealing comparisons with other professions and shows why architects must take initiative for their services to remain essential.

Even a brief conversation with architects these days soon reveals their concern about the future of the profession. Two conditions seem to have generated the air of crisis. The first is the rise in the number of professionals who now are unemployed, compared with three or four years ago. The situation is exacerbated because many of the larger, well established, and prestigious firms have had to cut their staffs by 30 to 50 percent. Architects are going about wondering whether the market for their services will ever approach the levels of the late 1960s. Some have even begun to ask how well the profession can withstand the changes that are going on in the construction industry.

The other disturbing condition is that the theoretical underpinnings which have held the field together no longer appear valid. Architecture made its claim for a place in industrial society by arguing that the way in which buildings were designed could improve the quality of life. Clients and users responded to this argument and sought out architects to help them provide housing, communities, schools, hospitals,

Author: Robert Gutman is professor of sociology at Rutgers and visiting professor of architecture and planning at Princeton. He has written widely over the last decade on social aspects of building design and architectural practice. The present article rose out of a study which he and his research group concluded last year on major trends in architectural practice for the Consortium of Eastern Schools of Architecture, results of which will be published at greater length in forthcoming papers and books. The views expressed in this article are those of the author alone and do not necessarily represent the opinions of other members of the Consortium.



parks, and other public amenities. Many of the designs which the architect proposed did not fulfill either the architect's promises or the user's expectations. This was a typical outcome in the field of housing and has led many public authorities in both the U.S. and Europe to become disenchanted with concepts put forth by the profession.

At the same time the profession itself has lost its conviction that principles of form and style could be derived by synthesizing the aesthetic element in professional work with the functional requirements of buildings. Architects themselves now don't know what general ideas should regulate their approach to their task.

The despair among the architects is understandable, but it is hard to believe that the profession will not recover. It should be realized, for example, that architecture often has been an underutilized profession. Recent unemployment rates are below those that prevailed earlier in the century (table A). In periods such as the present, when the industrial state is in a fragile condition, the concern of architects for building form and social benefit tends to be passed over in favor of an emphasis on the contribution of building to the increase in economic productivity. When the government fiscal situation is more relaxed and when corporations regain confidence in their survival, the skills which are unique to architecture among the design professions generally receive more attention.

However, in order to make some guesses about what the profession may look like when the situation improves, it is important to identify the underlying forces that are shaping architecture today. It is important also to clear the terrain of a number of misconceptions about the field.

Architecture and the other professions

Architects like to think of themselves as similar to doctors or lawyers. Law and medicine are the two most powerful and prestigious professions in America, so it is natural that any other profession would choose to compare itself to them. Given

| | Architects | Draftsmen | Designers | Civil engineers | Lawyers & judges | Physicians & surgeons |
|------|------------|-----------|-----------|-----------------|------------------|-----------------------|
| 1890 | 14.5 | | | | 1.8 | 1.4 |
| 1900 | 16.8 | | | | 2.8 | 1.9 |
| 1940 | 4.63 | 5.25 | | 5.03 | 1.03 | 0.39 |
| 1950 | 3.29 | 2.61 | 2.66 | 2.23 | 2.81 | 3.06 |
| 1960 | 0.84 | 7.67 | 0.92 | 0.51 | 0.42 | 0.45 |
| 1970 | 1.37 | 3.46 | 2.37 | 1.10 | 0.33 | 0.22 |

Table A: Unemployment of the male experienced labor force 1890-1970 (percentages). Source: Forthcoming study "Architecture among the Professions," by Robert Gutman and Barbara Westergaard.

Fig. 1.45 Robert Gutman, "Architecture: The entrepreneurial profession," *Progressive Architecture*, May 1977.

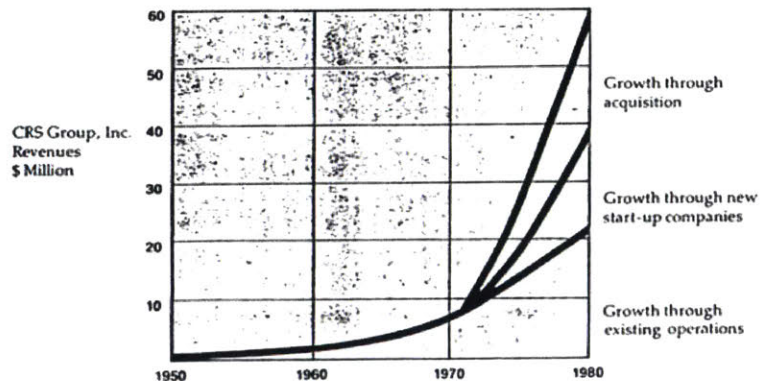
Houston's CRS Design Associates, led by Wallie Scott Jr., John Rowlett, Thomas Bullock, William Caudill, and C. Herbert Paseur, has created a considerable stir among architects by going public.



Why Your Company Should Become Part of The CRS Group, Inc.

Fig. 1.46 "Houston's CRS Design Associates, led by Wallie Scott Jr., John Rowlett, Thomas Bullock, William Caudill, and C. Herbert Paseur, has created a considerable stir among architects by going public." Gurney Breckenfeld, "The Architects Want a Voice in Redesigning America," *Fortune*, November 1971.

Fig. 1.47 "Why Your Company Should Become Part of the CRS Group, Inc." CRS Group, advertisement in professional journals, January 1981.



We want to acquire companies we can help; that's one way we grow.

There are three reasons: Growth, Profit, and Performance.

American designers in Arabia

ALTHOUGH American construction industry design firms are involved in practically all parts of the world, it is the Middle East which is by some way their most important market, both in terms of professional fee earnings and proportion of prestige projects. During 1983, informs *Engineering News Record ENR* (New York) in its annual review of professional fee billings for the top 500 design firms in the USA, "Midwest billings rose two per cent to \$553.6 million — or about 44 per cent of all foreign billings." This followed a slight decline in 1982 (after the Middle East, the totals for other markets were led by Asia (\$199.5 million), Latin America (\$141.3 million), and Africa (\$130.6 million) which includes the North African countries forming part of *MEC's* Middle East market region).

Relating the work of US design firms at home and abroad, *ENR* explained that "billings from foreign sources totalled only \$1.26 billion for the top 500 firms during 1983: an 8.7 per cent decrease from 1982's level. Faced with weak market overseas, the top US designers found domestic clients generating a greater proportion of their work...". This downturn in foreign earnings was the first since 1969, when *ENR* commenced its annual survey of the work of US designers abroad.

During 1983, US architectural firms billed foreign clients for \$49.6 million — approximately 7.8 per cent of their total; while engineer-architect firms took \$619.1 million, almost half of the total US foreign design market. (This second category of designer firm is where architecture follows on from an engineering contract, often of extremely large size and value. The parentheses are not intended to be derogatory in respect of architectural quality emanating from engineer dominated firms; few, however, are renowned for their architecture as such.) Respectively, as third and fourth categories, architect-engineers earned \$206.9 million (12.7 per cent), and consulting engineers \$383.2 million (15.6 per cent).

The first four firms in the *ENR* top 500 all have industrial specialisations in



The El Gezira Sheraton Hotel, Cairo. (CRS Sirrinc)

which Sargent and Lundy (Chicago) and Gilbert and Commonwealth Cos (Reading, Pa), respectively second and third, are exclusively involved. Neither, it is believed, are particularly active in the Middle East and North Africa. The top firm is CRS-Sirrinc (Houston) — the August 1983 amalgamation of the CRS Group (Caudill Rowlett Scott) and J E Sirrinc Company (see *MEC/SAC* April 1985). In 1982 these firms were separately ranked 11th and 16th. With a longterm major Middle East commitment, CRS-Sirrinc was 50 per cent industrial and 33 per cent other construction by fee fillings. From the 1960s, predominantly in Saudi Arabia, CRS has been producing top-quality architecture in the Middle East, examples of which are illustrated in this review.

The two other design firms included in the total of 14 with billings worth more than \$100 million, whose Middle East work is also mentioned below, are SOM (Skidmore Owings and Merrill) and Daniel, Mann, Johnson and Mendenall (DMJM), respectively ranked 12th and 10th. SOM's Middle East work will

justifiably be familiar to regular *MEC* readers, notably through the Aga Khan award-winning Haj Terminal in Jeddah, and the newly completed prestigious National Commercial Bank tower, also in Jeddah. DMJM, on the other hand, is a newcomer to these columns.

On this occasion, however, pride of place is given to the two Saudi Arabian projects designed by Hellmuth, Obata & Kassabaum (HOK, of St. Louis) which have not previously appeared in *MEC*: first, the King Khalid International Airport; and second, the King Saud University (with four other design firms, as below), both at Riyadh. HOK was ranked 29th in 1983, and another newcomer, Leo A Daly (Omaha) with strong Saudi Arabia National Guard client connections, was 40th.

TAC (The Architects Collaborative, Cambridge, Mass) is another *MEC* familiar; its Middle East connections dating back to the founding partner Walter Gropius's work at Baghdad University. Whereas in a listing of firms by consistent architectural quality, particularly so in the Middle East, TAC would be in everybody's top ten, its position at 89 in the *ENR* table reflects merely the fact that others do more work. Similarly the Brown Daltas Group (Cambridge, Mass) at 294; and Sasaki Associates Inc — with its Kuwait waterfront landscaping speciality, at 156.

The following review of work, both completed and at various design and construction stages, is on the basis of a variety of building types, by the six firms concerned. The range of countries on this occasion is limited to Saudi Arabia — where American designers have creamed off most of the major prestigious projects; Kuwait, where they have a strong presence; and Egypt. US Aid programmes, the World Bank, other funding connections, oil industry links, the involvement of construction giants such as Bechtel, and last but by no means least, the US Army Corps of Engineers, have all combined to favour selection of American designers in Saudi Arabia and other Arabian markets. In the Lower Gulf and North Africa their penetration has been limited, in face of

The Arab world, in spite of recent downturn in major construction activity, remains the most important market in terms of professional fee earnings for American consultants. In this context Tony Morris reviews work, completed and at various design and construction stages, of six practices whose examples include projects in Saudi Arabia and Kuwait.

Fig. 1.48 "American designers in Arabia," *Middle East Construction*, August 1985.

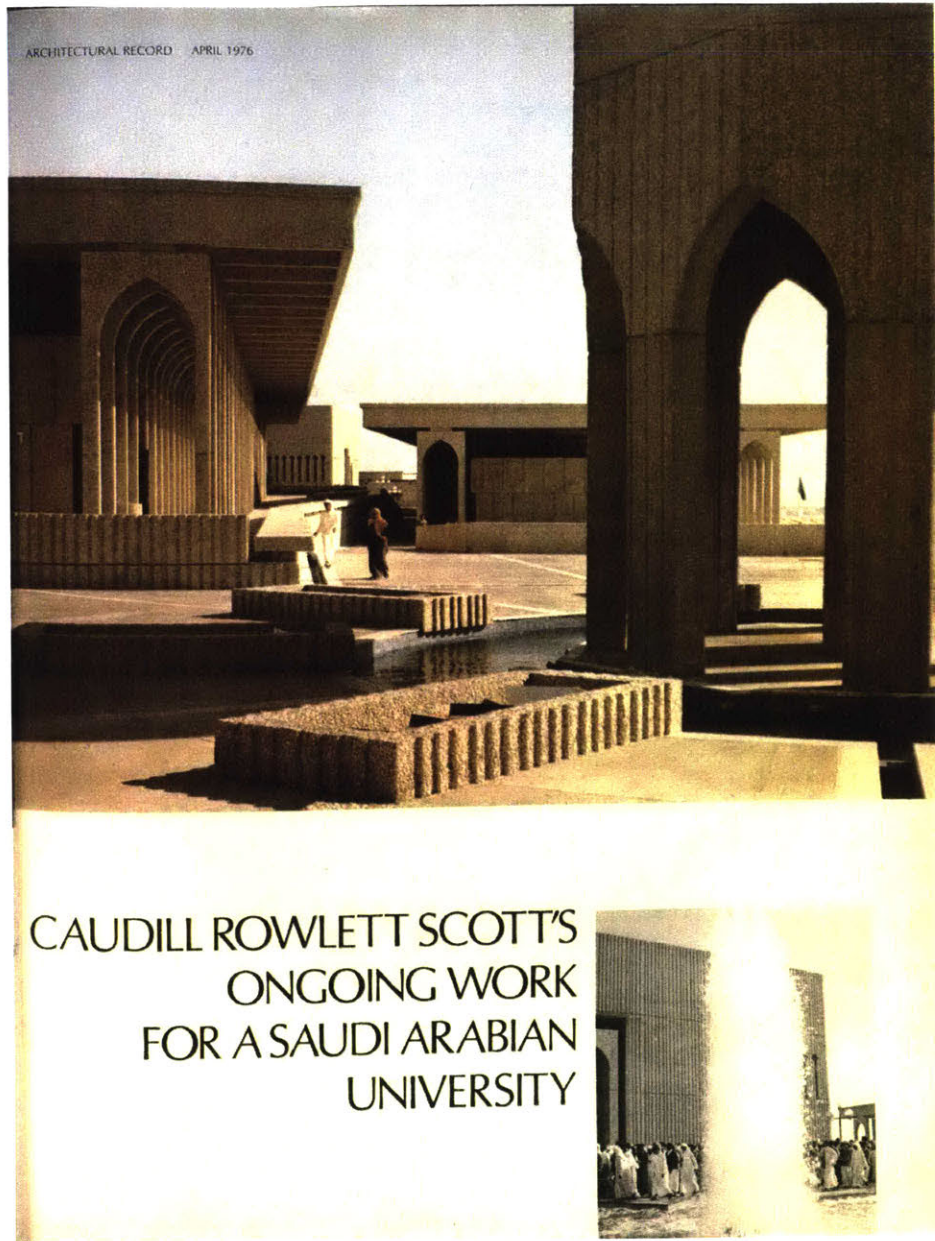


Fig. 1.49 "Caudill Rowlett Scott's Ongoing Work For a Saudi Arabian University," *Architectural Record*, April 1976.



Fig. 1.50 TAC, Johns-Manville
World Headquarters, Denver, CO
(1973–77). Photograph: Nick
Wheeler

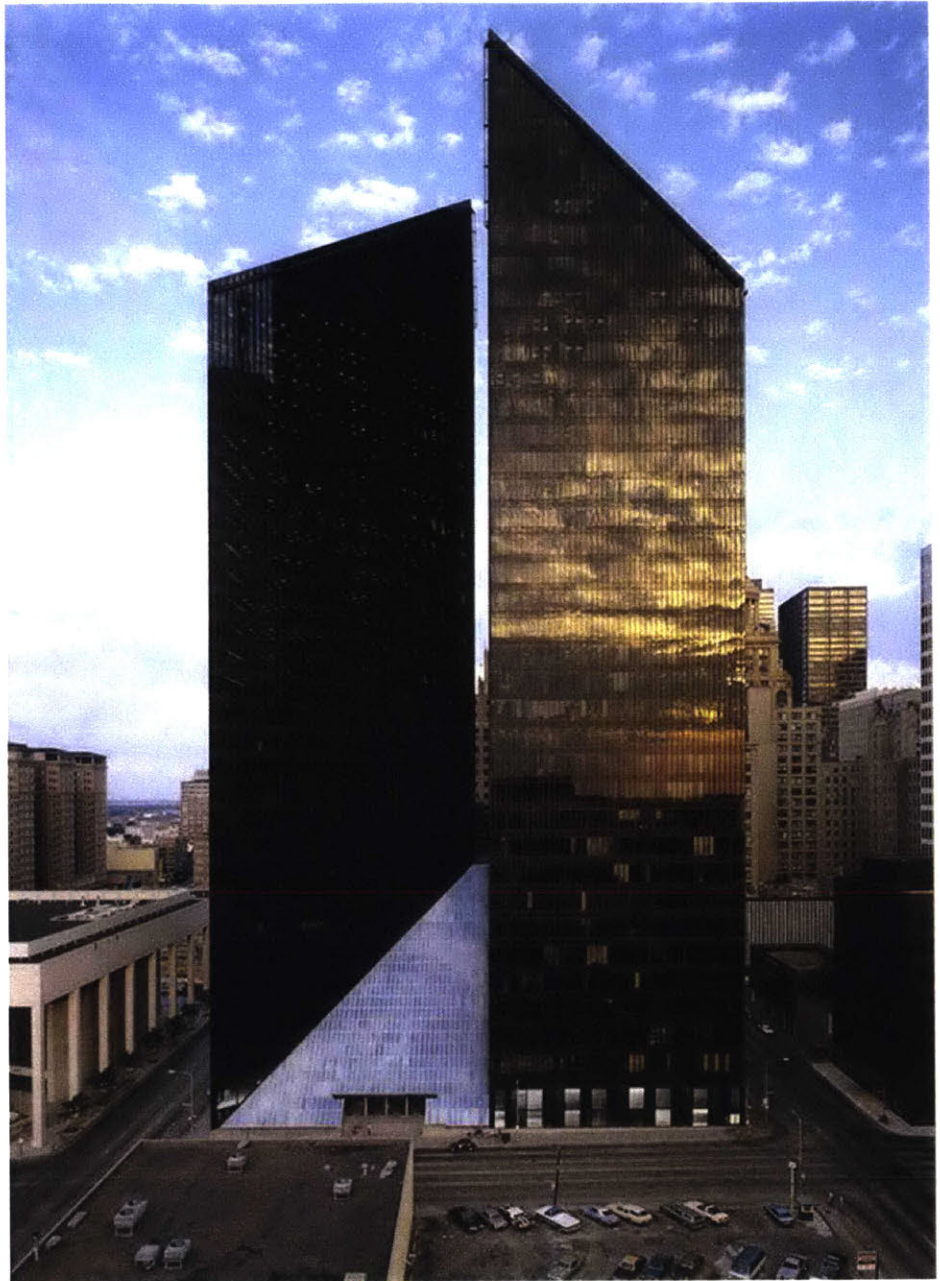


Fig. 1.51 Johnson/Burgee, Pennzoil Place, Houston, TX (1973–76).
Photograph: Richard Payne

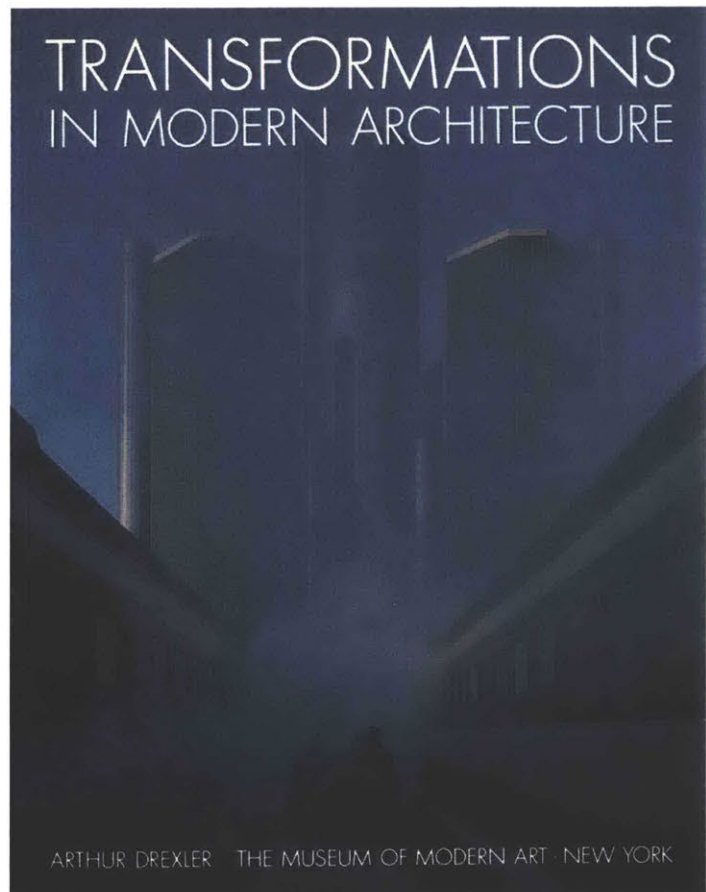
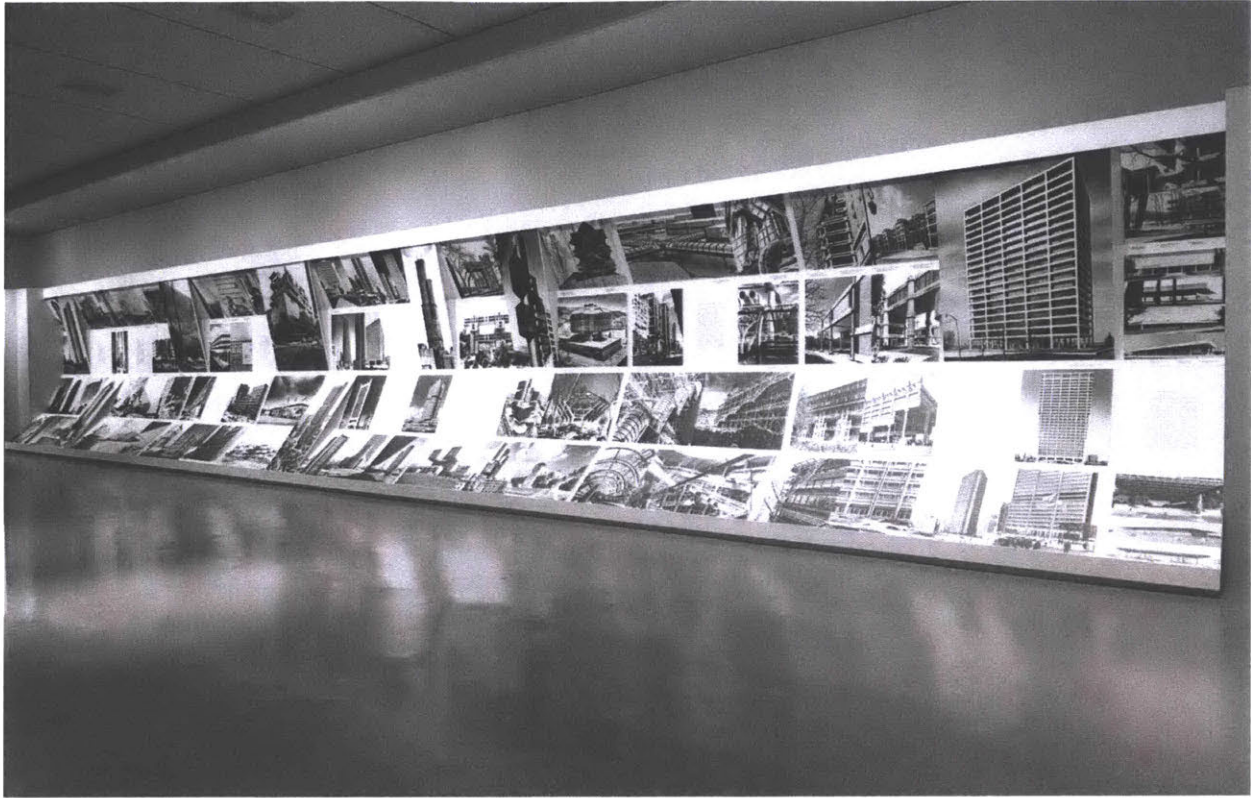


Fig. 1.52 Exhibition photograph and catalogue, "Transformations in Modern Architecture," The Museum of Modern Art, New York, February 21 to April 24, 1979.

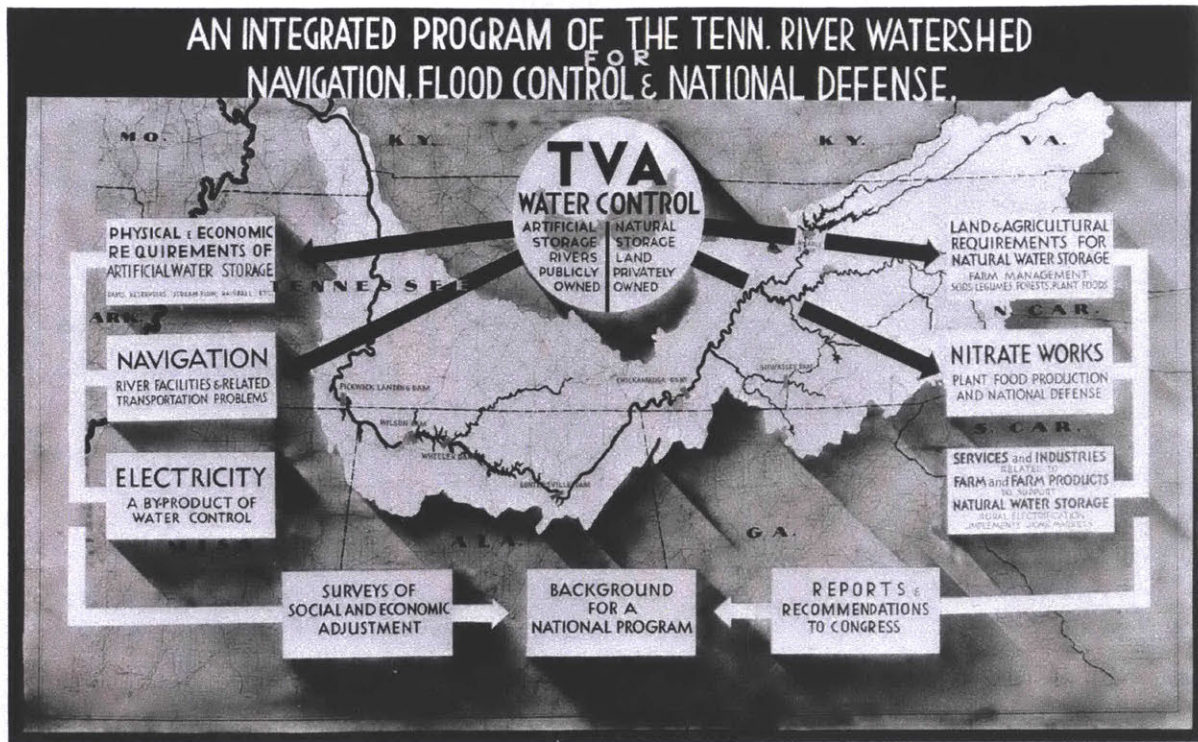


Fig. 2.1 Tennessee Valley Authority (TVA), typical display panel on TVA comprehensive planning program, 1933–45. Farm Security Administration—Office of War Information Photograph Collection, Library of Congress

TVA

AN ACHIEVEMENT OF DEMOCRATIC PLANNING

By Julian Huxley

THE initials TVA are beginning to be familiar as the symbol of a new possibility for the democratic countries—the possibility of obtaining the efficiency of a co-ordinated plan without totalitarian regimentation. TVA stands for Tennessee Valley Authority, and the Tennessee Valley Authority is the outstanding example of democratic planning. When it was initiated in 1933 it was the first large-scale regional planning organization which operated, so far as possible, on the democratic principles of persuasion, co-act, and participation; and today, after nearly ten years, it still remains the most important example of such an organization.

The precise delimitation of the region over which the TVA exercises its functions was determined by certain constitutional facts. In the U.S.A., the powers permitted to the Federal Government, as opposed to the separate States, are strictly limited. Among those powers, however, are measures for flood-control and for improving the navigability of rivers, in the interests of interstate commerce. Flood-control and navigability accordingly had to be the pegs on which the legislation necessary for regional planning was hung; and for flood-control and improvement of navigability you require an entire river basin.

The Tennessee is but a tributary of a tributary—it flows into the Ohio shortly above the latter's confluence with the Mississippi. Yet it is a big river—by British standards a huge one. For some distance above its junction with the Ohio it is a mile wide, and it drains most of Tennessee and portions of six other States. Its total length (not all under the same name) is about 900 miles, as against 210 miles for the Severn, the longest British river. The largest river basin in Britain, that of the Thames, covers less than 6,000 square miles, while the area of the Tennessee Valley is some 12,000 square miles, or about four-fifths that of England and Wales, but with a population of only some two and a half millions, about one-eighth consisting of Negroes, mostly very backward.

The Tennessee Valley Authority Act was one of the earliest New Deal measures, having been passed in May 1933—less than three months after Roosevelt took office. The preamble states that the purposes of the Act include navigability and flood-control; reforestation and the proper use of marginal lands; agricultural and industrial development; and national defence, by operating the Muscle Shoals chemical plant.

In the body of the Act, the Board is "authorized and directed to make studies, experiments and demonstrations" (a delightfully comprehensive definition of research), to promote the use of electric power for agricultural, domestic and industrial purposes, and is instructed that it may co-operate with the widest possible variety of other agencies, from State and local governments to educational and research institutions, so as to ensure the application of electric power "to the fuller and better balanced development of the resources of the region." Throughout, its terms of reference are kept extremely broad.

Why was the Tennessee Valley singled out as the site of this massive experiment? There were several mutually reinforcing reasons. There was the existence of a great Government-built nitrate plant in the area. There was the fact that proper control of the Tennessee River was crucial for the prevention of disastrous floods on the lower Mississippi. There was the further fact that flood control could be readily tied up not only with improved navigation, but with the profitable generation of electric power; and there were finally the crying needs of this backward region which might largely be met by cheap electric power. Much of the rural area of the valley was inhabited by peasant farmers, who, although originally of excellent British stock, had in their mountain isolation too often developed into poverty-stricken poor-whites. Primitive in their reproductive habits as in their farming methods, they multiplied rapidly until they presented a typical Malthusian population, pressing hard upon its means of subsistence. Under the influence of this pressure, the farmers began in many places to encroach upon the wooded mountainside. A steep slope would be burnt off and cleared of its timber, ploughed up, and planted with maize. The climate is moist, with spells of heavy rainfall; more than half of all the rain of over 50 inches a year that occurs in the U.S.A. falls in the Tennessee Valley. With the removal of the forest cover, and with the failure to apply fertilizers, the soil rapidly lost its fertility and large amounts

of it were simply washed away. After a few best-years, the slope was no longer worth bothering about, and was abandoned in favour of a fresh cleared area nearby, so that in the heart of the most modern of countries you could find shifting cultivation of the type usually associated with primitive African tribes.

The resultant erosion was appalling. It was brought home to me when, surveying the turbid flow of the Tennessee River, I was told that there were men still living who remembered it as a clear blue stream. Up till that moment I had taken the pea-soup appearance of so many American rivers for a fact of nature; the realization that it was a recent man-made phenomenon was staggering. Here, under my eyes, was the basic productivity being stripped from a vast area and hurried along to sterile waste in the sea. I also saw outcrops of bare rock which three generations back had been covered with rich soil over a yard in depth. For those who like figures, it may be added that the amount of soil annually washed or blown out of the fields of the United States is conservatively estimated at 3,000 million tons.

Throughout most of the region debilitating diseases like malaria and hookworm were common, and others caused by vitamin deficiencies. The few towns and cities were still largely suffering from the ruinous after-effects of the Civil War, though a certain amount of industrialization had belatedly grown up in them.

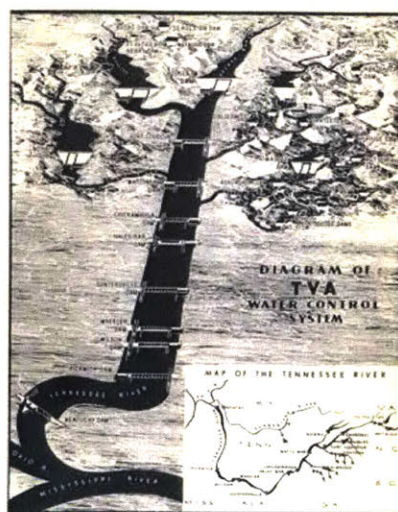
The Muscle Shoals nitrate works at the Wilson Dam were built during the last war. After 1918, various proposals were made concerning its future use; at one time Ford evinced an interest in it. The threat that this great plant might fall into private hands called for public action. Twice, in 1928 and 1930, Congress declared in favour of Government operation of the plant, but on both occasions the Bill was vetoed by the then President. With the accession of Roosevelt to power, however, the atmosphere was altered, and so it came about that the need for public operation of a particular plant helped on the decision to make the whole Tennessee basin the beneficiary of the first large-scale American plan.

It was the inclusion of Muscle Shoals in the area which dictated the reference to national defence in the preamble to the TVA Act. Curiously enough, Muscle Shoals had before 1940 been almost entirely switched over to the peaceful business of producing phosphates for agriculture (though the

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Fig. 2.2 Julian Huxley, "TVA: An Achievement of Democratic Planning," *The Architectural Review*, June 1943.

Fig. 2.3 David E. Lilienthal, *TVA: Democracy on the March* (1944).



TVA

DEMOCRACY ON THE MARCH

TWENTIETH ANNIVERSARY EDITION

by
DAVID E. LILIENTHAL
former Chairman
Tennessee Valley Authority



HARPER & BROTHERS, PUBLISHERS
New York

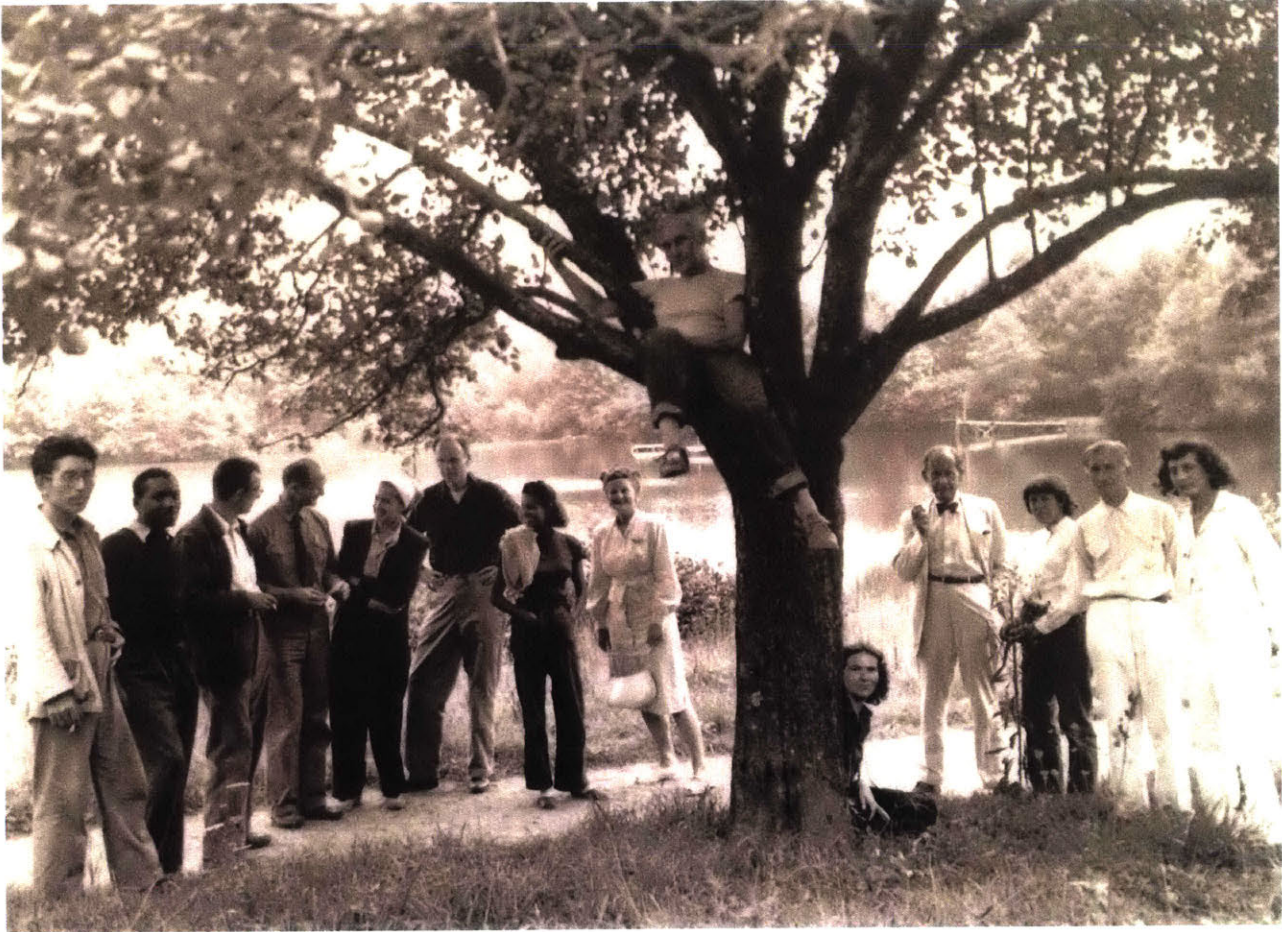


Fig. 2.4 Black Mountain College, Summer Art Institute faculty, 1946. From left to right: Leo Amino, Jacob Lawrence, Leo Lionni, Theodore Dreier, Nora Lionni, Beaumont Newhall, Gwendolyn Knight Lawrence, Ise Gropius, Jean Varda, Nancy Newhall, Walter Gropius, Molly Gregory, Josef Albers, Anni Albers.



Fig. 2.5 Black Mountain College, students at farm work program with Studies Building in background, n.d.

DEMOCRACY IN ACTION

By JOHN EVARTS

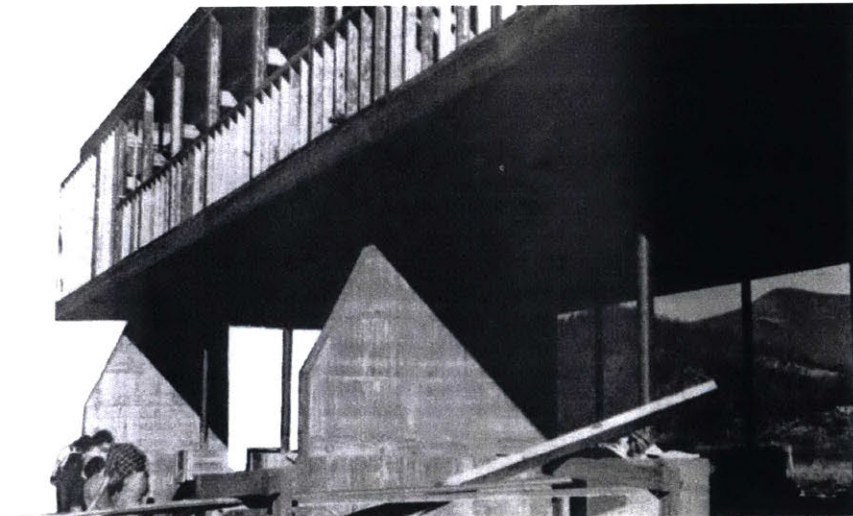
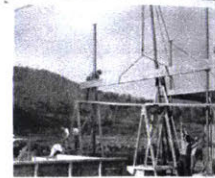
CONVERTING the impossible into the actual has always been an American tradition. It has been the challenge which has spurred on pioneers in all fields and it has usually been accountable for the most significant accomplishments in art, industry, and even in education. Somehow or other, in spite of hell-and-high-water, in spite of financial depressions and crises at home and abroad, imagination and determination, strengthened by co-operation, have been able to convert the impossible into a four square reality.

A case in point is Black Mountain College, a pioneer in modern, democratic education, situated at Black Mountain in the magnificent Craggy Mountains of North Carolina, not very far from Asheville. This small coeducational institution of 75 students and 20 teachers was faced with a serious dilemma last year. They learned that the buildings which they had rented since the college began in 1933 would not be available after June, 1941. One course of action was simply to close the college. Perhaps the practical man would have said that it was the only thing to do. The alternative was to renovate the summer buildings on the nearly 700-acre tract of land which the college had recently acquired, and build an additional building for studies and class rooms. But there were no funds available to have this done, and with the war making demands on everyone the chances of raising money looked rather dark.

A year ago, in May, there was a general meeting of students and teachers in usual procedure in discussing problems of general importance to the college. The whole matter was discussed at length and a unanimous agreement was reached: to raise sufficient funds during the summer to buy at least some of the materials, to find an architect to design an inexpensive studies building, and in the fall to organize a work program by which both teachers and students, under expert direction, could themselves construct the building.

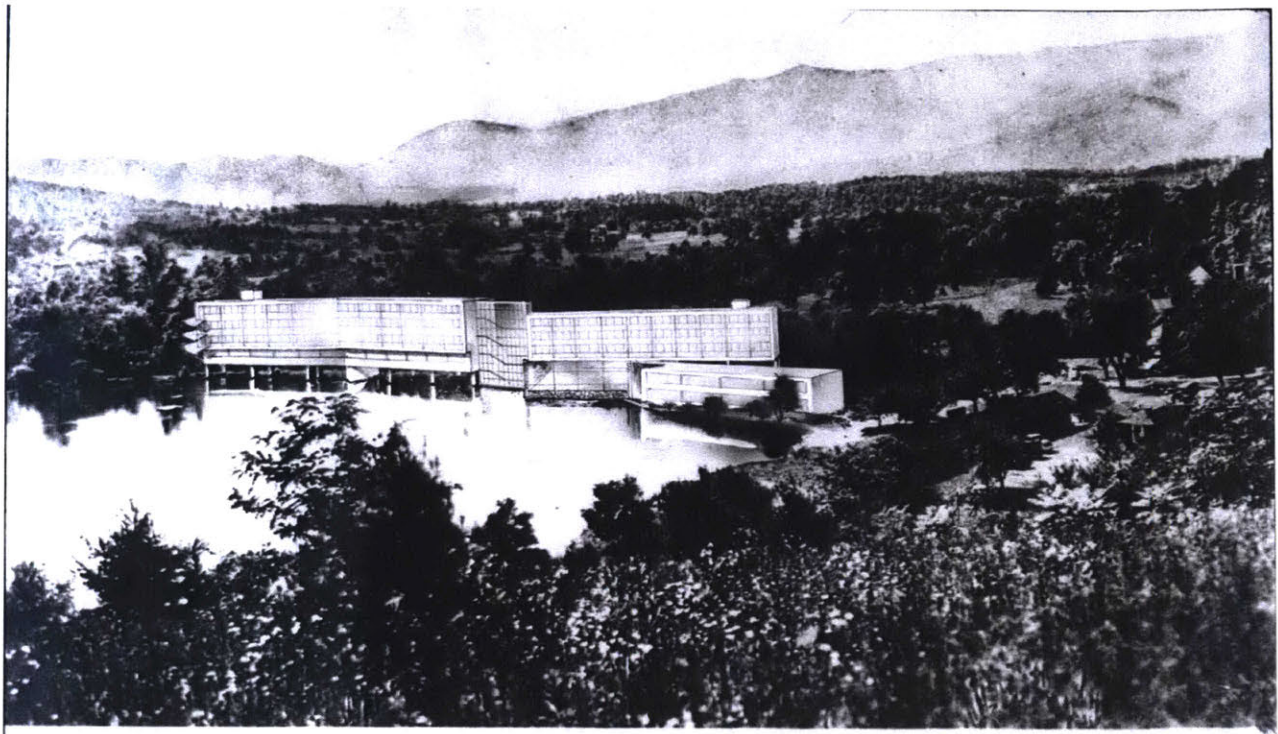
And this, in effect, is what actually happened. Or almost. Only a small part of the necessary funds was raised during the summer, so that both students and teachers spent most of the long Christmas holidays in trying to raise more support. During the summer, though, the college aroused the interest of A. Lawrence Kocher, the well-known modern architect and one-time editor of the *Architectural Record*; he designed the building, and in September of last year joined the college faculty. Ground was broken in September and work was begun on the first unit of the building plan. Students and teachers (depending on how heavy their academic schedules were) volunteered their services from one to four afternoons a week. A professional builder and two assistants were employed to work full-time and to supervise the work of the amateurs when necessary. Mr. Kocher, in addition to teaching classes in architecture and industrial design, supervised the whole undertaking.

Every afternoon an average of 25 or 30 students and teachers drove over to the property and worked from 1:15 to 5:00. Boys and girls, men and women, learned how to build masonry and dig drainage ditches; they cut down a hillside, mixed and poured concrete; they hauled rock for the walls from the mountainside and foundation rocks from a nearby creek; they put up posts and built sub-flooring; and they cut down oaks to provide the lumber for flooring. And they worked well and with enthusiasm for what they were doing. There was a crisis. (Continued on page 26)



EDUCATION IN OUR TIME IS PLACED UPON A TRULY DEMOCRATIC AND COOPERATIVE BASIS

Fig. 2.6 John Evarts, "Democracy in Action" and image of students building Studies Building ("Education in our time is placed upon a truly democratic and cooperative basis"), *California Arts and Architecture*, July 1941.



College property across the valley

Design and photos (except Lee Hall and back cover) by students and faculty of B M C

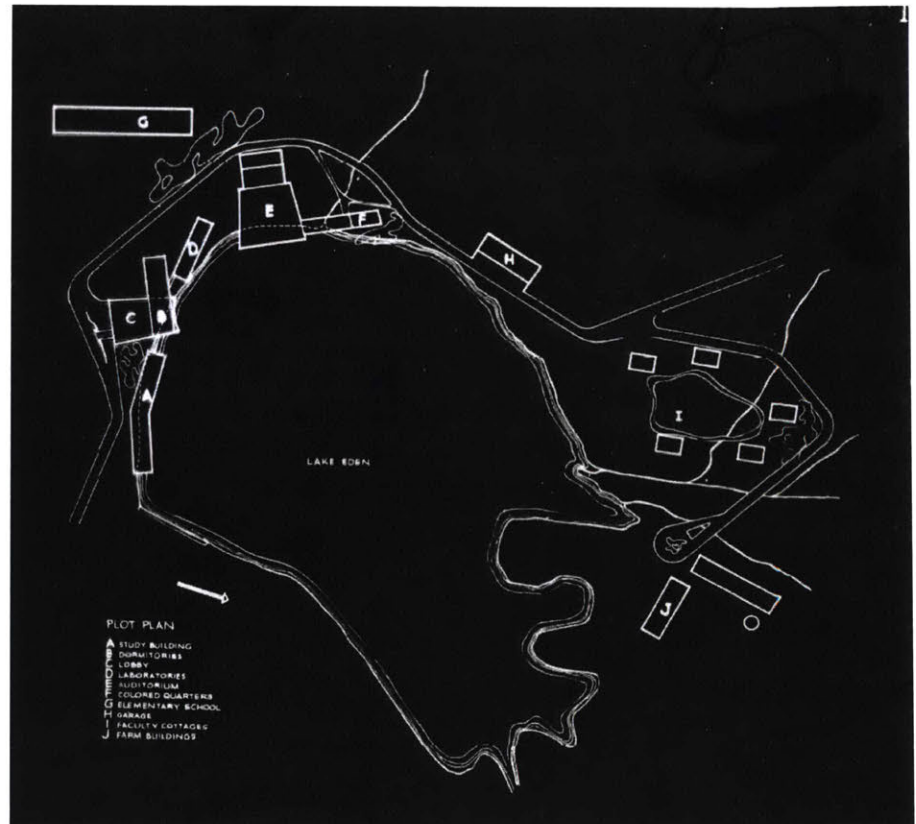


Fig. 2.7 Walter Gropius and Marcel Breuer, rendered aerial perspective and pilot plan for Black Mountain College campus buildings, 1939–40. Marcel Breuer Archive

telesis

telesis: progress intelligently planned and directed; the attainment of desired ends by the application of intelligent human effort to the means. (Webster)

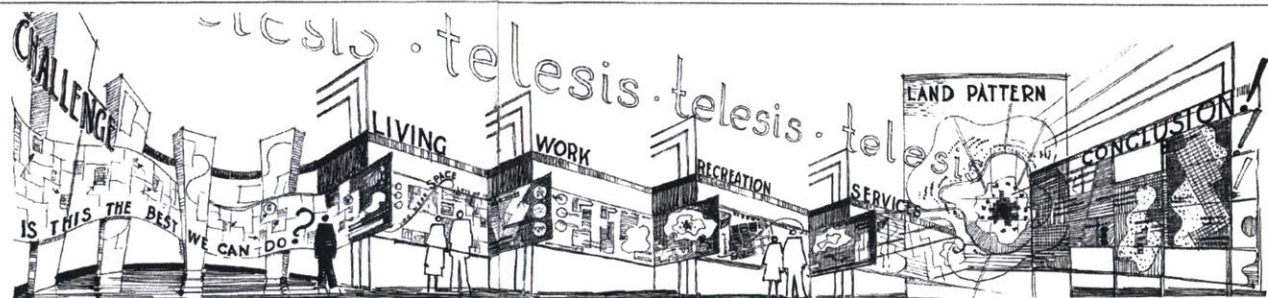


Fig. 2.8 Telesis Environmental Research Group, exhibition catalogue for *Space for Living*, San Francisco Museum of Art, July-August 1940. MIT Rotch Library

SOCIAL PLANNING FOR WESTERN AGRICULTURE

By VERNON DE MARS, District Architect, F.S.A. San Francisco



"Why don't you go on West to California? There's work there, and it never gets cold. Why, you can reach out anywhere and pick an orange. Why, there's always some kind of crop to work in. Why don't you go there?"

John Steinbeck, *Grapes of Wrath*.

At the foot of the Tehachapis, in California's rich San Joaquin Valley lie Arvin and Weedpatch. You may remember the Joad family at the end of their migration west, came over these same mountains and gazed with awe at the orchards and vineyards spread out below them. Many a thousand other Joads, before and in the years following, have been affected similarly by this first view of the great valley. Near Weedpatch is the camp of the Farm Security Administration. This too is the same camp where the Joads first found respite from fear and hopelessness in their new homeland.

A good deal has changed since then. In the first place, nearly everyone concedes that the Joads are not entirely fictional characters. Recognition of the problem is the first step towards solution. But then the "Weedpatch Migratory Labor Camp" has changed too. At first the camp consisted only of tent platforms with a larger one for the Saturday night dance, some central buildings with toilets and showers and wash trays and a small building for the office and a visiting nurse. The problem seemed to be solely a matter of providing decency and sanitation to campers-out during the work season. The season over, people presumably went back to their homes. It came as a shock to some, at the end of the first season, that most families stayed on. Many had no other homes. Also, many made connections locally and were assured on-and-off work for a good part of the year, with enough income to show "following the crops" was poor economy considering the cost of gasoline and "living-out." However, this income was insufficient to rent a decent house so folks boarded up the sides of their tents, planted corn and vegetables and prepared to "stick it out." It was in answer to this clear-cut need that the F.S.A. (then the Resettlement Administration) purchased twenty acres next to the camp and built the first twenty Labor Homes. These houses were small, too small for real economy as was proven later, but were a realistic approach to the problem. The attempt was made to synthesize what the migrants built for themselves, in their shantytowns, out of scraps of wood, tin, pasteboard and canvas. Taking a clue from what the migrants considered essential resulted in a single-roomed adobe house, complete

however with kitchenette and bath and a frame sleeping porch. Each house had a one-acre garden which contributed to the families' meager incomes. It must not be assumed, however, that families started right in eating quantities of those green vegetables they had so long been without. No, most green vegetables were too foreign to their tastes. Folks would not come to the Clinic at first, either. Why bother, when a little black paint on baby's navel cured the colic? Yes, some progress has been made since then.

There are now over a dozen of these communities for farm workers in California alone. F.S.A. has built nearly forty of them in the West, including Texas, for the problem is not confined solely to California. A number of camps have been built in Florida and plans are being developed in Colorado, Michigan, Maryland and New Jersey. In addition to the permanent communities there are fifteen mobile units, with showers, clinic, power and water plants, all mounted on trailers. Everything else is demountable, from tent platforms, laundry and privies to pipe lines and lighting standards. These units, housing two hundred families, are used in areas where the season is short, or where labor requirements and crops vary considerably from year to year.

Farming over the whole country has become increasingly mechanized. In certain areas, particularly on the west coast where factors are favorable to specialization, farming is actually an industry. Thousands of paid workers are hired for the harvest or work season only. Yet, despite its absolute dependence on the supply of seasonal laborers, this industry has assumed little responsibility for their way of life or subsistence through the rest of the year. Individual farmers have tried to provide housing of a sort and many have tried to keep some men on steady pay in the locality. But these instances only tend to obscure the fact that a great many more workers are needed at certain periods than can at present be gainfully employed locally throughout the year. The spokesmen for industrialized agriculture have yet to present a realistic plan for the solution of this problem, for under present conditions, it is beyond the means of any single farmer or group of farmers to provide for their workers housing, employment, and

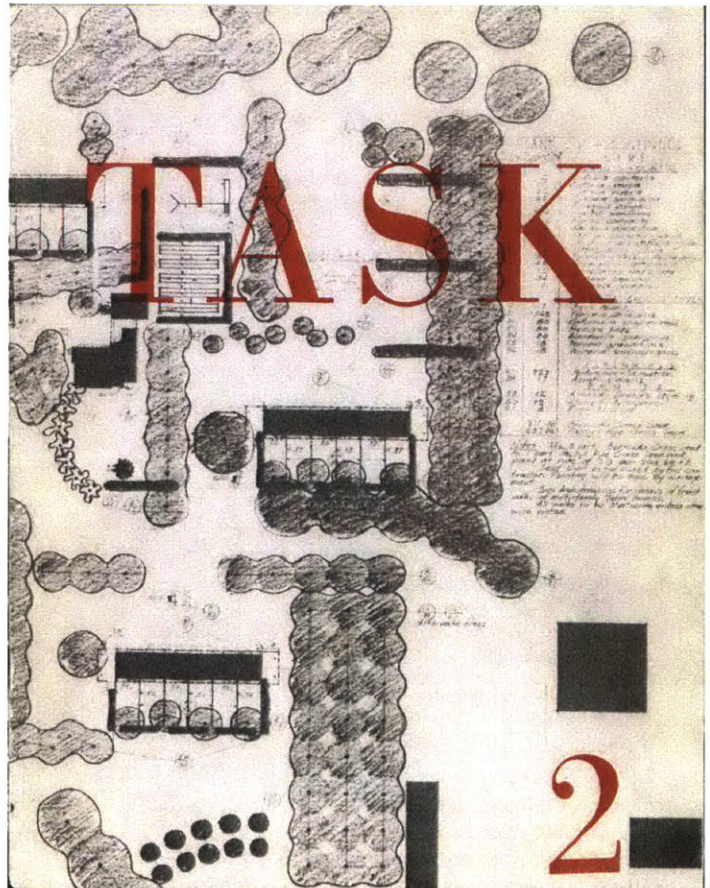


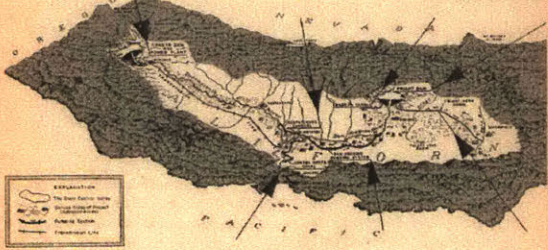
Fig. 2.9 Vernon De Mars, "Social Planning for Western Agriculture," *TASK 2*, Fall 1941. Harvard Graduate School of Design

Fig. 2.10 *TASK 2*, cover with drawing by Garrett Eckbo, Fall 1941. Harvard Graduate School of Design

1. Power and Land

Will the Central Valley Project be an instrument of public benefit or private gain? Attention focuses on this California valley as we plan other similar developments of power and irrigation throughout the nation.

by WALTER PACKARD



Between the Sierra Nevada and the Coastal Range and extending north and south a distance of 450 miles, lies the great Central Valley of California. More than a million people make their homes here. 30% of them live on farms; an appreciable proportion of the urban population is engaged in packing, processing, preserving, transporting and merchandising farm products, or in selling implements and supplies to the farm population. In 1935, the agricultural products of the area were valued at \$279,138,000, or 41% of the total value of all farm products of the State.

The Central Valley Project opens a new future for this region. A multi-purpose project, it will provide these services for the people of the Valley: 1. provide irrigation water for a large area of fertile land needing a supplemental water supply; 2. lessen flood damage on the Sacramento and San Joaquin rivers; 3. expand the possibility of navigation on the Sacramento river; 4. prevent the encroachment of salt water from the San Francisco Bay into the rich delta area, and 5. develop hydro-electric power. It will cost over \$350,000,000.

Although the actual construction work is about half completed, the project can be considered a post-war planning job. Critical decisions have not yet been made covering basic

policies of operation and financing. These decisions will mold economic relationships and shape, far better or worse, and for decades to come, the nature of the solution to vital economic and social questions in this rich valley.

By Act of the California Legislature, the Central Valley Project is "to be in all respects for the welfare and benefit of the people of the State." Like all legislative enactments, these words are meaningless apart from the practical application of the measure. The dams, canals, pumping plants and power plants which make the physical framework of the project do not necessarily serve the general welfare. They are merely instruments. Whether or not they will serve the people will be determined by the policies governing their use. Who is to get the power and the water and at what price? Who is to meet the cost of construction? Are the benefited parties going to share proportionately in meeting the debt obligation, or are a few to benefit at the expense of the many? Is the developed land to be concentrated in large holdings or will provision be made to protect the interests of labor, whose opportunity to climb the traditional agricultural ladder to farm ownership is limited by the concentration of the land in a few hands?

Because of the importance of these issues a comprehensive

study was begun in April, 1942 to determine the facts upon which policies might be based. Federal, state, district and local interests, both public and private, joined in this fact-finding and planning program. It is interesting, in the light of subsequent events, to remember this planning work.

In "any sale of electric power or lease of power privileges, made by the Secretary (of the Interior) in connection with the operation of any project or division of a project, preference shall be given to municipalities and other public corporations or agencies; and also to cooperatives and other non-profit organizations financed in whole or in part by loans made pursuant to the Rural Electrification Act of 1936 and any amendments thereof." Thus Congress legislated.

But what happened? The public went about its business, confident that publicly owned power would soon be flowing over publicly owned transmission lines to load centers where municipalities and districts could assure it at rates materially lower than those which prevailed in the past. But "there was a war on." The demand for power increased enormously. The special project power studies of the planning groups had not gotten under way.

On the basis of assurances made by the Pacific Gas and Electric Company that power could be delivered by August, 1943, the War Production Board granted priorities to the P. G. & E. for: 1. the development of a new power plant on Fall River above Shasta Dam with a capacity of 140,000 KW of power and 2. the construction of sub-station additions at a combined estimated cost of \$25,030,000.* The Bureau of Reclamation was denied priorities for the development of 1. six out of eight units of public power at Shasta and Keswick Dams with a capacity of 500,000 KW of hydro-electric power and 2. transmission lines from Shasta to load centers. When priorities were denied for the development of public power, it was obviously useless for the Bureau of Reclamation to request priorities for the development of a supplemental steam plant or the establishment of sub-stations—integral parts of the public power system. Priorities were granted covering all of the features of the Shasta and Keswick Dams over the power facilities.

An event turned out, the P. G. & E. was not able to deliver power from the new plant in August, 1943, as planned. The plant was not in operation until July 14, 1945. If the Bureau of Reclamation had had full priority, the power from Shasta and Keswick could have been flowing over publicly owned transmission lines by April, 1943.

As a result of this action, the P. G. & E. will have an important addition to their system and a new and lucrative source of revenue. The public will have two fine dams—some of them the highest over-flow dams in the world. They will also face a debt of \$120,000,000 for them. The revenue from power, which had been relied upon as an important source of income for the repayment of the project costs, will be curtailed to a third. Consumers in Northern Cali-

ornia will pay relatively high wholesale rates instead of having cheap power from publicly owned plants, and none of the income from the private plant will go toward the repayment of the public or private debt.

The primary difference between public and private power developments involves divergent policies toward debt. Engineers estimate that under public ownership the full development of Central Valley Project power at Shasta and Keswick would retire \$110,000,000 of the project debt in forty years with interest at 5%. This with the wholesale price of power at 5 mills per KWH. At the end of that time the annual wholesale cost of power could be reduced by \$3,750,000, which is the amount of the amortization payment. This annual saving would be passed on to consumers in lower rates.

If this same power were privately owned and sold at the wholesale rates now being charged by the P. G. & E., approximately 7 mills per KWH, consumers would not only pay an amount equal to the amortization payment, in addition to operation and maintenance costs, but they would also pay approximately 30% more to cover the higher interest as well as the dividend rate paid to P. G. & E.'s bond and stockholders. At the end of forty years the private debt remains, still the full \$110,000,000. Consumers must pay interest on it annually. Thus, debt is a device for perpetually channeling income from a large number of consumers to a small number of stock and bond holders. Under public ownership the debt is paid off, and consumers benefit by getting lower power rates.

That is the story on wholesale power. A much greater opportunity for saving exists in the retail power field. The findings in a recent rate hearing before the California State Railroad Commission show what can happen even under public control. The Vallejo Electric Light and Power Company, which buys power from the P. G. & E. for retail distribution in the city of Vallejo (P. G. & E. incidentally owns 45.2% of the stock of the company) has been able in a period of 31 years "to add, out of the rate paid by its electric consumers, to the owners' actual cash investment of \$100,000, a total amount of \$1,585,000, a fifteen-fold increase averaging \$48,000 per year. . . . In addition, the owners have received in the same period cash dividends, not reinvested in the utility plant, totaling \$1418,000, an average of \$45,760 per year and equal to an average annual dividend rate of 45.7% on the original investment. The combined total capital and dividend payments made by the rate payers amounts to \$2,993,000, an annual average contribution of \$94,900, i. e., 9.4%, compared with the single original capital investment by the owners of \$100,000." This may be an exceptional case, but it illustrates the fact that very large profits can be made in the retailing of power even under public control.

If municipalities and districts were to take advantage of the provisions of the Reclamation Act, which gives prefer-

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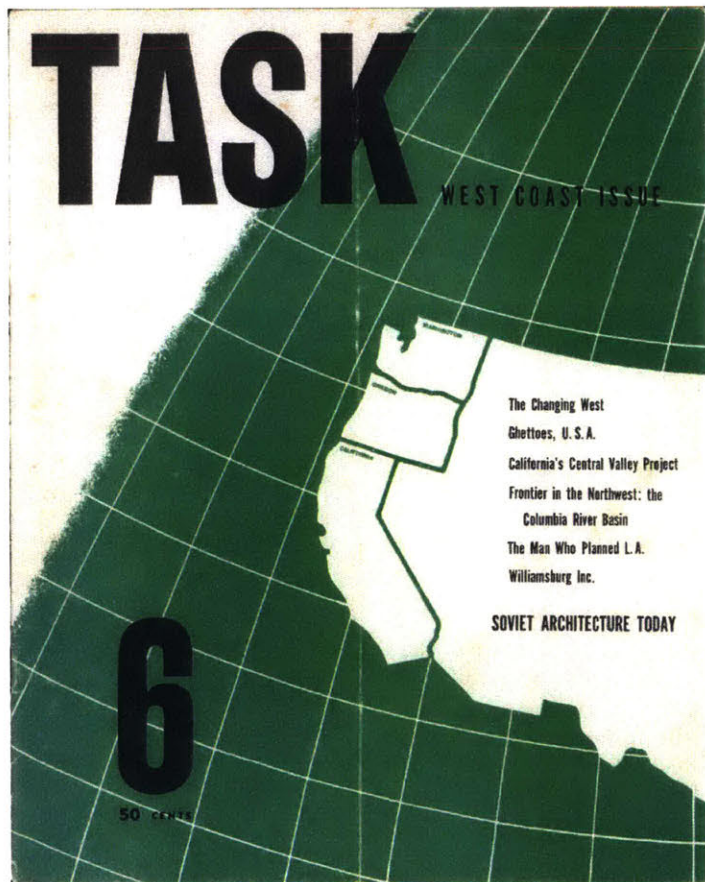
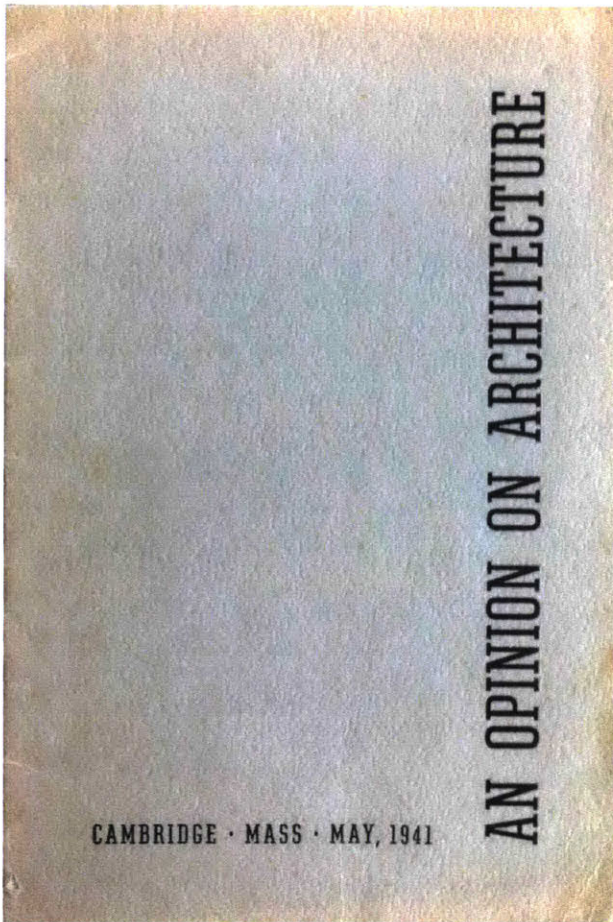


Fig. 2.11 Walter Packard, "Power and Land," *TASK 6* (West Coast Issue), Winter 1944-45. Harvard Graduate School of Design

Fig. 2.12 Cover, *TASK 6* (West Coast Issue), Winter 1944-45. Harvard Graduate School of Design



CONCLUSION

Dean Hudnut:

Our purpose is to change the mild course of modern fashion architecture into a struggle for a revolution in the architectural world. Because of you, Harvard University has one of the best architectural schools in the world. Students from five continents testify to this fact.

We ask you to establish a review with DEFINITE PRINCIPLES OF CRITICISM. The commercial reviews based on a Gallup system of architectural criticism lead nowhere but to the confusion of public opinion. We want a small review of the "Focus" type, of perhaps no more than four issues a year, but with clarity of leadership. This review should be the center of a movement in architecture with the purpose of making the people of the United States aware of modern architecture, which is now known and understood only by a small group. Together with this review, this movement, through conferences and propaganda, should state the principles on which modern design is conceived, and, through a cold criticism of their work, should stimulate architects in the United States.

The main aim of this movement and of this review should be COLLABORATION: its possibility, its experiments.

COLLABORATION IS THE CREDO AND THE FAITH OF ARCHITECTURE TODAY.

| | |
|------------------------|-------------------------|
| John B. Bayley | Frank C. Treseder |
| Robert Hays Rosenberg | Arthur Koon Hing Cheang |
| Bruno Zevi | Wm. Joseph |
| John Taylor Moore, Jr. | Dahong Wang |
| Warren H. Radford | T. J. Willo |

[16]

Fig. 2.13 John B. Bayley, Robert Hays Rosenberg, Bruno Zevi, John Taylor Moore, Jr., Warren H. Radford, Frank C. Treseder, Arthur Koon Hing Cheang, Wm. Joseph, Dahong Wang and T. J. Willo, *An Opinion on Architecture*, May 1941. Canadian Centre for Architecture Collections

A GROUP OF STUDENTS FIGHTING FASCISM WITH OUT-OF-DATE EQUIPMENT

(Cartoon inspired by the publication of 'An Opinion on Architecture', Cambridge, Mass., 1941).

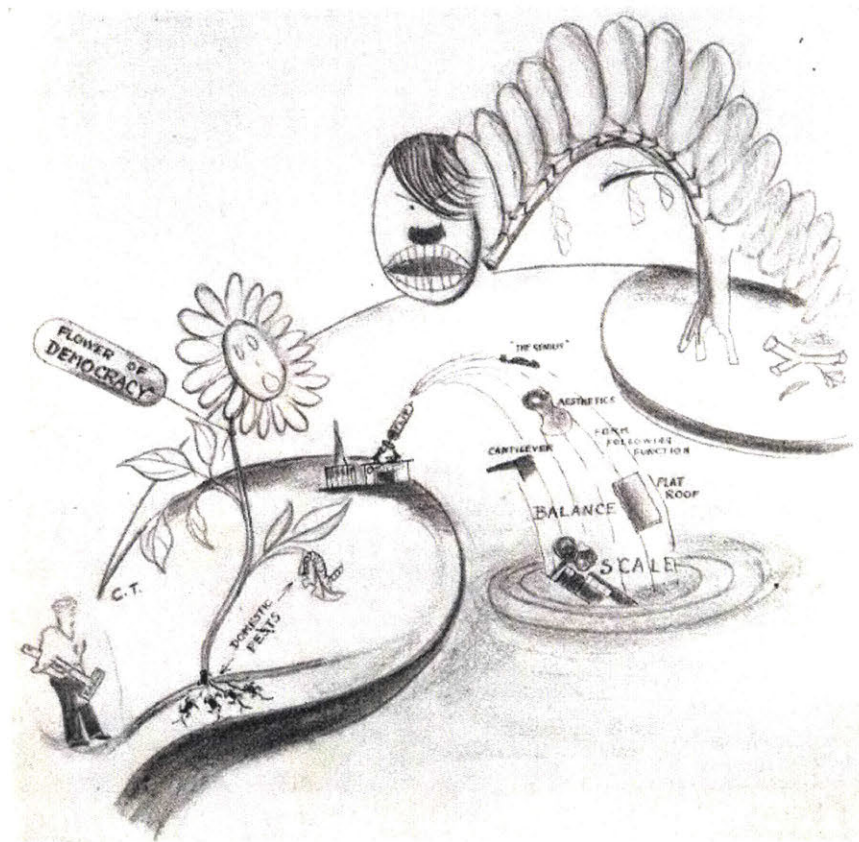


Fig. 2.14 "A Group of Students Fighting Fascism With Out-of-Date Equipment," *TASK* 1, Summer 1941. Harvard Graduate School of Design

Fig. 2.15 Cover, *TASK* 1, Summer 1941. Harvard Graduate School of Design

C.B. Winter

cover file
Richard Steinhilber
June - 1941

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| housing | historical development of housing . . . JOSEPH STEIN, thesis student, harvard architectural school prefabrication: a report to the national committee on the housing emergency . . . ROBERT L. DAVISON, head of department of housing research, pierce foundation defense housing march, 1941 . . . EDWARD L. BARNES, travelling fellow, harvard school of architecture |
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| houses of the month | the 108 1/2 small houses of the month . . . R. H. ROSENBERG |
| correspondence | THE EDITOR OF THE ARCHITECTURAL FORUM . . . B. L. DAVISON . . . WILEY LESCAZE . . . GORDON KENT . . . FEDERATION OF ARCHITECTS, ENGINEERS, CHEMISTS, AND TECHNICIANS |
| | summer, 1941, fifty cents a copy |

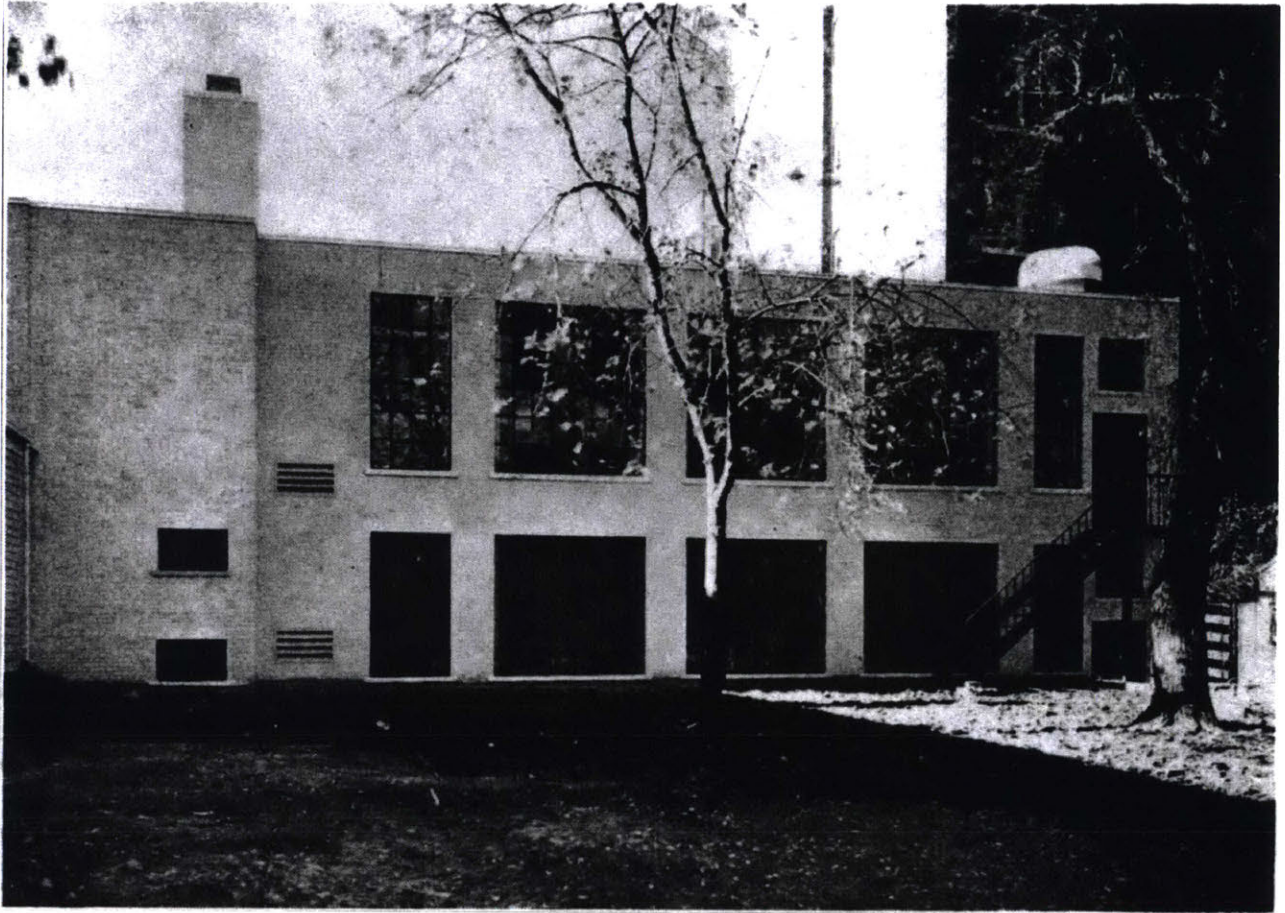


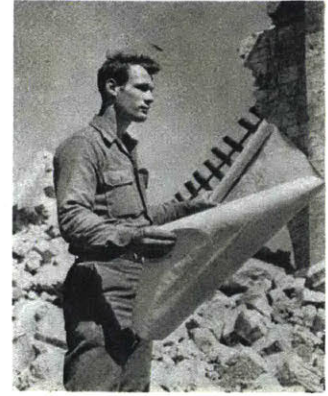
Fig. 2.16 Cambridge School for Architecture and Landscape Architecture, drafting wing addition (Eleanor Raymond, 1928). Smith College Archives



Fig. 2.17 Pillsbury and Vaughan (Artek in Boston) showroom with furniture by Alvar and Aino Aalto, Boston, MA, 1940–43. Frances Loeb Library Special Collections, Harvard Graduate School of Design

PLANNING WITH YOU

Perhaps no one but John Hersey knows whether kindly Major Joppolo in "A Bell for Adano" lived in fact as well as fiction. But in another small Italian city a real American, John C. Harkness, has effectively assumed the role in moments spared from evacuating wounded between Isernia and Cassino. Ambulance driver by circumstance, architect by trade, young Harkness has worked with native colleagues in replanning from the rubble a fine Isernia for tomorrow.



HARKNESS AND PLAN AMID RUBBLE

On September 10, 1943 American planes dropped their first bombs on Isernia, a quiet farming village in the hilly central portion of Italy, then occupied by the Germans. Ten other raids followed and the destruction was continued by German demolition squads before evacuating the town. When the British arrived on November 4, rail lines were hanging loose from crumpled stone bridges, huge craters pockmarked the roads, public buildings were a mass of rubble, approximately one-third of the homes were leveled. Of the 13,000 inhabitants only 10,000 were still alive.

Like hundreds of other cities throughout Europe, Isernia's destruction followed a definite pattern: American bombers blasted a large area in the center of town; German explosives planted on the outskirts put bridges, roads, power plants and the railroad station out of commission. As in other war-gutted towns the civilian population, homeless, stunned, suffered most.

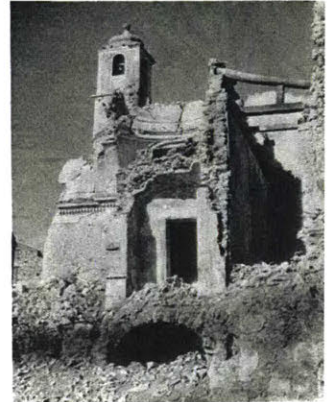
Because of the similarity between Isernia's plight and the situation in other towns which have become battlefields in total war, this small Italian village is a test case illustrating the problems of reconstruction which will be met throughout the war theaters.

In Isernia, this destruction is the latest of many disasters which have periodically shattered the town since its beginning around 2,000 B.C. Today's reconstruction, like that which followed each new attack, from Roman times down to the present, started the day destruction ended. It is not a post-war job. Civilians lucky enough to have escaped unhurt start digging for their dead, or to recover their property. They need shelter and start rebuilding their ruined homes, stone by stone, at best following the old pattern, at worst

modifying to fit disorders that cannot immediately be cured. Much work, of course, is done by the advancing military machine. Bridges and roads must be rebuilt immediately while utilities and sewer systems must be put in working order to maintain sanitary conditions. This is reconstruction in its unplanned form which of necessity begins at once. As soon as possible, however, it should follow some plan, not merely to restore the town to its prewar condition, but to take advantage of the opportunity to improve it.

PLANNED RECONSTRUCTION

Unlike many Italian towns similarly blasted by the war, Isernia is fortunate in having an architectural and engineering firm which has undertaken this job almost from the beginning. Their preliminary solution, the work of Giuseppe Tarra, is an example of academic planning, relying on a formal pattern of building placement. Of particular interest, therefore, is a second reconstruction plan, executed by a young American architect, John C. Harkness, while he was stationed in Isernia with the American Field Service. Harkness worked in the office of the local planners and with their help reached a fresh solution which may well influence the final reconstruction of the town. It coincides with the local plan in many respects, but differs strongly in certain basic attitudes. The Tarra plan directs Isernia's growth eastward, almost completely separating new construction from the prewar town. The proposed dwelling units are thus grouped together on a flat open space together with several reconstructed factories. The Harkness plan provides a more informal multiple grouping of houses on hilly sections near the demolished town center, but oriented toward the open



RUIED CHURCH IN TOWN CENTER

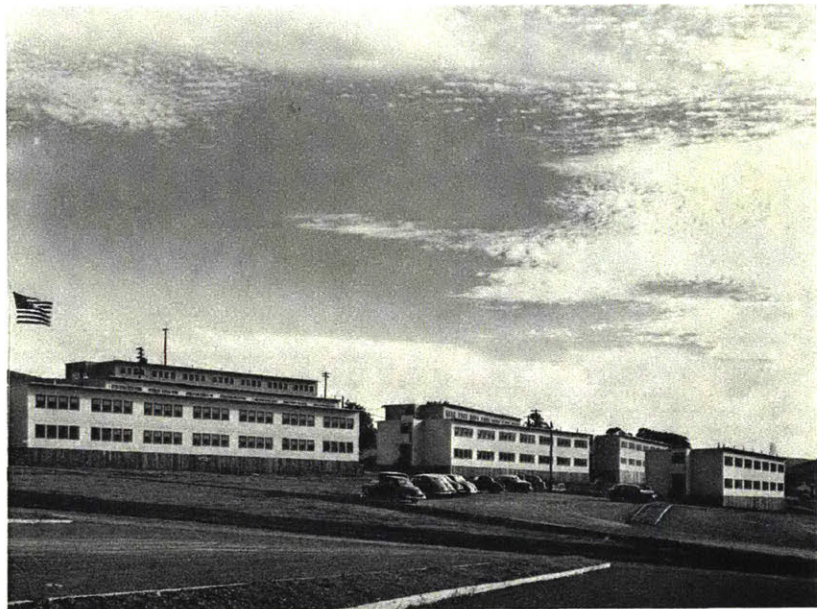
ISERNIA, CENTRAL ITALIAN VILLAGE



MARCH 1945

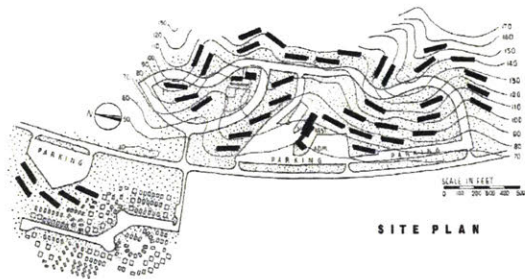
Fig. 2.18 John Harkness in American Field Service, Isernia, Italy, in "Planning With You," *Architectural Forum*, March 1945.

39 PREFABRICATED DURATION DORMITORIES VALLEJO, CALIF.



VERNON D. MARS, ARCHITECT
GARRETT ECKBO, LANDSCAPE ARCHITECT
NICHOLAS CIRINO, SITE ENGINEER

Like much previous work of the Farm Security Administration, these dormitories for single Navy yard workers combine distinguished design and economical construction to an unusual degree. Assembled entirely from prefabricated panels built on 1 x 3 in. frames, they are among the few examples of two-story panel construction that have appeared to date. Based on the familiar "platform" method of construction, the system employs room-width panels a story in height, joined at the line of the second floor by an ingenious double overlap (detail, opposite) which provides weathering and produces an attractive shadow line around the exterior at this level. The method results in a considerable saving in material and is completely demountable. Each of the 39 units houses 78 men in single and double rooms, at a cost of \$23,311, or \$298.86 per man. Population of the 42 acre plot is 3,042, or 72 per acre.



SITE PLAN

Fig. 2.19 "39 Prefabricated Duration Dormitories, Vallejo, Calif.," *Architectural Forum*, May 1942.

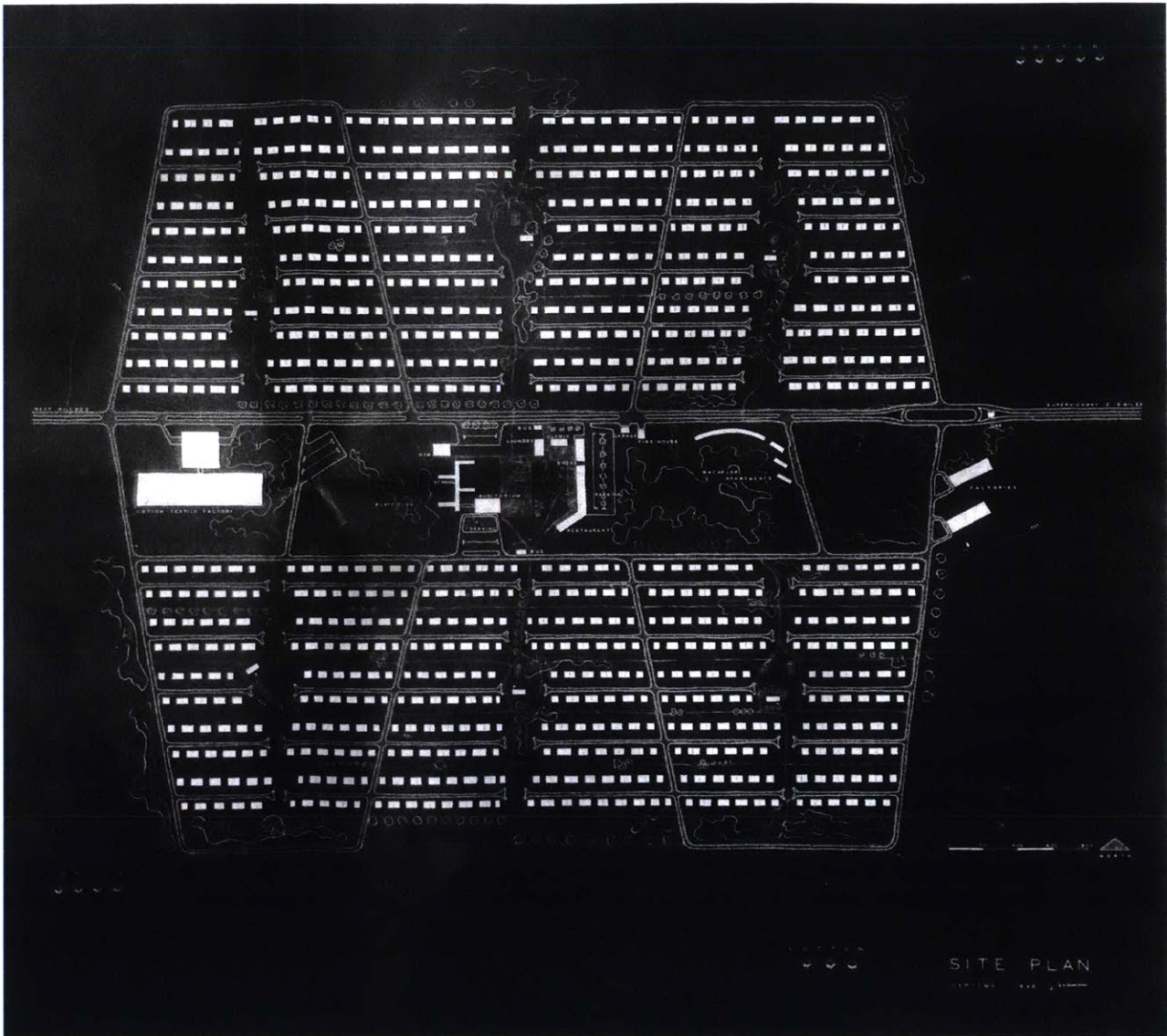


Fig. 2.21 Jean Bodman Fletcher, thesis project for Central Valley, CA, 1944–45, site plan of migrant workers' community. Loeb Special Collections, Harvard Graduate School of Design

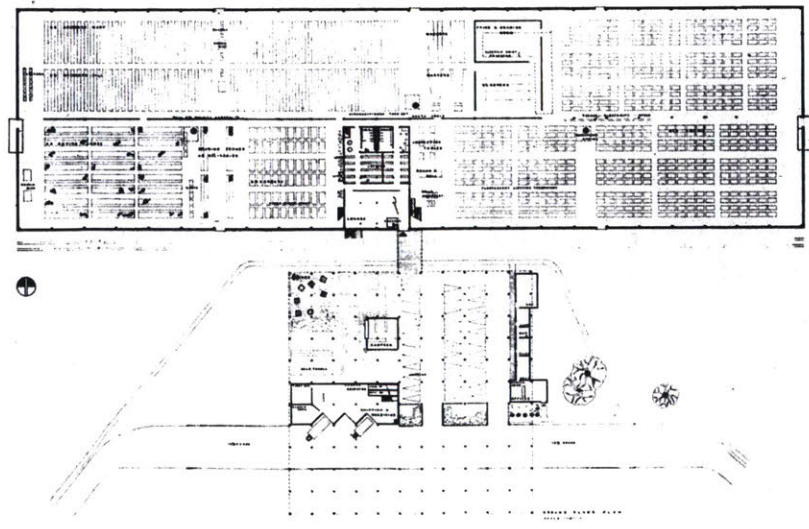
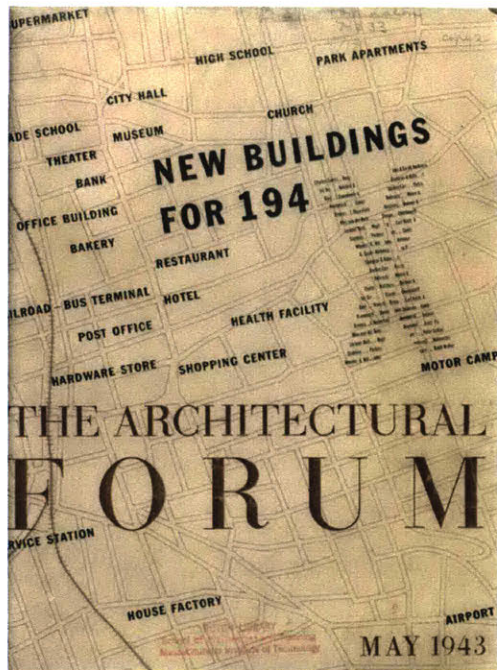
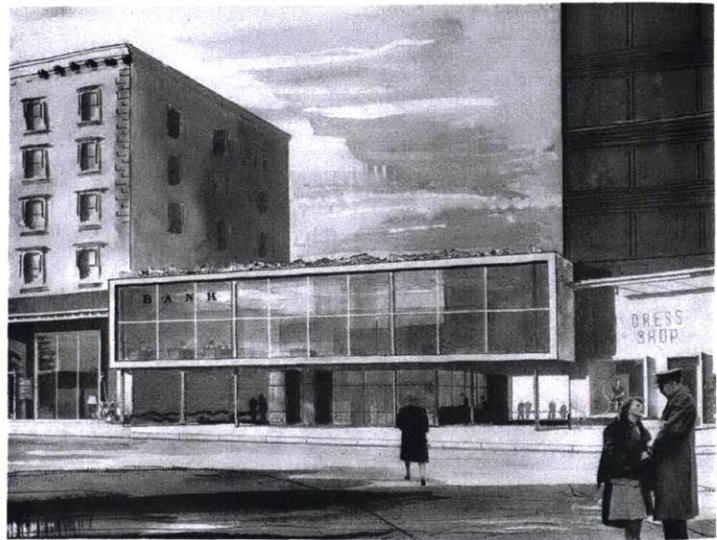


Fig. 2.22 Jean Bodman Fletcher, thesis project for Central Valley, CA, plan of cotton textile factory. *Arts & Architecture*, May 1945



BANK JOHN C. & SARAH HARKNESS, DESIGNERS, NEW YORK



VIEW FROM PARKING AREA

MUSEUM

page 84



BANK

page 86



CITY HALL

page 88

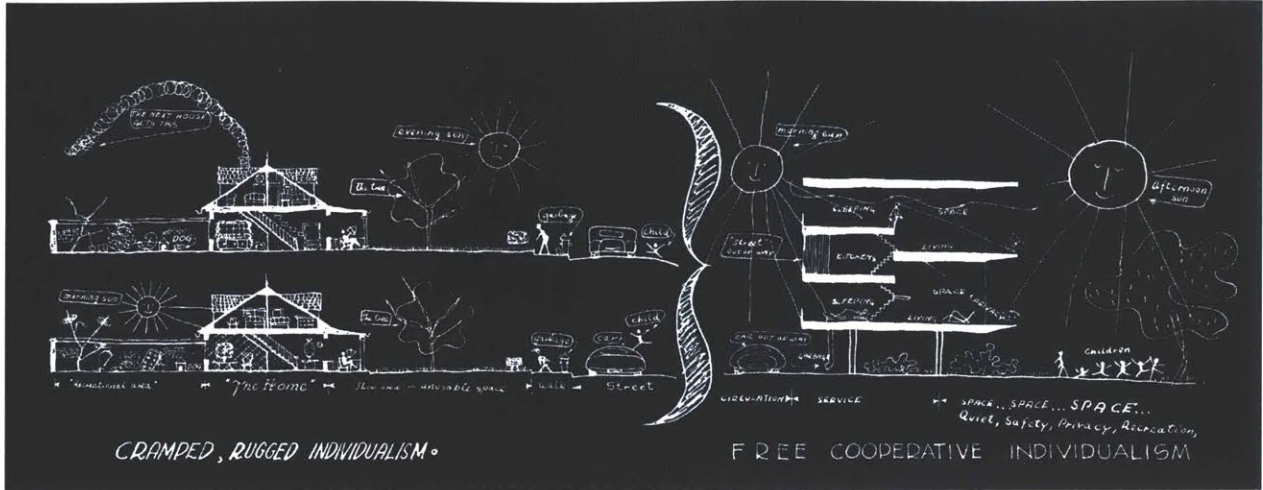


LUDWIG MIES VAN DER ROHE, one of the world-famous founders of modern architecture and foremost exponent of the "open" plan, is the son of an Aix-la-Chappelle stone mason, never received formal technical training. Now professor of architecture at the Armour Institute of Technology, Chicago, he first began to practice in Berlin in 1911.

JOHN C. HARKNESS AND SARAH HARKNESS are recent graduates of the Harvard Graduate School of Design and Cambridge School of Architecture, respectively. John Harkness won the Second A.I.A. Medal in 1941, and, together with his wife Sarah, the Boston Society of Architects Prize in 1940. Both are now working in New York offices.

CHARLES EAMES was born in St. Louis, Mo. in 1907 and studied architecture there at Washington University. He has worked for Eliel and Eero Saarinen, taught design at Cranbrook Academy of Art. With Eero Saarinen, he won a first prize in the Organic Design Competition of the Museum of Modern Art. Now doing experimental work for the Government.

Fig. 2.23 John and Sarah Harkness. bank design for "New Buildings for 194X," *Architectural Forum*, May 1943.



PARK APARTMENTS SERGE CHERMAYEFF GROUP, NEW YORK

PETER BLACH, SERGE CHERMAYEFF, ABEL SORENSEN
 COLLABORATORS: NORMAN FLETCHER, HENRY HEBBELN



Fig. 2.24 Serge Chermayeff Group (Norman Fletcher, collaborator), park apartments for "New Buildings for 194X," *Architectural Forum*, May 1943.

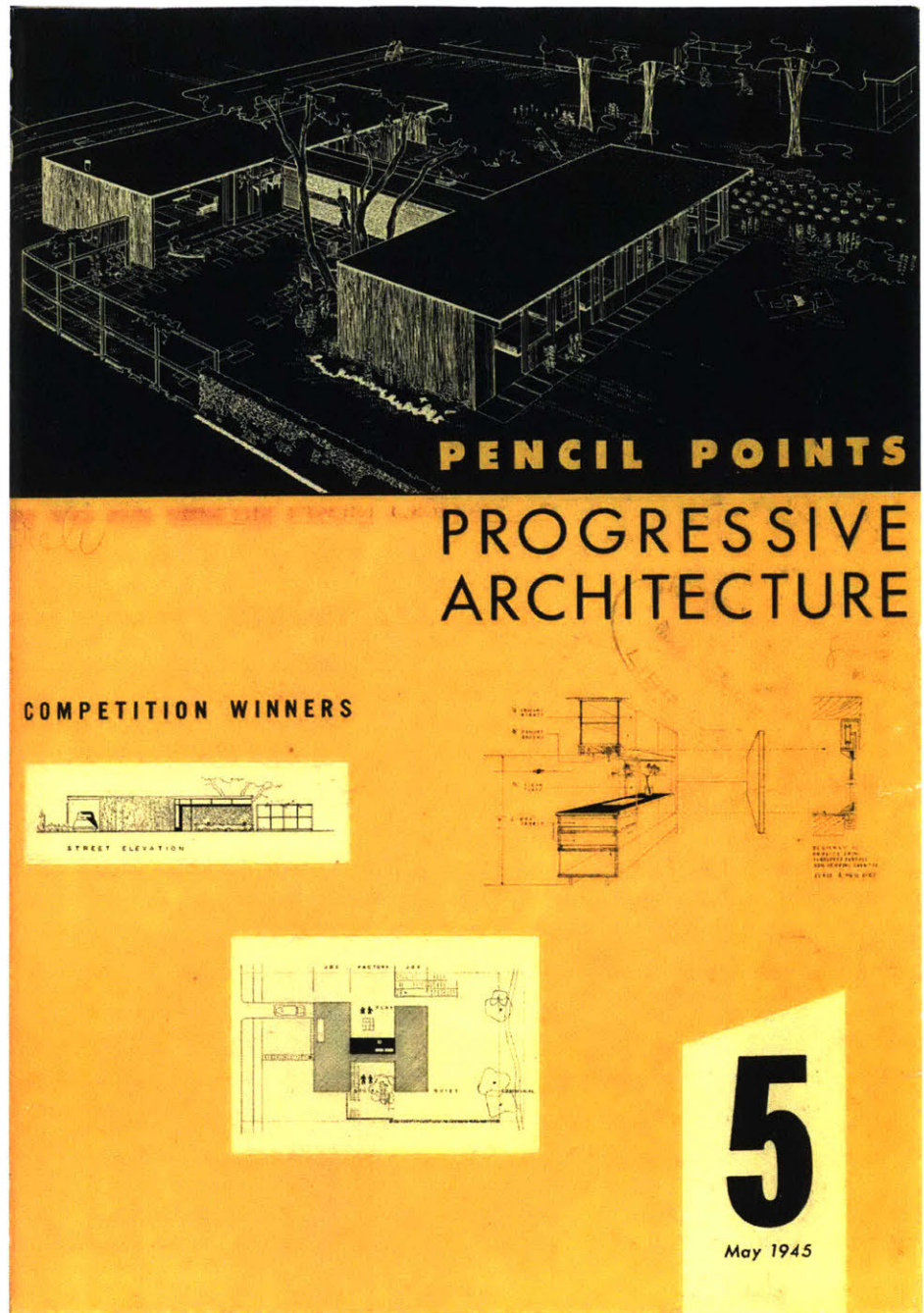
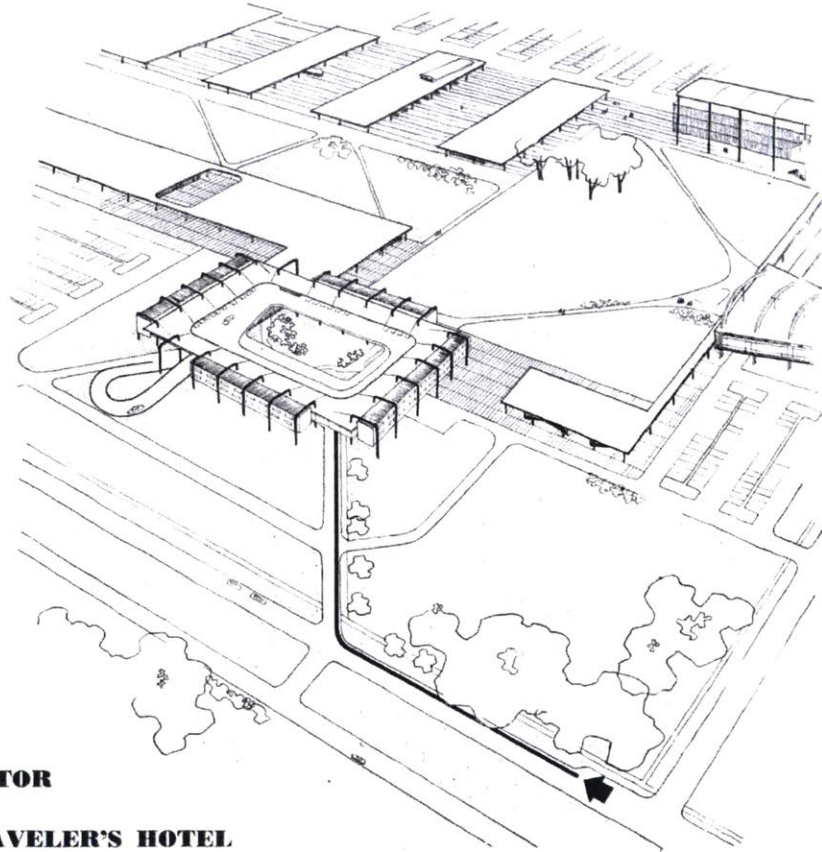


Fig. 2.25 Cover with winning entry by Jean Bodman Fletcher and Norman Fletcher for Pencil Points-Pittsburgh design competition for "A House for Cheerful Living," *Progressive Architecture*, May 1945.



MOTOR

TRAVELER'S HOTEL

By Charles D. Wiley, Norman Fletcher and Jean Bodman Fletcher, Architects

"A HOTEL," explain the architects, "is the visitor's contact with the community and a focal point of local activities. It should be part of a community group which includes shops, offices, local municipal headquarters, theater and junior high school. The hotel is physically connected to the shops, and provided with lounges opening on the green.

"The traveler DRIVES INTO the hotel. Without leaving his car he is able to register and drive to his room. Rooms are on two levels around a covered parking court where there is PARKING SPACE.

"From his car the guest crosses the glazed corridor and ascends or descends half a level to his room. His car is where he can use it and need not worry about its care. It is a CAR-TO-BED plan.

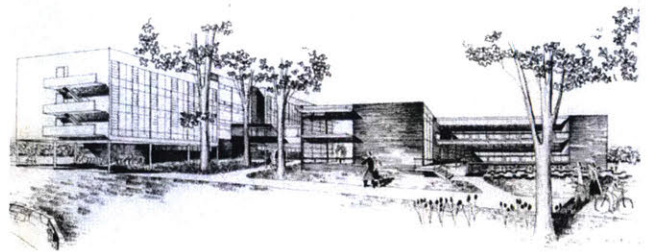
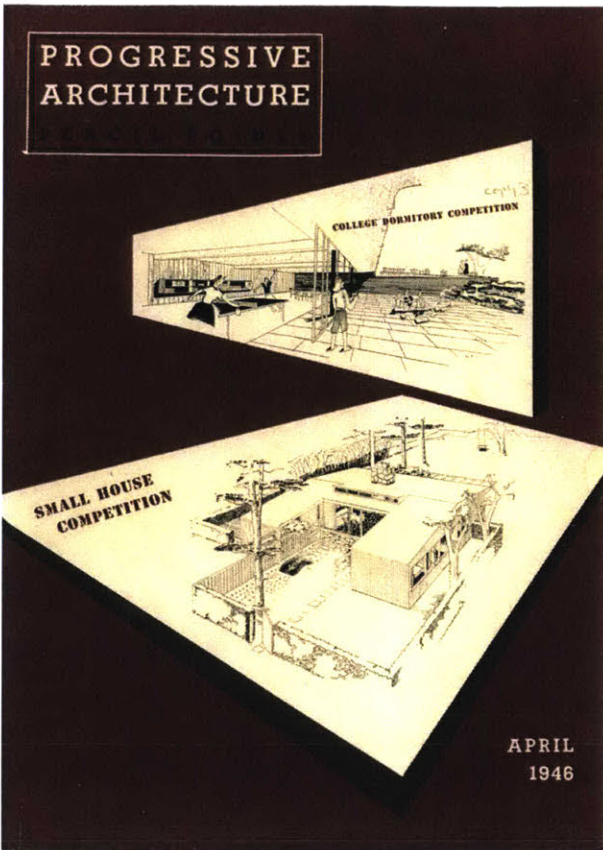
"The ROOM is arranged to be used single or double. The bulky dresser is gone, the closet is gone, and in their place is a dressing unit containing a lavatory, drawers, a shell, and a clothes case that opens wide by means of a tambourine door.

"This is not a project for reconversion. ENGINEERING has advanced beyond brick on brick and lintel on post structures of reconstruction days. The plywood airplane bomber is based on a system of complete stress transmission over the total outer shell.

"During the war the engineer has solved the needs of the times. But why now must we reconvert: The building industry can well take time to employ the engineer as a man of advancement and the factory as a machine for producing advanced structural systems."

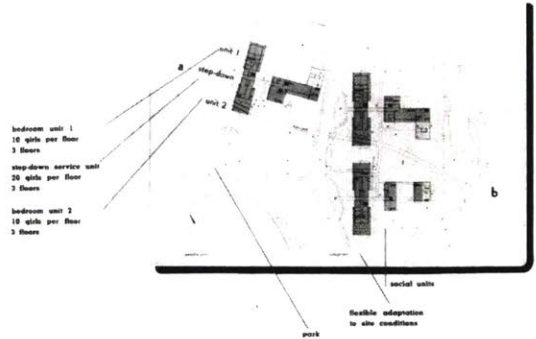
ARCHITECTURAL RECORD • JULY, 1945 75

Fig. 2.26 Charles D. Wiley, Norman Fletcher, and Jean Bodman Fletcher, "Motor Traveler's Hotel, *Architectural Record*, July 1945.

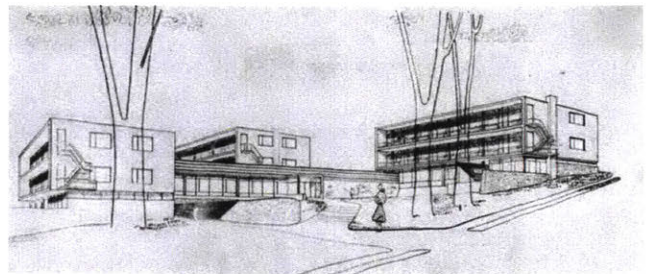


FIRST PRIZE

**NORMAN C. FLETCHER, JEAN BODMAN FLETCHER, AND BENJAMIN THOMPSON
CAMBRIDGE, MASSACHUSETTS**

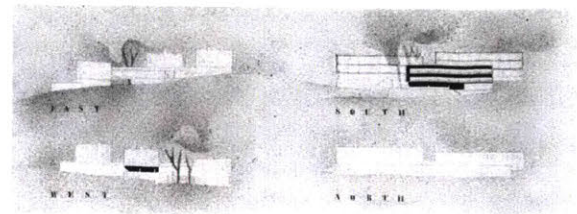


14 PROGRESSIVE ARCHITECTURE • First Prize



SECOND PRIZE

**SARAH HARKNESS AND JOHN C. HARKNESS
MILTON, MASSACHUSETTS**



15 PROGRESSIVE ARCHITECTURE • Second Prize

Fig. 2.27 Norman C. Fletcher, Jean Bodman Fletcher, and Benjamin Thompson, first prize, and Sarah Harkness and John C. Harkness, second prize, Smith College Dormitory competition, *Progressive Architecture*, April 1946.

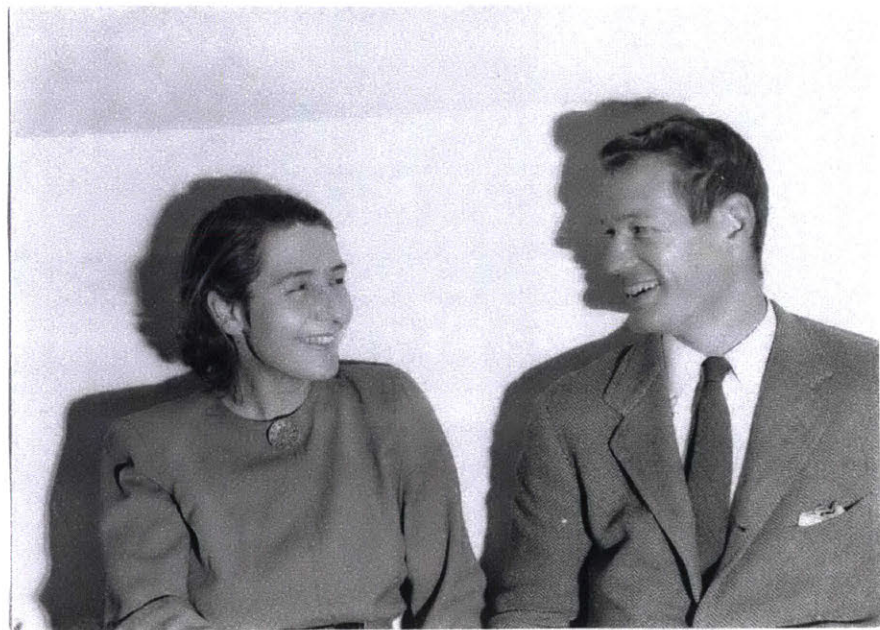


Fig. 2.28 Publicity photographs of Norman C. Fletcher, Jean Bodman Fletcher, and Benjamin Thompson, first prize winners, and Sarah Pillsbury Harkness and John Harkness, second prize winners of Smith College Dormitory competition, released in connection with the exhibition, "New Dormitories for Smith College," The Museum of Modern Art, New York, February 5, 1946 through April 14, 1946. Photographs: Fred G. Chase. The Museum of Modern Art Archives

See III B 1742
with piece dated 11/15
to correct square

file TAC Nov 45
Goodhue Road
Bloomfield Hills, Michigan
NOV 14 1945

11 November 1945

Professor Walter Gropius
Robinson Hall Harvard University
Cambridge, Massachusetts

Dear Mr. Gropius:

Jean and I are taking this opportunity to write you in order to tell you of our present position with regard to a cooperative office, which John Harkness mentioned to you last week.

First of all, we want to emphasize that the chance of working together not only as a group but partaking of your guidance would be a wonderful prospect for us.

[Perhaps we can give you some background on the cooperative idea. Basically, we feel that we can learn more and give more as productive citizens if we achieve more responsibility and independence than is possible in the traditional office organization. By working on projects, even very small ones, in which we had a very responsible part, we might gain greater contact with materials, building methods, and people. This architectural work we would hope to supplement and finally integrate with planning research and execution. Thus our aims become, not architecture for architecture's sake, but architecture for the sake of a healthy society.

Closely allied to the architectural aims are the social aims. We do hope that young people involved in this cooperative can somehow begin to get together to make things like a cooperative nursery possible. Actually we have been talking about this for a few years but only now, that the war is over and friends are out of the service is it becoming possible. Besides myself and Jean and Chip Harkness, Benjamin Thompson is a very vital member. He is a very good friend of ours and very much behind the idea. I believe he had the pleasure of talking with you some time ago at Lincoln. He like Chip is just getting out of the service. We

Fig. 2.29 Letter from Norman Fletcher and Jean Bodman Fletcher to Walter Gropius, November 11, 1945. Reginald Isaacs Papers, Archives of American Art, Smithsonian Institution

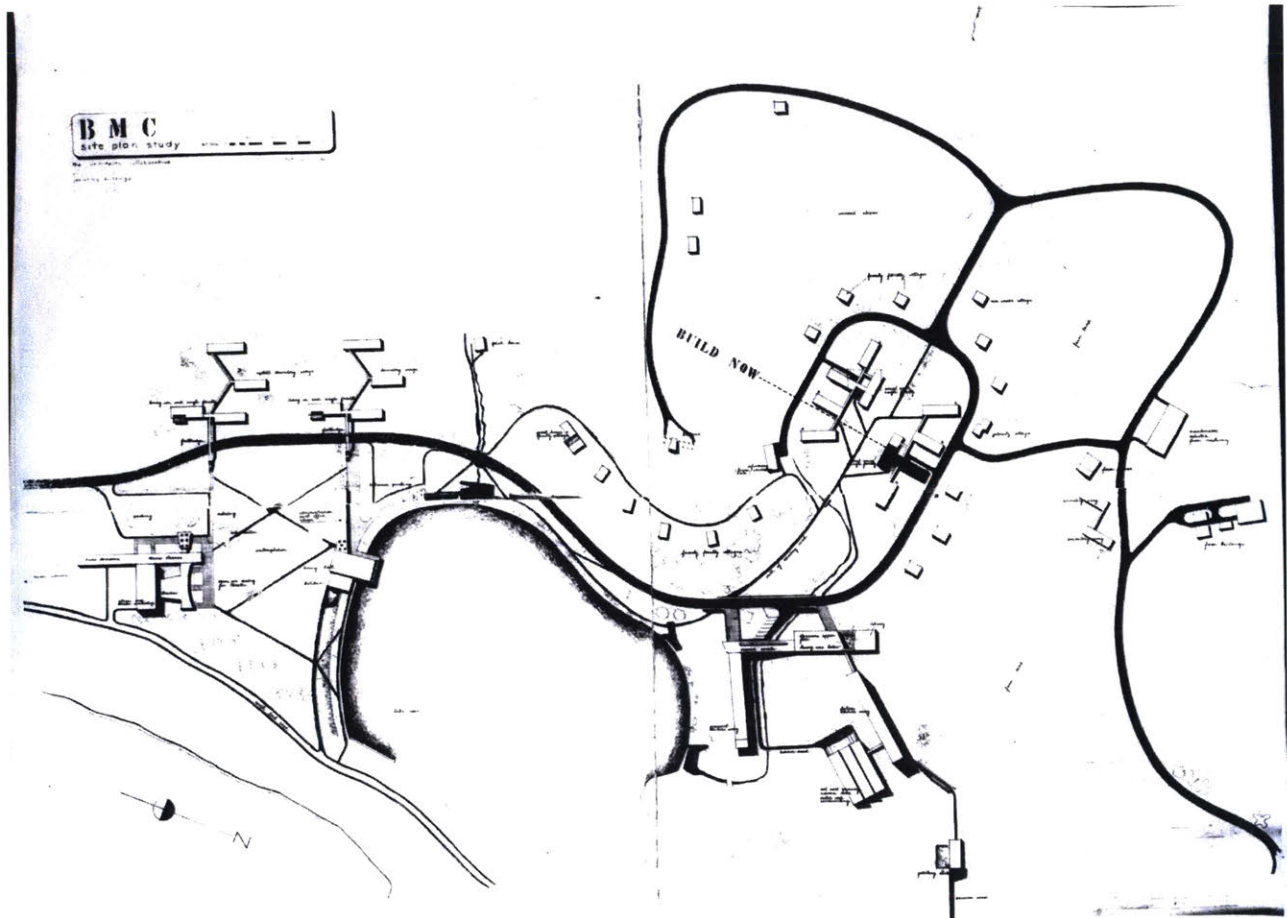


Fig. 2.30 The Architects Collaborative, Black Mountain College, site plan study, October 22, 1946. Harvard University Art Museums



Fig. 2.31 Group portrait of The Architects Collaborative partners, c. 1948. From left to right: John Harkness, Louis McMillen, Robert McMillan, Walter Gropius, Jean Bodman Fletcher, Benjamin Thompson. Historic New England

No Woman Should Stay Home

Two Cambridge Wives Solve Career Problem

By BARBARA BROOKS WALTER Two young Cambridge women, Jean Cooper and the brilliant 4-year, brunette, Jean successful home life and careers of Fletcher and blonde Sally Harkness



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While we share many facilities in the house, such as the washing machine in the bathroom and the telephone, it is not communal living in a literal sense. It was at Fletcher's when we originally moved in with two other couples. But we made the place over last winter so now each of the two remaining families has essential privacy in our respective living quarters. And the kids can still play together.

The Harknesses occupy the ground floor of the commodious old home and they have the yard for a play area. The Fletchers occupy the two top floors. Each will have its own kitchen, bath, living and dining room. Broad studio quarters, low tables, simple modern chairs and



MRS. NORMAN FLETCHER, home from her morning stint at the office, dresses Judith, 1½ years, who just woke up from a nap.



MRS. JOHN HARKNESS prepares lunch for 4-year-old Sara before leaving for her one-half day's work at the Architects' Collaborative office.

Two Girls Share as Equal Partners in Modern Architects' Collaborative



Five young members of the Architects' Collaborative gather around their fellow-member and guiding genius, Dr. Walter Gropius, Chairman of the Department of Architecture at Harvard, to view model of house designed by Mr. and Mrs. Fletcher. Left to

right, they are: Mrs. Sarah Harkness, Robert McMillan, Norman Fletcher, Dr. Gropius, Benjamin Thompson, and Mrs. Jean Bodman Fletcher. Missing from the picture are John Harkness and Leonard Currie, the other two members of the Collaborative.

Co-operative Tackles Problems Of Home, Community Planning

By Helen Henley
Staff Writer of The Christian Science Monitor

Two young women architects are sharing as equal partners with six men in the Architects' Collaborative, in Cambridge, Mass., a venture which, although only a year old, is already giving proof that it's "going places"—important places.

The contribution of this group of young professionals to the solution of home and community planning problems of the day is only half the story, however. Their budding success stems securely from the completely co-operative nature of their enterprise, in which each member works on an equal basis and every decision is made in group council.

That the guiding genius of the Harknesses are concerned, the co-operative aspects of their association extend well beyond the business, because they occupy a double house and the girls have worked out a program together which enables each to do justice to her work in the office as well as to her duties at home.

They share, not only a house, but a maid. She works upstairs and looks after the two Fletcher children in the morning while Mrs. Fletcher does her stint at the office. Then she goes downstairs in the afternoon to care for the two young Harknesses while their mother works at the office, and Mrs. Fletcher returns home.

Professional and Practical

If housewives discover more than average efficiency built into

for the community." Community planning, they indicated, might apply equally to groups of half a dozen friends who buy neighboring lots and effect economies by standardizing certain details of construction; and to whole towns which might be built around a central industry.

It was Mrs. Harkness who pointed out what the development of such towns might mean to the woman in the home—although all admitted that such large-scale projects could probably be financed only by the federal government, municipalities, insurance companies, or industrialists.

Planning a Community

"Whether a woman can have a job or any interesting activities outside her home sometimes depends on how far she has to commute," said Mrs. Harkness. "If she must commute for three-quarters of an hour each way, she may not be able to spare the time from her home responsibilities. But if she has to go only two or three blocks, it might be

that." Dr. Gropius observed, "In a sense, modern community planning represents an effort to restore something that has been lost. Many New England towns still offer an excellent example of what community life should be." But he quickly added that tradition means taking from our forefathers only those things which are still good; it doesn't mean imitating things that are not true to the present way of life.

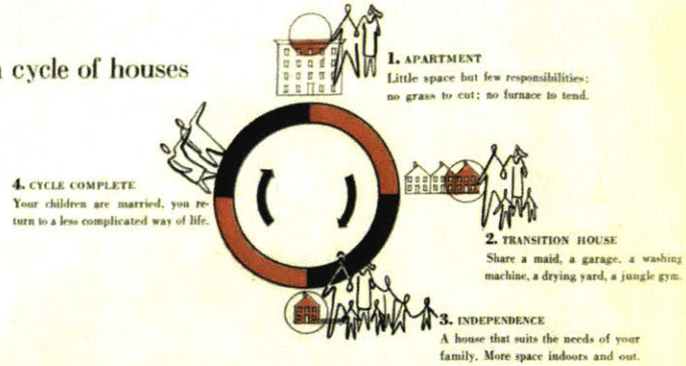
One commission engaging the group's eager attention at present is a 10-year plan of building for Black Mountain College in North Carolina, where problems of both living and schooling must be thoroughly explored before the ideal community can be blueprinted.

In this project, too, their idealistic yet practical approach reveals a rare balance of experience, ambitious enthusiasm, and a down-to-earth awareness of the needs of this day.

Fig. 2.32 Barbara Brooks Walter, "No Woman Should Stay Home: Two Cambridge Wives Solve Career Problem," *Boston Sunday Globe*, March 2, 1947.

Fig. 2.33 Helen Henley, "Two Girls Share as Equal Partners in Modern Architects' Collaborative," *Christian Science Monitor*, January 13, 1947.

Life is a cycle of houses



ARCHITECTURE, FAMILY STYLE

Two women architects look at today's houses, tell how they affect family life

BY JEAN BODMAN FLETCHER AND SARAH HARKNESS
For The Architects Collaborative, a group of Massachusetts architects who are offering clients their pooled skill and resources.

Check list for your house

(YES NO)

Is your house planned to fit your needs?

Is your house easy to run, pleasant to live in?

Does it afford privacy for every member of the family?

Are there children, the same age as yours, nearby?

Are there friends for you yourself, in the neighborhood?

Are sitters and helpers available?

Are the schools near, so the children can walk to them?

Are the streets not too dangerous?

Are there good shops nearby?

Have you easy transportation to business districts, theaters, other parts of town?

Is your husband's office less than an hour from home?

Is the country close enough for walks and picnics?

If you can answer "yes" to most of these questions, you are probably in the right house, the right neighborhood for you.

Have you ever sat down and asked yourself seriously whether the way you're living is right for you and your family? At the left is a series of questions which may give you a clue to the answer. If you can answer "yes" to most of them, you're probably in the right house, the right neighborhood—but you're a rare individual. If not it's up to you—especially if you are a woman—to do some clear, organized thinking. How should the daily activities of the family be planned to assure a pleasant and creative life for every member? This is a major problem of woman's life today; it's an integral part of the designing and planning problem.

There is a complicating factor in judging whether you're living the right way for you: your demands change as your life changes. The newly-married couple will thrive in an apartment. And if it's a tiny space above the city roof tops, perhaps that is all the more ideal. It is complete freedom. Until they get a dog, they can walk out anytime, locking the door behind them. The house won't burn down. There is no furnace to tend. The pipes won't freeze. There's no grass to cut. Not a domestic worry.

Fig. 2.34 Jean Bodman Fletcher and Sarah Harkness, "Architecture, Family Style: Two women architects look at today's houses, tell how they affect family life," *House & Garden*, October 1947.

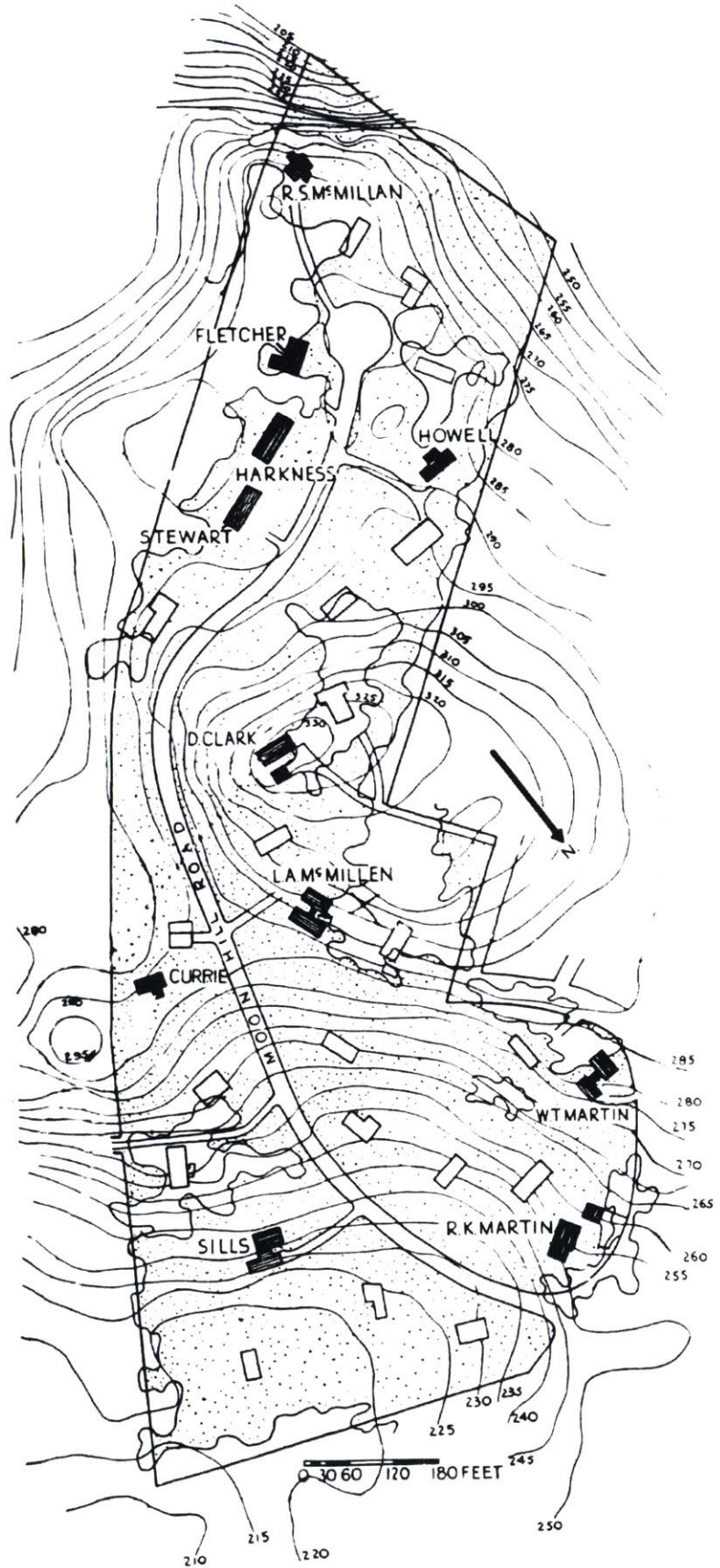


Fig. 2.35 TAC, Six Moon Hill, Lexington, MA, 1948-49, site plan with house owners. *The Architects Collaborative 1945-1965*



Fig. 2.36 Jean Bodman Fletcher and Norman Fletcher, Fletcher House, Six Moon Hill, Lexington, MA, 1950. Photographs: Ezra Stoller



Fig. 2.37 John Harkness and Sarah Pillsbury Harkness, Harkness House, Six Moon Hill, Lexington, MA, 1950. Photographs: Ezra Stoller

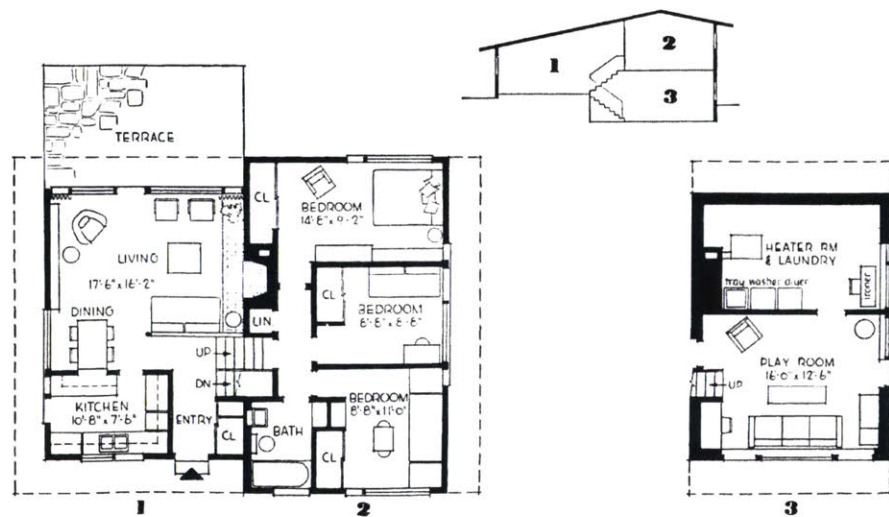


Fig. 2.38 Community meeting,
Howell House, Six Moon Hill,
Lexington, MA, 1950. Photograph:
Ezra Stoller



Fig. 2.39 TAC, Five Fields, Lexington, MA, 1952. Photograph: Ezra Stoller

Fig. 2.40 Five Fields, plans and section of typical three-level house. *The Architects Collaborative 1945–1965*



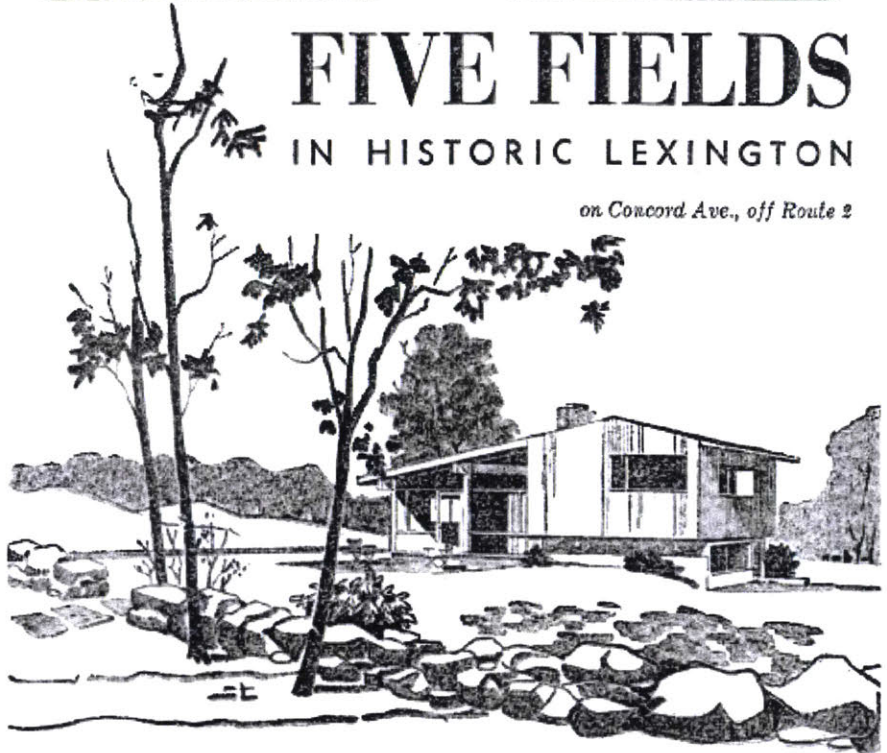
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Fig. 2.41 "Five Fields in Historic Lexington," advertisement, *Boston Sunday Herald*, July 19, 1953.



Fig. 2.42 Five Fields, founding group on the site, n.d. From left to right: Benjamin Thompson, Mary Thompson, Mrs. Martin, Jean Bodman Fletcher, Professor Martin, Norman Fletcher. *The Architects Collaborative 1945–1965*

TAC Principals

HARVARD UNIVERSITY

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Front to Back, left to right

Front Row

James E. Burlage AIA, RIBA

Sarah P. Harkness FAIA

Leonard Notkin AIA

Howard F. Elkus FAIA

Rowston T. Daley AIA

Middle Row

Norman C. Fletcher FAIA

Roland Kløver AIA

H. Morse Payne FAIA

Peter W. Morton AIA

Richard I. Brooker AIA

Alex Cvijanovic AIA

Back Row

John P. Sheehy AIA, APA

Perry K. Neubauer AIA

Gregory Downes AIA

Richard A. Sabin AIA

John F. Hayes AIA

David G. Sheffield AIA, APA

H. Malcolm Ticknor AIA

John C. Harkness FAIA

Walter Rosenfeld Jr. AIA, CSI

On The Cover

Composite aerial photo and rendering of TAC's Copley Place Development Project under construction in downtown Boston.



Fig. 2.43 "TAC Principals," *TAC Highlights*, office portfolio, 1983.



ANNO DOMINI 1964

THE AMERICAN INSTITUTE OF ARCHITECTS
BESTOWS AGAIN ITS
ARCHITECTURAL FIRM AWARD
HONORING
THE ARCHITECTS
COLLABORATIVE
INCORPORATED

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NORMAN C. FLETCHER, AIA SARAH P. HARKNESS
WALTER GROPIUS, FAIA LOUIS A. McMILLEN
BENJAMIN THOMPSON

WALTER GROPIUS HAS LONG HELD THAT THE PROFESSION OF ARCHITECTURE HAS LOST SOME OF ITS EFFECTIVENESS IN ORGANIZING ITS PRACTICE ON THE BOSS-AND-ASSISTANT PRINCIPLE. SOME YEARS OF A NOTABLE EFFORT IN ESTABLISHING A PURELY DEMOCRATIC ASSOCIATION OF EQUAL PARTNERS HAVE CARRIED TAC THROUGH THE FORMATIVE YEARS INTO THE MATURITY OF PRODUCING ARCHITECTURE OF A HIGH RANK WITHOUT PERSONAL IDIOSYNCRACIES – EVEN OF THE SELF-EFFACING MASTER.

Clinton S. ...
SECRETARY

Mylan ...
PRESIDENT

Fig. 2.44 American Institute of Architects, "Architectural Firm Award Honoring The Architects Collaborative," 1964. Canadian Centre of Architecture Collections



Fig. 2.45 TAC offices, 63 Brattle St.,
third floor drafting room, n.d. *The
Architects Collaborative 1945–1965*

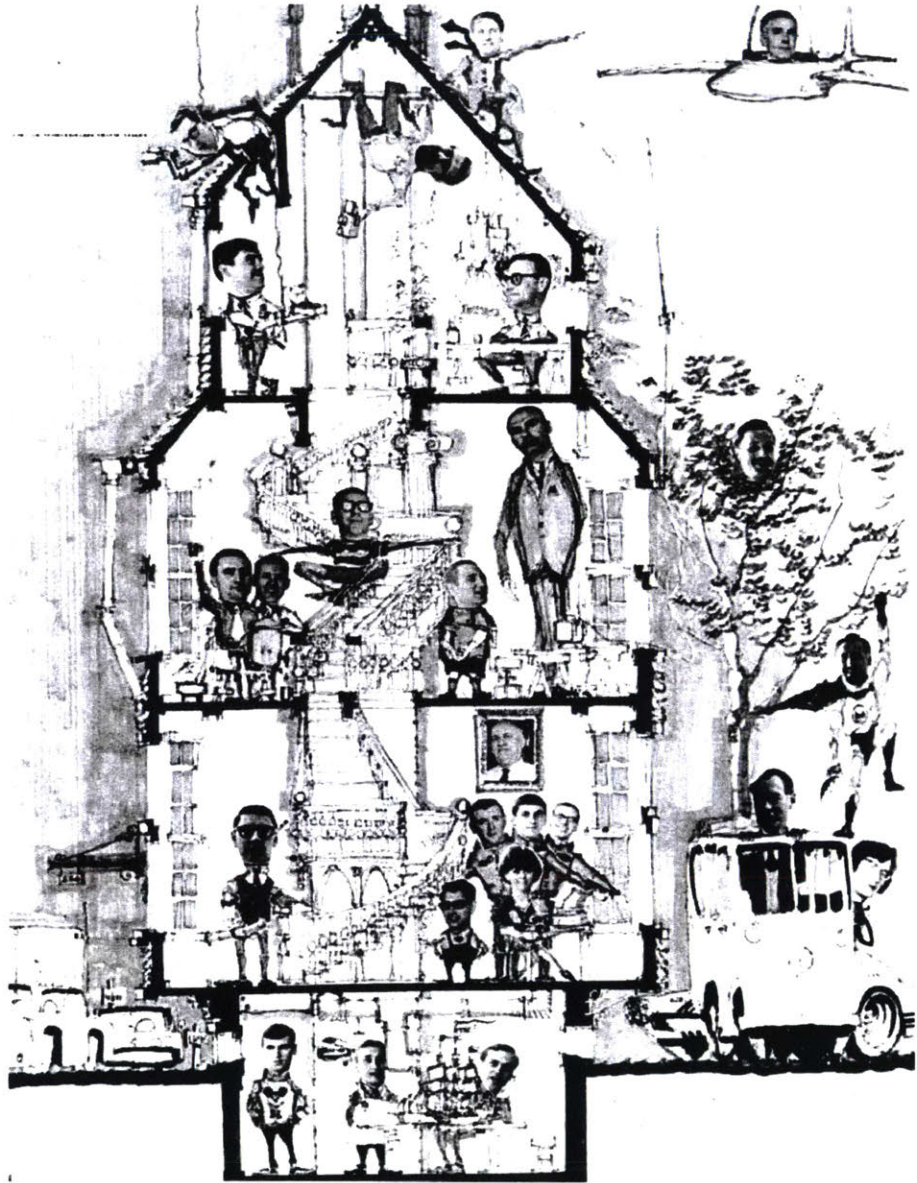


Fig. 2.46 Cartoon of TAC main office, 63 Brattle St., n.d. Archives of Walter Rosenfeld, reprinted in *TAC Reminiscences*



Fig. 2.47 Design Research original store, 57 Brattle Street, Cambridge, MA, n.d.

A CHALLENGING COLLABORATION

FOR TAC: In the design, financing and construction of its new office building in Harvard Square, The Architects Collaborative became its own client—budget-minded, yet exacting; demanding an organization of space tailored to its own particular style of working, yet flexible enough to accommodate unforeseen changes. TAC's architects have proved equal to the conflicting goals they imposed upon themselves. Their new structure, adaptable and low cost, is handsome and enduring as well.



Fig. 2.48 Mildred F. Schmertz, "A Challenging Collaboration for TAC," *Architectural Record*, September 1967.



Fig. 2.49 TAC offices, 46 Brattle Street, 1967. Photograph: Ezra Stoller

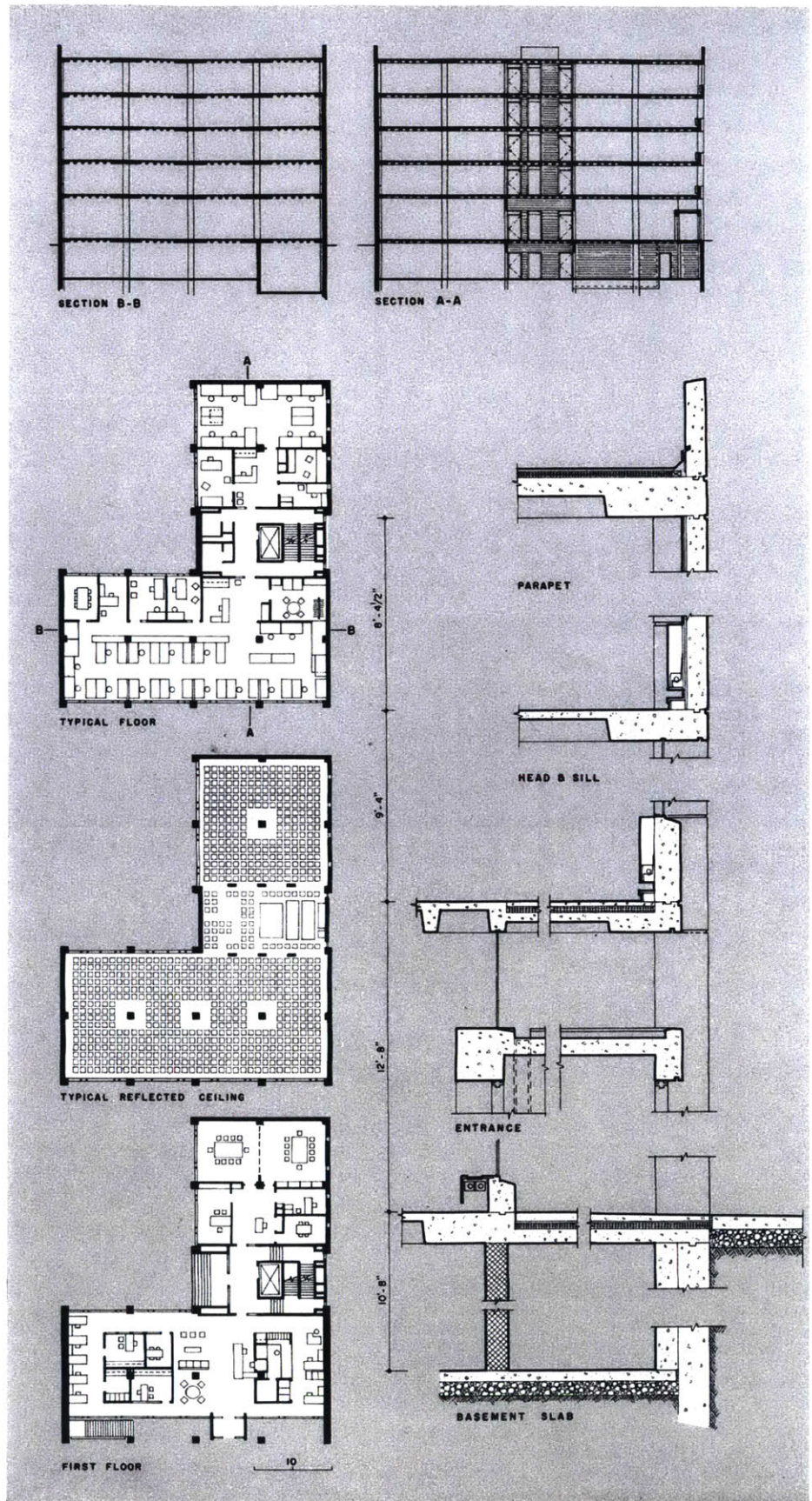


Fig. 2.50 TAC offices, first floor and typical floor plans, typical reflected ceiling plan, sections and concrete joint details, *Architectural Record*, September 1967.



Fig. 2.51 TAC offices, 46 Brattle Street, 1967. Photograph: Ezra Stoller



Fig. 2.52 TAC partners meeting in conference room, 46 Brattle Street, with Design Research in background, n.d. *The Architects Collaborative Inc.*, office portfolio, c. 1975.

Casabella 318



Fig. 2.53 TAC partners on cover of *Casabella* 318, September 1967. Photograph: Ezra Stoller

DUANE MICHALS



The Boys From Cambridge—Architecture puts no premium on youth; to most architects under 40, the chance to build one's very own buildings is an enviable situation. The four above—Paul Dietrich, 37, Terry Rankine, 36, Alden B. Christie, 28, and Peter Chermayeff, 27—formed their firm 18 months ago when they received a commission to design the New England Aquarium. The Cambridge group (which has its origin in and around the Harvard Graduate School of Design) is also about to build the Shopping Center for the Washington Park Renewal Area in Boston, another fat commission for which they received a 1964 *Progressive Architecture* magazine design award. Their guiding philosophy: to use each member's special talents in a cooperative way and to let a building's special problems determine its design.

Fig. 2.54 "The Boys From Cambridge," c. 1964. Photograph: Duane Michals. Cambridge Seven Associates

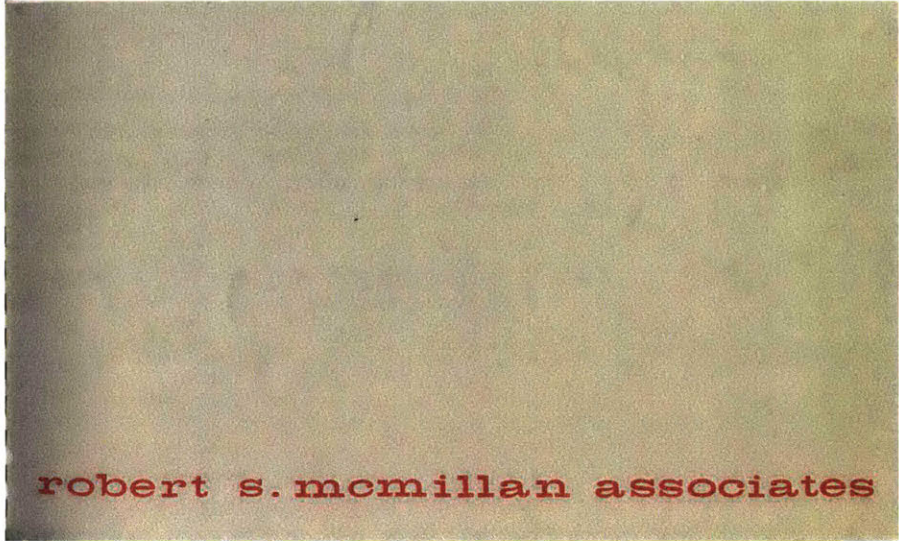
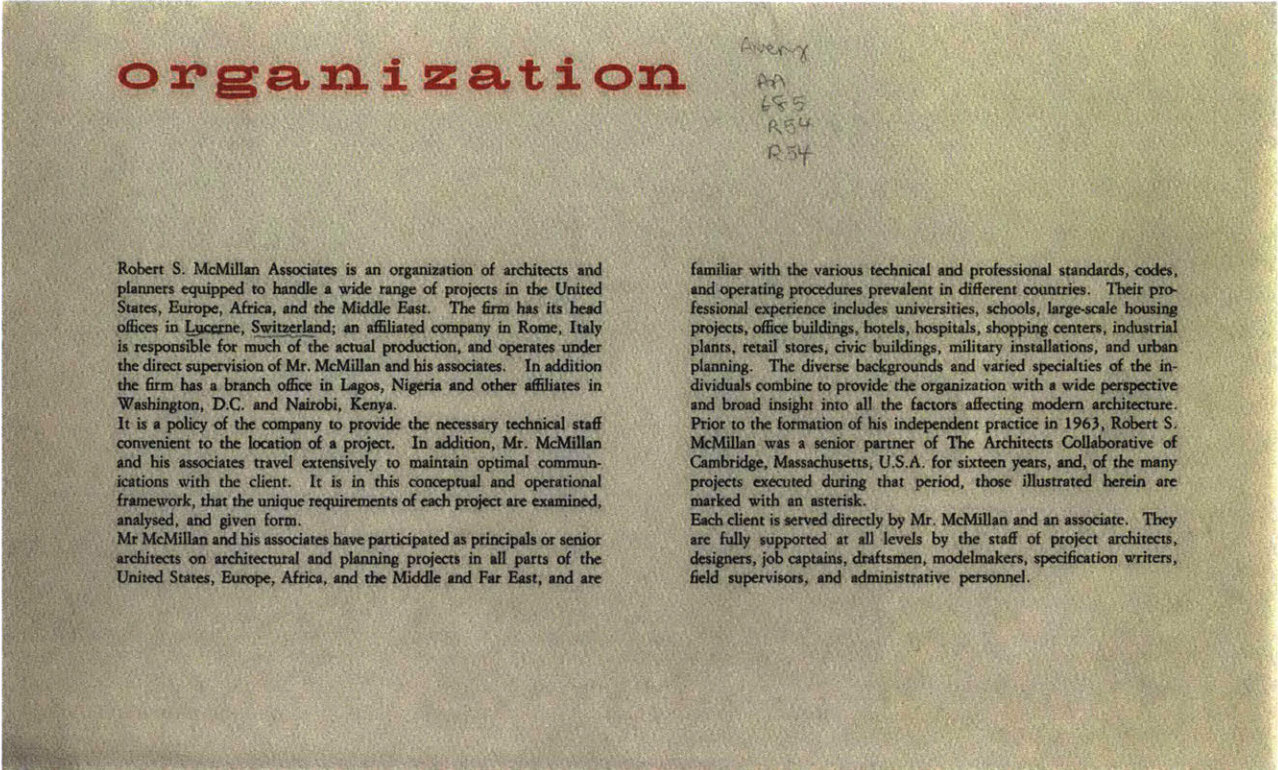


Fig. 2.55 "Organization," Robert S. McMillan Associates, office portfolio, n.d. Avery Architectural & Fine Arts Library, Columbia University



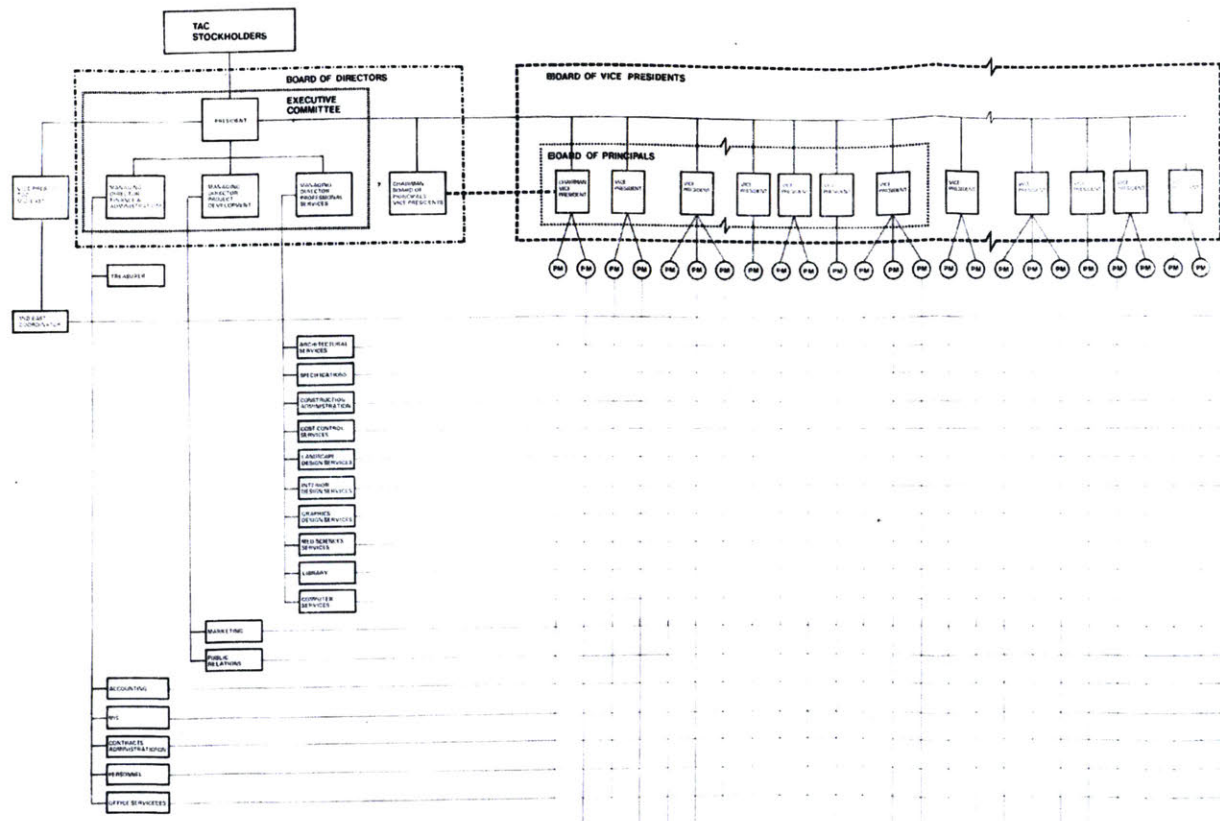
Fig. 2.56 Benjamin Thompson and Associates, Thompson with model of Baltimore Harborplace, n.d. "BTA In the 1990s: The Way We Work," *PROCESS:Architecture*, 1990



Fig. 2.57 Benjamin Thompson & Associates, Design Research Building (1969) with TAC offices and TAC office extension under construction at right, 1970. Photograph: Ezra Stoller



Fig. 2.58 TAC, exhibition of new town plan for Jubail, Saudi Arabia in courtyard of TAC offices, 46 Brattle Street, c. 1983. Photograph: Sam Sweezy



TAC ORGANIZATIONAL CHART

Fig. 2.59 TAC organizational chart, n.d., after 1977. MIT Museum Archives

BIOGRAPHIES OF PRINCIPALS
プリンシパルの略歴

John C. Hartman, FAIA

Born 30 November 1916. Education: Harvard College, Bachelor of Fine Arts, Cum Laude, 1938; Harvard Graduate School of Design, Bachelor of Architecture and Master of Architecture, 1941. Honors and Awards: Harrison Parker Medal, Boston Society of Architects for Children's Hospital Medical Center, Boston, 1979; Award of Honor, American Institute of Architects for Children's Hospital Medical Center, Boston, 1971; Competition Awards: Boston Society of Architects Competition, 1940; Hanley Education Center, Providence, Rhode Island; Smith Dominion, Northampton, Massachusetts; Athletea School, Atholton, Massachusetts; Harvard Athletic Competition, Cambridge, Massachusetts. Professional Activities: Fellow, American Institute of Architects; Past President, Boston Society of Architects; Past President, Massachusetts State Association of Architects; Member, Architectural League of New York; Past President, Harvard Graduate School of Design Alumni Association; Member, National Academy of Design; Registration: NCARB and 18 states; President, The Architect Collaborative, Inc.

ジョン・C・ハートマン

1916年11月30日生まれ。ハーバード大学卒業
建築デザイン学部建築設計士資格取得。



Richard Brooker, AIA

Born 9 June 1927. Education: Illinois Institute of Technology, Boston Architectural Center, and Cornell University. Professional Activities: Member, American Institute of Architects; Boston Society of Architects; American Association Hospital Planners; American Planning Association; International Council for Building Research Studies and Documentation; Ferris Award, Massachusetts; Colorado, Maine, Missouri, Illinois, New York, and Pennsylvania Certified National Council of Architectural Registration Board (NCARB).

リチャード・ブルッカー

1927年6月9日生まれ。イリノイ州、ペンシル

Norman C. Fletcher, FAIA

Born 8 December 1917. Education: Yale University School of Architecture, Bachelor of Fine Arts, 1940. Honors and Awards: Alice Knapp English Traveling Fellowship, Yale University, 1940; Smith College Dormitory Competition, First Prize, 1946; AIA House Award, Clark University Dormitory and Dining Commons, 1961; Special Citation, AIA, Design of American Institute of Architects Headquarters Building, 1973. Professional Activities: Boston Society of Architects, President, 1963-1967; Vice President, 1963-1965; Federal Reserve Bank Architectural Review Panel, 1973-1977; Secretary, North Travelling Scholarship Committee, 1960. Registration: Massachusetts, Connecticut, Delaware, District of Columbia, Illinois, Indiana, Maine, Maryland, Michigan, Missouri, New York, Ohio, Pennsylvania, Vermont, NCARB. Chairman of the Board of Principals.

ノーマン・C・フレッチャー

1917年12月8日生まれ。1940年ハーバード大学建築設計士資格取得。



Harvard F. Elton, AIA

Born 12 April 1938. Education: Harvard Graduate School of Design, Master of Architecture with Distinction 1963; Stanford University, Bachelor of Science in Mechanical Engineering 1959. Honors and Awards: Special Citation by the American Institute of Architects for design of American Institute of Architects Headquarters Building 1973; American Institute of Architects New England Regional Council Honor Award for Worcester Art Museum Art School 1974; Merritt Award, United States Department of Housing and Urban Development for YMCA, Roxbury, MA, 1968; Honor Award American Institute of Architects New England Regional Council for YMCA, Roxbury, MA, 1965. Professional Activities: Member, American Institute of Architects; Massachusetts Association of Architects; Boston Society of Architects; Commissioner of Architectural Design, Member of Board of Directors 1978-1980; Chairman, Urban Design Citation Committee 1979-1980; Harvard Parker Award, Committee 1976-1977; Committee on Educational Research 1972. Registration: Massachusetts, California, NCARB.

ハーバード・F・エルトン

1938年4月12日生まれ。1963年ハーバード大

Robert Klauer, AIA

Born 5 February 1931. Education: Harvard Graduate School of Design and Antioch College. Professional Activities: Harvard Institute of Architects; Massachusetts State Association of Architects; Registration: Ohio, Massachusetts, Vermont, Pennsylvania, New York and NCARB.

ロバート・クラウアー

1931年2月5日生まれ。ハーバード大学建築設計士資格取得。



Lois A. McMillin, FAIA

Born 24 October 1916. Education: Master of Architecture, Harvard Graduate School of Design, 1947; Bachelor of Fine Arts, Yale University of Fine Arts, 1940. Professional Activities: American Institute of Architects, Fellow, Boston Society of Architects, Massachusetts State Association of Architects, Harvard Graduate School of Design Alumni Association, Yale Arts and Architecture Association; Vice President, Registration: Massachusetts, Vermont, Maine, United Kingdom, NCARB. Professional Experience: The Architects Collaborative, Inc.; McMillin has been a Principal since 1947, served as President from 1971-1972.

ロイス・A・マクミレン

1916年10月24日生まれ。1947年ハーバード大建築設計士資格取得。



John F. Hayes, AIA

Born 29 August 1932. Education: Massachusetts Institute of Technology, Honors and Awards: Western Massachusetts Division of the American Institute of Architects; Greater Cleveland Growth Board; Professional Activities: American Institute of Architects; National Documents Board; Boston Society of Architects; Member Board of Directors, Commissioner of Professional Practice; Former Ethics Committee Chairman, Former Chairman of Professional Affairs Committee; Member of Construction Industry Panel of American Architecture Association. Registration: Massachusetts.

ジョン・F・ヘイズ

1932年8月29日生まれ。マサチューセッツ大



Richard Klauer, AIA

Born 5 February 1931. Education: Harvard Graduate School of Design and Antioch College. Professional Activities: Harvard Institute of Architects; Massachusetts State Association of Architects; Registration: Ohio, Massachusetts, Vermont, Pennsylvania, New York and NCARB.

ロバート・クラウアー

1931年2月5日生まれ。ハーバード大学建築設計士資格取得。



Lois A. McMillin, FAIA

Born 24 October 1916. Education: Master of Architecture, Harvard Graduate School of Design, 1947; Bachelor of Fine Arts, Yale University of Fine Arts, 1940. Professional Activities: American Institute of Architects, Fellow, Boston Society of Architects, Massachusetts State Association of Architects, Harvard Graduate School of Design Alumni Association, Yale Arts and Architecture Association; Vice President, Registration: Massachusetts, Vermont, Maine, United Kingdom, NCARB. Professional Experience: The Architects Collaborative, Inc.; McMillin has been a Principal since 1947, served as President from 1971-1972.

ロイス・A・マクミレン

1916年10月24日生まれ。1947年ハーバード大建築設計士資格取得。



Peter V. Mouton, AIA

Born 22 June 1924. Education: Yale University, BA (1945); Bachelor of Architecture (1949). Professional Activities: Member, Boston Society of Architects, American Institute of Architects, Dept. of Energy Federal Photovoltaic Utilization Program (FVUP) committee member, Kentucky, Tennessee, Vermont, Virginia, NCARB.

ピーター・V・モントン

1924年6月22日生まれ。1949年ハーバード大学建築設計士資格取得。



Perry K. Neukhser, AIA

Born 8 January 1940. Education: Princeton University, Bachelor of Arts, 1962; Harvard Graduate School of Design, Bachelor of Architecture, 1964; Master of Architecture in Urban Design, 1965. Honors and Awards: American Institute of Architects, Citation for Excellent Design, 1973; Design Awards Program; Boston Society of Architects; Registration: Massachusetts, Washington, Florida, NCARB.

ペリー・K・ノイクサー

1940年1月8日生まれ。1965年ハーバード大建築設計士資格取得。



Leonard Nordin

Born 1 April 1931. Education: City College of New York, University of Pennsylvania, Bachelor of Architecture 1954. Professional Activities: Member American Institute of Architects, Board of Directors of Boston Society of Architects 1976-78; Lexington Design Advisory Committee 1971-73; Boston Architectural Center Faculty 1963-69. Awards: CSAIA Honor Award 1974, Norwalk Senior High School, Connecticut, C.S.A.

レオナード・ノーディン

1931年4月1日生まれ。1954年ペンシルバニア大建築設計士資格取得。

Design Award 1972 N.I.H. Medical Research Laboratory, ALA/C.M.C. Design Award 1966 Worcester Community Center, Registration: New York, Massachusetts, Pennsylvania, Ohio, NCARB.

レオナルド・ノーディン

1931年4月1日生まれ。1954年ペンシルバニア大建築設計士資格取得。



H. Mose Payne, FAIA

Born 3 November 1922. Education: The Boston Architectural Center and Massachusetts Institute of Technology. Honors and Awards: New England Town Planning Association, First Prize, Bronze Medal; The Boston Society of Architects Traveling Scholarship, 1949; Emerson Scholarship, Massachusetts Institute of Technology; Progressive Architecture Citation, IBM Federal Systems Quincy School, Hattisdon Parker Medal (Ogden Award) Boston, 1971. Professional Activities: The American Institute of Architects; Fellow, The Boston Society of Architects; Past Director, Massachusetts State Association of Architects; The Boston Architectural Center; Member of the Board of Directors, President (1963-1965, 1971-1972). Registration: Massachusetts.

H・モース・ペイン

1922年11月3日生まれ。ボストン建築センター、MIT建築設計士資格取得。



VICE PRESIDENTS

- Alfred Goodman
- Richard Nelson
- John Shibley
- David Shortell
- Edward Sumner
- Malcolm Tuckner
- Laurence Zuckler

SENIOR ASSOCIATES

- Michael Cohen
- Manfred Elshami
- Gail Flynn
- Michael F. Gehlert
- Jack Haring
- Peter Hobbes
- Dave Jacobson
- Jerry Joeger
- J.B. Jones
- Thomas Larsen
- C. James Owen
- John Peterson
- Igor Pletosoff
- Richard Puffler
- Robert Turner
- Robert Wilson
- Tony Yasuda

Fig. 2.60 "Biographies of Principals," in "TAC: The Heritage of Walter Gropius," PROCESS:Architecture No. 19, 1980.

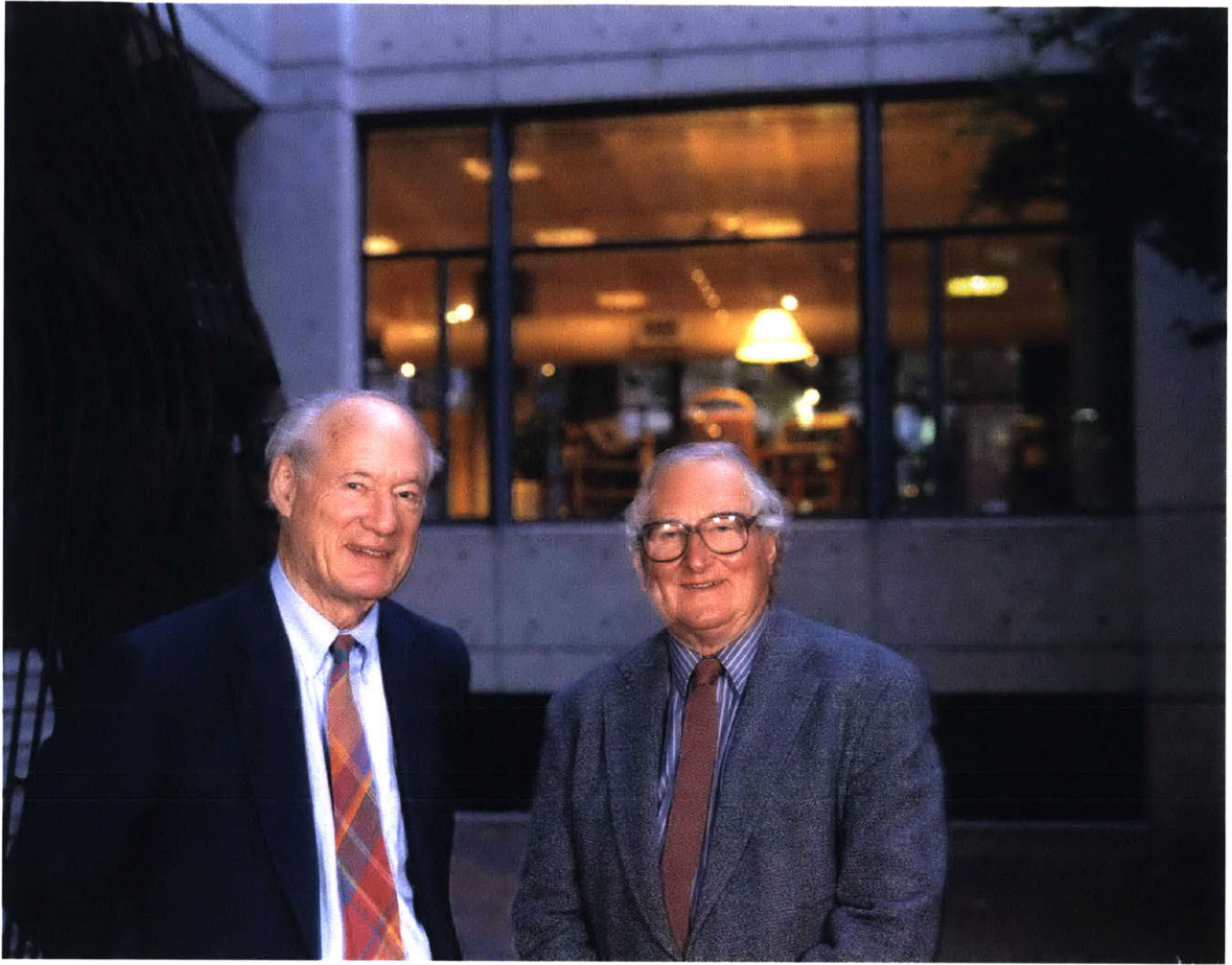


Fig. 2.61 John Harkness and Norman Fletcher on last day of TAC, 46 Brattle Street, April 7, 1995. Photograph: Peter Vanderwarker

Practice

TAC's Demise

The Architects Collaborative closed its doors this spring. What felled this giant? What are the lessons for other firms?



ABOVE RIGHT: TAC was founded in 1945 by (left to right) Sarah Harkness, Jean Fletcher, Robert McMillan, Norman Fletcher, Walter Gropius, John Harkness, Benjamin Thompson, and Louis McMillen.

On the eve of its 50th anniversary in April, The Architects Collaborative (TAC) was far from celebrating—the Cambridge, Massachusetts, firm was on the verge of bankruptcy. Boston's BayBank foreclosed on TAC on April 7, giving the firm's 55 employees one day to remove their belongings from 46 Brattle Street—the building TAC designed for its offices in 1964.

The nation's architectural establishment was shocked as word spread that TAC had closed its doors. After all, TAC was one of the most prestigious firms in the U.S., founded in 1945 by Modern master Walter Gropius. In 1964, TAC won the AIA Firm Award; in 1973, it designed the national AIA headquarters in Washington. By 1980, TAC was among the nation's largest practices, employing 380 people and spawning some of Boston's best firms. Why did it fail?

The simple answer is: Too much foreign work and too much debt. In recent years, more than half of TAC's work was overseas; the firm focused heavily on projects in Iraq and Kuwait, where direct losses from the Persian Gulf War of 1990-1991 ran to about \$2 million. At the same time, TAC's U.S. developer clients collapsed, incurring losses of nearly \$500,000. (TAC's total billings for this period were in excess of \$20 million.) With offices in San Francisco and Rome, the firm had built up tremendous overhead, yet was reluctant to let staff go. Moreover, TAC lost fees for work already performed and thus owed engineers, consultants, and vendors thousands of dollars it couldn't remit. "We weren't generating enough work in the last two years to feed this very large machine," admits 78-year-old TAC principal and cofounder Norman Fletcher.

Once upon a time, TAC's thoroughly Modern outlook set the pace for the postwar era. But the Cambridge firm never made the transition to Postmodern realities—namely, the profession's increasing fragmentation, rampant liability, and breakneck competitiveness. "TAC went out of business because they held

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Fig. 2.62 Bradford McKee, "TAC's Demise," *Architecture*, December 1995.

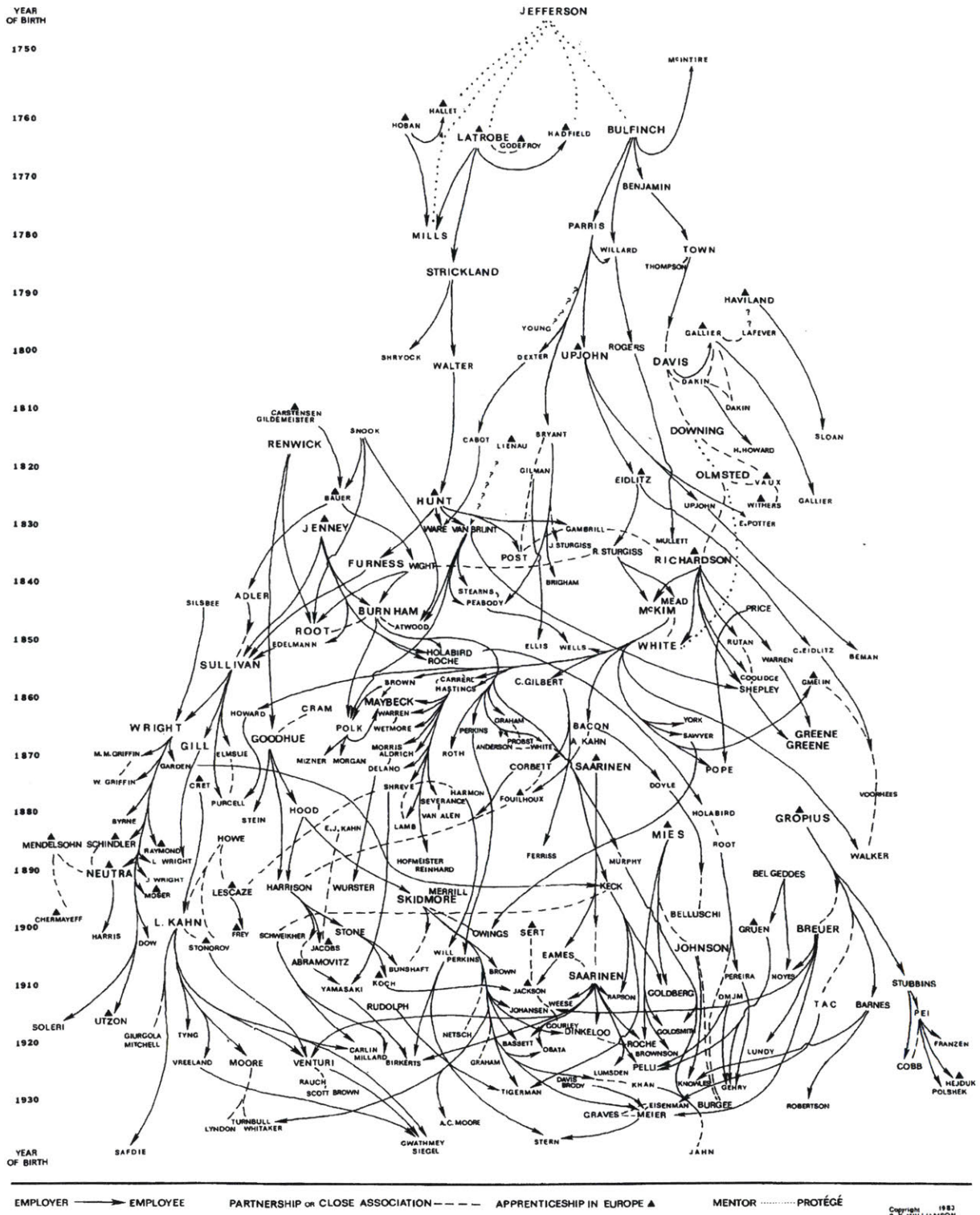


Fig. 3.1 "Career Connections of Major American Architects." Roxanne Williamson, *American Architects and the Mechanics of Fame* (1983).

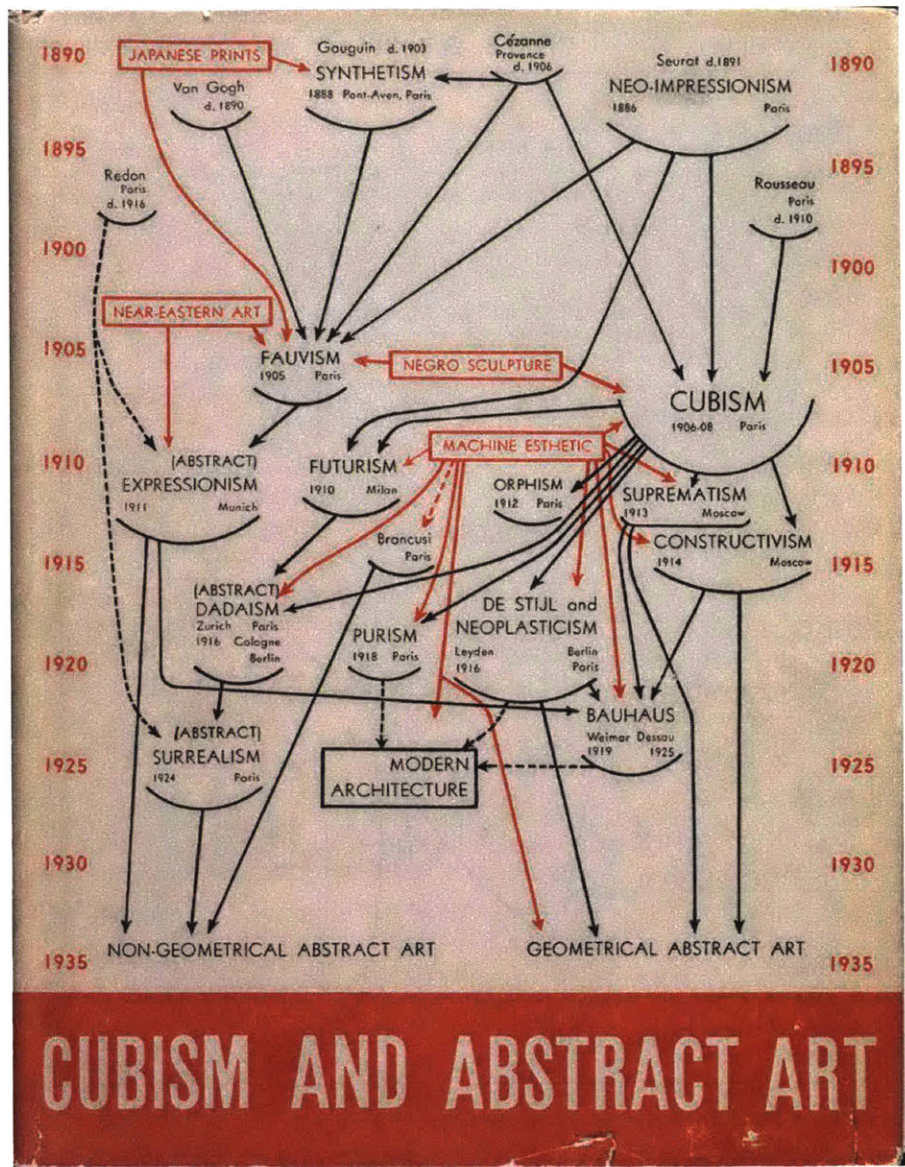


Fig. 3.2 Alfred H. Barr, Jr., *Cubism and Abstract Art* (New York: Museum of Modern Art, 1936).

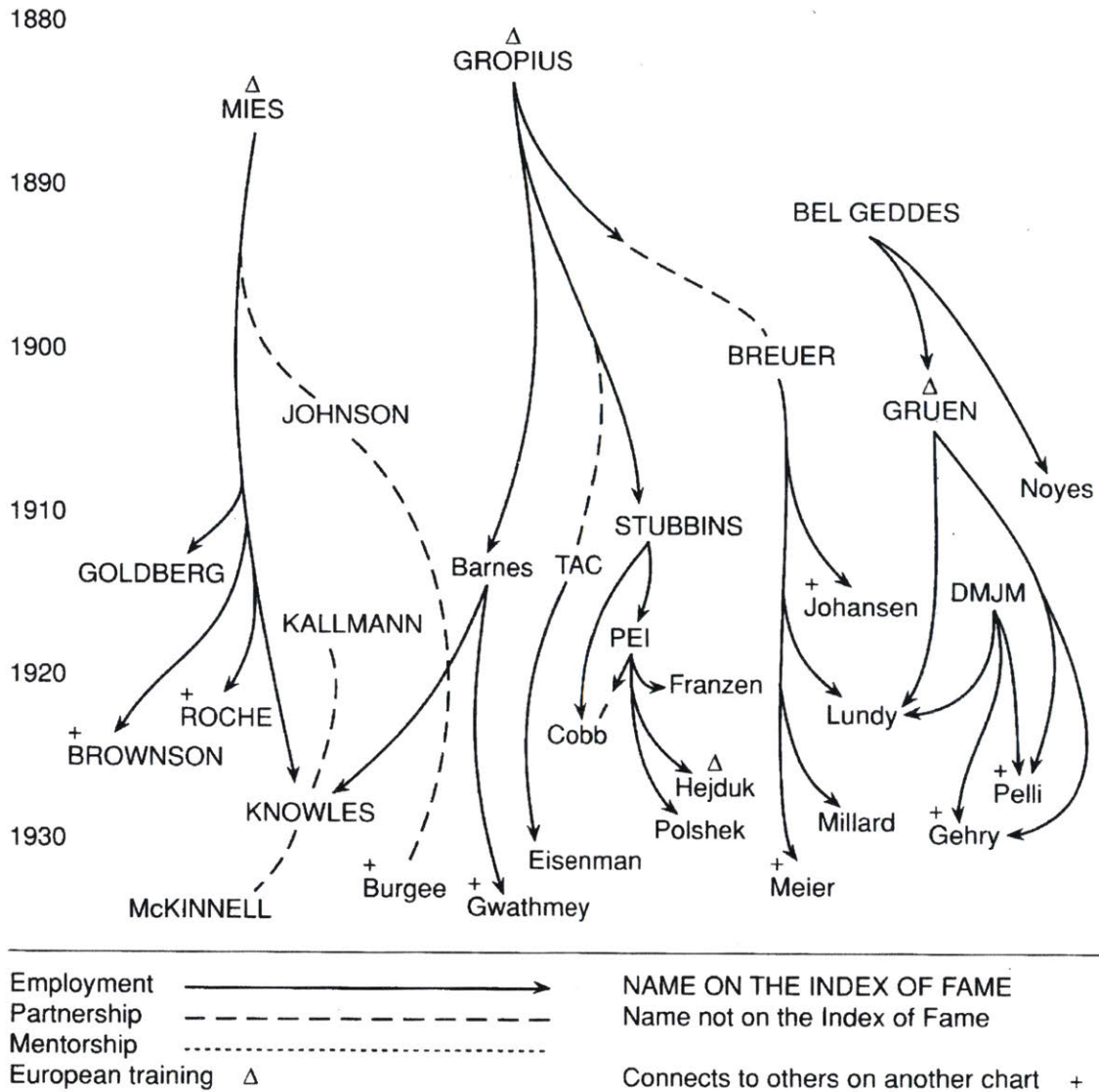


Fig. 3.3 "Gropius and Mies and their descendants." Roxanne Williamson, *American Architects and the Mechanics of Fame* (1983).

The Architects Collaborative

TAC

Fig. 3.4 Walter Gropius and Sarah P. Harkness, ed., *The Architects Collaborative 1945–1965* (Teufen: Verlag Arthur Niggli, 1966).



Fig. 3.5 TAC offices, 46 Brattle Street, 1967. Photograph: Ezra Stoller

Chance zu geben, wird sich durch grössere Leistungsfähigkeit und breiteren Einfluss auf die öffentliche Meinung belohnt sehen. Ein Entwurferteam, das die persönliche Freiheit wirklich achtet, wird zum Ansporn für das Individuum, man bleibt elastisch und beweglich, Persönlichkeit und Leistung entwickeln sich im Kreuzfeuer der Diskussion. Gruppen, die sich zu dieser Arbeitsweise erzo-gen haben, könnten zum Ferment einer Entwicklung zu kultureller Einheit werden.

Collaboration
by Sarah P. Harkness

There are two ways to go – towards competition or towards collaboration. A contest can be stimulating, but as a way of life competition is wasteful. Time and energy are dissipated in overlapping efforts. The efficiency of collaboration lies in interaction directed towards the solution of a problem. A world that believes only in survival through competition must always be at war. And if the winner is preoccupied with winning, he may find himself on a mountain he never would have chosen to climb. In architecture, rivalry may lead to irrational design; it may put aside a direct solution in favor of a more sensational one. To fight for conviction is another matter, and this fits in with collaboration. The essence of collaboration is the strength of the individual. When collaboration is operating as it should, a good idea will be carried by conviction, recognized by others without loss of their own prestige. The spirit of exploration and invention, led by philosophy, can be present in an office. Ideas are welcomed from wherever they come. Architectural music is orchestral rather than solo. Every member is involved

Zusammenarbeit
Sarah P. Harkness

Man kann zwischen zwei Wegen wählen – dem des Wettbewerbs und dem der Zusammenarbeit. Ein Wettkampf kann anregend sein; als Lebensauffassung aber ist der Wettbewerb eine Zeit- und Kraftverschwendung, da Zeit und Kraft vergeudet werden für Anstrengungen, die sich überschneiden. Die Leistungsfähigkeit in der Zusammenarbeit hingegen beruht auf einer gegenseitigen Beeinflussung, die einzig und allein die Lösung eines Problems zum Ziele hat. Eine Welt, die nur noch Ueberlegenheit durch Wettbewerb gelten lässt, müsste in einem ständigen Kriegszustand leben. Und der Sieger, der vom Gewinnen voll in Anspruch genommen ist, würde sich schliesslich wieder finden auf einem einsamen Gipfel, den er gar nie erklimmen wollte. In der Architektur kann Rivalität zu irrationalen Entwürfen führen, weil man zu leicht die direkte Lösung zugunsten einer sensationelleren beiseite schiebt. Kämpfen für eine Ueberzeugung ist eine andere Sache und lässt sich absolut mit guter Zusammenarbeit vereinbaren. Das Wesen der Zusammenarbeit beruht auf der Kraft des Individuums. Wenn Zusammenarbeit richtig funktioniert, dann ist eine gute Idee von Ueberzeugung getragen und kann von den andern ohne Prestigeverlust anerkannt werden. Der Geist der Forschung und Erfindung, geleitet von philosophischen Ueberlegungen – das kann eine durchaus lebendige Realität in einem Bauatelier sein; gute Ideen werden immer begrüsst, von wo sie auch kommen mögen. Architekturmusik wird eher von einem Ensemble als von Solisten gespielt; jedes Mitglied ist daran beteiligt.

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Search for a Common Language
by John C. Harkness

The foremost objective of TAC is to find common denominators which will allow individual expression to produce a unified whole. This search is at the basis of the TAC organization. The interrelation of the principals in the firm should not weaken or reduce their individuality, but should make the work handled by each, singly or in groups, part of a common language. At a time when architectural thought and expression appear to be flying in all directions at once, this effort seems particularly important. It is obvious that such an approach is more difficult than establishing a rigid formula and requiring that everyone follow it. It is also more difficult than establishing no direction and permitting each individual to go his own way without regard for the whole. But if the physical expression of our society is to regain some sense of order and freedom within certain common denominators, it must begin somewhere. If groups such as TAC can demonstrate the possibilities, they will have achieved a worthwhile objective.

Die Suche nach der gemeinsamen Sprache
John C. Harkness

Eines der wichtigsten Ziele von TAC besteht darin, einen gemeinsamen Nenner zu finden, auf dessen Grundlage individueller Ausdruck zu einem einheitlichen Ganzen gestaltet werden kann. Diese Suche nach dem gemeinsamen Nenner ist das fundamentale Anliegen von TAC. Die gegenseitigen Beziehungen unter den Partnern sollen nicht die Individualität des Einzelnen schwächen, sie sollen vielmehr die Arbeiten, ob sie durch Einzelne oder durch eine Gruppe entwickelt werden, als verschiedene Aeusserungen einer gemeinsamen Sprache erscheinen lassen. Solche Bemühungen sind besonders wichtig in einer Zeit, in der Idee und Ausdruck in der Architektur nach verschiedenen Richtungen auseinandergehen. Einen übereinstimmenden Ausdruck dieser Art zu erreichen ist bestimmt schwieriger, als eine strange Formel zu statuieren und zu fordern, dass jeder sie befolge. Schwieriger auch, als gar keine Richtung festzulegen und jeden seine Wege gehen zu lassen, ohne Rücksicht auf das Ganze. Wenn aber unsere physische Erscheinungswelt wieder ein Gefühl der Ordnung und der Freiheit innerhalb der Grenzen einer gewissen Uebereinkunft vermitteln soll, dann muss ja irgendwo begonnen werden. Und wenn Teams wie TAC eine solche Möglichkeit demonstrieren könnten, dann wäre ein wertvolles Ziel erreicht.

The Idea of Anonymity
by Louis A. McMillen

When we called our firm "The Architects Collaborative" instead of Fletcher, Fletcher, Gropius, Harkness, Harkness, McMillen, McMillen and Thompson, we were conforming to our ideal of anonymity. This attitude helped to bind the office together. We felt that if the group was to have real strength, it must work as a unit and not as separate individuals. It was essential that the partners have a congenial outlook on life, have similar aims and ambitions, and artistic integrity with which to assist each other in the attainment of their joint goal. The partners were dedicated to the firm and its collaborative ideals and did not simply join the office for the sake of hanging on for the next few years until the real thing came along, but knew that they had found their medium for architectural expression and that this was, in fact, "it". We realized that we had to recognize the virtues and tolerate the weaknesses in each other and acknowledge our own shortcomings. With the group firmly established on this base, we were able to achieve the most important aspect of collaboration – effective inter-group criticism – which has played an essential part in the successful development of the firm. By being inexorably linked within the larger destiny of the firm, established on the concept of anonymity and internal cooperation, selfish consideration and desire for personal advancement has been minimized, each member working for the whole and incorporating in his individual work the best ideas from all sources. Moreover, because each member is accepted by the group his security is not jeopardized, and he can then devote his entire energy to the production of good work rather than use it in pointless competition with other members within the group. In fact, because of the nature and spirit of the organization meetings are held frequently, each member taking part in the development of each project. The impact of every individual on a project throughout its progress is important, but it is difficult to

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Fig. 3.6 Sarah P. Harkness, "Collaboration" John C. Harkness, "Search for a Common Language," and Louis A. McMillen, "The Idea of Anonymity," in *The Architects Collaborative 1945–1965*.

Remarks on Anonymous Architecture

by BENJAMIN THOMPSON

(from a speech given at the Progressive Architecture Awards dinner, 1965)



We were given this award for design of a regional public high school in a semi-rural sector of Vermont. The building was to be built on an extremely low budget. We worked with an inexperienced ten-man, one girl school board of vastly ranging interests, from farmers to physicians. The six rivaling school districts had never done anything collectively, not even sit down to decide the common boundaries between them. They had a very non-urban, non-suburban attitude towards education, because about 50% of the students could not even conceive of schooling after high school. We were given a wonderful site (you have to work hard to find an "unwonderful" site in Vermont). The energetic and hard-listening board wanted to look ahead in education, but still had that deep-down traditional Vermont distrust for "ARCH-ITEKS" because they "don't know nothing about CHIMLEYS."

Before we started to design, we were presented with a thick book of educational specifications 200 pages long, about the size of the Boston phone book, so detailed and so demanding in content that the only possible building that might have accomplished the wished-for relationships (everything connected to everything else) might have been a giant geodesic dome.

I have greater than normal interest in remarks by the Progressive Architecture jurors describing their search for "simplicity and directness." The jury noted, "Architects seem to think complications will make their designs more beautiful." I was happy that the jury would take such a definitive stand against the present-day fashion of architectural monumentality, expressionistic spinning, structural leaps, and sculpture-like gyrations.

When Paul Kirk told the jury, "To hell with architecture--let's start just building buildings," he made a statement that's been made before, but that desperately needs repetition today. Wasn't he suggesting a return to something close to anonymous architecture, closer than we've seen in the last few years? Caution--it looks simple, but it isn't. Can we create in our own way the harmony of the lovely New England Greens of our forefathers?

No really anonymous architecture exists today, unless it's the hamburger stands and filling stations along our highways. We don't dare to be anonymous because we think of anonymity as conformity, and thus follows loss of identity. But isn't a higher level of architecture possible, achieving the repose, tranquility, civility, that are the marks of a true community architecture? Certainly it could come only after egotism and upstage-itis have been overcome, leaving the confident self-assurance to design for other humans than ourselves.

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Fig. 3.7 Benjamin Thompson, "Remarks on Anonymous Architecture," *Connection*, June 1965.

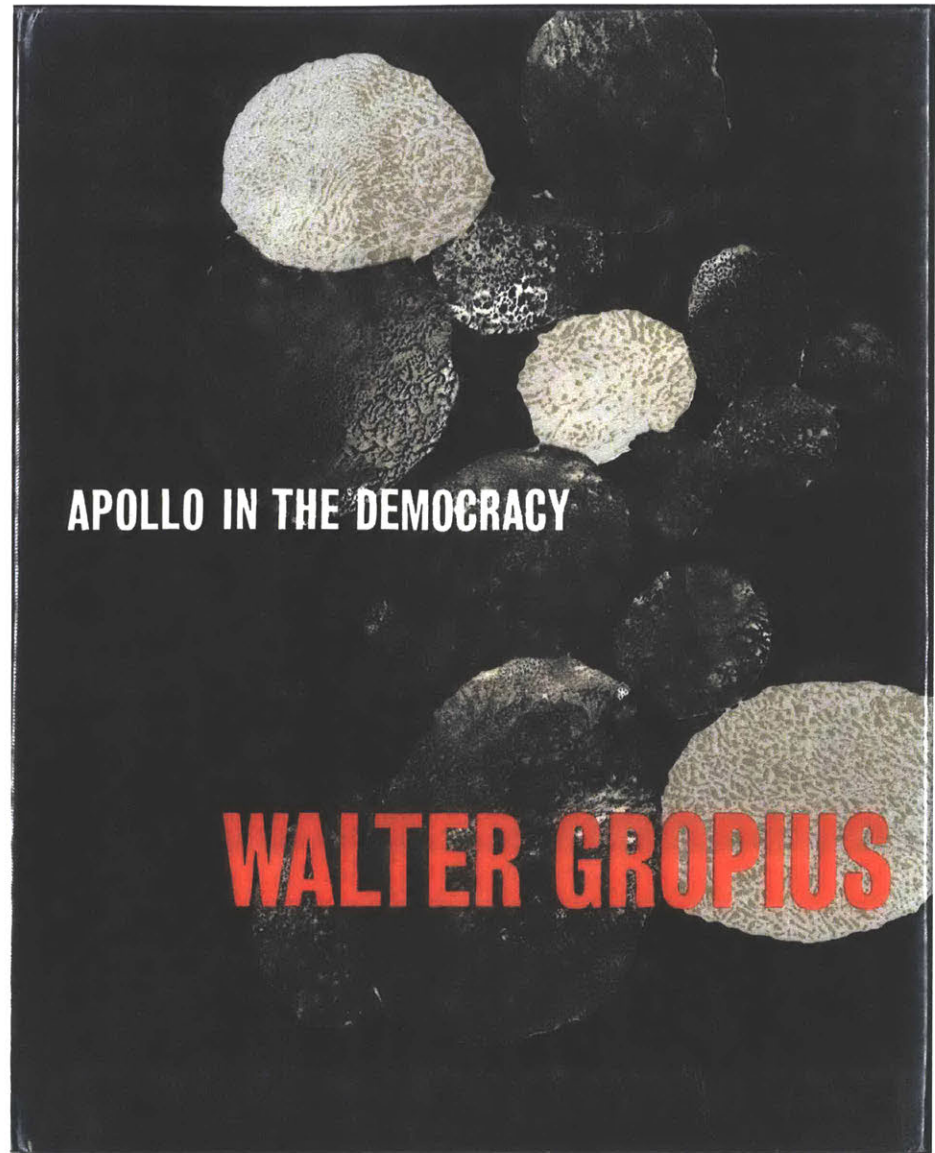


Fig. 3.8 Walter Gropius, *Apollo in the Democracy: The Cultural Obligation of the Architect* (New York: McGraw-Hill, 1968).



Fig. 3.9 The Architects Collaborative, partners meeting circa 1950. From right to left: Louis A. McMillen, Walter Gropius, Norman C. Fletcher, Jean Bodman Fletcher, John C. Harkness. Collection of Perry Neubauer



Fig. 3.10 The Architects Collaborative, partners c. 1951. From left to right: Sarah Pillsbury Harkness, Jean Bodman Fletcher, Robert McMillan, Norman C. Fletcher, Walter Gropius, John C. Harkness, Benjamin Thompson, Louis A. McMillan. Photograph: Walter R. Fleischer



Fig. 3.11 The Architects Collaborative, partners c. 1951. Bottom row from left to right: Jean Bodman Fletcher, Walter Gropius, Sarah Pillsbury Harkness. Top row from left to right: Benjamin Thompson, Norman C. Fletcher, Robert McMillan, Louis A. McMillen, John C. Harkness. Photograph: Walter R. Fleischer

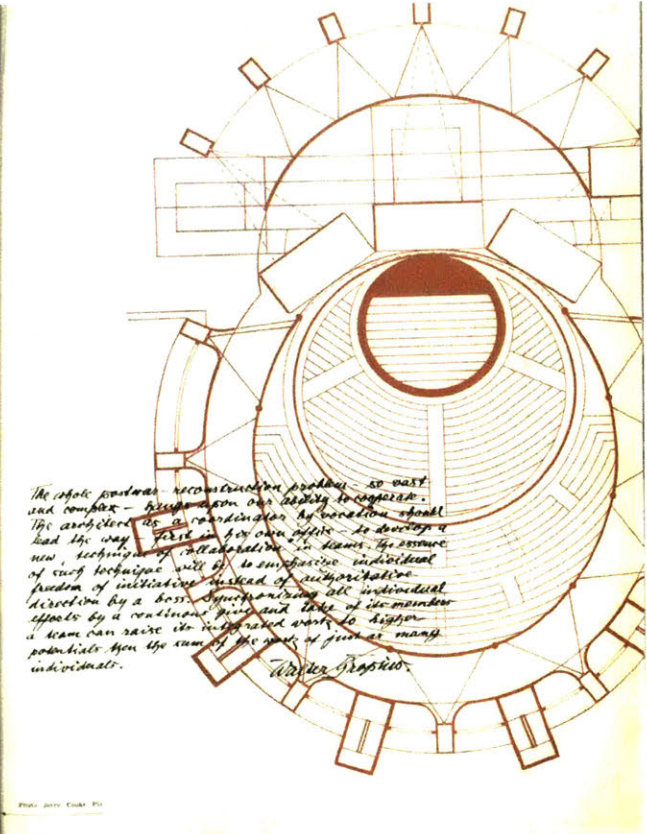
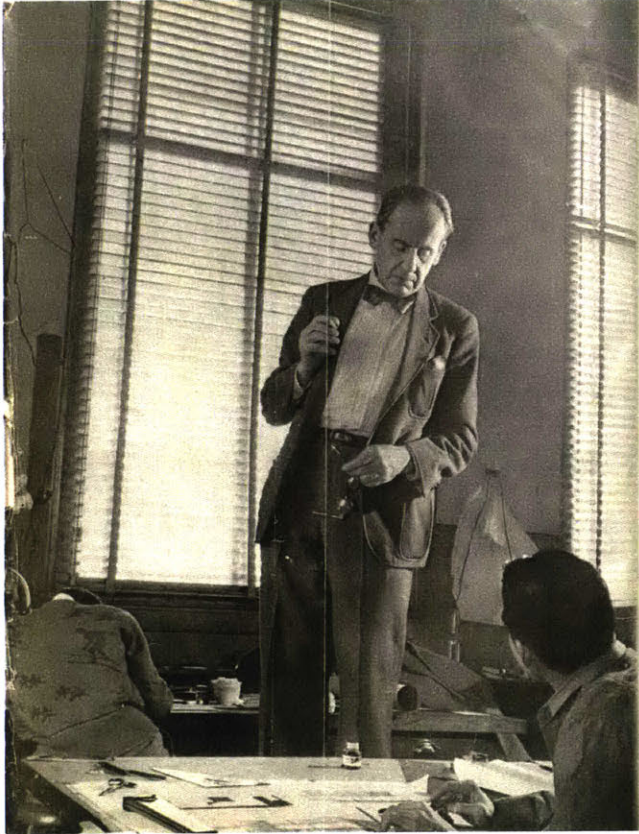


Fig. 3.12 "Gropius et son Ecole,"
 special issue of *l'Architecture d'
 Aujourd'hui* edited by Paul Rudolph,
 February 1950.



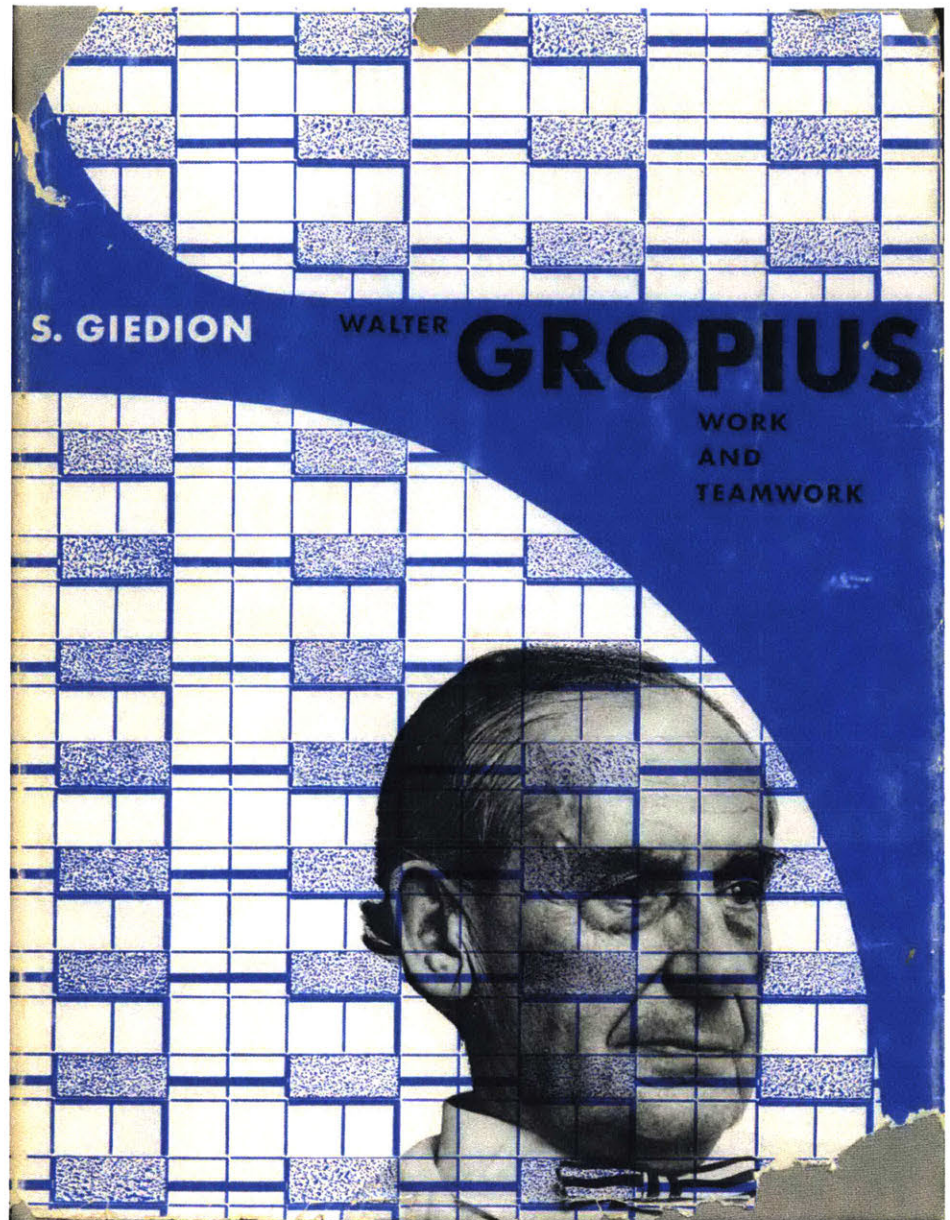


Fig. 3.13 Sigfried Giedion, *Walter Gropius: Work and Teamwork* (London: Architectural Press Ltd., 1954). Cover design by Herbert Bayer.



www.mitpress.mit.edu
9780262083114
www.panam.com
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Fig. 3.14 Meredith L. Clausen, *The Pan Am Building and the Shattering of the Modernist Dream* (Cambridge, MA: MIT Press, 2005).

TAC Projects in which Gropius Had a Major Part

| <i>Year</i> | <i>Job</i> | <i>Co-Principals or other senior staff who worked with Gropius on each job*</i> | <i>TAC job #</i> |
|-------------|---|--|------------------|
| 1946 | Kaplan House | Harkness | 4601 |
| 1946 | Ryan House | Currie | 4602 |
| 1946 | Poppleton House | Thompson | 4603-5605 |
| 1946 | Black Mountain College, Black Mountain, North Carolina | Originally Gropius and Breuer (1939), Gropius and Fletcher, consultants for dormitory design Master Planning | 4604 |
| 1946 | Tanguy Homesteads, Glen Mills, Pennsylvania | Harkness and N. Fletcher | 4605 |
| 1947 | Competition for Elementary School, Attleboro, Massachusetts | Harkness, McMillen | |
| 1948 | Howlett Residence, Belmont, Massachusetts | Thompson | 4809 |
| 1948 | Hua Tung University, Shanghai, China (Project) | N. Fletcher and I.M. Pei | 4816 |
| 1949 | Harvard Graduate Center, Cambridge, Massachusetts | McMillen, N. Fletcher, McMillan, Thompson Associated architects: Brown, Lawford, and Forbes, N.Y. | 4903 |
| 1949 | Junior High School, Attleboro, Massachusetts | Harkness, McMillen | 4901 |
| 1950 | Festival Theater, New Rochelle, New York (Project) | Thompson | 5017 |

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Fig. 3.15 "TAC Projects in which Gropius Had a Major Part," index to the fourth volume of *The Walter Gropius Archive: The Works of the Architects Collaborative 1945-1969* (New York and London: Garland Publishing, Inc., 1990-1991).

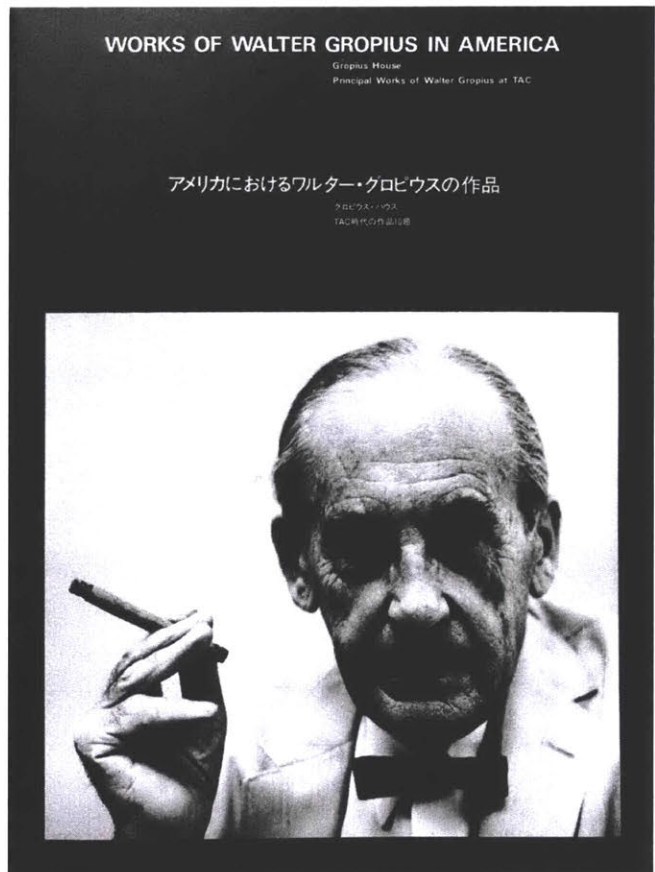


Fig. 3.16 "TAC: The Heritage of Walter Gropius," *PROCESS:Architecture* No. 19, 1980, Part I, "Works of Walter Gropius in America."



Fig. 3.18 "TAC: The Heritage of Walter Gropius," *PROCESS:Architecture* No. 19 (1980), Part II, "Recent Works of TAC."

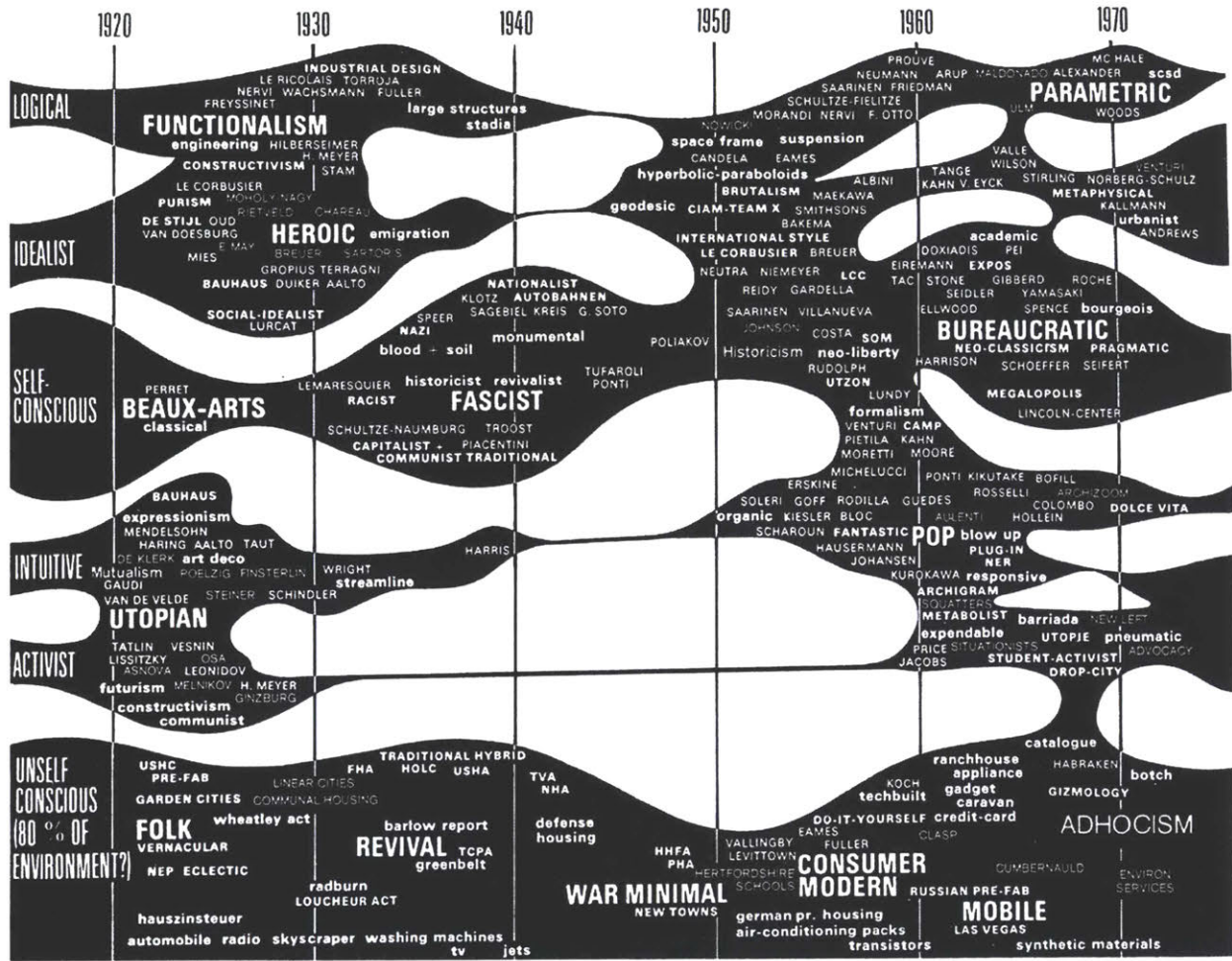


Fig. 3.19 Evolutionary tree of modern architecture, in Charles Jencks, *Modern Movements in Architecture*, second edition (Harmondsworth: Penguin Books Ltd, 1983).

Clearly with such an opportunistic approach, that contradicts its intentions to suit the *Zeitgeist*, the outcome in terms of building will tend to be compromised architecture and it only remains to show that this was in fact the result. There are many projects of this nature, varying from the large-scale Rudow-Buckow Housing to the small-scale Playboy Club, but I will mention only three which are representative.

First, the Pan Am Building [65], which was a large volume broken up into an octagonal shape to decrease the apparent size, was like Le Corbusier's Algiers Scheme of 1938 except that it lacked the all important articulation of social content within. Gropius justified this inarticulate mass by appealing to the social pressures on New York building which, he said, it was impossible to avoid without



65. Walter Gropius with TAC: Pan Am Building, New York, 1958. Fifty-nine storey tower with pre-cast mullions, false columns and flattened octagonal shape.

66 (opposite). Walter Gropius with TAC: Temple Oheb Shalom, Baltimore, Maryland, 1957. While somewhat restrained, the architecture is not dissimilar to that of the *prima donna* architects whom Gropius attacked in his later years.



acknowledgement that he had in fact both compromised and failed.

The second building, which was again coupled with an inadvertent self-criticism, was the Temple of Oheb Shalom [66] which appeared with the following rebuke:

We, however, have become top heavy with personal contributions of a more-or-less glamorous nature which then fail to find their necessary foil in a dignified, restrained background architecture of a rather impersonal, collective character . . . In our time, architects have left these 'grey' areas largely to the commercial builder to fill up, or they have introduced such a confusing variety of shapes and techniques in one and the same building area that their different structures never attained a common rhythm and close relationship. The modern urge for personal glorification has warped and confused our goals.¹⁸

retreating into an ivory tower escapism. In short, his defence against the various criticisms¹⁷ consisted in the old argument that it is more honest and difficult to compromise with the real, tough world than to opt out as an armchair critic and safely chide others for failure - a tacit

In his later years, Gropius often attacked the 'egocentric *prima donna* architect who forces his personal fancy on an intimidated client',¹⁹ without ever specifying exactly who he meant. If one looks around for the objects of these frequent outbursts, they turn out to be none other than

Fig. 3.20 Captions listing "Walter Gropius with TAC," in Charles Jencks, *Modern Movements in Architecture*, second edition (Harmondsworth: Penguin Books Ltd, 1983).

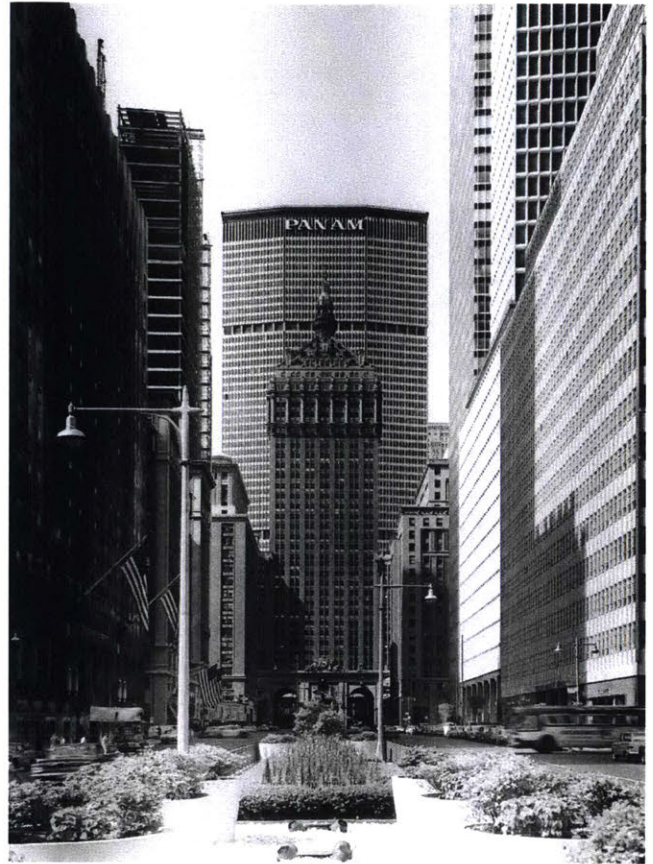


Fig. 4.1 Left: Park Avenue, 1940s. Right: Park Avenue, 1963. Photograph: Joseph W. Molitor. Avery Architectural & Fine Arts Library, Columbia University.

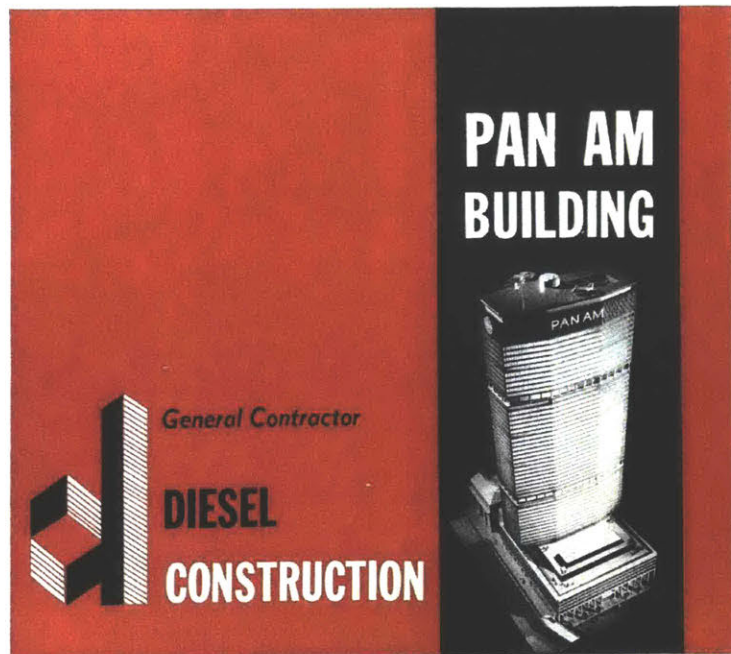
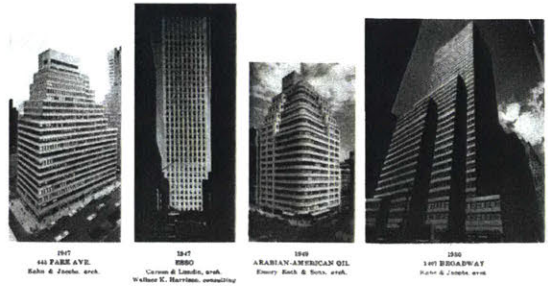
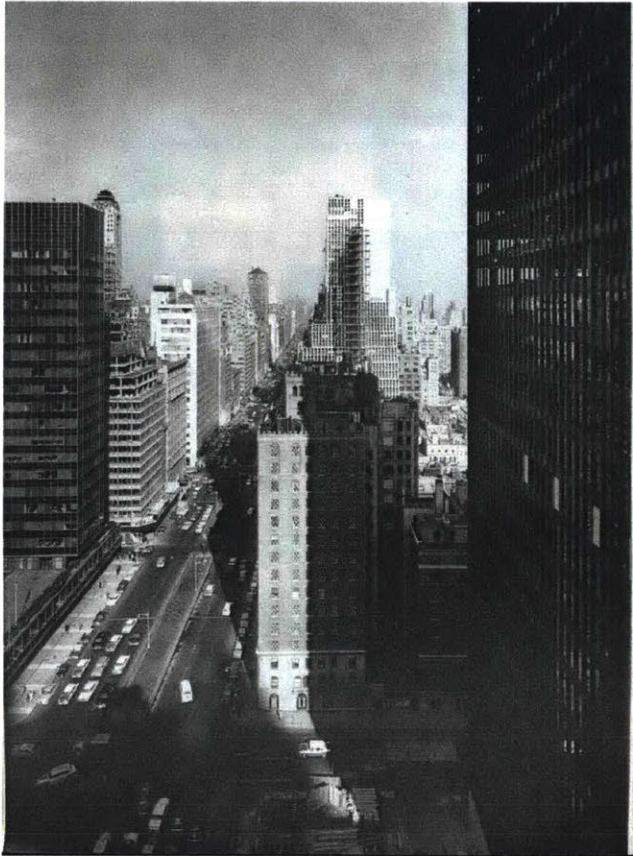


Fig. 4.2 Special issue of *Real Estate Forum* on the Pan Am Building, September 30, 1962. Avery Architectural & Fine Arts Library, Columbia University.



It has a logic of its own in which business at lunch, the poor spelling of secretaries, and the efficiency of a briak stroll account for 116 new buildings on a congested island

New York's office boom

BY JANE JACOBS

In Chicago, Philadelphia, Houston, Cleveland or Atlanta, a new office tower is news. But in New York, with 64 postwar office buildings already up, 30 under construction and the white X's of impending doom on the windows of one middle-aged landmark after another, an ordinary 30-story tower makes about as much stir as any routine birth announcement.

What is happening in New York is less an expansion than an explosion of office space. The 40 million sq. ft. added or about to be added

represents more than a 40% increase of the city's office space at the war's end. The increase alone represents more office space than the total in any other US city. Or, put another way, it equals all the new office building in all the rest of the country put together and then half as much again. And every rentable square foot of it is air conditioned, for this is expensive space, renting mostly for \$5 to \$6.50 per sq. ft. (with a little as low as \$4, considerable at \$7 and a little at \$8 or more).

It is misleading to think of this fantastic absorption of expensive space as a "New York" boom, for although the boom is geographically localized in Manhattan, this is really the "US" office building boom, or most of it. It can be understood only

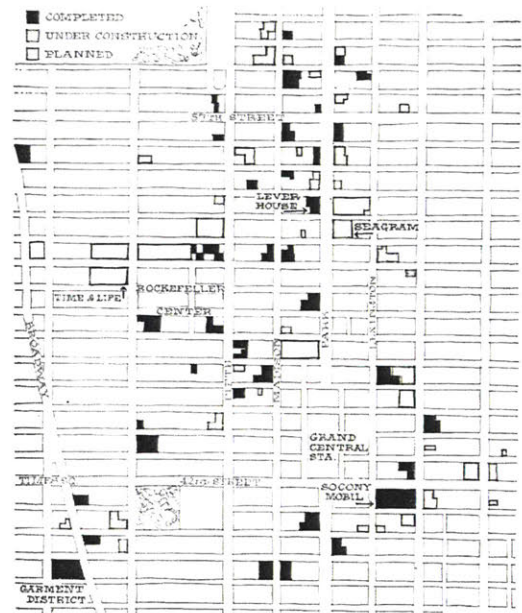
in those terms. In some cases the national—or international—source of demand for new space is instantly obvious; three representative examples within a few blocks on Park Ave. are the Arabian-American Oil Co. building, whose chief tenant moved in from the West Coast; Lever House, whose occupant moved headquarters in from New England; the Colgate-Palmolive building, whose namesake ferried across the river from Jersey City. But even when the new space is snapped up by old inhabitants of the city—as it is in most cases—the demand directly reflects national growth in machine tools installed, stockings sold, ore veins tapped, money lent, pills swallowed.

But if the size of the office boom

←
Along Park Ave., offices are replacing apartments; Lever House at left, Seagram's at right foreground, Astar Plaza site at center; at least five others in view.

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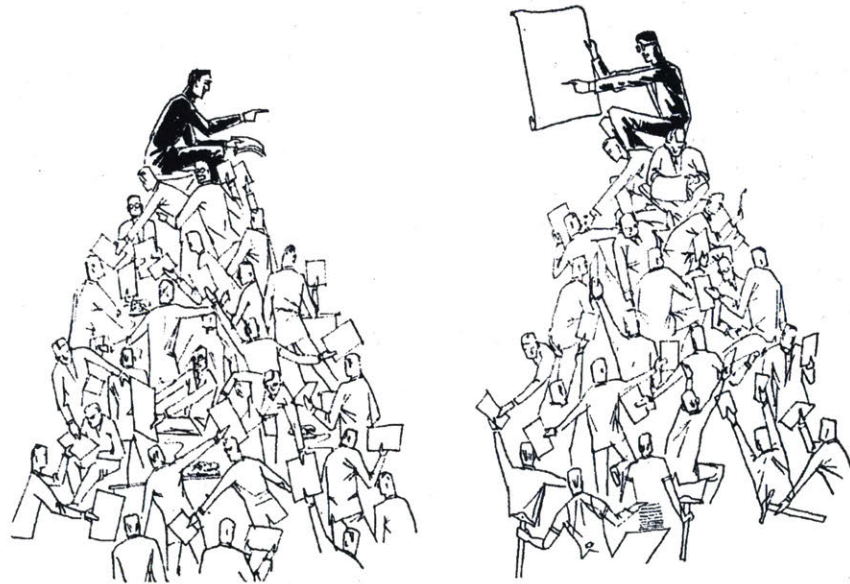


Maps show distribution of new and planned buildings which cluster in already intensively used midtown and financial areas. Based on data from New York Real Estate Board and James Felt & Co.

Fig. 4.3 Jane Jacobs, "New York's office boom," *Architectural Forum*, March 1957.



. . . we are in the midst of a building boom
which is crowding our cities with tedious uniformities . . .



Corporate client and “corporate” architect

Fig. 4.4 “...we are in the midst of a building boom which is crowding our cities with tedious uniformities...” and “Corporate client and ‘corporate architect,” illustrations in Joseph Hudnut, “Architecture and the Individual,” *Architectural Record*, October 1958.

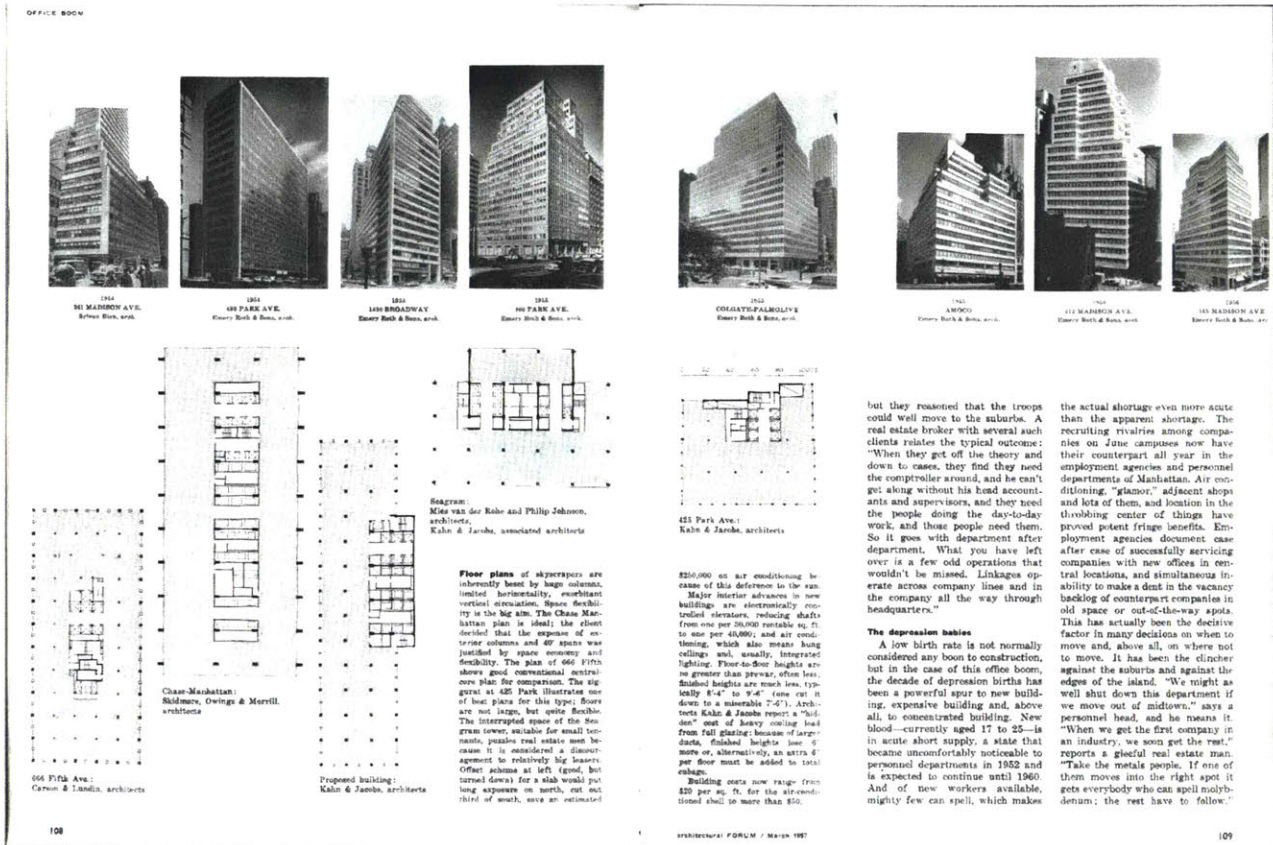


Fig. 4.5 Emery Roth & Sons buildings in Jane Jacobs, "New York's office boom," *Architectural Forum*, March 1957.

but they reasoned that the troops could well move to the suburbs. A real estate broker with several such clients relates the typical outcome: "When they get off the theory and down to cases, they find they need the comptroller around, and he can't get along without his kind accountants and supervisors, and they need the people doing the day-to-day work, and those people need them. So it goes with department after department. What you have left over is a few odd operations that wouldn't be missed. Linkages operate across company lines and in the company all the way through headquarters."

The depression babies

A low birth rate is not normally considered any boon to construction, but in the case of this office boom, the decade of depression births has been a powerful spur to new building, expensive building and, above all, to concentrated building. New blood—currently aged 17 to 25—is in acute short supply, a state that became uncomfortably noticeable to personnel departments in 1952 and is expected to continue until 1960. And of new workers available, mighty few can spell, which makes the actual shortage even more acute than the apparent shortage. The recruiting rivalries among companies on fine campuses now have their counterpart all year in the employment agencies and personnel departments of Manhattan. Air conditioning, "glazings," adjacent shops and lots of them, and location in the throbbing center of things have proved potent fringe benefits. Employment agencies document case after case of successfully serving companies with new offices in central locations, and simultaneous inability to make a dent in the vacancy backlog of counterpart companies in old space or out-of-the-way spots. This has actually been the decisive factor in many decisions on when to move and, above all, on where not to move. It has been the clincher against the suburbs and against the edges of the island. "We might as well shut down this department if we move out of midtown," says a personnel head, and he means it. "When we get the first company in an industry, we soon get the rest," reports a glibful real estate man. "Take the metals people. If one of them moves into the right spot it gets everybody who can spell molybdenum: the rest have to follow."

PROGRAM:
Kahn van der Rohe and Philip Johnson, architects
Kahn & Jacobs, associated architects

Floor plans of skyscrapers are inherently based by large columns, limited horizontality, exorbitant vertical circulation. Space flexibility is the big aim. The Chase Manhattan plan is ideal; the client decided that the expense of exterior columns and 40 spans was justified by space economy and flexibility. The plan of 666 Fifth shows good conventional alternatives plan for comparison. The zig-zag at 425 Park illustrates one of best plans for this type. Bays are not large, but office flexible. The interrupted space of the Seagram tower, suitable for small tenants, possible real estate men because it is considered a disadvantage to relatively big leases. Office scheme at left, good, but turned down for a slab would put long exposures on north, cut out third of south, save an estimated

\$20,000 on air conditioning because of this difference in the sun.
Major interior advances in new buildings are electrically controlled elevators, reducing shafts from one per 20,000 rentable sq. ft. to one per 40,000, and air conditioning, which also means hung ceilings and, usually, integrated lighting. Four-to-five heights are no greater than previous, often less. Finished heights are much less, typically 8'-4" to 9'-4" (one cut it down to a miserable 7'-6"). Architects Kahn & Jacobs report a "side effect" of heavy cooling load from full glazing because of larger ducts, finished heights less 9" more or, alternatively, an extra 4" per floor must be added to total ceiling.
Building costs now range from \$20 per sq. ft. for the air-conditioned shell to more than \$50.

COMPANIES

Architect for business in a city of towers

Emery Roth & Sons has been setting the pace in Manhattan's postwar building boom by designing structures tailored to the dollars-and-cents outlook of modern builders

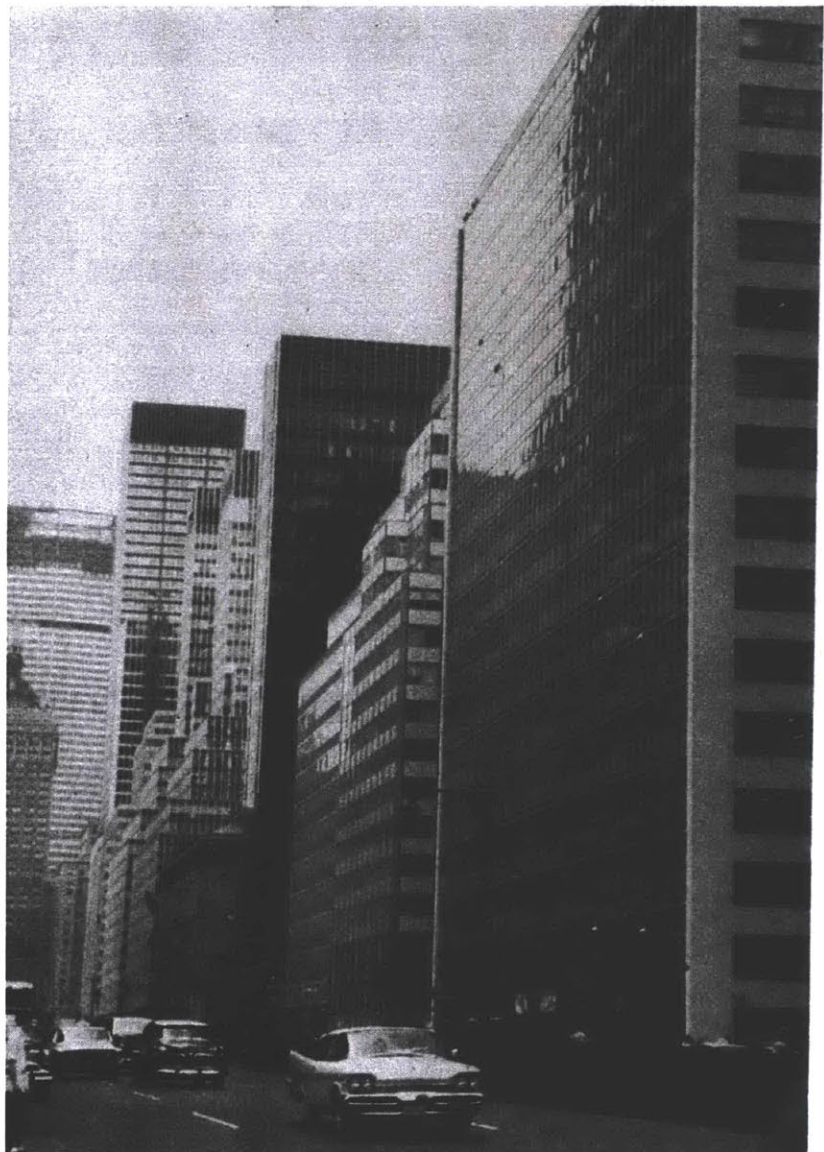
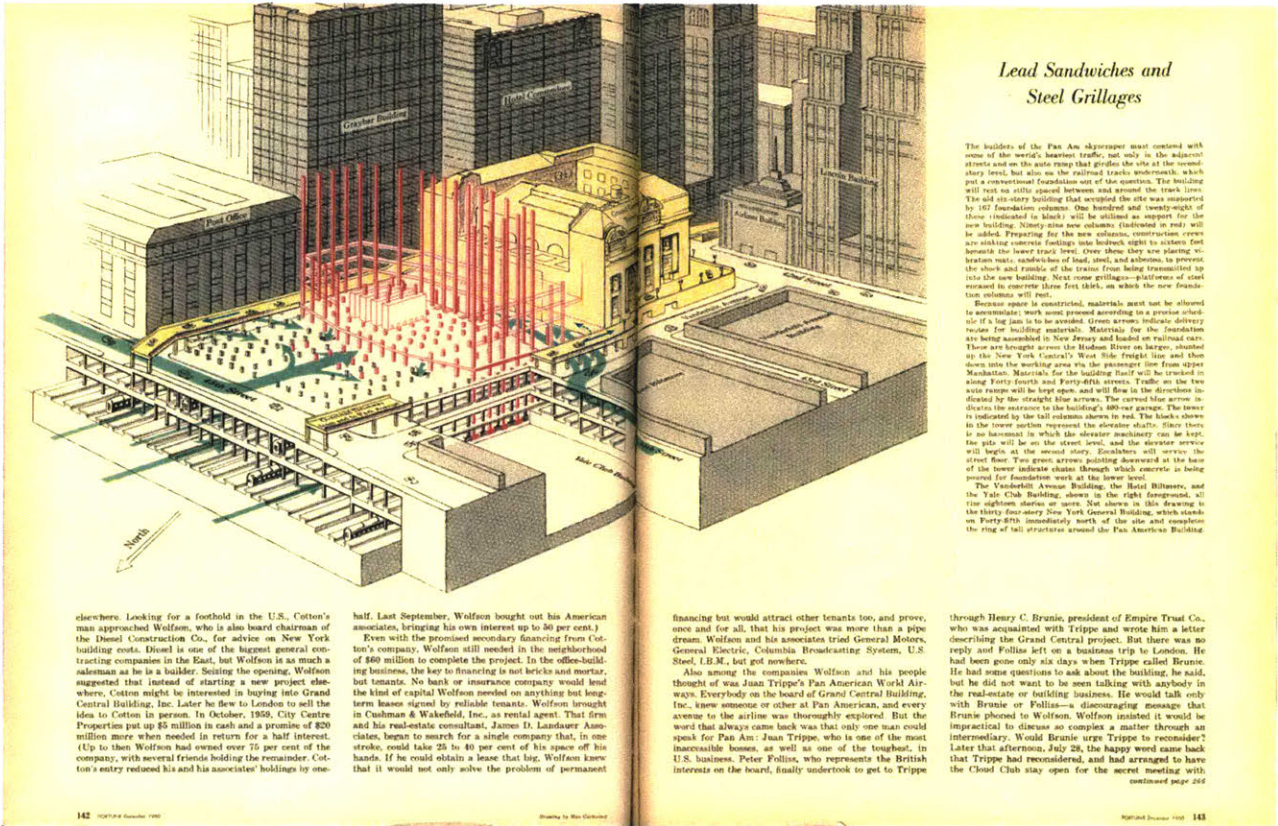


Fig. 4.6 "Architect for business in a city of towers," *Business Week*, September 1, 1962.

Eight Roth buildings crowd Park Avenue photo, including Pan Am (left). Exceptions are Lever House (fourth from right) and Union Carbide (right of Pan Am).



Lead Sandwiches and Steel Grillages

The builders of the Pan Am skyscraper must contend with some of the world's heaviest traffic, not only in the adjacent streets and on the auto ramp that grades the site at the second-story level, but also on the railroad tracks underneath, which put a conventional foundation out of the question. The building will rest on piles driven between and around the tracks (see The old six-story building that occupied the site was supported by 167 foundation columns. One hundred and twenty-eight of these (indicated in black) will be utilized as support for the new building. Ninety-nine new columns (indicated in red) will be added. Preparing for the new columns, construction crews are sinking concrete footings into bedrock eight to sixteen feet beneath the lowest track level. Over these they are placing vibration mats, sandwiches of lead, steel, and asbestos, to prevent the shock and rattle of the train from being transmitted up into the new building. Next come grillages—platforms of steel encased in concrete three feet thick, on which the new foundation columns will rest.

Because space is restricted, materials must not be allowed to accumulate (work some proceed according to a precise schedule if a log jam is to be avoided. Green arrows indicate delivery routes for building materials. Materials for the foundations are being assembled in New Jersey and loaded on railroad cars. These are brought across the Hudson River on barges, situated up the New York Central's West Side freight line and then down into the working area via the passenger line from Upper Manhattan. Materials for the building itself will be trucked in along Forty-fourth and Forty-fifth streets. Trucks on the two side ramps will be kept open, and will flow in the directions indicated by the straight blue arrows. The curved blue arrows indicate the entrance to the building's lobby garage. The lobby is indicated by the tall columns shown in red. The blocks shown in the lower section represent the storage shafts. Since there is no basement in which the elevator machinery can be kept, the pits will be on the street level, and the elevator service will begin at the second story. Elevators will serve the street floor. Two green arrows pointing downward at the base of the lower inflexible shafts through which concrete is being poured for foundation work at the lower level.

The Vanderbilt Avenue Building, the Hotel Biltmore, and the Yale Club Building, shown in the right foreground, all rise eighteen stories or more. Not shown in this drawing is the thirty-four-story New York General Building, which stands on Forty-fifth, immediately north of the site and completes the ring of tall structures around the Pan American Building.

elsewhere. Looking for a foothold in the U.S., Cotton's man approached Wolfson, who is also board chairman of the Diesel Construction Co., for advice on New York building costs. Diesel is one of the largest general contracting companies in the East, but Wolfson is as much a salesman as he is a builder. Seeing the opening, Wolfson suggested that instead of starting a new project elsewhere, Cotton might be interested in buying into Grand Central Building, Inc. Later he flew to London to sell the idea to Cotton in person. In October, 1959, City Centre Properties put up \$5 million in cash and a promise of \$20 million more when needed in return for a half interest. (Up to then Wolfson had owned over 75 per cent of the company, with several friends holding the remainder. Cotton's entry reduced his and his associates' holdings by one-

half. Last September, Wolfson bought out his American associates, bringing his own interest up to 50 per cent.) Even with the promised secondary financing from Cotton's company, Wolfson still needed in the neighborhood of \$60 million to complete the project. In the office-building business, the key to financing is not bricks and mortar, but tenants. No bank or insurance company would lend the kind of capital Wolfson needed on anything but long-term leases signed by reliable tenants. Wolfson brought in Cushman & Wakefield, Inc., as rental agent. That firm and his real-estate consultant, James D. Landauer Associates, began to search for a single company that, in one stroke, could take 25 to 40 per cent of his space off his hands. If he could obtain a lease that big, Wolfson knew that it would not only solve the problem of permanent

financing but would attract other tenants too, and prove, once and for all, that his project was more than a pipe dream. Wolfson and his associates tried General Motors, General Electric, Columbia Broadcasting System, U.S. Steel, I.B.M., but got nowhere.

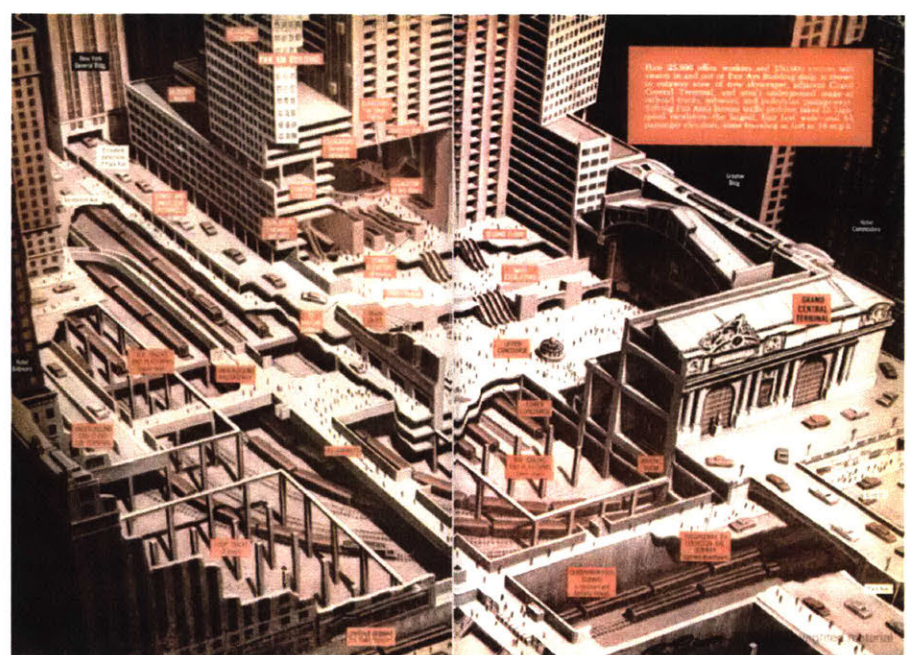
Also among the companies Wolfson and his people thought of was Juan Trippe's Pan American World Airways. Everyone on the board of Grand Central Building, Inc. knew someone or other at Pan American, and every avenue to the airline was thoroughly explored. But the word that always came back was that only one man could speak for Pan Am: Juan Trippe, who is one of the most inaccessible bosses, as well as one of the toughest, in U.S. business. Peter Polliss, who represents the British interests on the board, finally undertook to get to Trippe

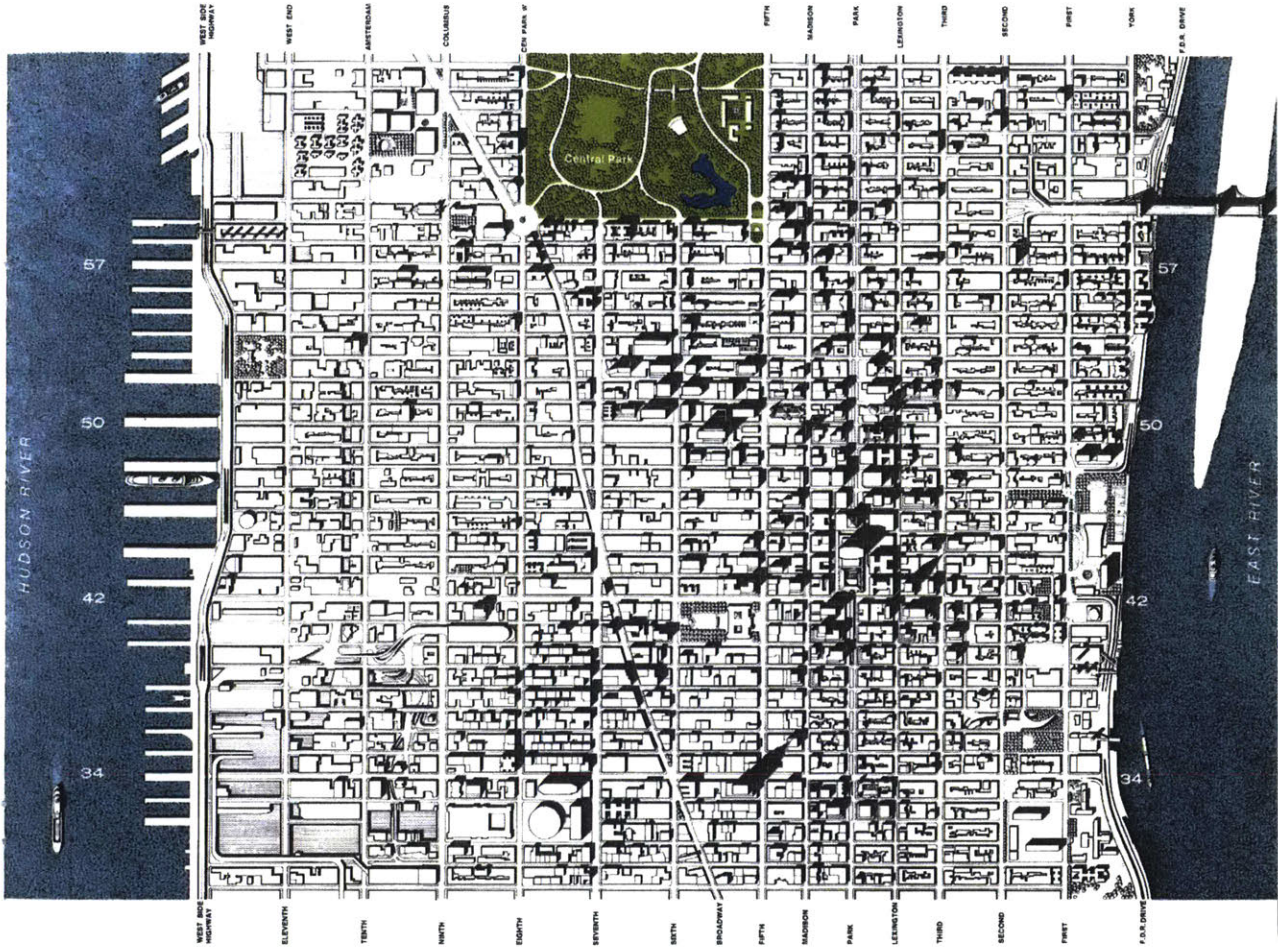
through Henry C. Brunis, president of Empire Trust Co., who was acquainted with Trippe and wrote him a letter describing the Grand Central project. But there was no reply and Polliss left on a business trip to London. He had been gone only six days when Trippe called Brunis. He had some questions to ask about the building, he said, but he did not want to be seen talking with anybody in the real-estate or building business. He would talk only with Brunis or Polliss—a discouraging message that Brunis phoned to Wolfson. Wolfson insisted it would be impractical to discuss so complex a matter through an intermediary. Wolf Brunis urged Trippe to reconsider. Later that afternoon, July 28, the happy word came back that Trippe had reconsidered, and had agreed to meet with the Board Club stay open for the secret meeting with

continued page 205

Fig. 4.7 Armen P. Armagnac, "The Most Complicated Building Ever Built," Popular Science, September 1960. Illustration by Ray Pioch.

Fig. 4.8 "Sky-High Deal for a Skyscraper," Fortune, December 1960. Illustration by Max Gschwind.





EXISTING PHYSICAL FORM: MIDTOWN MANHATTAN

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Fig. 4.9 "Existing Physical Form: Midtown Manhattan," Regional Plan Association, *Urban Design Manhattan* (April 1969).

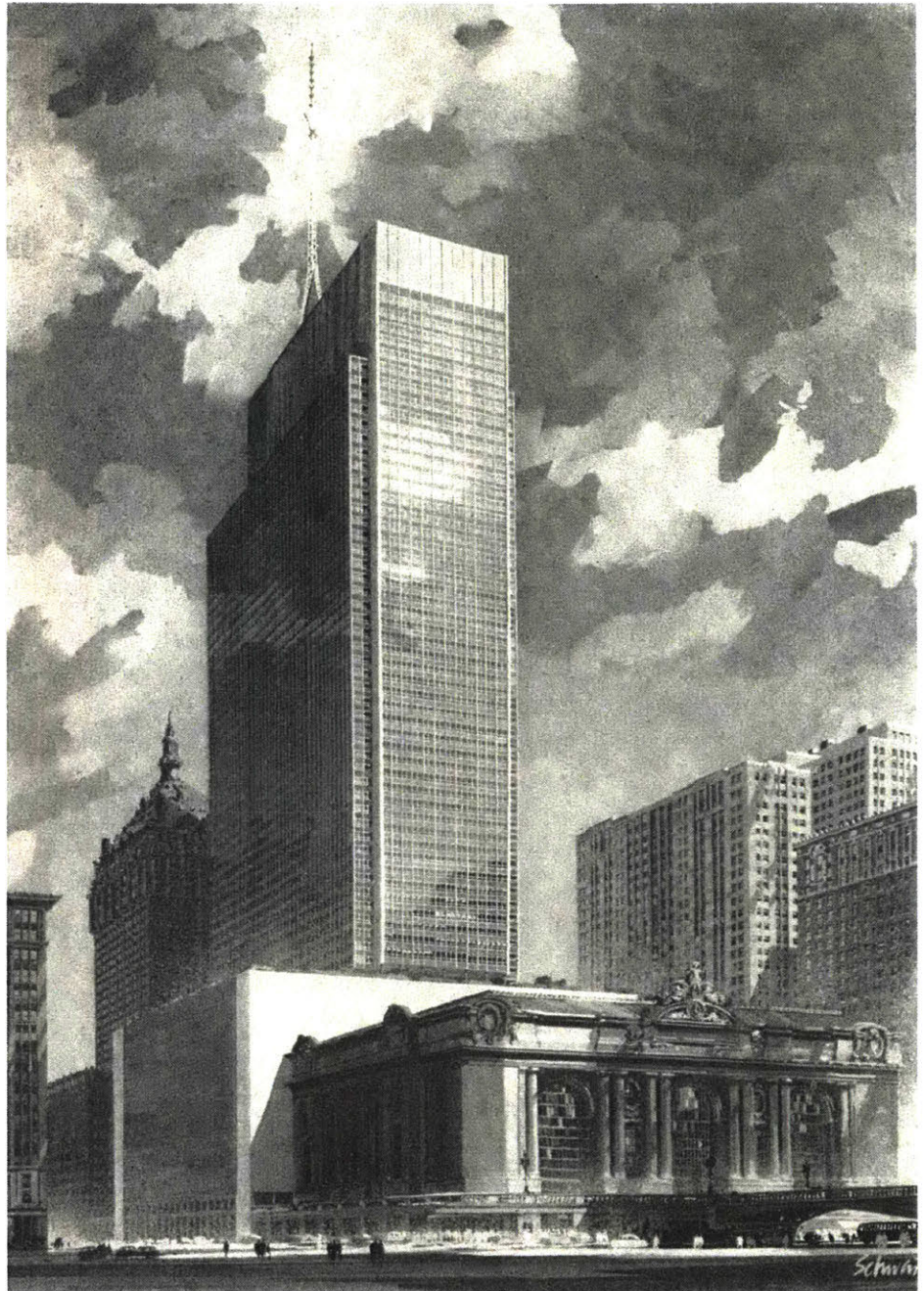
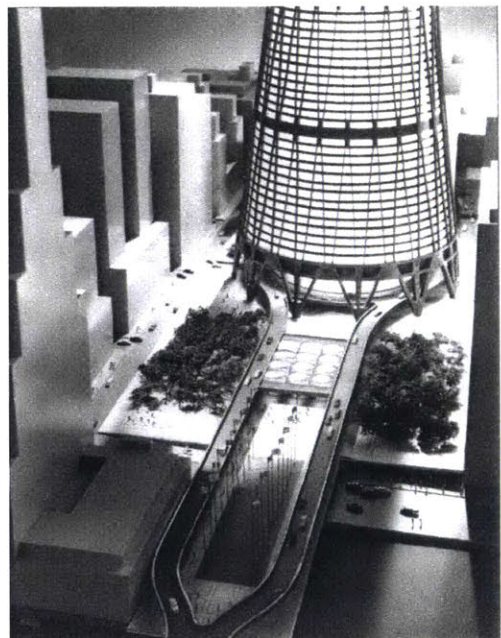


Fig. 4.10 Robert Schwartz, tempera rendering of Emery Roth & Sons, Grand Central City, first scheme, 1954.



Fig. 4.11 I. M. Pei for William Zeckendorf (Webb & Knapp), model of proposal for tower on site of Grand Central Terminal, 1954-55.



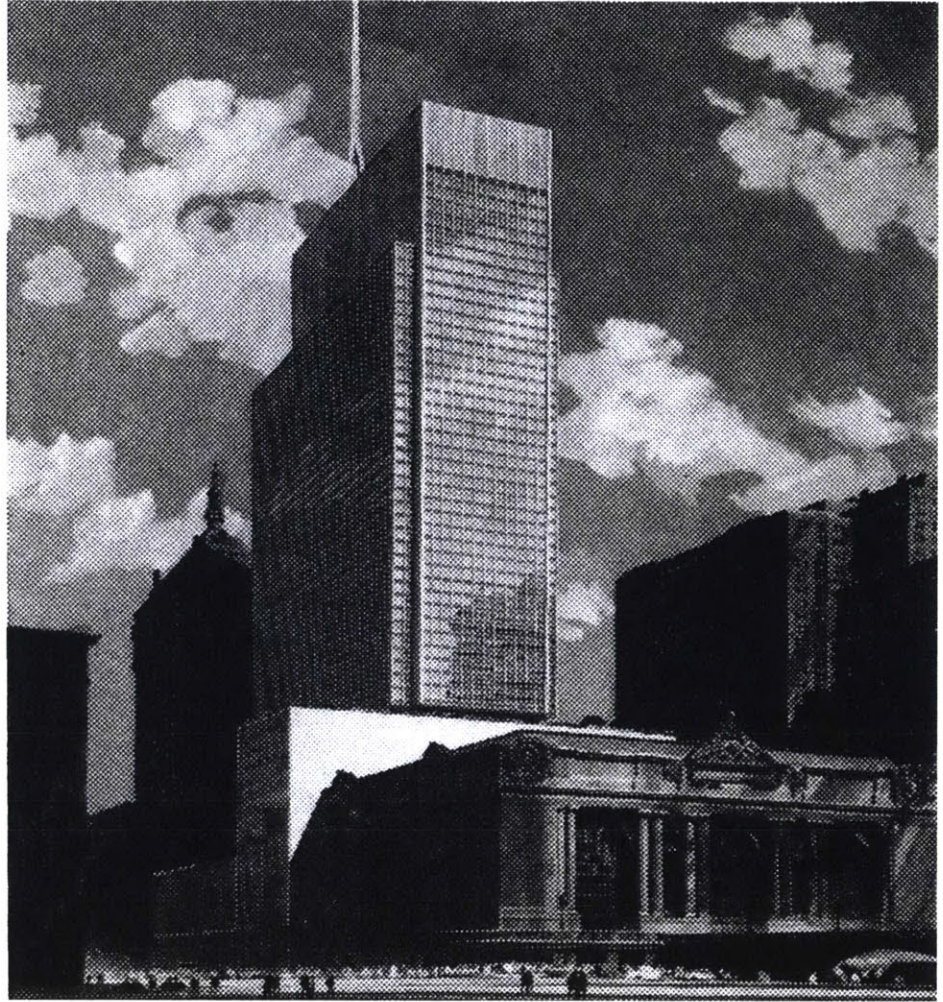


Fig. 4.12 Robert Schwartz, tempera rendering of Emery Roth & Sons, Grand Central City, revised scheme, 1955.

Noted Architects to Plan Center



Walter Gropius



Pietro Belluschi

Two noted architects, who have had widespread influence on contemporary architecture here and abroad, will collaborate with a local firm in the design of a fifty-story skyscraper to be built at the rear of Grand Central Terminal.

Walter Gropius and Pietro Belluschi will serve with Richard Roth of Emery Roth & Sons as architects of the new building, which will replace the six-story Grand Central Terminal Office Building. The

structure, which will have 3,000,000 square feet of space, is planned by a group headed by Erwin S. Wolfson.

Dr. Gropius was head of the Department of Architecture in the Graduate School of Design at Harvard University from 1938 to 1962. He is now senior partner of Architects Collaborative of Cambridge, Mass.

Dr. Belluschi is dean of the School of Architecture at the Massachusetts Institute of Technology.



Fig. 4.13 "Noted Architects to Plan Center," *The New York Times*, August 24, 1958.

Fig. 4.14 Carl Mayden, photograph of Walter Gropius and Pietro Belluschi, August 1958. (Time/LIFE)

The Skyscraper

(Continued from Page 16)

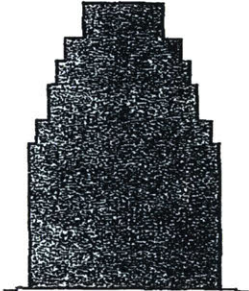
tical and physiological "proof" that they no longer need it. Man can no longer relate to these giants with dignity, as he has been able to with the smaller-scaled architecture of the past. Perhaps the most appalling characteristic of the skyscraper is its inhumanity.

IN ANSWER to the charges of overcrowding and dehumanization, investors, builders and architects reply that the skyscraper is an economic inevitability, and that their job is only to build buildings, not to run the city or its people. They are not guilty, they say, if these structures place overwhelming pressures upon urban patterns of transportation. The commercial builder concentrates on filling the available space for the greatest possible financial return. His architects have become technical specialists in real estate by the square foot, forgetting what they ever knew about design and urban planning. All are quick to stress the economic facts of New York life: on expensive Manhattan land anything but a big building is a losing proposition.

It is a fact that the big building is a necessary and desirable instrument of big

business. The more concentrated the quarters of a corporation, the more efficient its operation will be.

Moreover, the massing of these buildings makes it possible for related industries and services to group together, for easy and profitable communication, to provide the kind of valuable personal and corporate interchange that is called "confrontation" in the jargon of the business world. Some of the companies that moved



WEDDING CAKE—The profile of a typical New York bulk building.

out of New York after the war, following the popular theory of decentralization, which promises ideal corporate existence in idyllic country surroundings, have since

moved back, in spite of big-city pressures and problems.

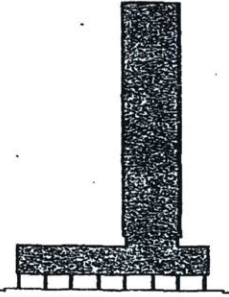
As for the charge of ugliness, the developers and their architects reply that the city's present zoning requirements make it difficult to build a profitable building that is also good-looking. These regulations state that any building that fills its lot may rise straight only to a certain height, then it must be set back before it can rise again—to guarantee light and air to its neighbors. In effect, the law specifies a shape—an empty "wedding cake" mold—into which the builder may push his structure until the mold is filled. By filling the mold completely, he makes the greatest profit.

Unfortunately, the "wedding cake" mold is extremely homely, but the law that dictates it is the real architect of the city's buildings. A straight tower or a soaring shaft, like the Seagram Building, slices off the profitable sides of the cake, leaving only the center piece. Needless to say, this kind of esthetic altruism does not appeal to the speculative builder.

THESE conditions are clearly demonstrated in Lever House and its neighbor, 400 Park Avenue. Lever gave up many square feet of floor space that would have fitted into the legal cake mold in favor of a smaller building with a sim-

ple, handsome shape: a slim vertical tower set on a low, horizontal base, open at the ground floor for a landscaped plaza.

The building at 400 Park bears a superficial resemblance to Lever House in the green glass panels of its walls, but the similarity ends right there. A standard product of



SLICED CAKE—A tower above an open plaza cuts off rentable space.

the present law, it hiccups its way upward, tight against adjacent buildings, squat and square below, zigzagging uneasily above. Its undistinguished commercial profile is a striking contrast to Lever's slender architectural distinction.

At present, better design can be achieved only through this kind of financial sacrifice. Lever House, the Seagram Building, the Pepsi-Cola Build-

ing and the new Union Carbide headquarters—all prestige structures on Park Avenue—are exceptional examples in which rentable space has been given up voluntarily by building less than the law allows. More distinguished architectural forms, sun-filled plazas and spacious settings are some of the desirable effects achieved by this deliberate flouting of urban economics. However, the ordinary builder or investor has no desire to sacrifice rentable space.

IN THE face of these problems, is there any solution, any hope for New York? It is self-evident that no city can build so much, so fast, with such splendid selfish individualism, without distressing results. It is also obvious that something must be done if New Yorkers are to exist in any comfort or serenity with the new massive construction.

The ideal solution—the totally planned city—is an obvious impossibility for a metropolis that is already vastly overbuilt. Visions of sensibly located industrial, commercial and residential areas with adequately calculated services, balanced neighborhoods and city-wide projects of coordinated architectural excellence must remain the dream of the planner who starts from scratch, presumably in a wilderness.

Fortunately, there are some
(Continued on Following Page)

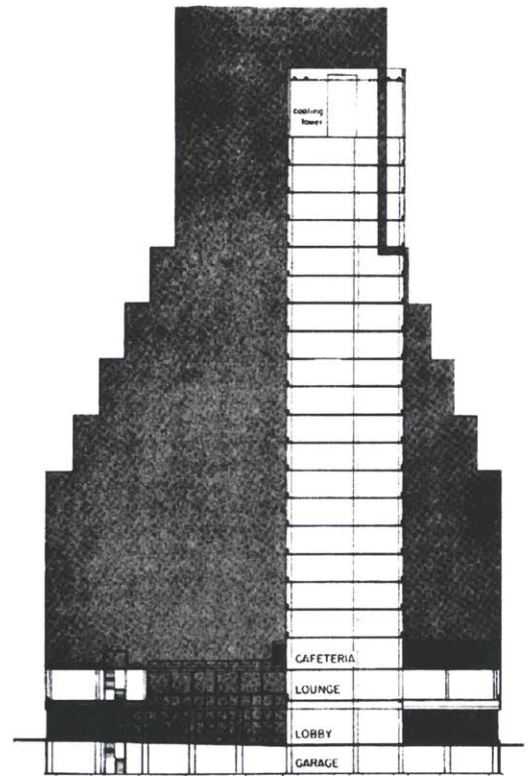
Fig. 4.15 "Wedding cake" and "sliced cake" tower profiles, in Ada Louise Huxtable, "Towering Question: The Skyscraper," *The New York Times*, June 12, 1960.



Fig. 4.16 Ludwig Mies van der Rohe and Philip Johnson Seagram Building, New York City (1952-1958). Photograph: Ezra Stoller.

Fig. 4.17 Skidmore, Owings & Merrill Lever House, New York City (1948-1952). Photograph: Ezra Stoller.

Fig. 4.18 Lever House, section diagram showing maximum permissible building envelope on Park Avenue site.



the new antiquated window pier, "Renaissance," or "Gothic" adaptation in design. Since air conditioning scientifically provides sufficient air, it has been felt that the excessive floor heights previously designed are no longer a factor.

When originally planned in postwar construction, air conditioning was actually in its infancy, and ducts were normally run over corridors with the return system being provided through louvers in doors and through the corridor itself, and exhausted through elevator shafts, stairhalls, and toilets. Today, air conditioning is being provided on a much more scientific basis, and a multitude of complex considerations have to be carefully examined (such ceilings, recessed lighting, flexibility of changes in plan as tenant departmental conditions change). Only with experience in the field of high-rise office buildings can this floor-to-floor height be established. It has been felt that exterior rooms of 8'-6" in clear height are not only sufficient but are proportionately proper to the width and length of the rooms.

In brief, heights of floors vary between 10'-8" and 11'-4" for buildings constructed of structural steel. The variance is based on the size of the project and the size of the anticipated open office spaces to be constructed. While 8'-6" is a good height for any office up to 20'-0" x 24'-0" in open clerical spaces, such as found in insurance company layouts, it would seem oppressively low.

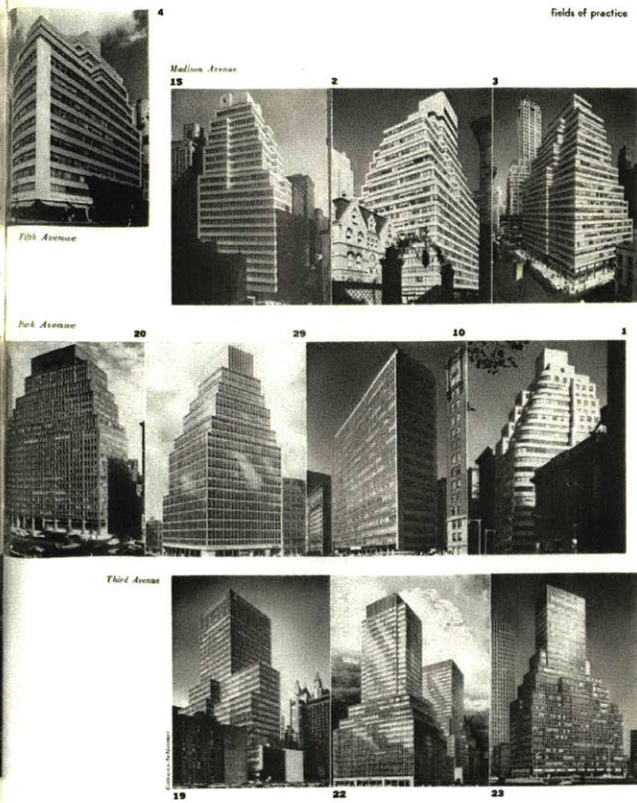
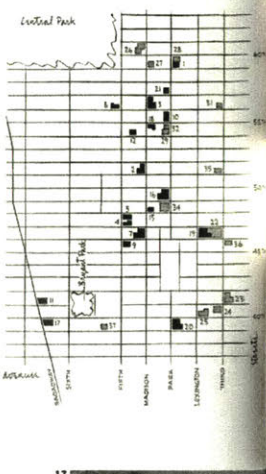
On large plots, we provide the maximum floor-to-floor heights, and in narrow smaller plots we work to the minimum of 10'-8" floor to floor. On such plots, where we will have large interior spaces, we feel that the 9'-0" clear height is preferable. With normal column spacing, the 9'-0" clear height can be maintained easily with 11'-4" to 11'-6" floor-to-floor height.

Some other considerations that affect our decisions are the height of the building and the size of the floor plan which ultimately affects the layout and distribution of air-conditioning ducts and lighting fixtures. The minimum, clear floor-to-finished ceiling dimension that we always maintain is 8'-6".

rule of thumb and elevators
 Prior to self-service, automatic, elec-

- 1 333 Park Avenue (175,000 sq ft)
- 2 400 Madison Avenue (250,000 sq ft)
- 3 170 Park Avenue (190,000 sq ft)
- 4 100 Park Avenue (110,000 sq ft)
- 5 222 Park Avenue (195,000 sq ft)
- 6 333 Madison Avenue (360,000 sq ft)
- 7 300 Madison Avenue (40,000 sq ft)
- 8 330 Park Avenue (200,000 sq ft)
- 9 400 Park Avenue (250,000 sq ft)
- 10 140 Broadway (140,000 sq ft)
- 11 1 East 58th Street (175,000 sq ft)
- 12 100 East 58th Street (175,000 sq ft)
- 13 100 East 58th Street (175,000 sq ft)
- 14 100 East 58th Street (175,000 sq ft)
- 15 411 Madison Avenue (200,000 sq ft)
- 16 300 Park Avenue (250,000 sq ft)
- 17 140 Broadway (140,000 sq ft)
- 18 140 Broadway (140,000 sq ft)
- 19 400 Park Avenue (250,000 sq ft)
- 20 400 Park Avenue (250,000 sq ft)
- 21 400 Park Avenue (250,000 sq ft)
- 22 700 Third Avenue (340,000 sq ft)
- 23 300 East 58th Street (175,000 sq ft)
- 24 100 East 58th Street (175,000 sq ft)
- 25 375 Lexington Avenue (180,000 sq ft)
- 26 400 Lexington Avenue (250,000 sq ft)
- 27 400 Lexington Avenue (250,000 sq ft)
- 28 400 Lexington Avenue (250,000 sq ft)
- 29 400 Lexington Avenue (250,000 sq ft)
- 30 100 Church Street (150,000 sq ft)
- 31 Third Avenue & 58th Street (300,000 sq ft)
- 32 100 Park Avenue (120,000 sq ft)
- 33 100 Park Avenue (120,000 sq ft)
- 34 700 Park Avenue (300,000 sq ft)
- 35 Third Avenue & 58th Street (300,000 sq ft)
- 36 Third Avenue & 58th Street (300,000 sq ft)
- 37 100 West 58th Street (175,000 sq ft)

Key (left) to map below and illustrations (including net rentable areas). Listed in chronological order, from 1946 to current work in planning stage. Listings with asterisk occur outside area of map.



fields of practice

Fig. 4.19 Richard Roth, "High-Rise Down to Earth," *Progressive Architecture*, June 1957.

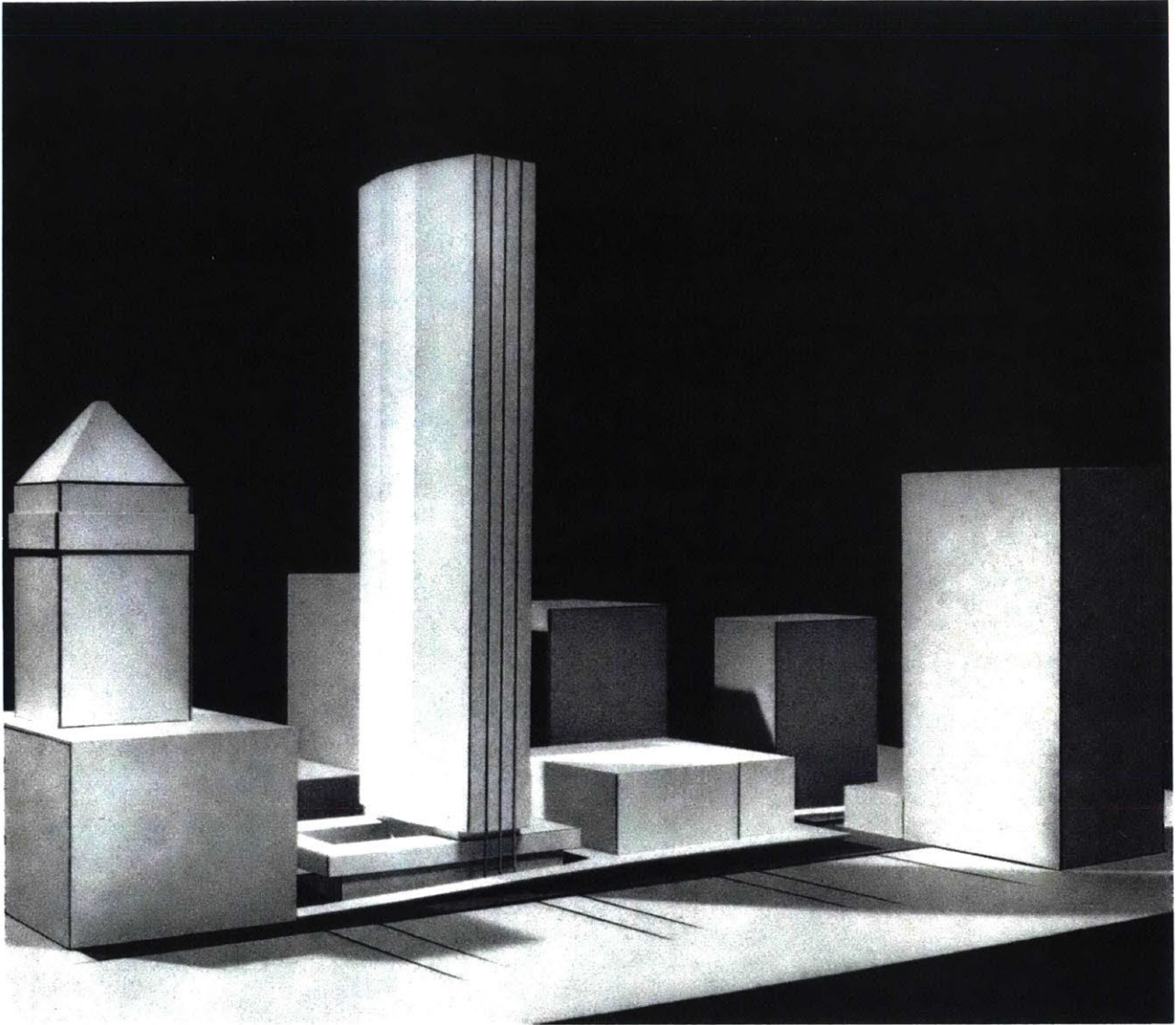


Fig. 4.20 The Architects Collaborative (TAC), model of revised scheme for Grand Central City, c. 1955. Reprinted in *The Architects Collaborative 1945-1965*.

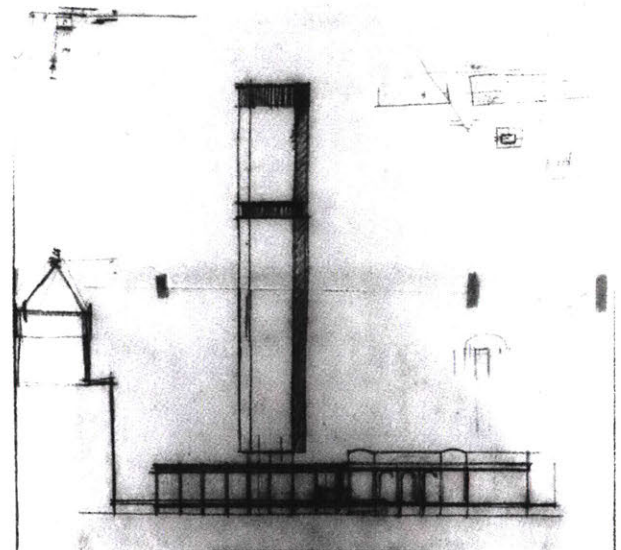
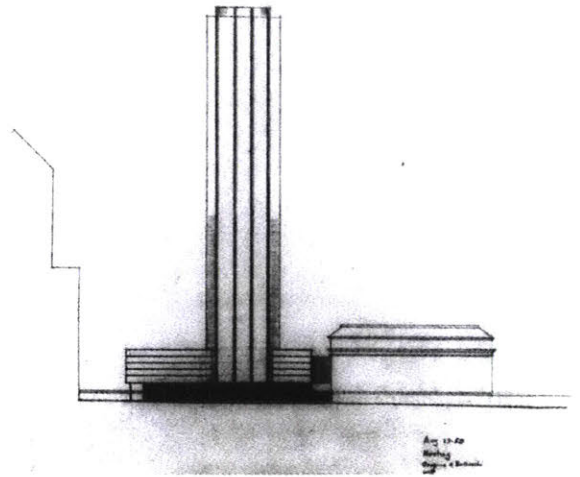
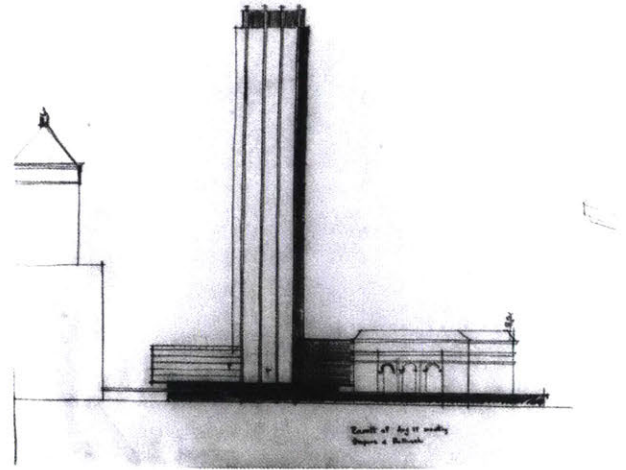


Fig. 4.21 TAC, elevation sketches of relationship between Grand Central City tower and base, after meeting with Gropius and Belluschi, August 1959. Walter Gropius Archive, 5819.5-5819.7.

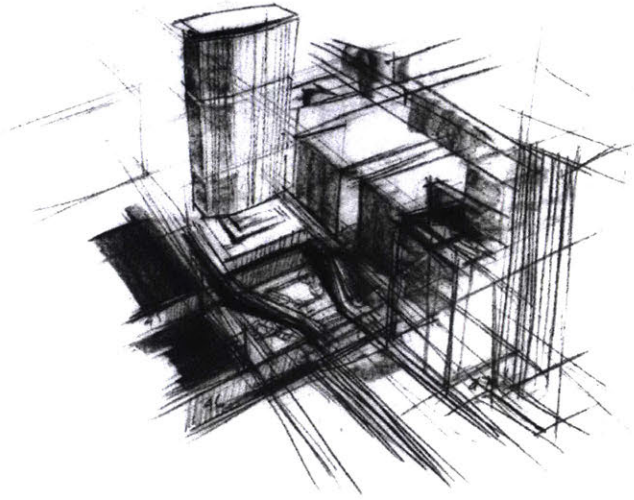
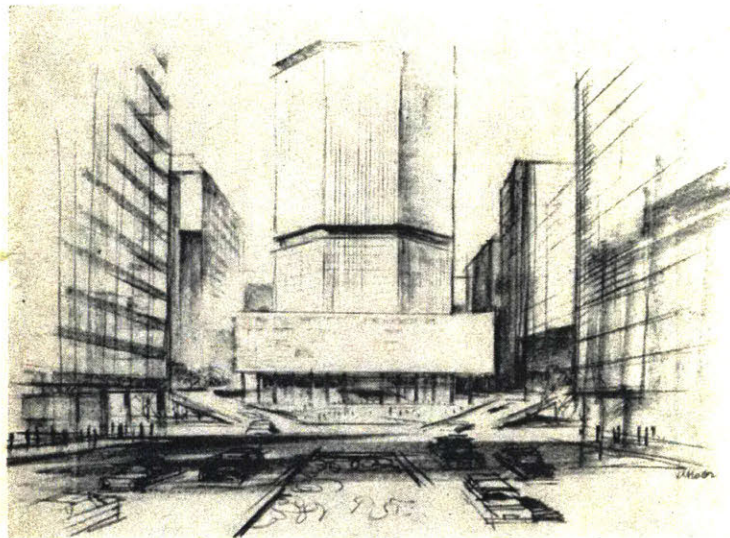


Fig. 4.22 TAC, perspective of Grand Central City scheme with plaza on site of New York Central Building, c. 1958-59. Walter Gropius Archive, 5819.1.

Fig. 4.23 TAC, sketch of Grand Central City scheme with plaza on site of New York Central Building, c. 1958-59. Reprinted in Mildred F. Schmertz, "The Problem of Pan Am," *Architectural Record*, May 1963.



Above: how Pan Am would look if the New York General tower were removed and its site became a park. Although Gropius knows that this eventuality is unlikely, he also considers it the optimum solution. View from the north (*top right*) shows the New York General tower and from the south (*bottom*) the Grand Central Terminal. Pan Am closes the Park Avenue vista from the north and south. On the opposite page (*top*) is the view from the east on 44th. From the west on 44th (*bottom*) Pan Am is positioned on the axis of the street

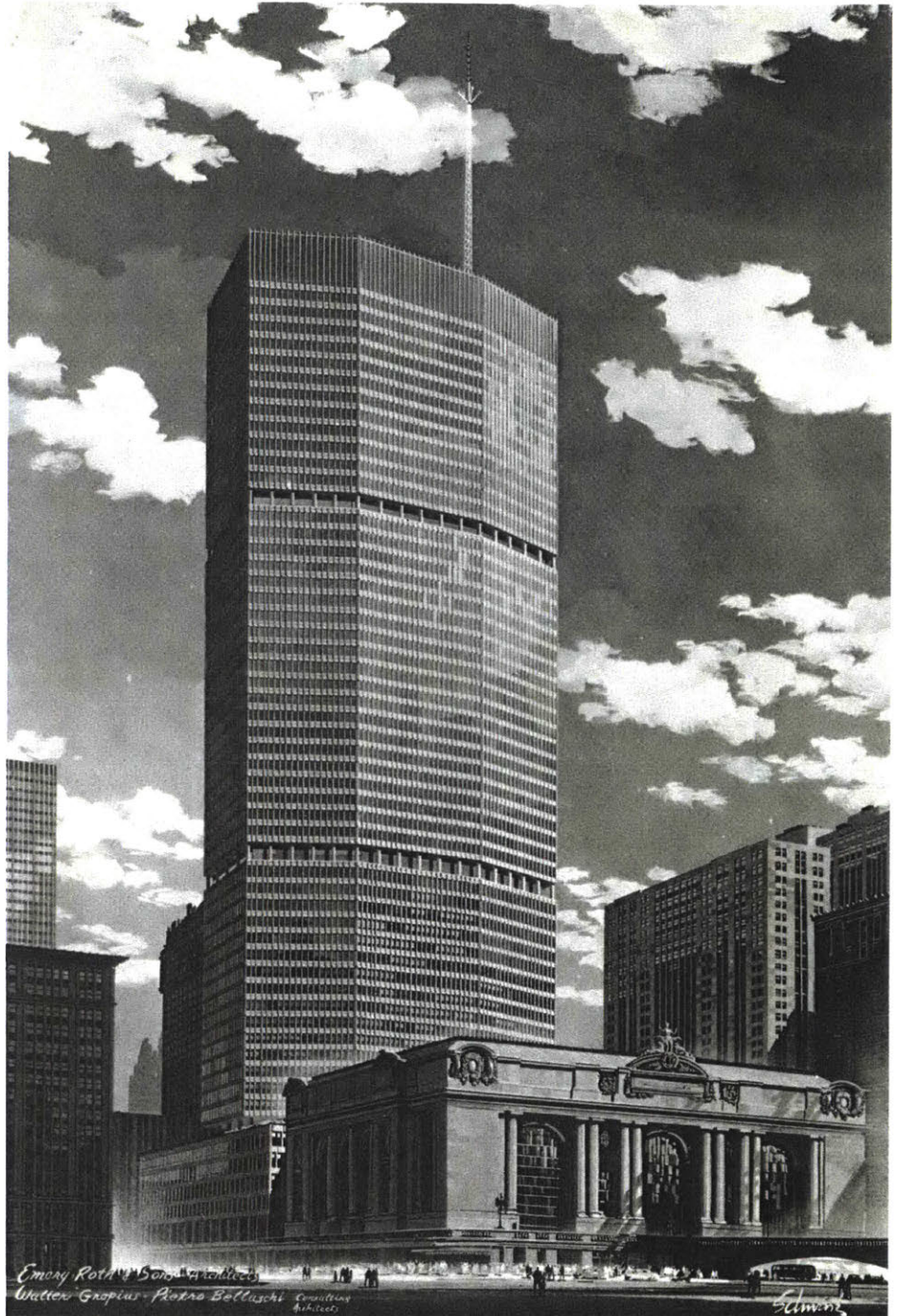


Fig. 4.24 Robert Schwartz, tempera rendering of Emery Roth & Sons with TAC and Pietro Belluschi, Grand Central City, 1958.



Fig. 4.25 Heliport and Pam Am signage, Pan American Airways Building, n.d. Photograph: Corbis-Bettmann.



Fig. 4.26 Pan American Airways Building, large-scale cutaway model by Norman S. Briskman, 1959–60. Photograph from “Sky-High Deal for a Skyscraper,” *Fortune*, December 1960.

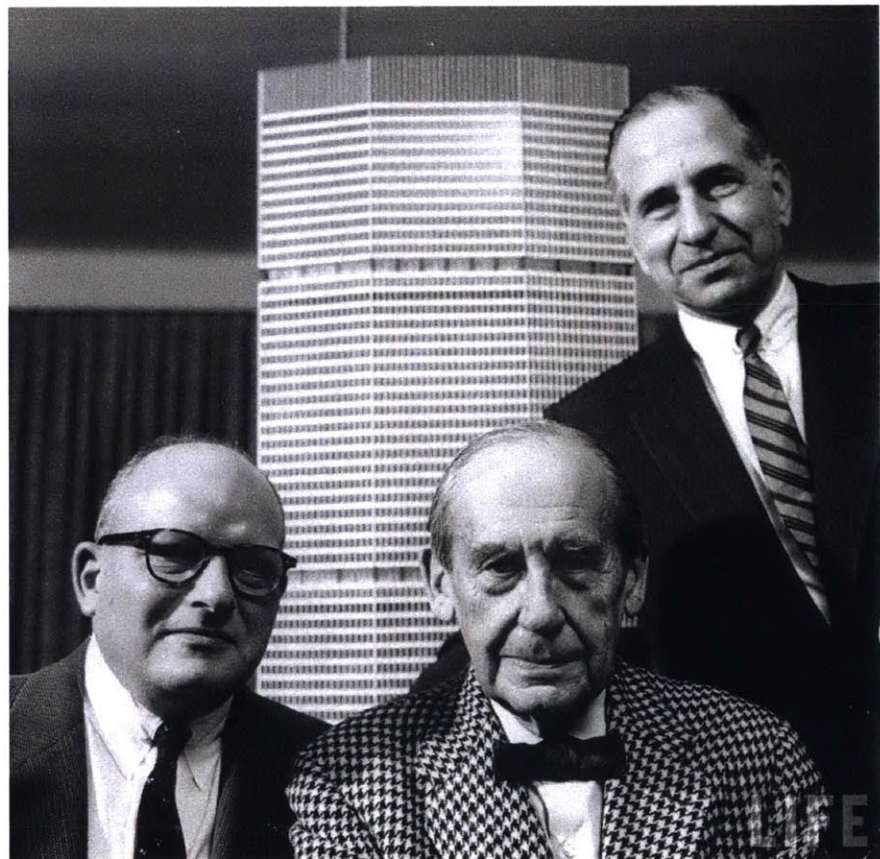
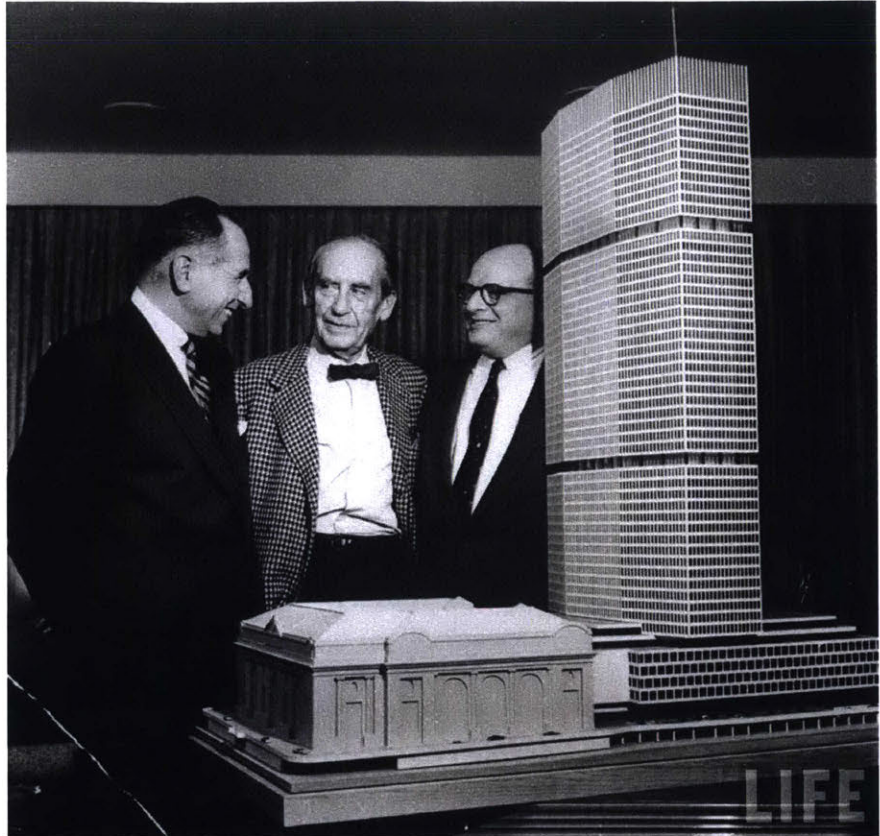


Fig. 4.27 Andreas Feininger, photographs of Erwin S. Wolfson, Walter Gropius, and Richard Roth, February 1959. (Time/LIFE)

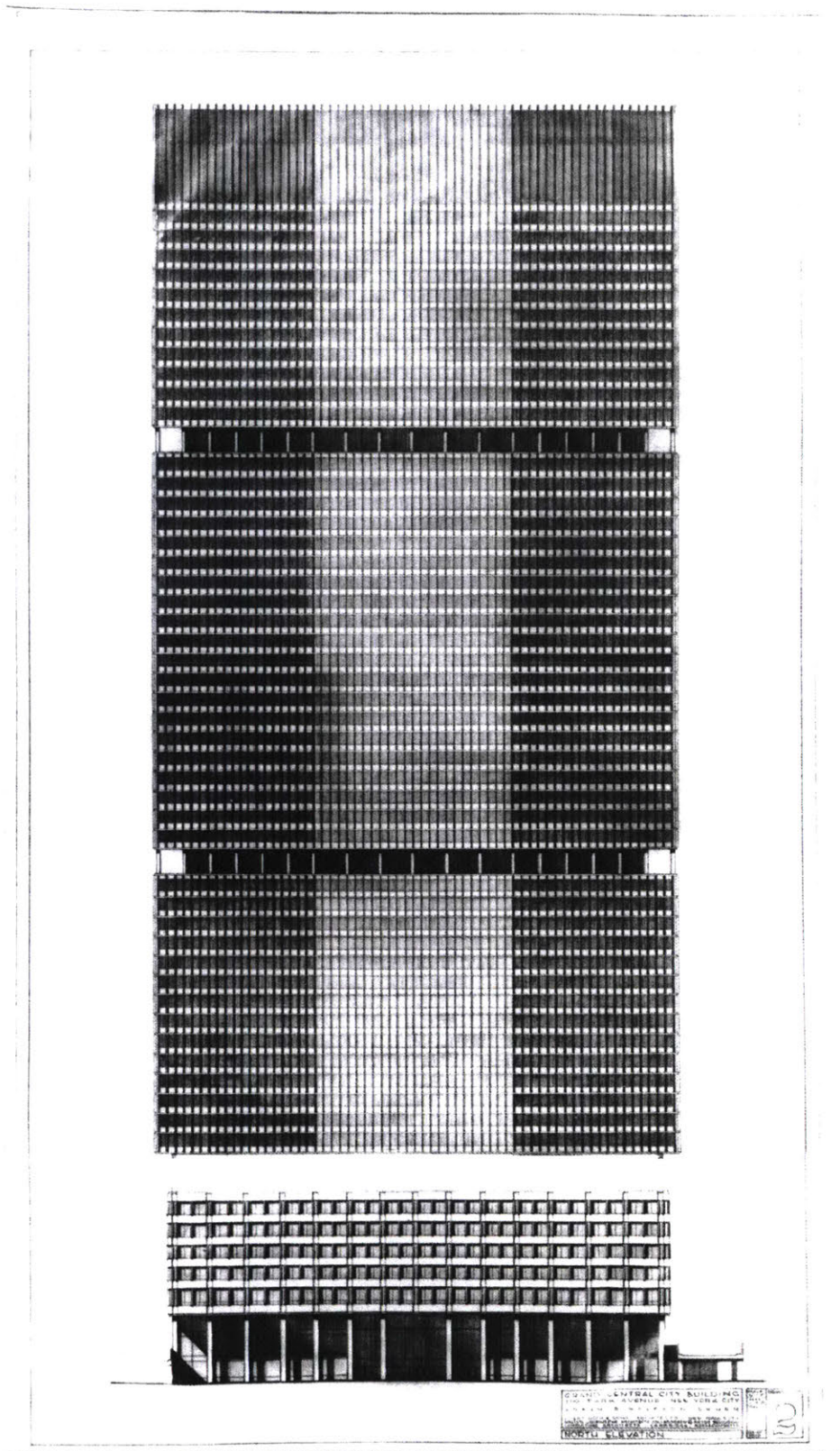


Fig. 4.28 Pan American Airways Building, north elevation. Drawing by TAC office (?). Walter Gropius Archive, 5819.9.

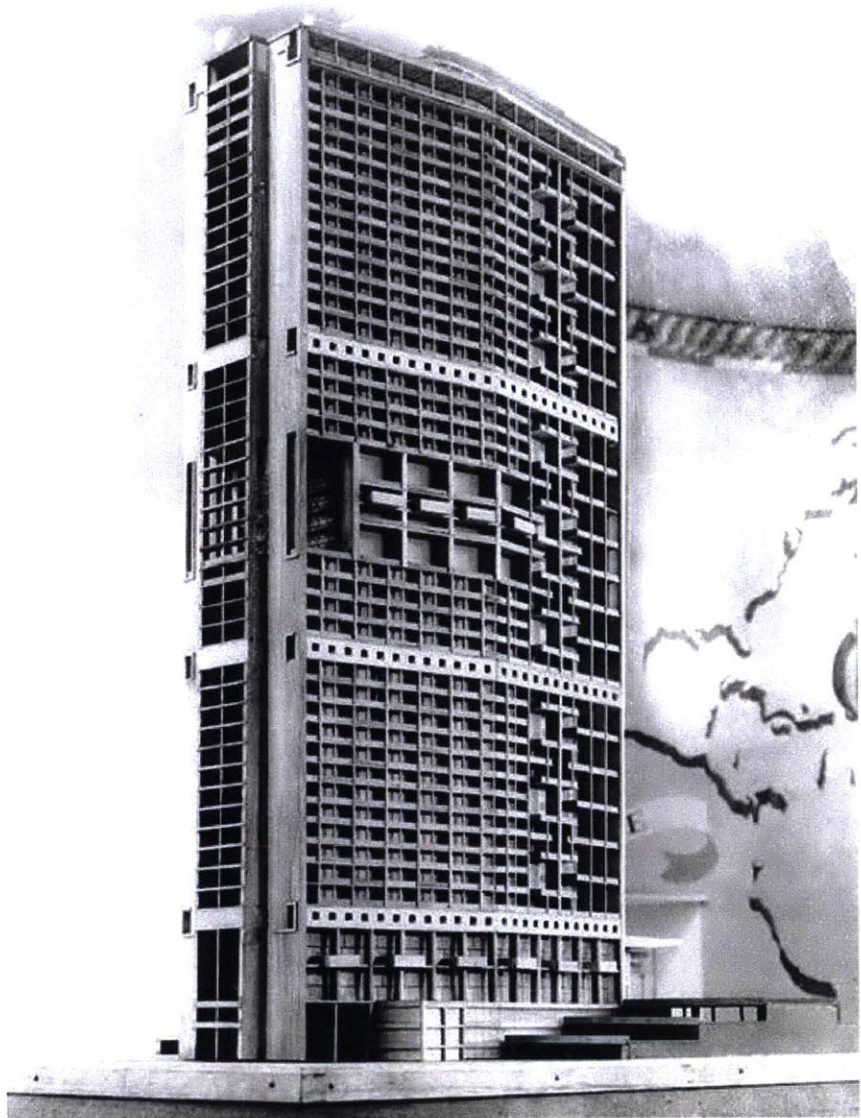


Fig. 4.29 Le Corbusier, model of proposed office tower, Algiers, c. 1936-1938.

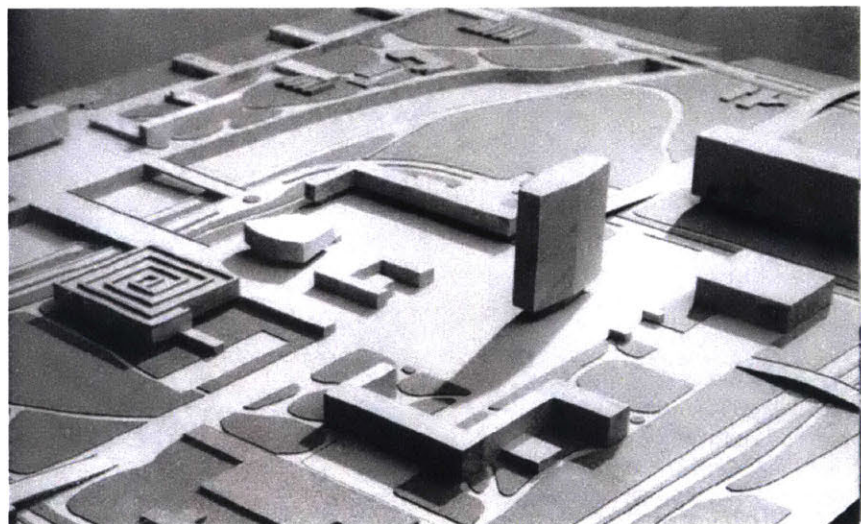


Fig. 4.30 Le Corbusier, model of town plan and civic center, St. Dié, c. 1945.



Fig. 4.31 Boston Center Architects (TAC, Pietro Belluschi, Walter F. Bogner, Carl Koch & Associates, and Hugh Stubbins Jr.) for Stevens Development Company, photomontage of Back Bay Center, 1953.

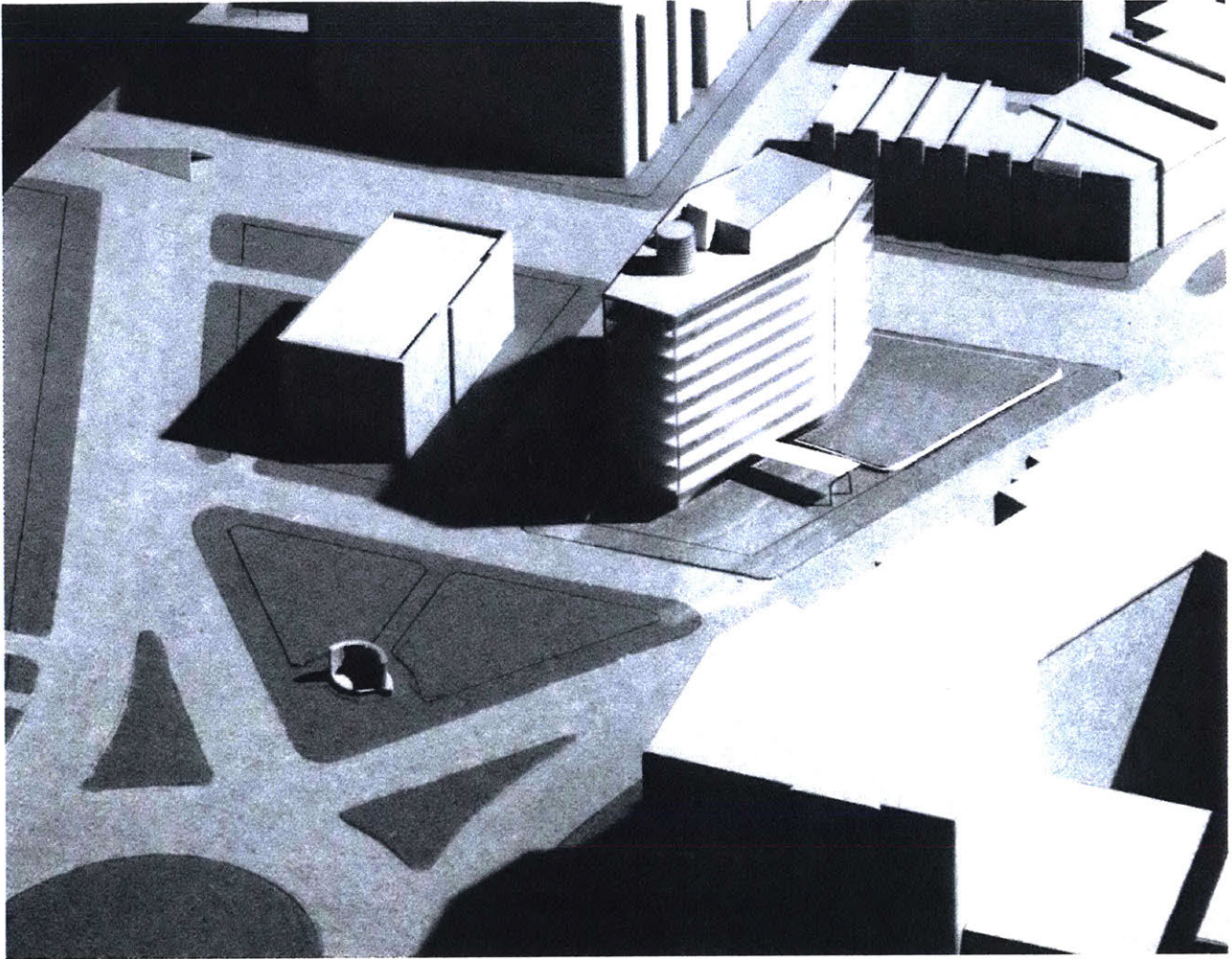


Fig. 4.32 TAC, model of proposed headquarters for the American Academy of Arts and Sciences, Washington, D.C., 1952. Walter Gropius Archive, 5212.3-9.



Fig. 4.34 Gio Ponti with Pier Luigi Nervi and Arturo Danusso, Torre Pirelli, Milan, 1950–58. Photograph: Gabriele Basilico.

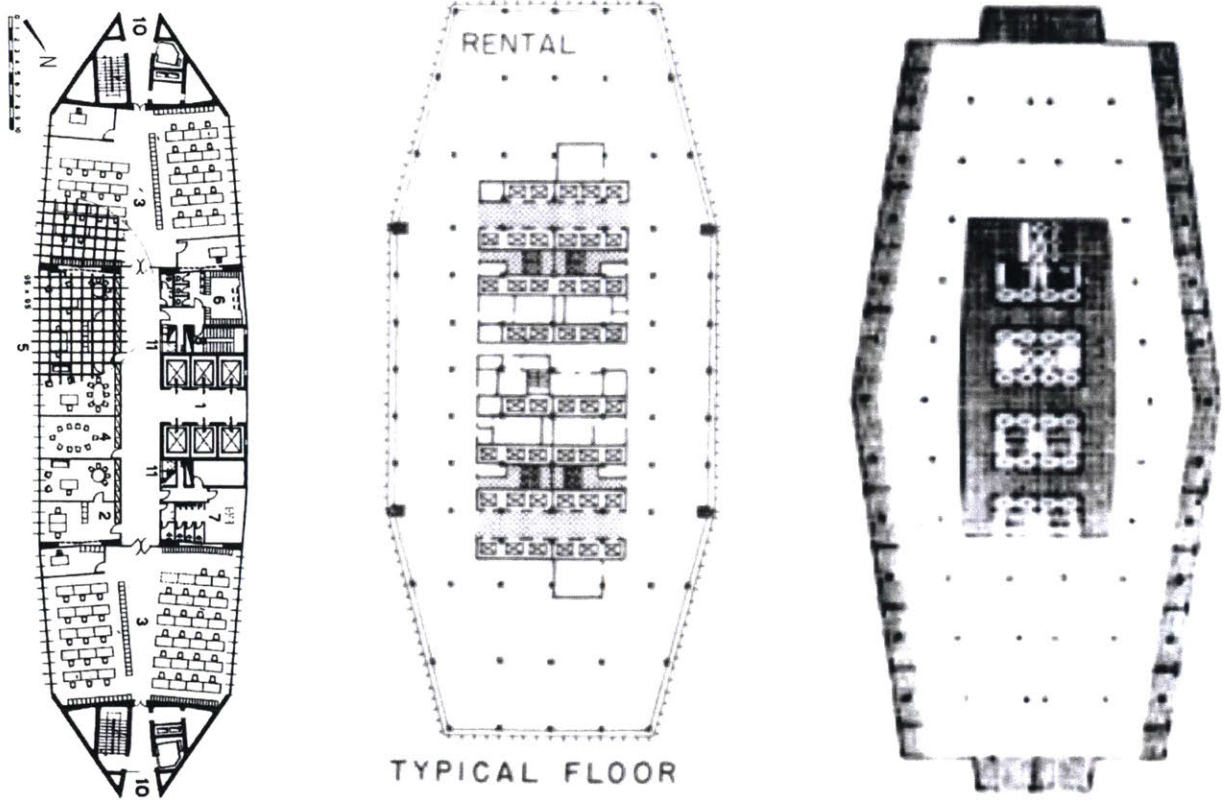


Fig. 4.35 Comparison of typical floor plans for Torre Pirelli (left), Pan American Airways Building (middle), and tower for Algiers (right).

The Pan Am Building in its Urbanistic Context

by Walter Gropius

THE condition of Park Avenue a generation ago was most attractive and unified in its appearance. Plain street walls of medium height were flanking the avenue on both sides with the top corners of the buildings going in one unscrupulous horizontal line. The heights of the buildings were in a pleasant proportion to the width of the street.

When the natural growth of New York City necessitated a new Zoning Law admitting high structures along Park Avenue, its character changed completely. It became a commercial center of big corporations. No regulations have been established, however, to enforce plain street walls at equally high horizontal roof lines. This shortcoming resulted in the present ragged and inconsistent appearance of the street lines which have lost the balanced unity of the old Park Avenue. The Zoning Law of 1960, which has greatly improved the relation of the building masses to their sites, does not contain either sufficient legal power to control effectively the unity of the streetscape of so important an artery as Park Avenue.

These were the conditions which had to be faced by the architects for the Pan Am Building. When the design consultants—myself with "The Architects Collaborative" and Pietro Belluschi—were called in by the owner of the Grand Central-Pan Am Building, they started an elaborate

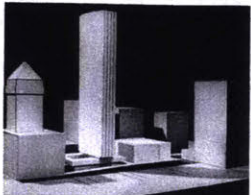
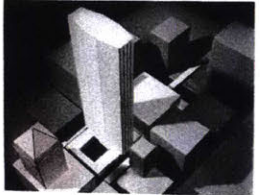
investigation into the urbanistic problems involved. Models were built with the surrounding buildings in order to establish the masses for the new building. The unbalanced appearance of the present Park Avenue called for the creation of a strong point of reference for the unbalanced building masses that are situated north and south of Grand Central Station.

The first project the design consultants put before the owner consisted of a high, octagonal tower astride Park Avenue from west to east and standing on a low, three-story base building with an open courtyard and its entrance towards 45th Street. The low height of this base building avoided a corner effect on Vanderbilt Avenue on 45th Street. It freed the tower from the surrounding buildings for pedestrians walking in the street and offered a strong monumental focus and architectural background when moving from north or south on Park Avenue towards Grand Central.

The amount of square feet available in the first scheme—about 1,500,000 square feet—was, however, insufficient in relation to the high cost of the site. The client convinced the designer that in this scheme the rents would be much too high so that it would not be feasible financially as a commercial proposition. In addition a well-planned out large, continuous floor space in a higher base building would be at a premium. The floor areas in this base building were about 100,000 square feet on each level.

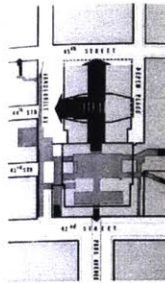
Various other schemes were then tried out in order to find a reasonable balance between the potential price per

PROTOTYPE Plan which the design consultants considered most desirable is shown by photographs of model. Its low volume which would have insured adequate open Vanderbilt Avenue and on 45th Street was insufficient to carry out of land.



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SEPTEMBER 30, 1962



PLANNING Floor plan shows how wide concourse of Pan Am will carry pedestrian traffic through to vestibule, tunnel and to Grand Central Station.

square foot for rents and the investment cost for building construction and site. As the design consultants considered the maximum permissible building volume on the site within the existing zoning law as being too high, they successfully persuaded the owner to go to the limit. As a result the building contains 20% less—600,000 square feet—than would have been indicated within the law.

Objections have been raised meanwhile, that in the already congested area of the Grand Central Station, no structure of this size should have been

erected. It has even been suggested that instead a green plaza should have been established on this site. How do such proposals fit the urbanistic context of the central area of New York City, and are they desirable for its future use?

From a realistic point of view the idea of an open plaza on this extremely valuable site is not only utopian but it is also illogical. The Grand Central Park Avenue region follows in its development the modern trend of a vertical city for trade and commerce, favoring increasing pedestrian traffic very similarly to the Wall Street banking region with its short horizontal and mechanical vertical communication lines. To put the Pan Am Building right on top of Grand Central Station is logical and proper, for it offers the best possible vertical communications conceivable. Also the horizontal pedestrian passages in this area will be 100% improved by the new building. Whereas the old conditions provided pedestrian access to Grand Central Station only on 42nd Street and at the corner of Vanderbilt Avenue, there will be now a wide concourse through the new building leading the pedestrian flow right from 42nd Street and the railway station through to 45th Street.

There is still in the public mind much confusion and uncontrolled sentiment about desirable densities. This requires some clarification. Sometimes not the density of a district as such is wrong, but the distribution of the building masses may be haphazard instead of having been brought into thoughtfully-organized balance. Moreover residential districts need quite a different classification of density of course, from that for commercial oc-

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COMPLETED AREA New Grand Manhattan Park Building at 45th Street is in east tower area that is Pan Am, and is surrounded on three sides by existing streets. Street plan gives desirable result but area of open land could not be achieved by maintenance barrier.

What might be rightly considered as congestion in the one may be just convenience for the other. From the Wall Street area we have learned the obvious advantage of verticalism for business, with its wholesome consequence of reduced vehicular traffic. The same trend, vigorously and consistently promoted in the Grand Central area, would decompress it in spite of its building density.

Sentimentality caused by seeing European cities of the past cannot help us constructively in this country. We have to invent our own significant standards of beauty by creating a new urbanistic order from the realities of American life. The verticalism for American business centers is a new form springing from natural growth of the city.

From a realistic point of view the idea of an open plaza on this extremely valuable site is not only utopian but it is also illogical. The Grand Central Park Avenue region follows in its development the modern trend of a vertical city for trade and commerce, favoring increasing pedestrian traffic very similarly to the Wall Street banking region with its short horizontal and mechanical vertical communication lines. To put the Pan Am Building right on top of Grand Central Station is logical and proper, for it offers the best possible vertical communications conceivable. Also the horizontal pedestrian passages in this area will be 100% improved by the new building. Whereas the old conditions provided pedestrian access to Grand Central Station only on 42nd Street and at the corner of Vanderbilt Avenue, there will be now a wide concourse through the new building leading the pedestrian flow right from 42nd Street and the railway station through to 45th Street.

REAL ESTATE FORUM

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Fig. 4.36 Walter Gropius, "The Pan Am Building in its Urbanistic Context," *Real Estate Forum*, September 30, 1962.

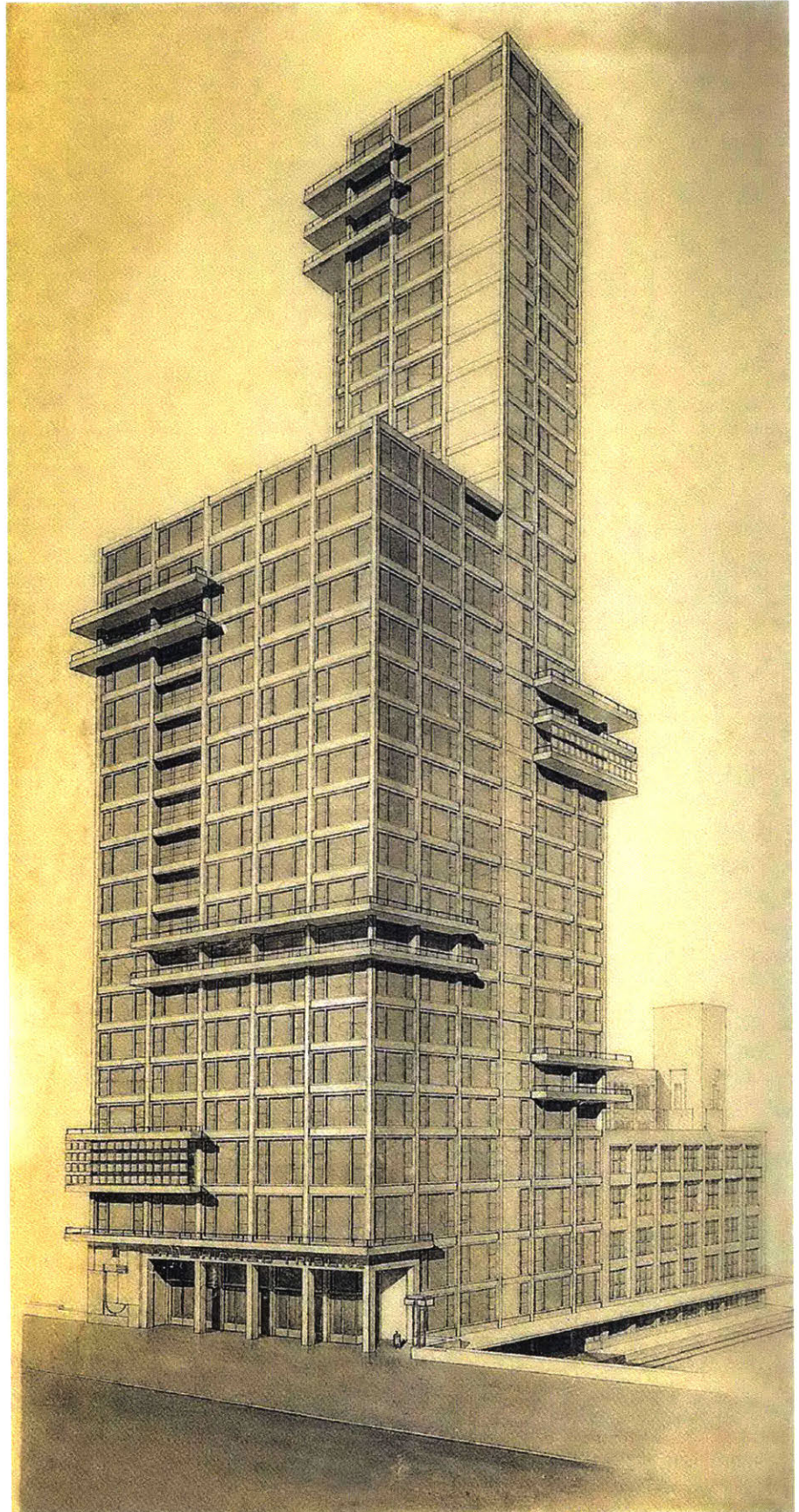


Fig. 4.37 Walter Gropius and Adolf Meyer, Chicago Tribune Tower competition entry, perspective, 1922.



Fig. 4.38 Photograph of Pan American Airways Building, c. 1963 (J. Alex Langley, photographer?), from *The Architects Collaborative 1945-1965*.

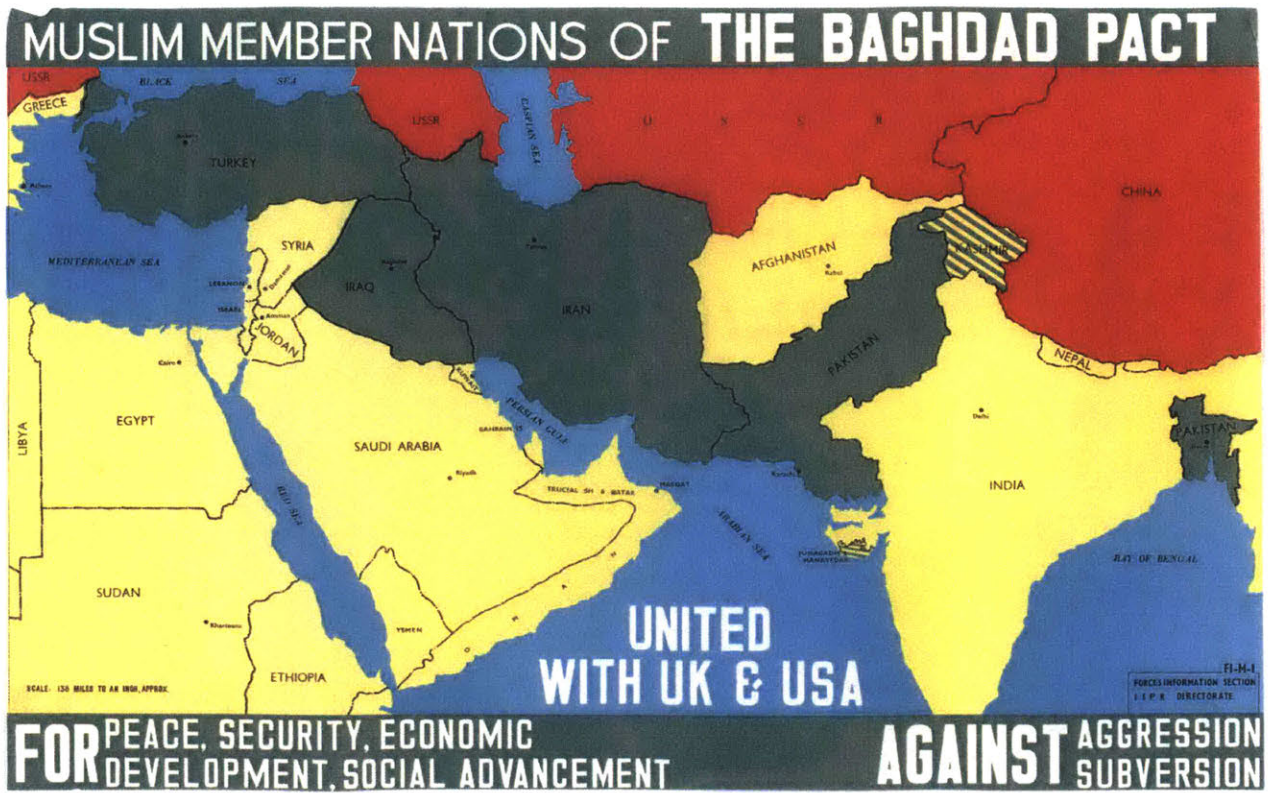


Fig. 5.1 “Muslim Member Nations of the Baghdad Pact,” Inter-Services Public Relations (ISPR) Directorate, Pakistan Armed Forces, c. 1955.



- | | | | |
|---|---|---|---|
| <p>A CENTRAL AREA</p> <ol style="list-style-type: none"> 1 LIBRARY 2 ADMINISTRATION 3 FACULTY TOWER 4 AUDITORIUM 5 FACULTY CLUB 6 STUDENT CENTER 7 MUSEUM 8 THEATER 9 ART GALLERY | <p>B ACADEMIC BUILDINGS</p> <p>C DORMITORIES</p> <p>D DINING HALLS</p> <p>E ATHLETIC FACILITIES</p> <ol style="list-style-type: none"> 1 ATHLETIC BUILDINGS 2 STADIUM | <p>F SERVICE AREA</p> <p>G HOUSING</p> <ol style="list-style-type: none"> 1 PRESIDENTS HOUSE 2 FACULTY HOUSING 3 GUEST HOUSE | <p>H SUPPLEMENTARY BUILDINGS</p> <ol style="list-style-type: none"> 1 MOSQUE 2 TAHIR COLLEGE 3 ELEMENTARY SCHOOL 4 INFIRMARY 5 FACULTY PAVILION 6 MAIN ENTRANCE GATEHOUSE AND ARCH |
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Fig. 5.2 The Architects Collaborative (TAC), University of Baghdad, site plan, January 20, 1960.

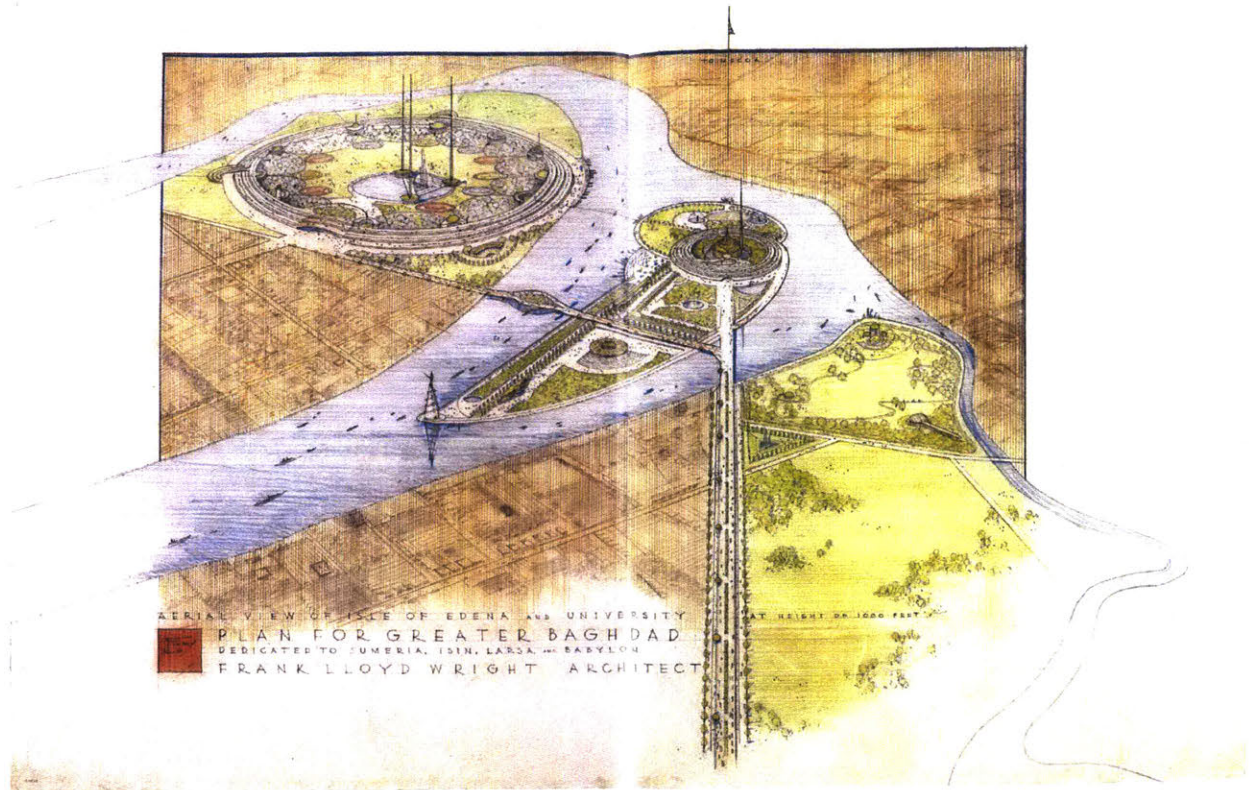


Fig. 5.3 Frank Lloyd Wright, Plan for Greater Baghdad (1957), aerial perspective from north, June 20, 1957. The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University (FLWFA)

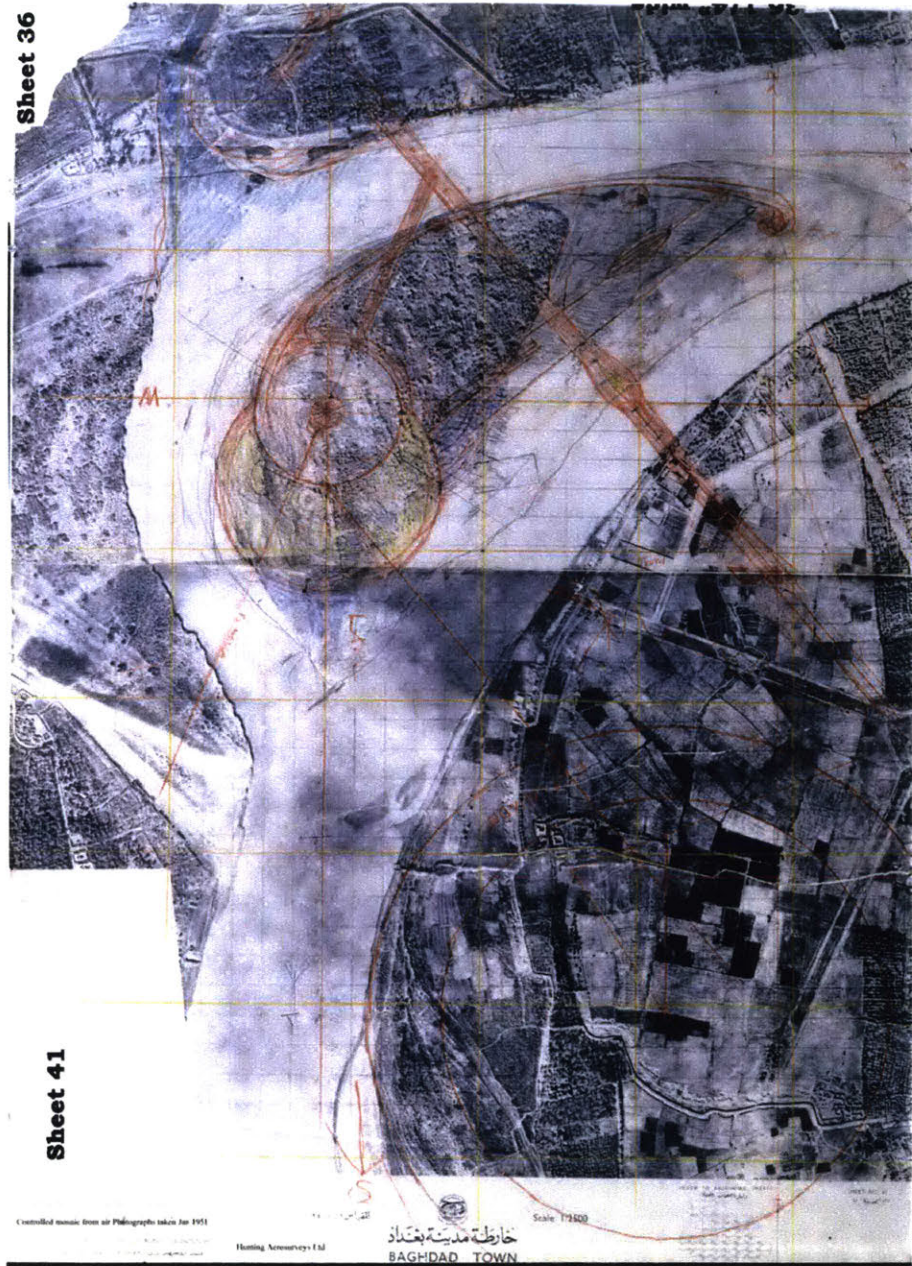


Fig. 5.4 Plan for Greater Baghdad, Preliminary sketch plan over conjoined 1951 Hunting Aerosurvey aerial photographs. FLWFA

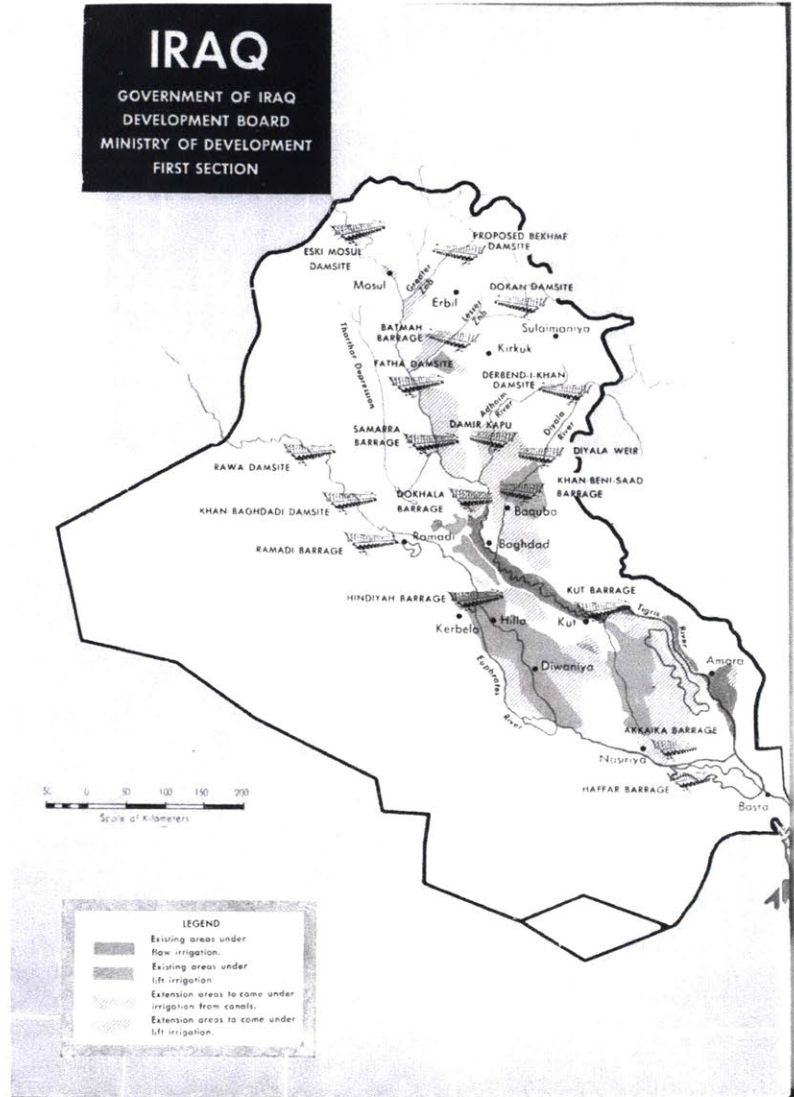
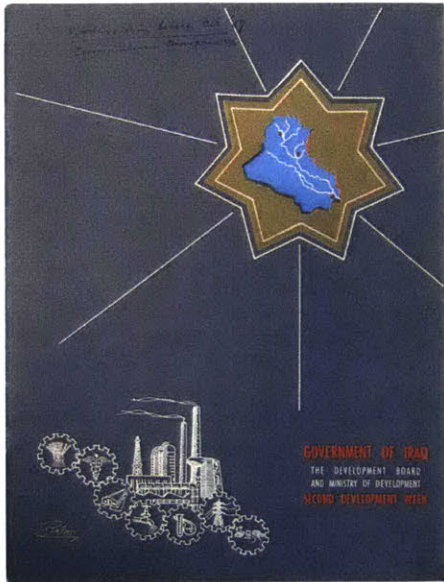


Fig. 5.5 Cover, Iraq Development Board (IDB), Second Development Week brochure, October 1957 and map of irrigation projects, IDB, First Development Week brochure, 1956. Harvard University

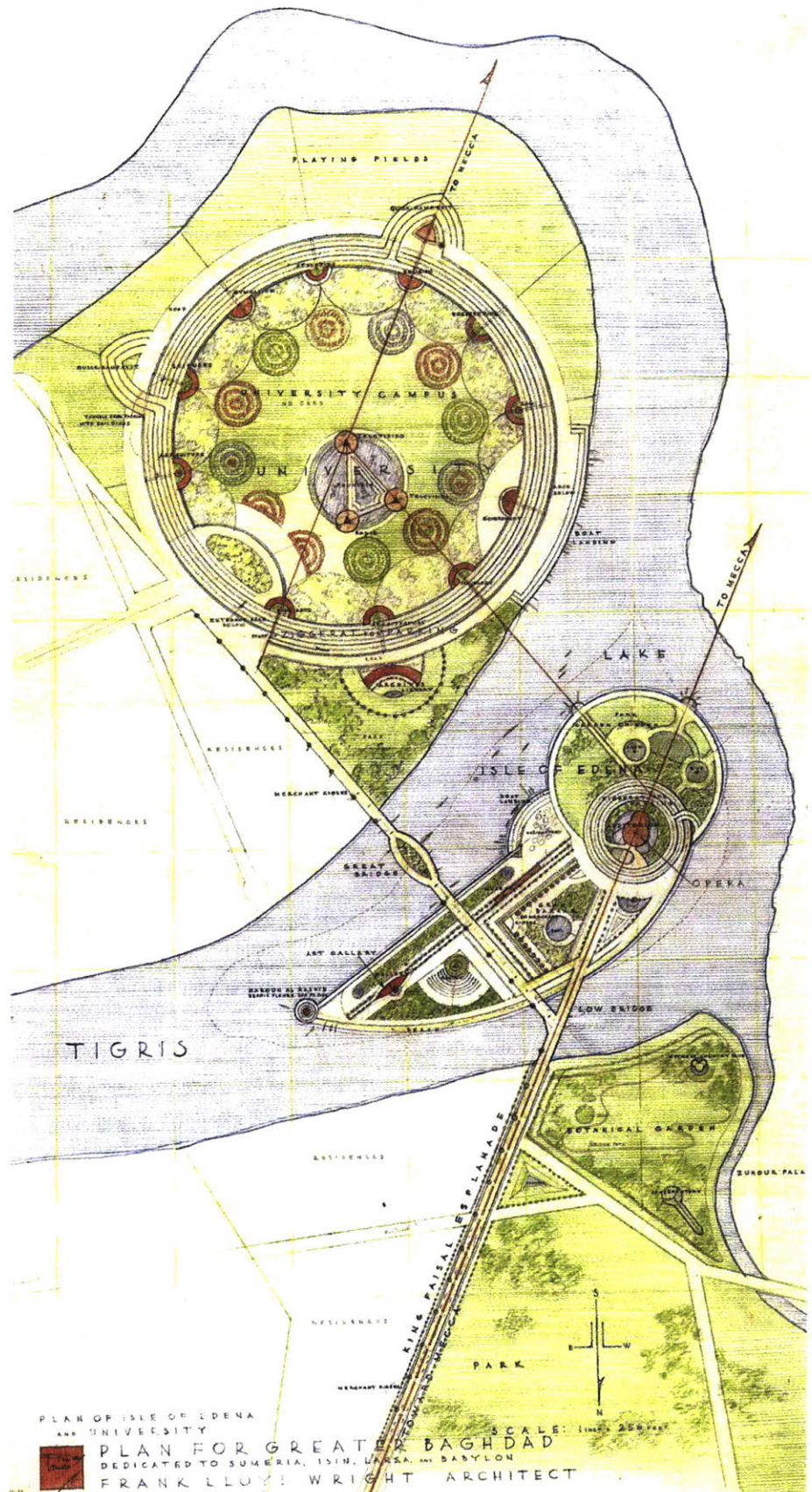


Fig. 5.6 Frank Lloyd Wright,
 Plan for Greater Baghdad, site
 plan, June 20, 1957. FLWFA

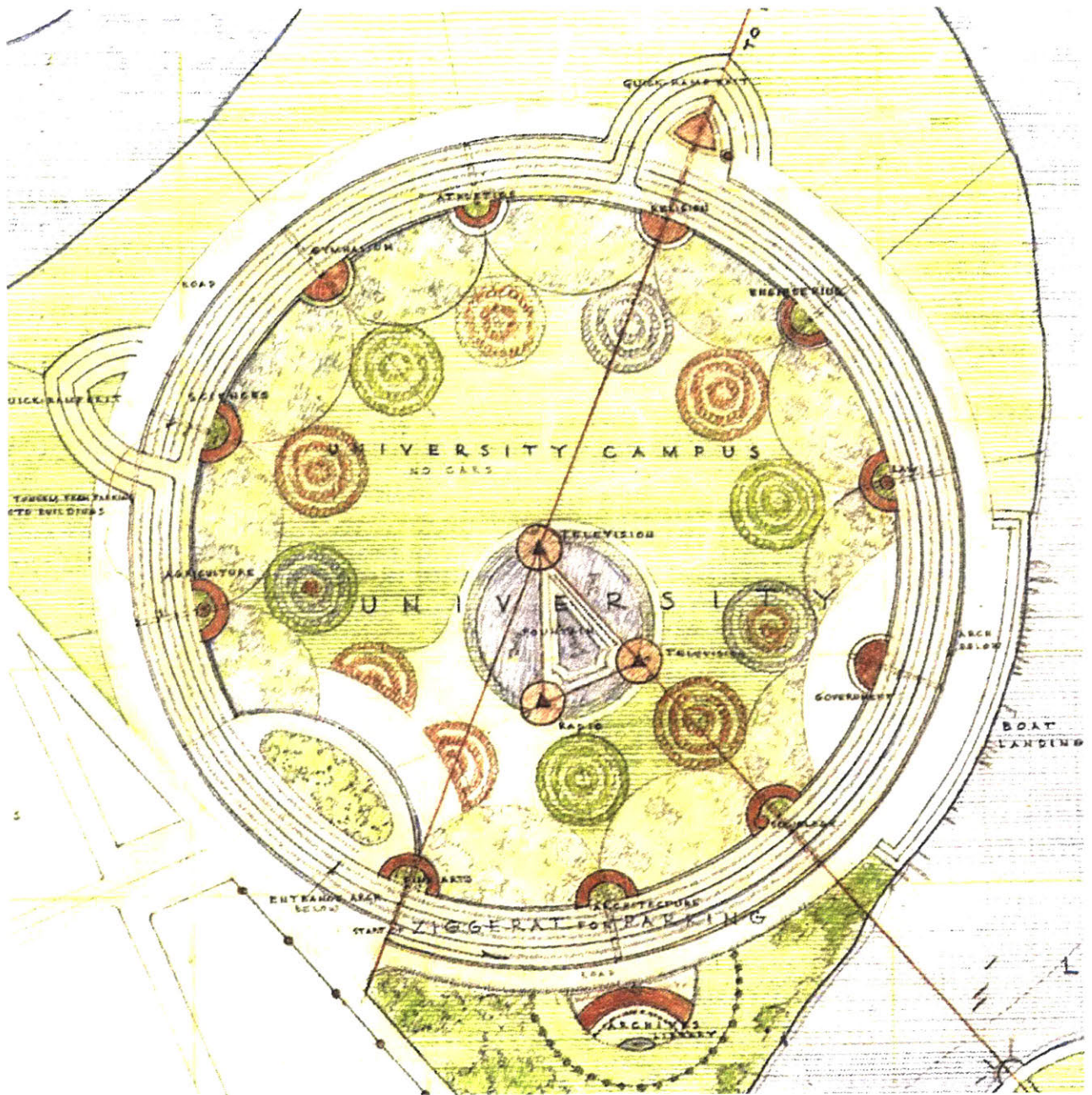


Fig. 5.6 (detail) Plan for Greater Baghdad, site plan, June 20, 1957. FLWFA

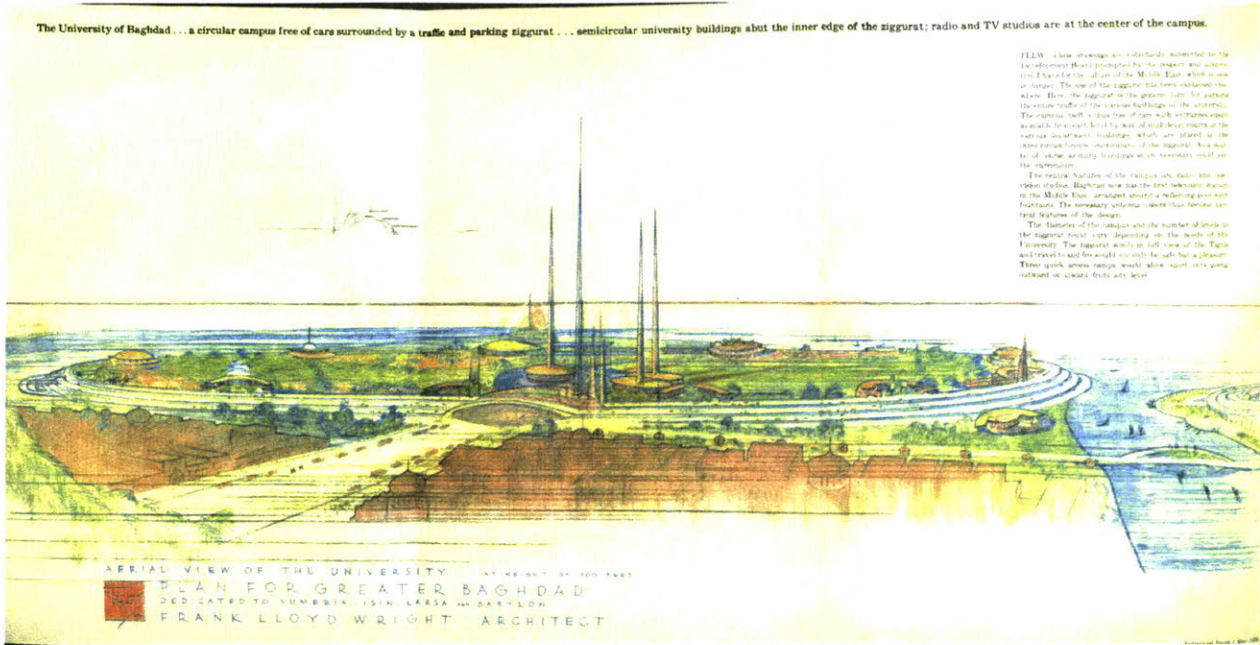


Fig. 5.7 Plan for Greater Baghdad, aerial perspective of university from east. Foldout from "Frank Lloyd Wright designs for Baghdad," *Architectural Forum*, May 1958.



Fig. 5.8 Ellen Jawdat, Walter Gropius, and Nizar Ali Jawdat, U.S. Embassy, Baghdad, August 1954. Bauhaus Archiv



Fig. 5.9 Ellen Jawdat and Nizar Ali Jawdat, Women's Headquarters of the Red Crescent, Baghdad, Iraq (1948–50) and Jawdat House, Baghdad, Iraq (1948/1955). Photographs from Raglan Squire, "Architecture in the Middle East," *Architectural Design*, March 1957.



Fig. 5.10 National Bank of Iraq (at left), William Dunkel, Baghdad, Iraq (1954–56), adjacent to Rafidain Bank, Philip Hirst (c. 1956) and new construction. Photograph: Latif al-Ani, n.d. Arab Image Foundation

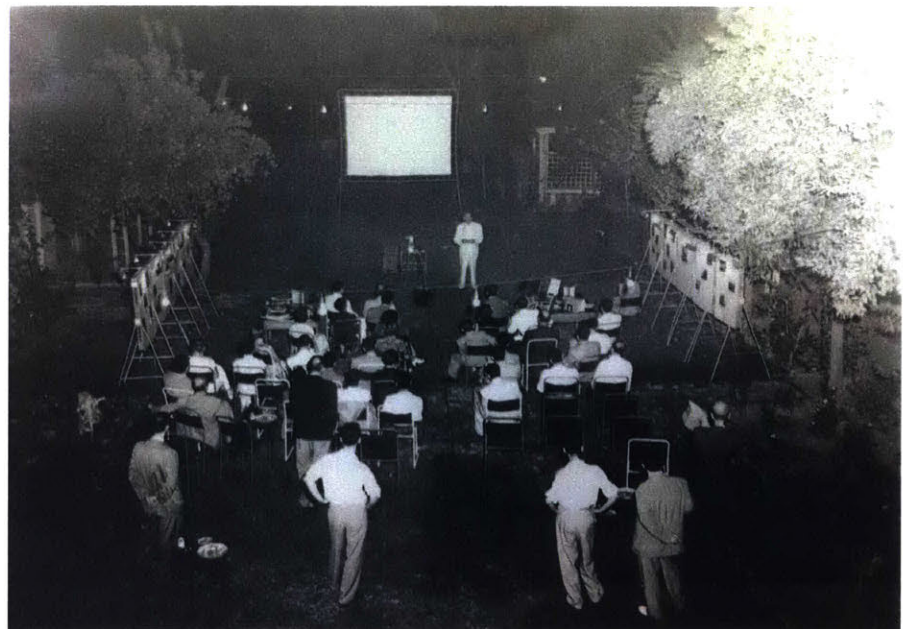
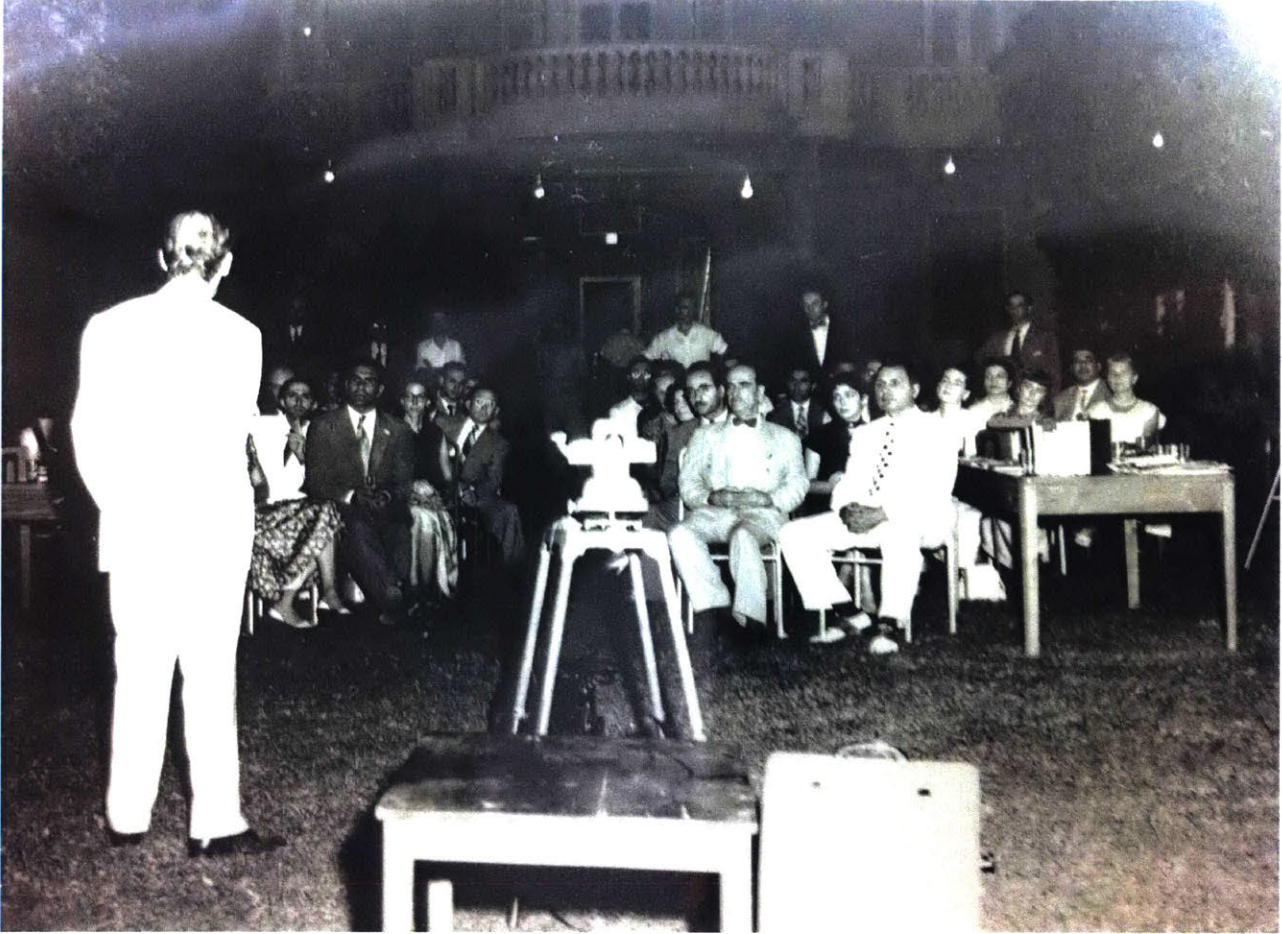


Fig. 5.11 Walter Gropius, lecture and exhibition on modern architecture, U.S. Embassy, Baghdad, August 1954. Bauhaus Archiv

Data Concerning Dr. Walter Gropius
(Dates are approximate)

1927-1933 : Founder and Director of Bauhaus School of Design in Dessau, Weimar Republic

Developed revolutionary approach not only to architectural design, but to industrial design, building techniques, etc, which influenced the entire trend of architectural thought of the first half of the century. Gropius recognized as one of the Founders of the International School of Architecture.

1933-1936 : Private Practice in England in Partnership with Maxwell Fry

1936-1952 : Chairman of Department of Architecture, Harvard Graduate School of Design, Cambridge, Mass, U.S.A.
(Now recognized as finest architectural school in State)

Became U.S. Citizen

1938-1947 : Private Practice in partnership with Marcel Breuer

1948-present: Practice in partnership with Architects Collaborative (group of six young architects under 35 yrs.)

Design Chairman of Container Corporation of America
Developed and Manufactured Prefabricated Structural System
Town and Regional Planning Schemes with Marcel Wagner
U.S. Government Advisor on Housing during war. (Willow Run)
Past President (?), and at present Vice-President in charge of
Education of CIAM (Congres International d'Architecture Moderne)

Personal qualifications:

Adaptability: Has worked under many different conditions, and in many countries, and is primarily interested in finding building methods and styles suitable to special conditions: the society, climate, etc. in question.

Administrative Ability: ability to delegate authority
Extreme Modesty

Possesses great imagination, vision, and enthusiasm
Personal interest in Arab Countries and in the ways they are utilizing and developing their resources .

Fig. 5.12 Ellen Jawdat, "Data Concerning Dr. Walter Gropius," n.d. Personal collection, Ellen Jawdat

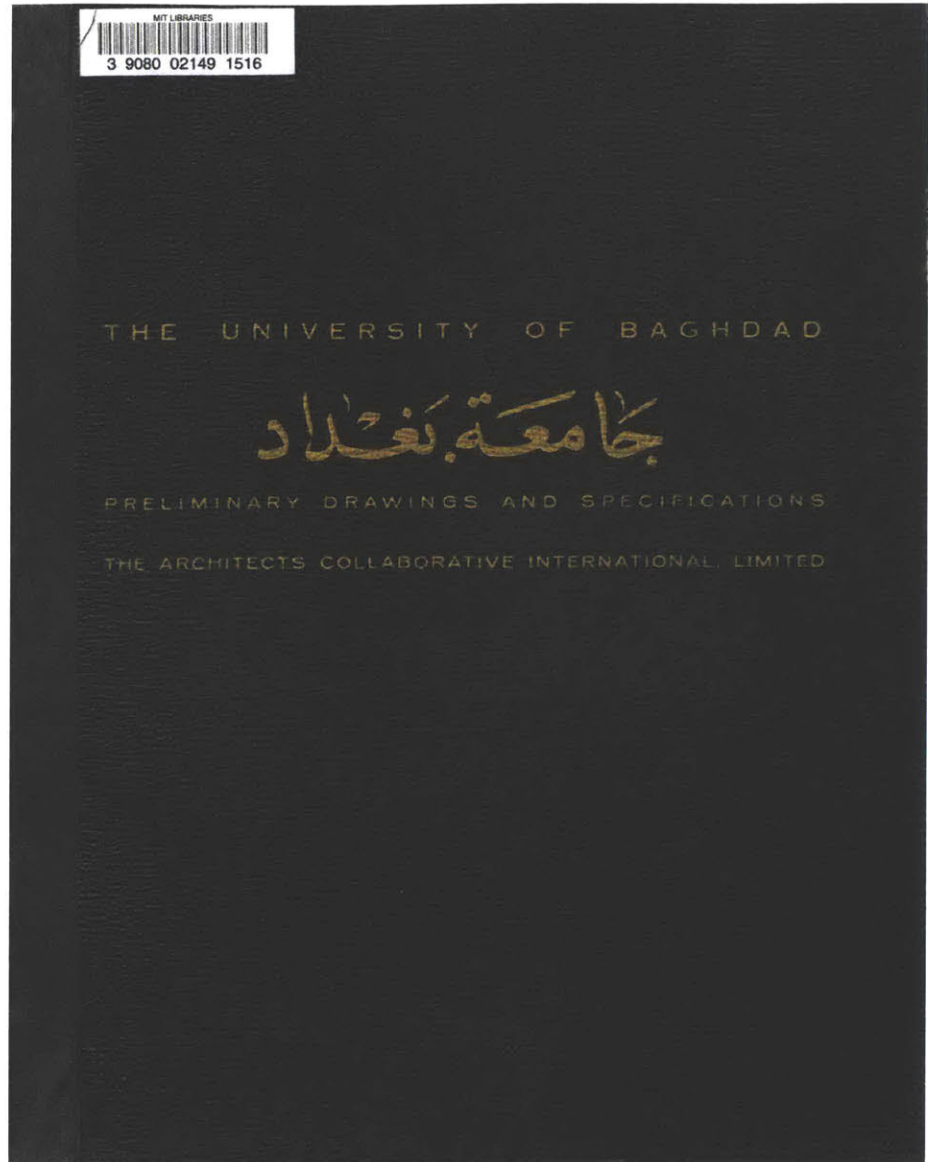
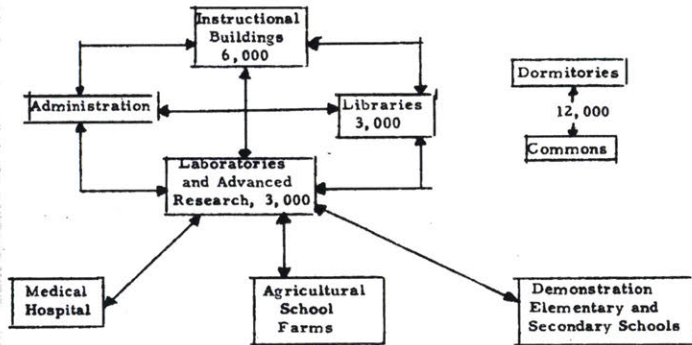


Fig. 5.13 TAC, *The University of Baghdad: Preliminary Drawings and Specifications*, c. January 1960. MIT Rotch Library

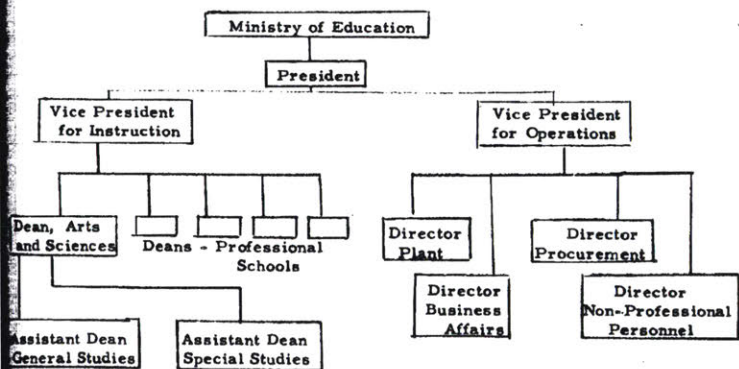
SCHEMATIC CONCEPT FOR BUILDINGS IN
A UNIVERSITY OF 12,000 STUDENTS
(By type of activity)*



It will be observed that in this approach there is not a Law School as such with its separate buildings, lecture halls ... nor is there a Medical School with rooms for didactic instruction, clinical or laboratory work or research in the biological sciences. The

*Numbers of students are used merely to illustrate a possible distribution in each type of activity. Later sections detail this aspect for Baghdad University.

plan might involve an organization which has two major functions, instruction and operations. Each of these would be administered by a Vice-President under whom would be the Deans of the schools and the directors of plant, maintenance, procurement, and the like. Organizationally, this would look as follows:



It is our feeling that the central administration, consisting of the president, the vice president in charge of instruction and the vice president in charge of operations, with appropriate assistants

Fig. 5.14 "Schematic Concept for Buildings in a University of 12,000 Students" and "The Pattern of Administration," in TAC, *Report on the University of Baghdad*, c. January 1959. MIT Rotch Library

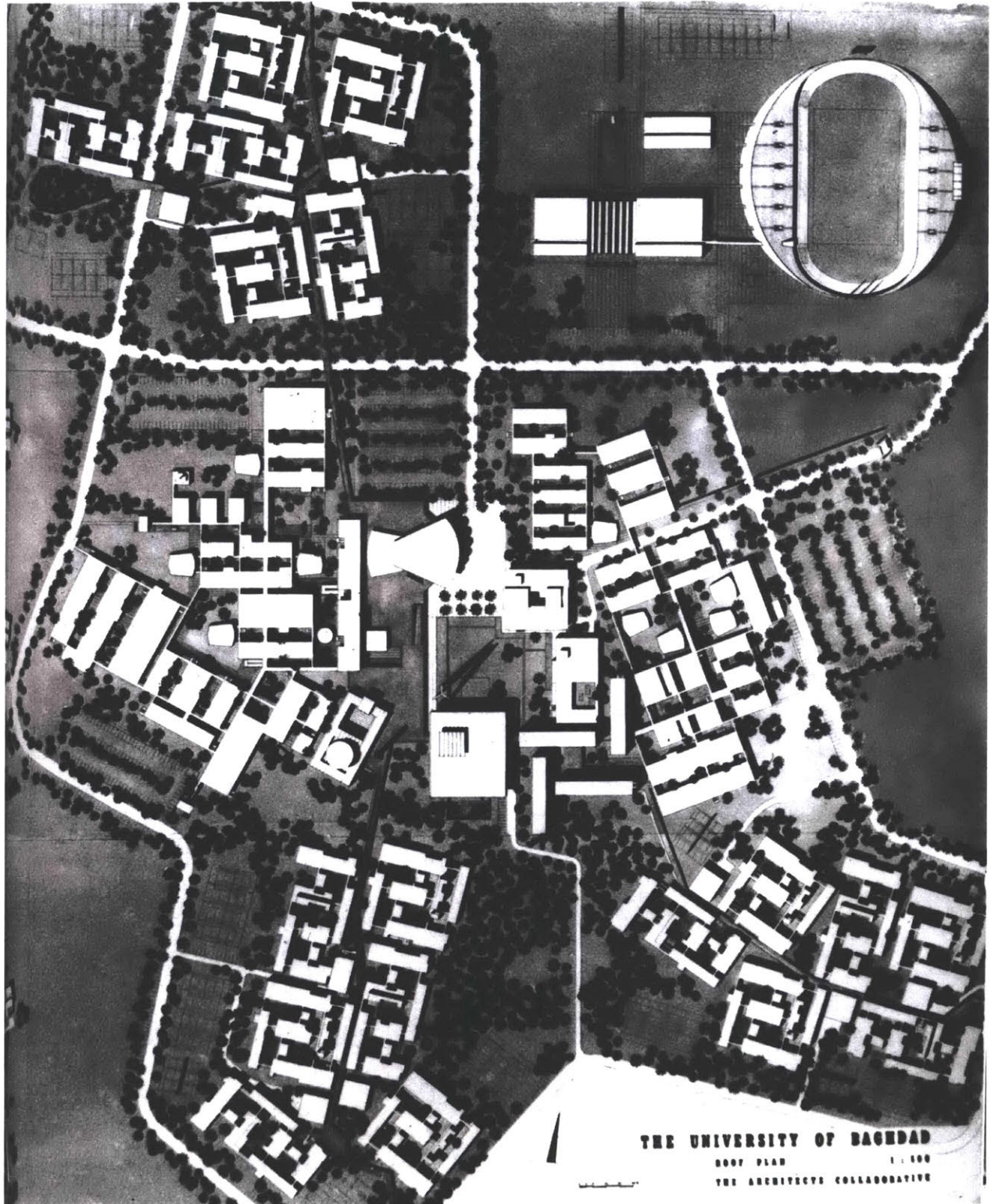


Fig. 5.15 University of Baghdad, first scheme, roof plan. In TAC, *Report on the University of Baghdad*, c. January 1959. MIT Rotch Library



Fig. 5.16 University of Baghdad, first scheme, pilot plan. In TAC, *Report on the University of Baghdad*, c. January 1959. MIT Rotch Library



Fig. 5.17 Walter Gropius and TAC partners with Director General of Baghdad, Cambridge, c. 1965(?). Left to right: Richard Morton, H. Morse Payne Jr., Walter Gropius, Louis A. McMillen. Reginald Isaacs Papers, Smithsonian Archives of American Art

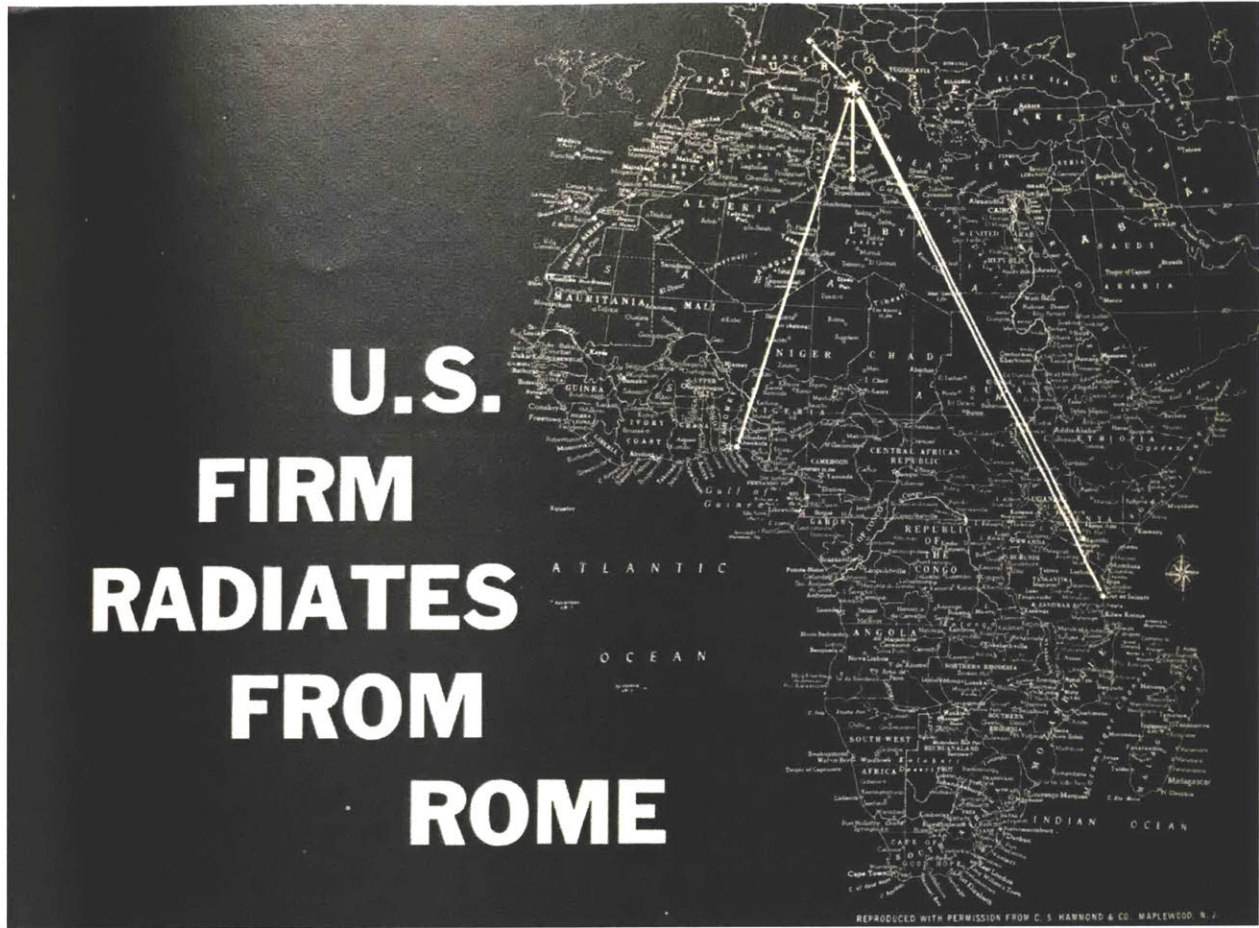
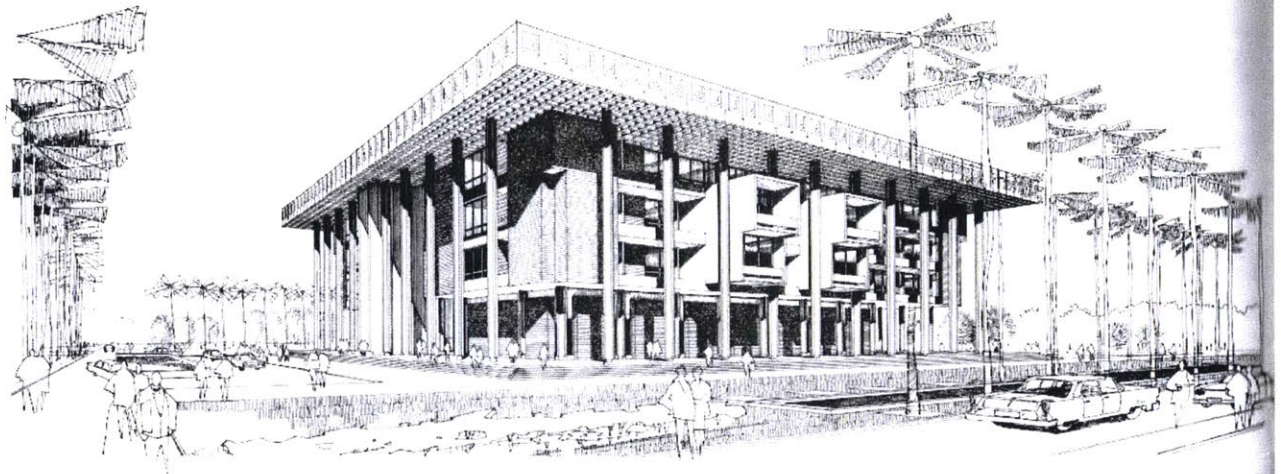


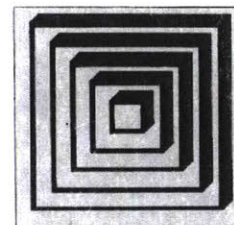
Fig. 5.18 "U.S. Firm Radiates from Rome," *Progressive Architecture*, October 1964.



Fig. 5.19 University of Baghdad, construction site, n.d. (c. 1966?)
Right to left: Hisham Munir, Walter Gropius, Umberto Vannini, Louis A. McMillen. Walter Gropius Archive



HISHAM MUNIR & ASSOC.
ARCHITECTS ENGINEERS & PLANNERS



BAGHDAD - IRAQ

Fig. 5.20 Hisham Munir and Associates, Government Guest House, Baghdad, (1964–67). *Hisham Munir & Assoc.*, office portfolio, n.d. Aga Khan Documentation Center

| MONTH | TEMPERATURE | | | | | HUMIDITY MEAN R.H. % | RAINFALL | | WINDSPEED | | PREVAILING DIRECTION |
|-----------|-------------|--------------|--------------|-----------------|----------------|----------------------------|--------------|----------------|------------------|--------------|-------------------------|
| | MEAN | MEAN MAX. | MEAN MIN. | HIGHEST MAX. | LOWEST MIN. | | IN INCHES | TOTAL HOURS | AVERAGE DAILY | SPEED MPH | |
| JANUARY | 48.8 | 59.7 | 39.1 | 77 | 18 | 51 | 0.98 | 208 | 6.7 | 6.6 | NW |
| | 52.0 | 65.0 | 39.0 | 84 | 16 | 52 | 1.76 | 238 | 7.6 | 5.2 | E |
| FEBRUARY | 52.7 | 64.4 | 41.9 | 86 | 23 | 42 | 1.04 | 203 | 7.2 | 6.7 | NW |
| | 56.0 | 64.0 | 43.0 | 92 | 24 | 49 | 1.69 | 240 | 8.5 | 2.7 | E W |
| MARCH | 59.3 | 71.3 | 48.1 | 90 | 27 | 36 | 1.12 | 253 | 8.1 | 7.8 | N NW |
| | 61.0 | 75.0 | 47.0 | 95 | 30 | 42 | 1.31 | 303 | 9.8 | 6.2 | E W |
| APRIL | 71.1 | 85.2 | 57.5 | 104 | 37 | 34 | 0.41 | 282 | 9.4 | 7.8 | N NW |
| | 68.0 | 82.0 | 53.0 | 103 | 35 | 35 | 1.66 | 340 | 11.2 | 6.4 | E W |
| MAY | 82.9 | 96.5 | 67.5 | 112 | 51 | 19 | 0.14 | 344 | 11.1 | 8.3 | N NW |
| | 76.0 | 91.0 | 60.0 | 114 | 39 | 28 | 1.12 | 397 | 13.2 | 6.4 | E W |
| JUNE | 90.5 | 105.1 | 73.2 | 119 | 58 | 13 | TRACE | 375 | 12.5 | 10.4 | N NW |
| | 85.0 | 101.0 | 69.0 | 118 | 49 | 27 | 0.48 | 401 | 12.9 | 6.3 | E W |
| JULY | 94.0 | 109.8 | 76.4 | 121 | 62 | 12 | TRACE | 394 | 12.7 | 11.9 | NW |
| | 90.0 | 104.0 | 77.0 | 118 | 63 | 36 | 4.98 | 363 | 11.8 | 6.3 | E W |
| AUGUST | 93.9 | 109.8 | 76.0 | 120 | 65 | 13 | TRACE | 382 | 12.3 | 10.5 | NW |
| | 89.0 | 101.0 | 76.0 | 115 | 58 | 42 | 2.17 | 343 | 11.4 | 5.8 | SE W |
| SEPTEMBER | 86.9 | 103.7 | 69.6 | 116 | 51 | 15 | 0.04 | 340 | 11.3 | 8.6 | N NW |
| | 82.0 | 97.0 | 69.0 | 113 | 49 | 42 | 3.06 | 327 | 10.5 | 5.6 | SE W |
| OCTOBER | 77.4 | 91.7 | 61.3 | 107 | 39 | 22 | 1.12 | 282 | 9.1 | 7.5 | N NW |
| | 71.0 | 86.0 | 56.0 | 105 | 36 | 42 | 1.45 | 311 | 10.3 | 5.4 | SE W |
| NOVEMBER | 63.3 | 76.7 | 50.8 | 94 | 29 | 39 | 0.73 | 225 | 7.5 | 5.8 | NW |
| | 60.0 | 75.0 | 45.0 | 96 | 27 | 45 | 2.40 | 262 | 8.4 | 5.1 | E W |
| DECEMBER | 51.8 | 63.8 | 41.8 | 79 | 20 | 52 | 1.04 | 202 | 6.5 | 6.1 | NW |
| | 53.0 | 66.0 | 40.0 | 84 | 22 | 54 | 1.92 | 235 | 7.8 | 5.0 | E W |

-129-

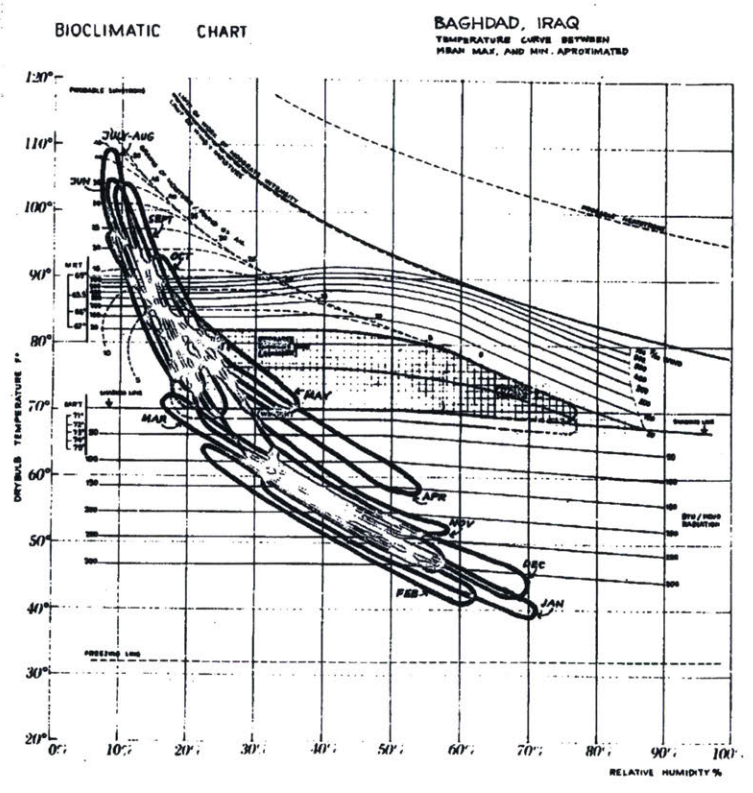


Fig. 5.21 "Abbreviated Climatic Evaluation of Baghdad" and "Bioclimatic Chart, Baghdad, Iraq," in TAC, *The University of Baghdad: Preliminary Drawings and Specifications*, January 1960. MIT Rotch Library

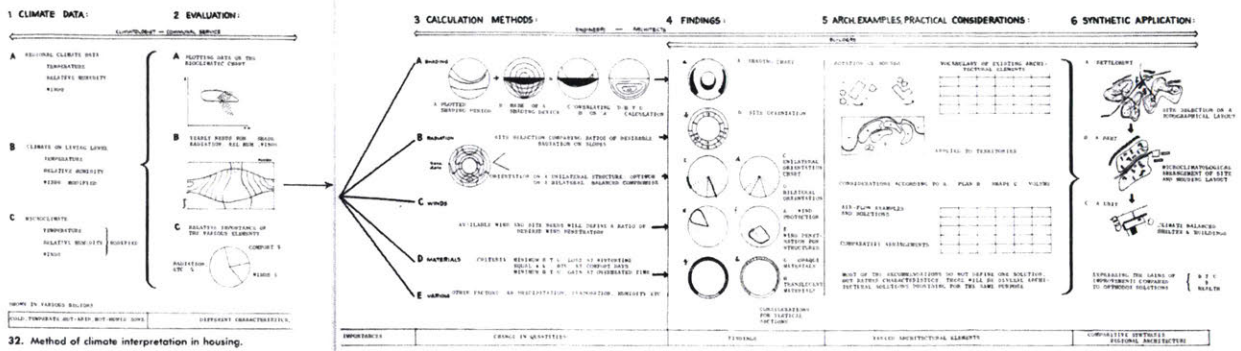
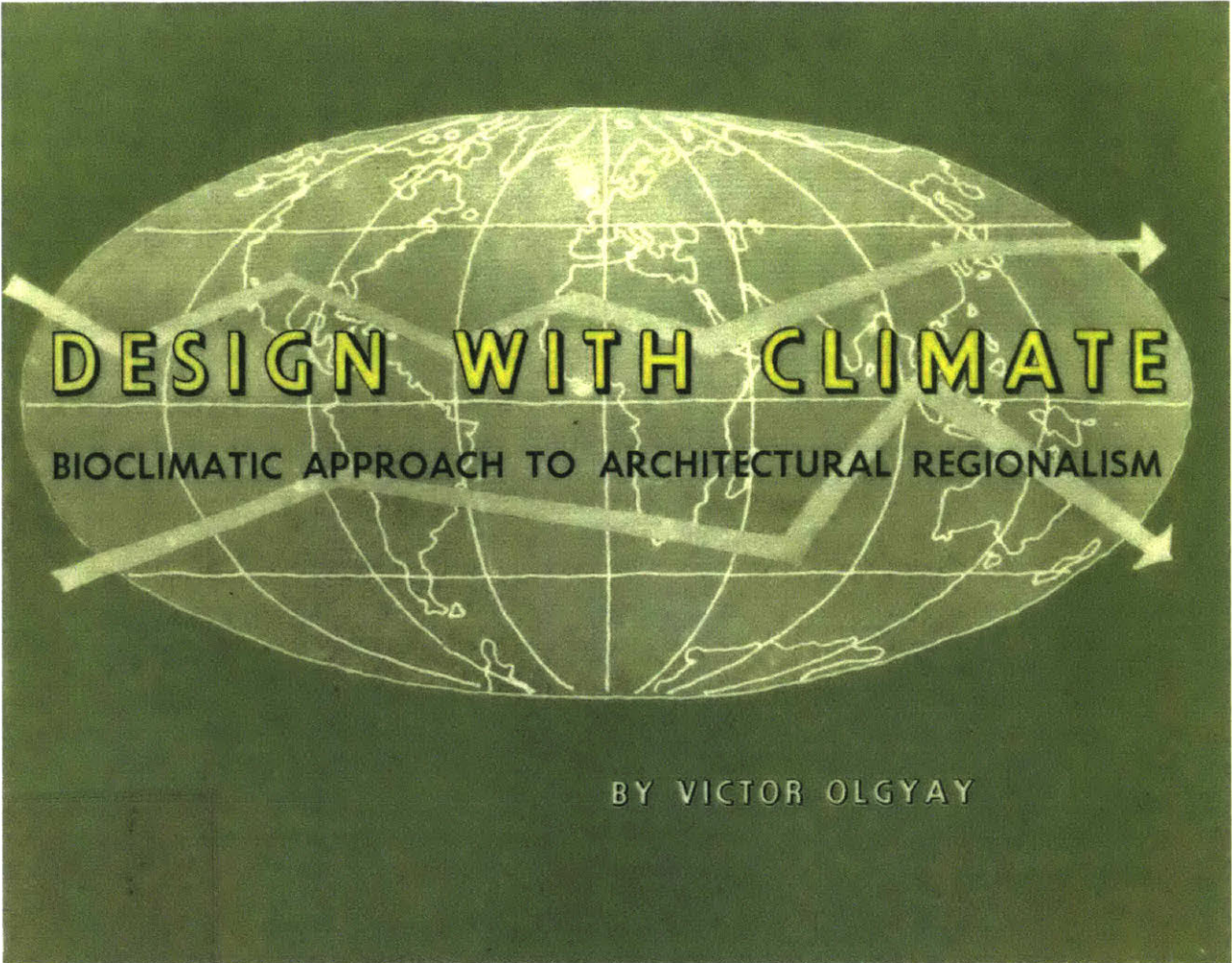


Fig. 5.22 Cover and “Method of climate interpretation in housing,” in Victor Olgay, *Design With Climate: Bioclimatic Approach to Architectural Regionalism*, 1963.

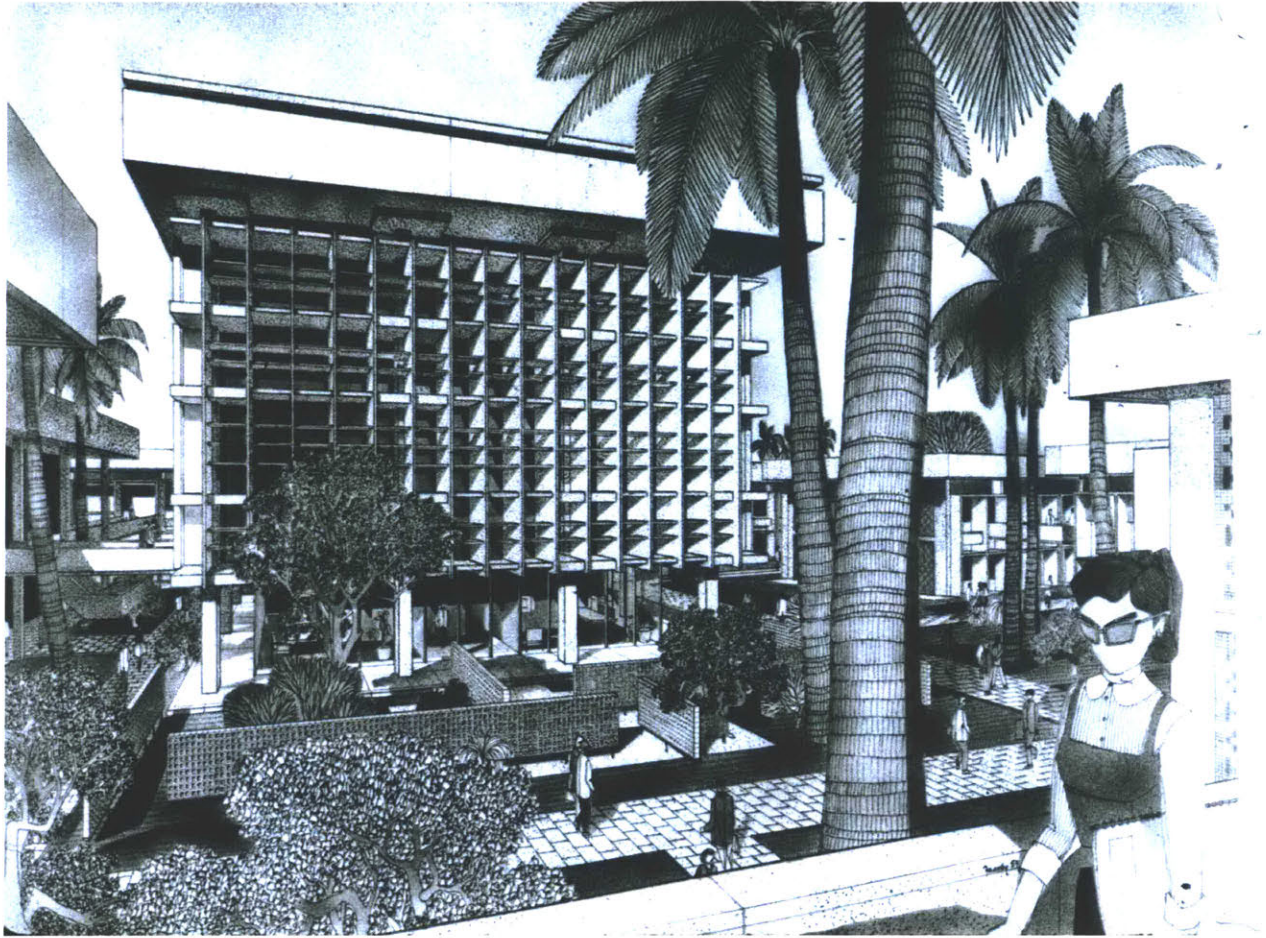


Fig. 5.23 Perspective view of library, University of Baghdad. Rendering: Helmut Jacoby, c. 1959. Loeb Library Special Collections, Harvard Graduate School of Design

Fig. 5.24 Vertical facade types, in Victor Olgay, *Design With Climate: Bioclimatic Approach to Architectural Regionalism*, 1963.

| VERTICAL TYPES | | | | |
|----------------|------------------|------|---------|--|
| VIEW | PLAN AND SECTION | WALL | EXAMPLE | CHARACTERISTIC |
| | | | | Vertical fins over wall openings and over roof overhangs in overcast. These have greater benefits in overcast. |
| | | | | Vertical fins, although they will result in a horizontal shade separation from wall will avoid heat transmission. |
| | | | | Vertical fins can shade the whole wall, or open up in different directions according to the sun's position. |
| COUCCRAE TYPES | | | | |
| | | | | Vertical fins are combination of the central and vertical types and their height is a variable program of the two types. |
| | | | | Vertical fins with varying vertical fins result in a horizontal shade. |
| | | | | Vertical fins with horizontal louvers are a combination of the two types. Because of their high shading ratio, they are well suited to hot climates. |

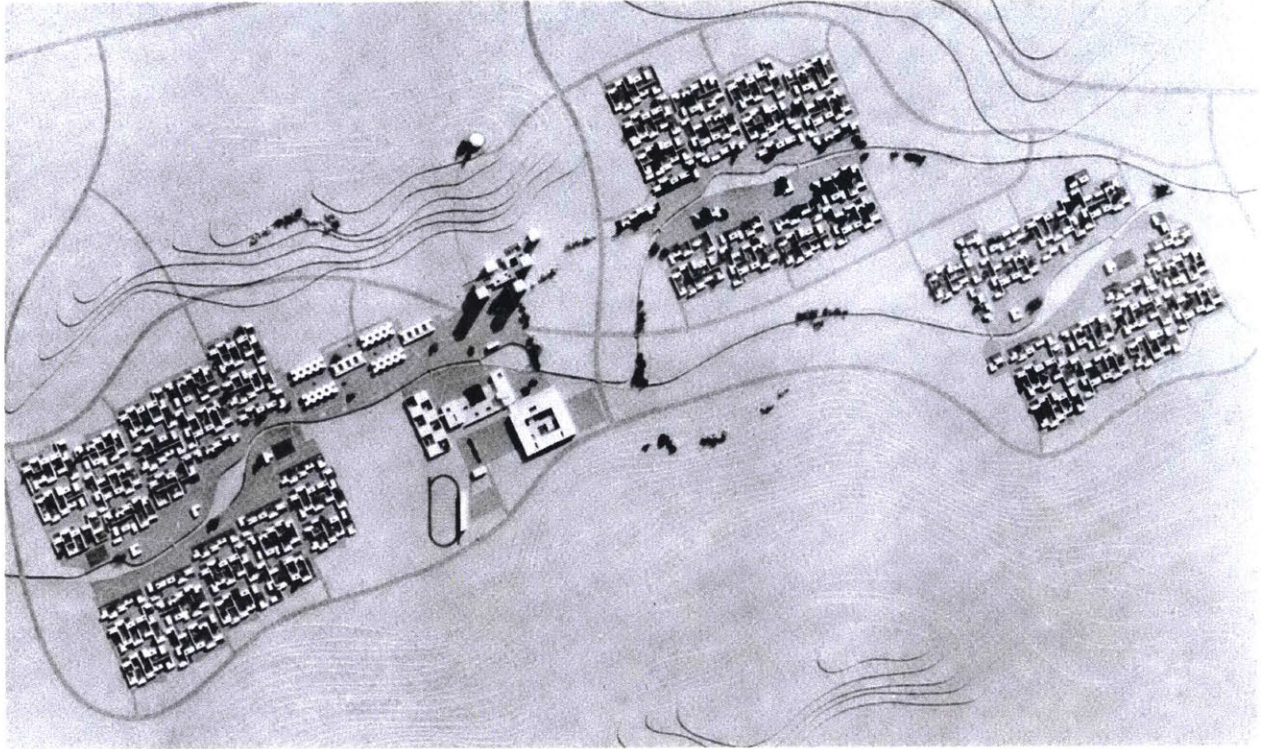


Fig. 5.25 "Hot-arid zone housing layout," in Victor Olgay, *Design With Climate: Bioclimatic Approach to Architectural Regionalism*, 1963.

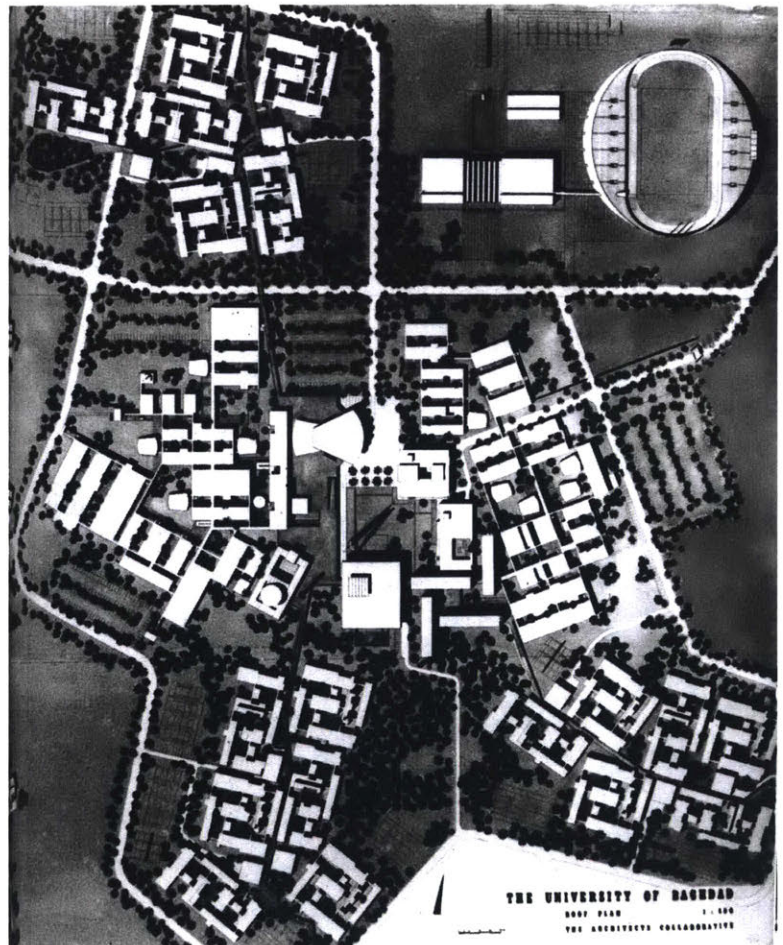


Fig. 5.26 Pilot plan, University of Baghdad, first scheme. In TAC, *Report on the University of Baghdad*, c. January 1959. MIT Rotch Library

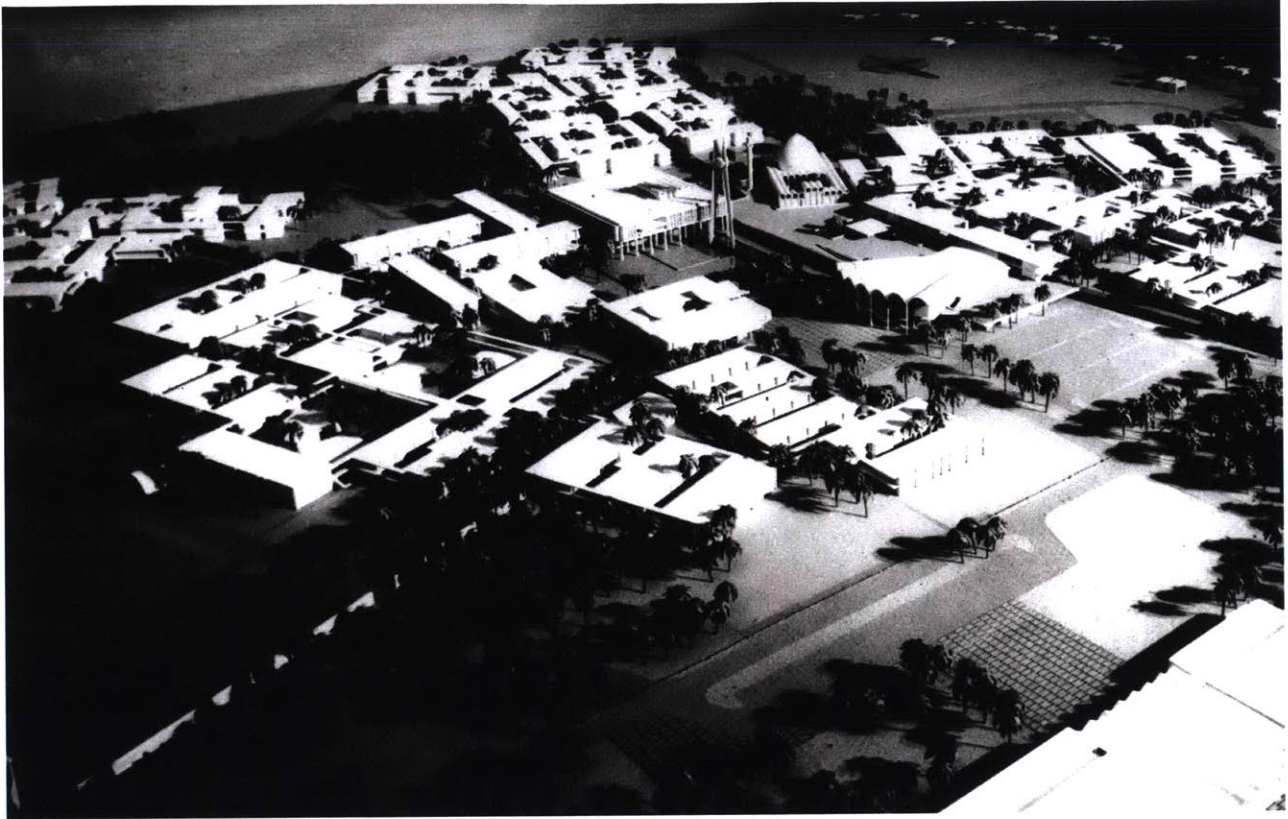


Fig. 5.27 Model photograph of campus center, University of Baghdad, first scheme. In TAC, *Report on the University of Baghdad*, c. January 1959. MIT Rotch Library

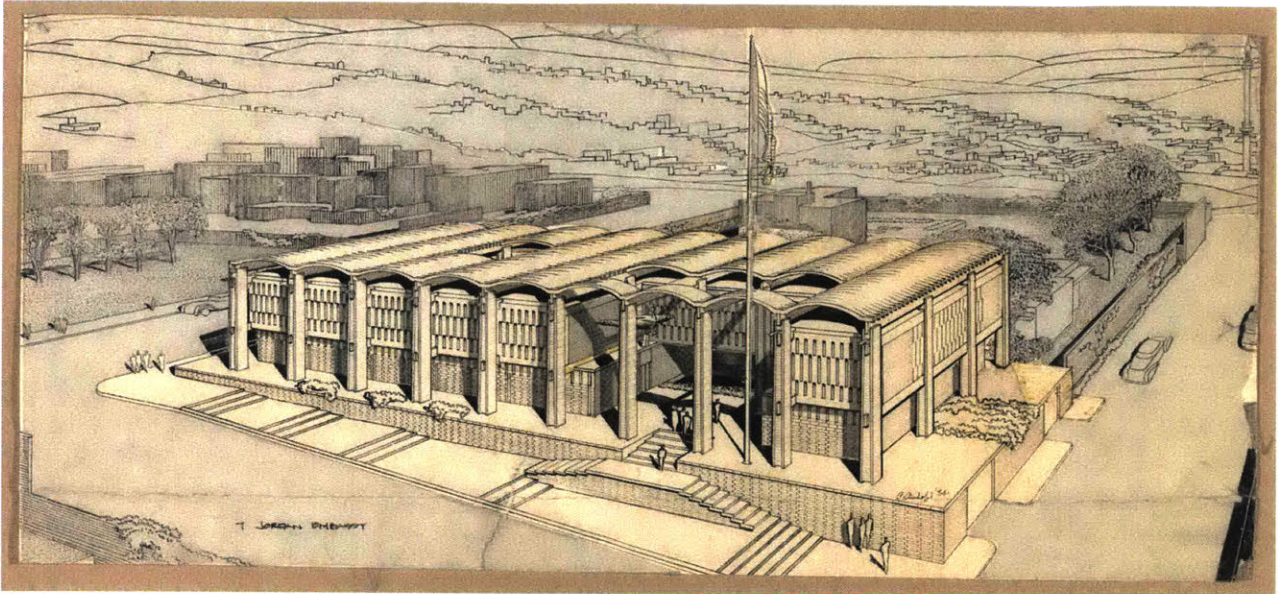


Fig. 5.28 Paul Rudolph, U.S. Embassy (unbuilt), Amman, Jordan (1954), perspective rendering. Library of Congress

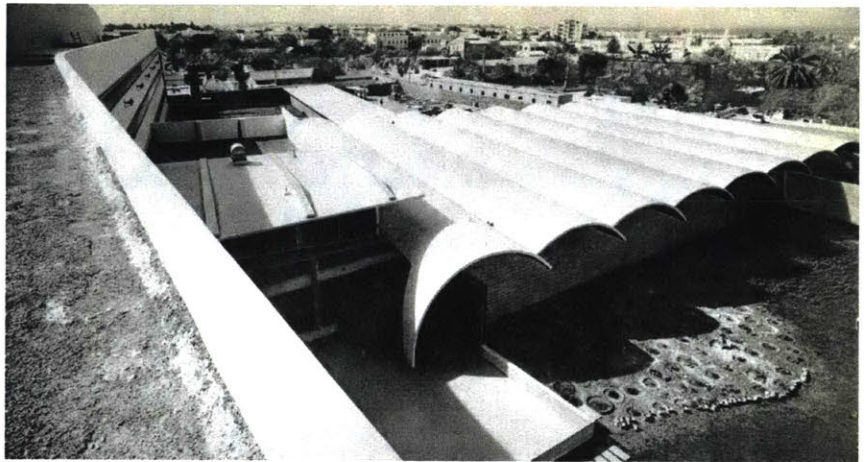


Fig. 5.29 Richard Neutra and Robert Alexander, U.S. Embassy, Karachi, Pakistan (1955–61). Photograph: Rondal Partridge

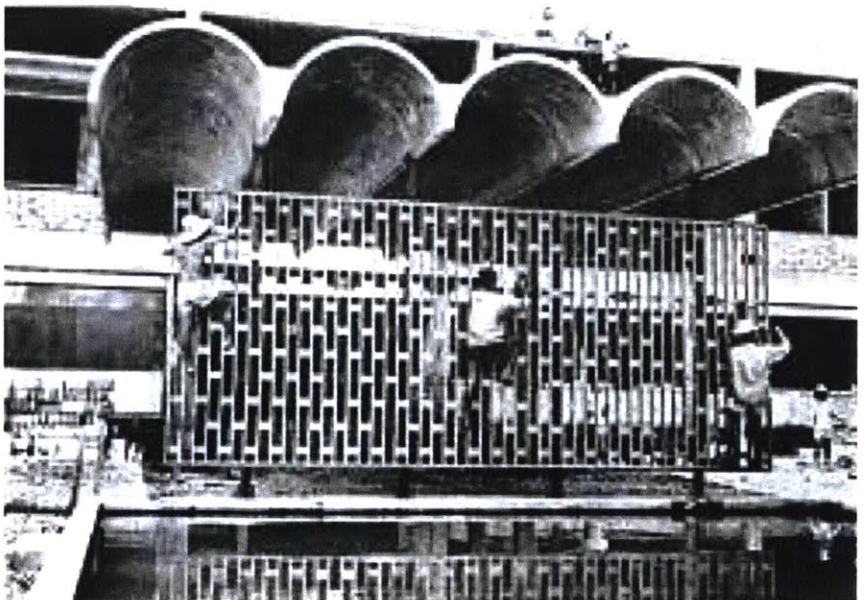


Fig. 5.30 Raymond & Rado, U.S. Embassy, Jakarta, Indonesia (1953–58).

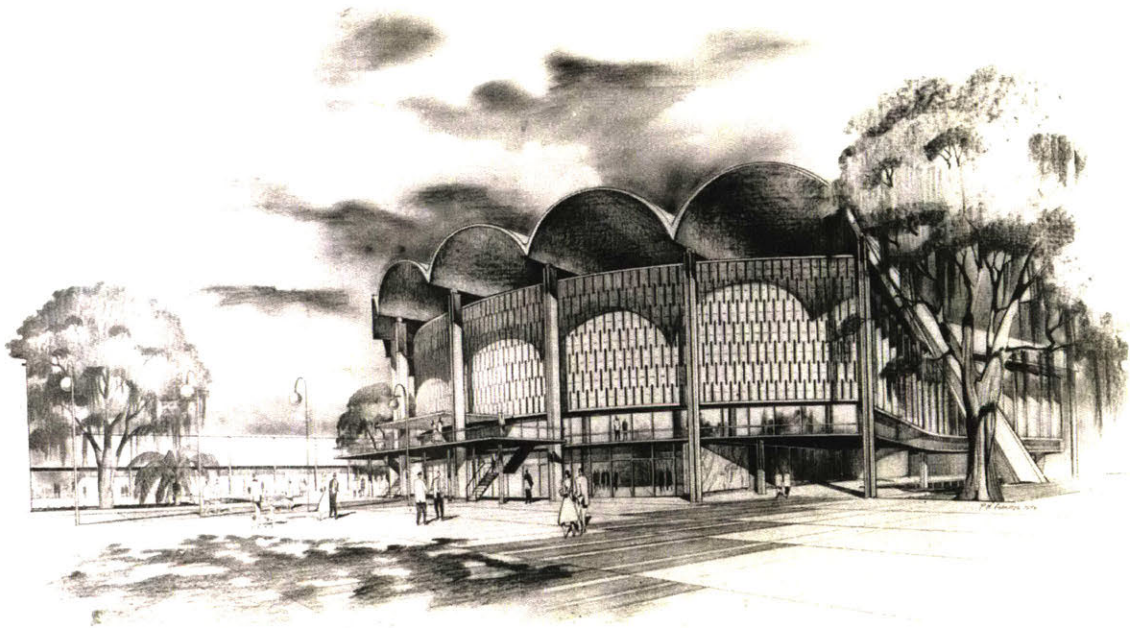
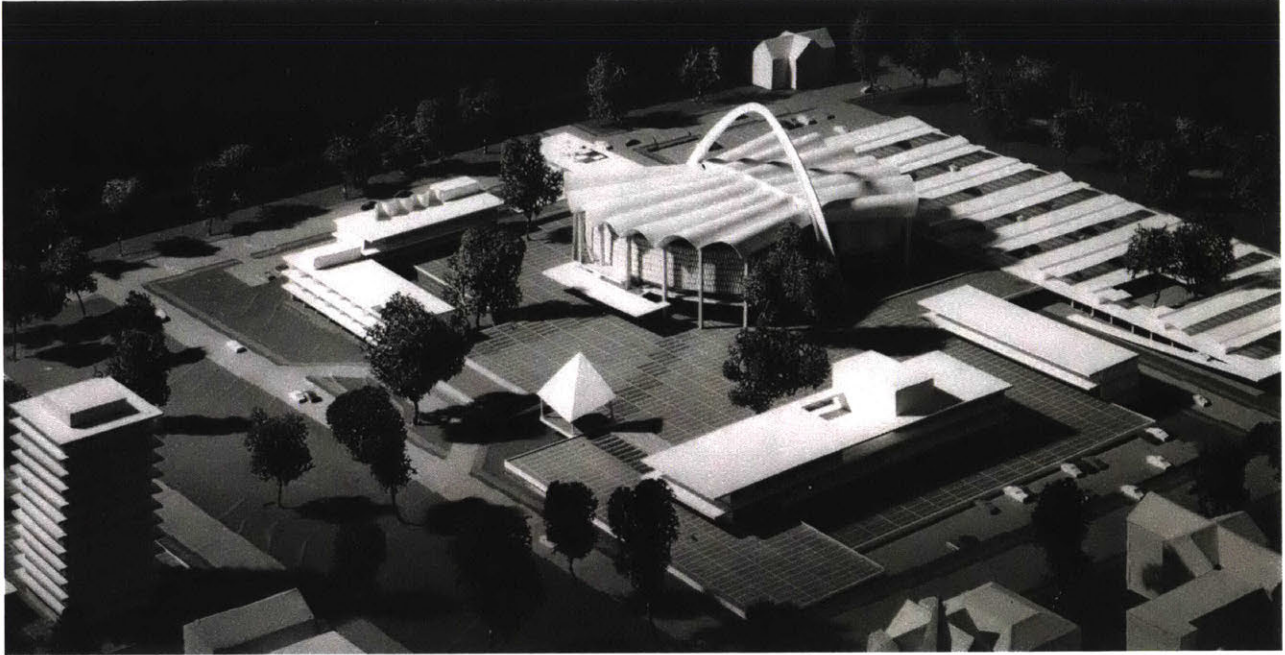


Fig. 5.31 TAC, Tallahassee Civic Center (unbuilt), Tallahassee, FL (1955–56). In TAC, *A Civic Center for Tallahassee, Florida*, August 1, 1956. MIT Rotch Library

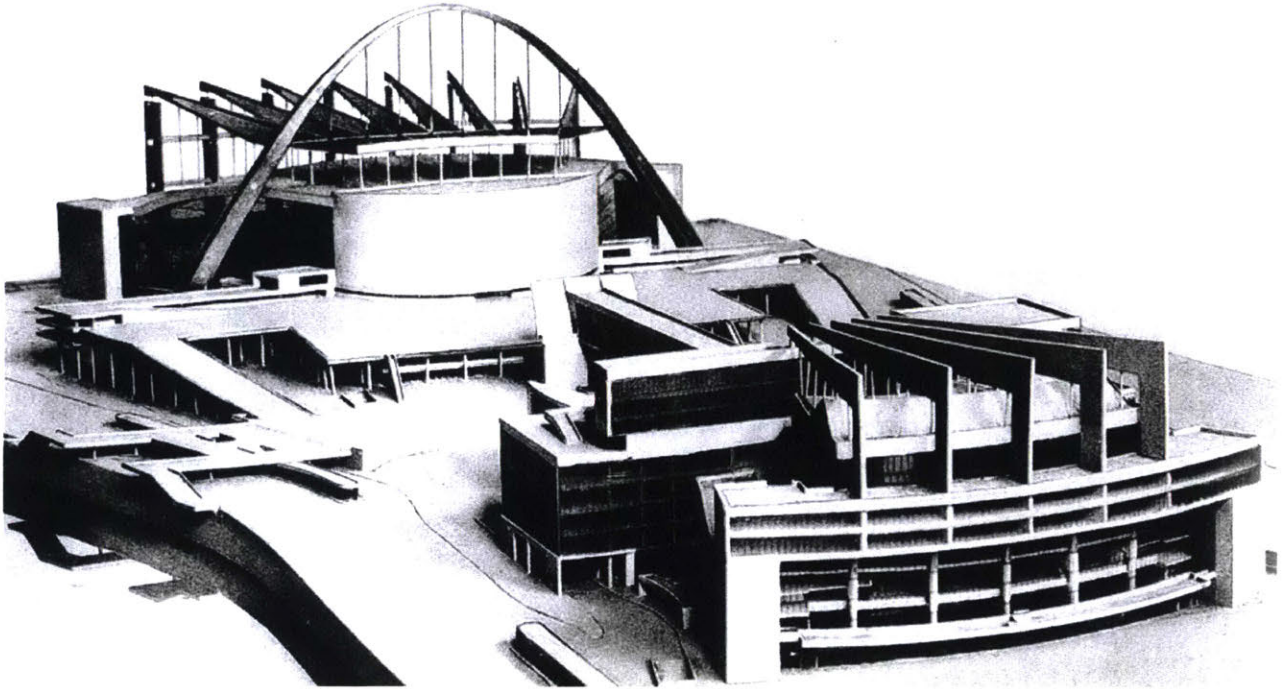


Fig. 5.32 Le Corbusier, Palace of the Soviets, Moscow, U.S.S.R (c. 1931), photograph of competition model. Le Corbusier, *Oeuvre Complete*

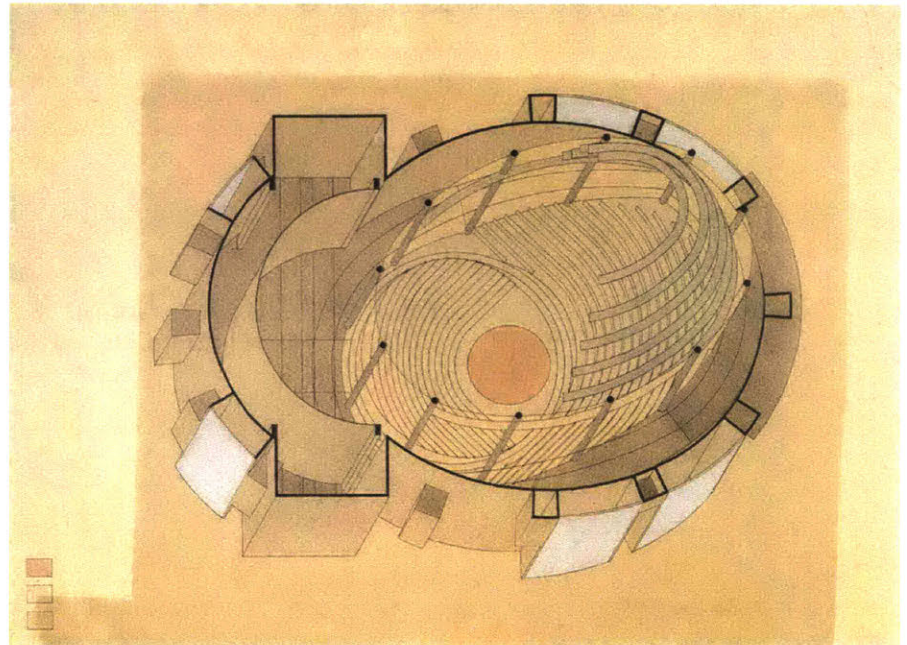


Fig. 5.33 Walter Gropius, Total Theater for Erwin Piscator, Berlin (1927), isometric drawing. Harvard University Art Museums

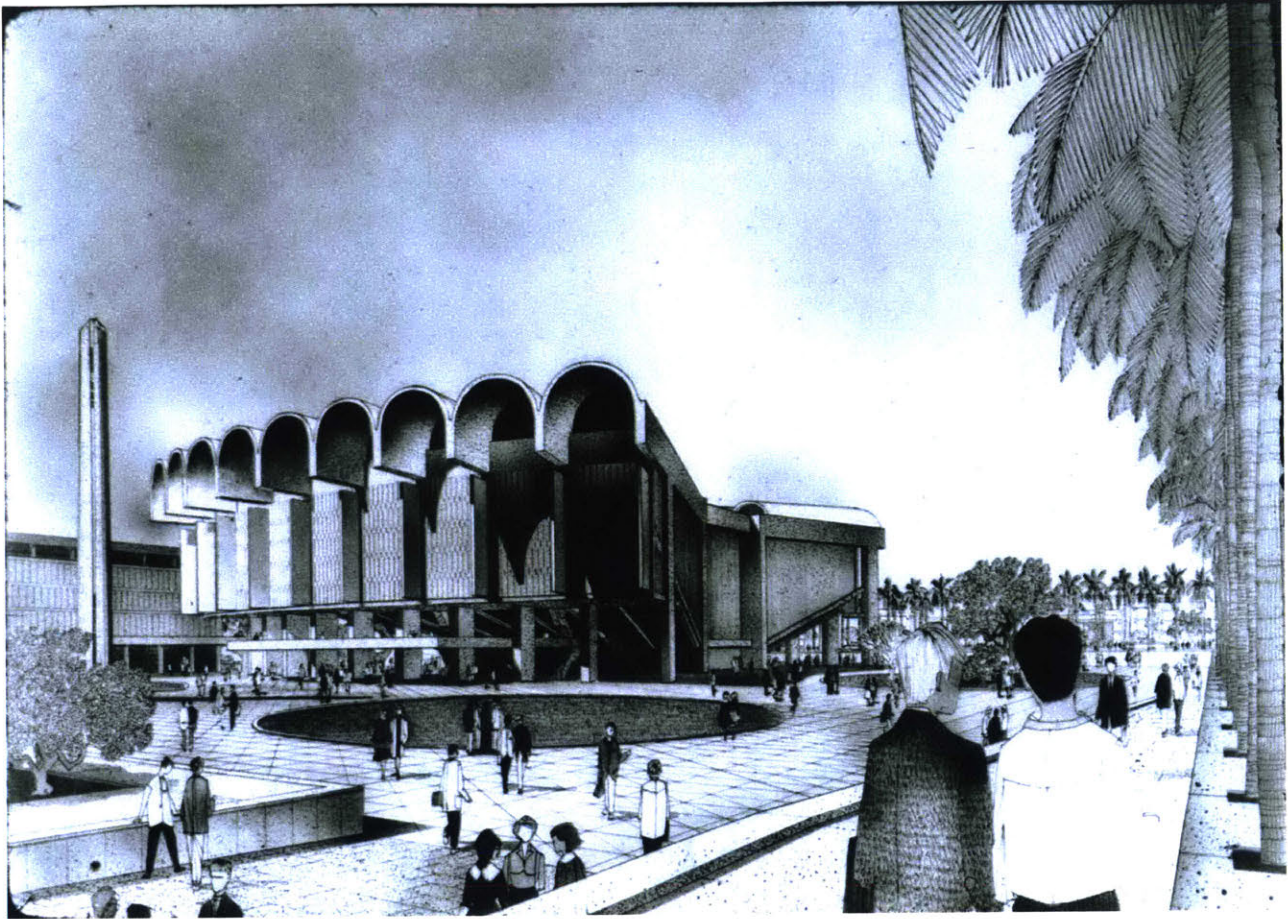
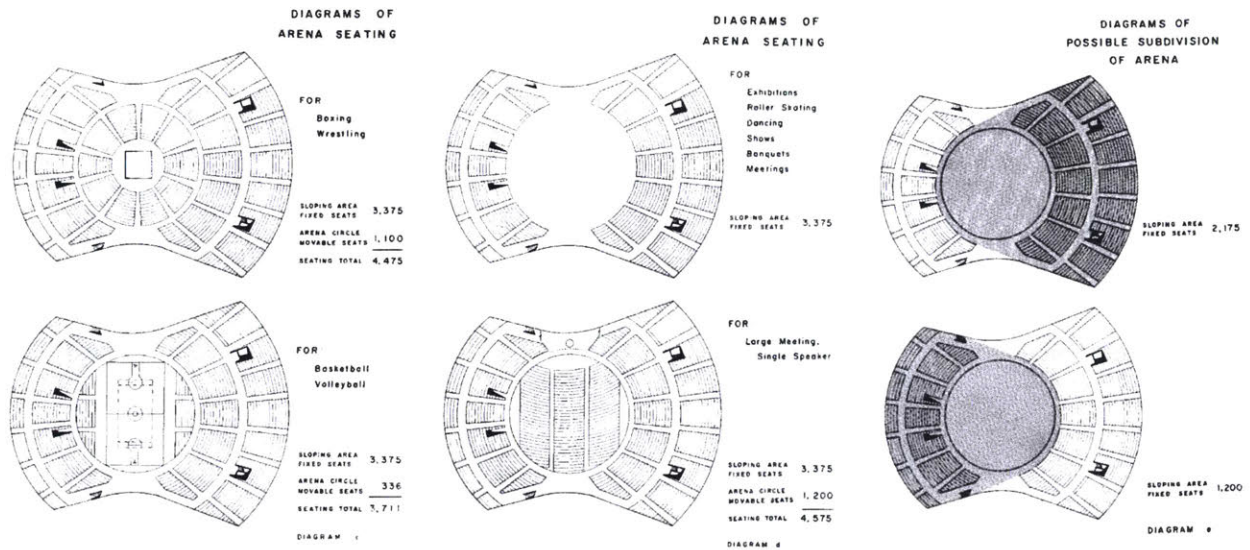
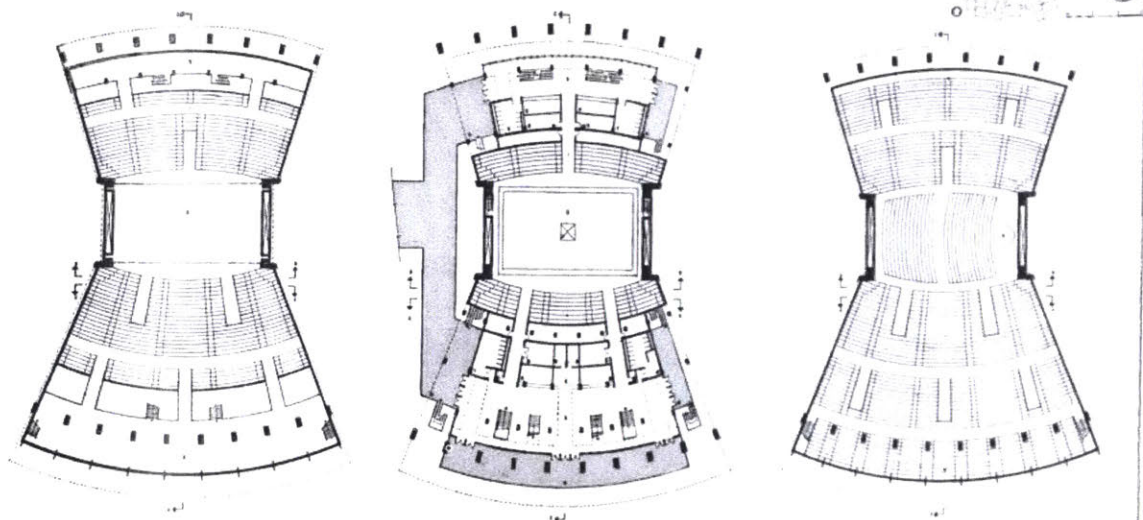


Fig. 5.34 Perspective view of auditorium, University of Baghdad, in TAC, *The University of Baghdad: Preliminary Drawings and Specifications*, January 1960. Rendering: Helmut Jacoby, c. 1959. MIT Rotch Library



Auditorium / Auditorium



Mezzanine: 1. poltrone spettatori, 2. palcoscenico, 3. atrio. *Piano dell'atrio:* 1. poltrone, 2. palcoscenico, 3. atrio, 4. terrazza, 5-6. biglietterie, 7-8. toilette uomini e donne, 9. deposito, 11. montacarichi. *Piano del teatro:* 1. poltrone, 2. cabina di proiezione, 3. piattaforma per le conferenze. *Mezzanine floor plan:* 1. main seating area, 2. stage, 3. mezzanine lobby. *Lobby floor:* 1. main seating area, 2. stage, 3. lobby, 4. terrace walk, 5. ticket office, 6. concessions, 7-8. men and women's toilets, 9. storage, 11.

elevator. Main seating plan: 1. main seating area, 4. projection booth, 5. speaker's platform. *Entrance:* 1. fauteuils des spectateurs, 2. scène, 3. hall. *Etage du hall:* 1. fauteuils, 2. scène, 3. hall, 4. terrasse, 5-6. guichets, 7-8. toilette, 9. dépôt, 11. monte-hauteur. *Etage du théâtre:* 1. fauteuils, 4. cabine de projection, 5. estrade pour les conférences.

Fig. 5.35 Diagrams of arena seating, Tallahassee Civic Center, Tallahassee. In TAC, *A Civic Center for Tallahassee, Florida*, August 1, 1956. MIT Torch Library

Fig. 5.36 Plans of auditorium, University of Baghdad, second scheme. *Casabella continuità*, August 1960.

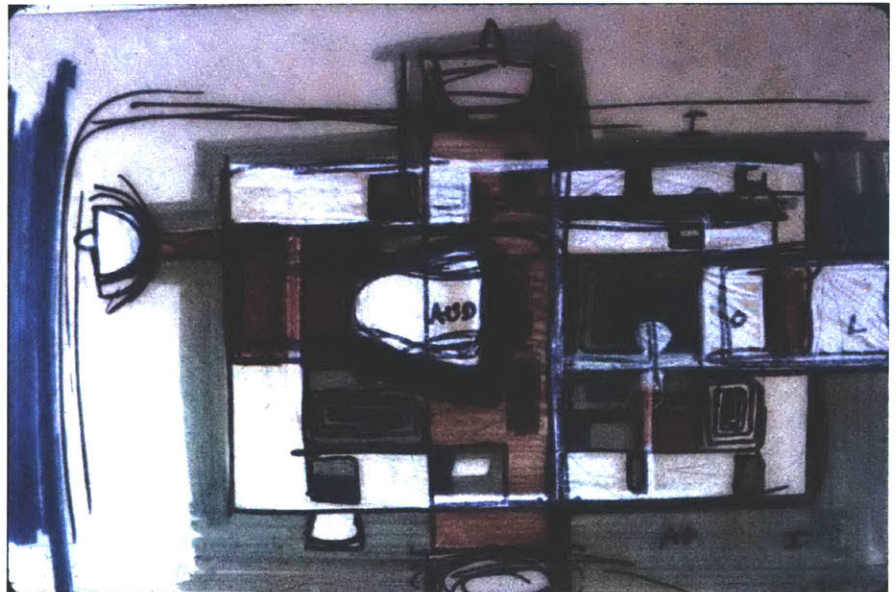
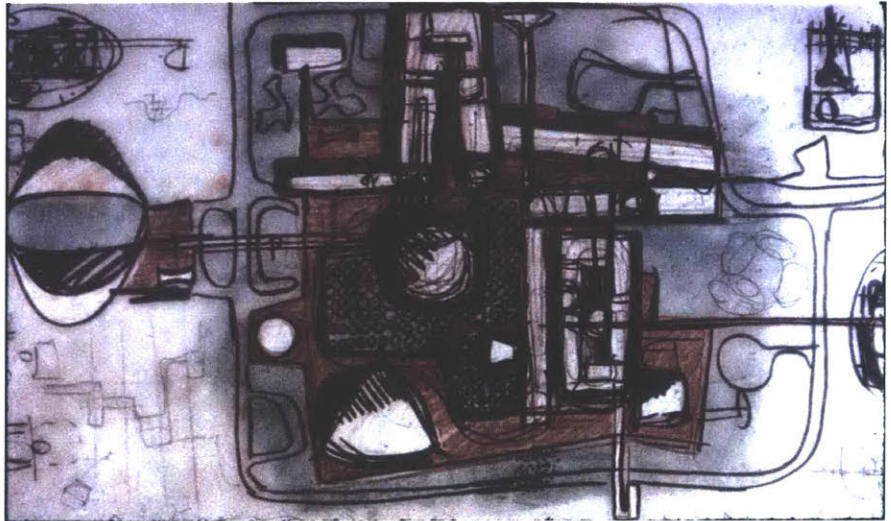
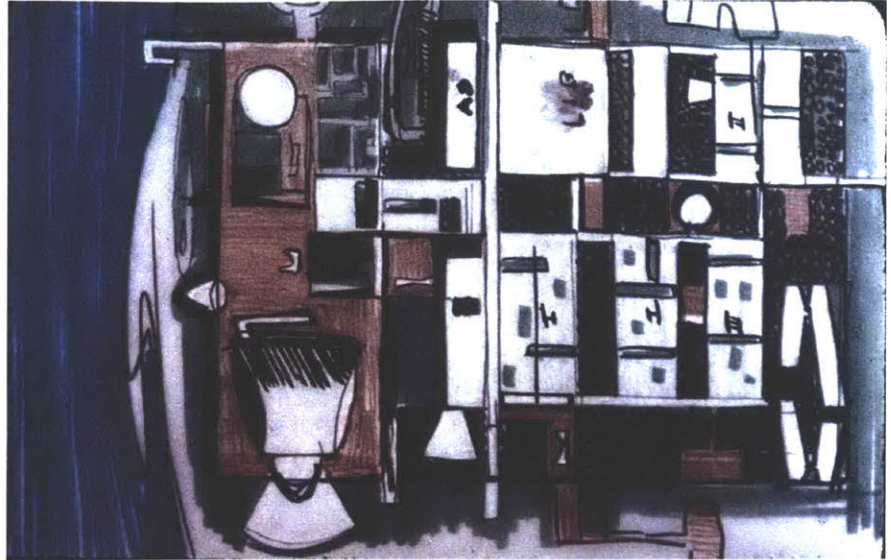


Fig. 5.37 Sketches for campus center, University of Baghdad, n.d. Loeb Library Special Collections, Harvard Graduate School of Design



Fig. 5.38 Eero Saarinen and Associates, Kresge Auditorium and Chapel, Massachusetts Institute of Technology, Cambridge, MA (1950–55). Image from *The Perceptual Form of the City*, Gyorgy Kepes and Kevin Lynch, researchers, MIT, 1954–59. Photographer: Nishan Bichajian. MIT Rotch Visual Collections

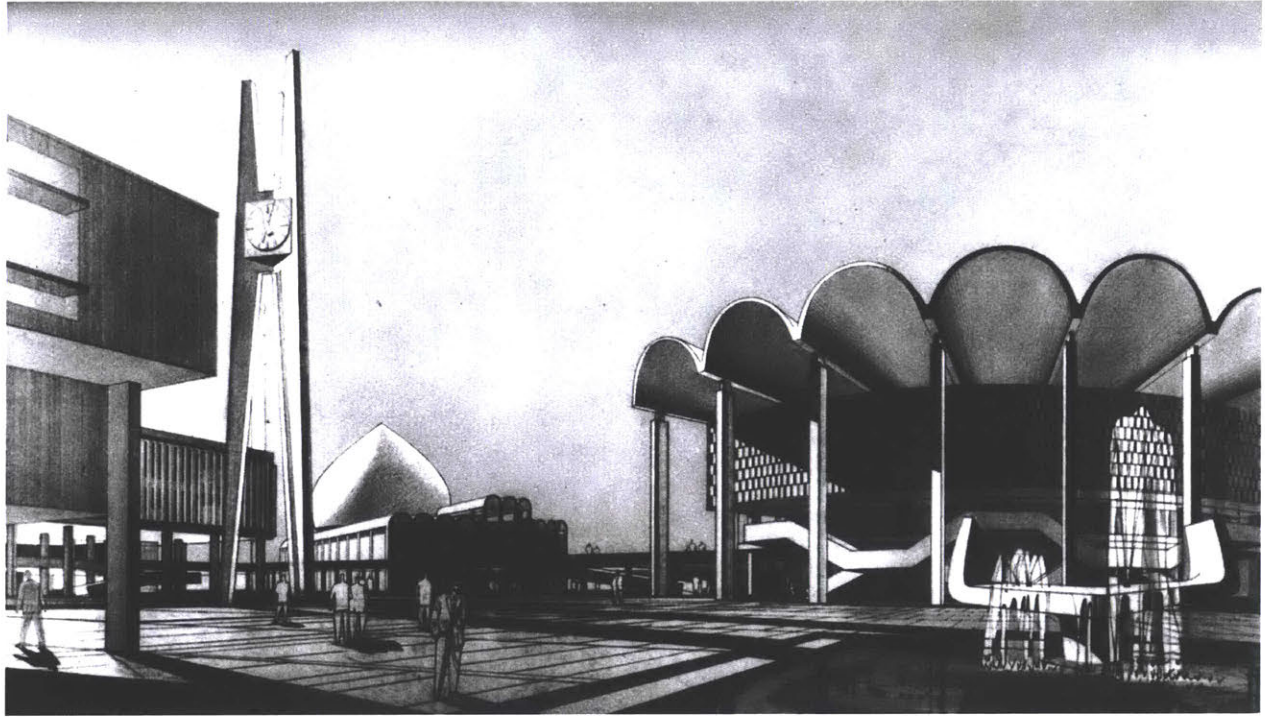
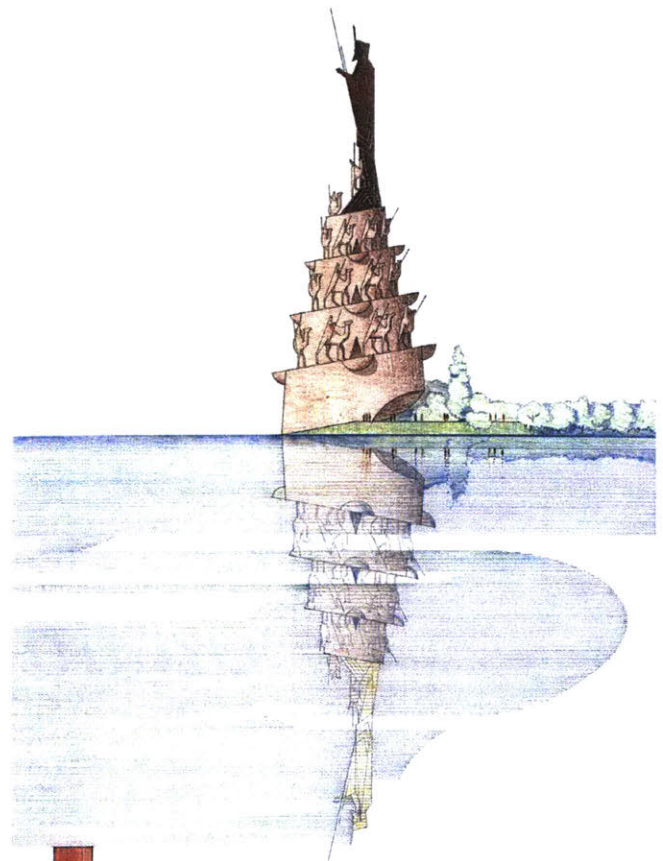
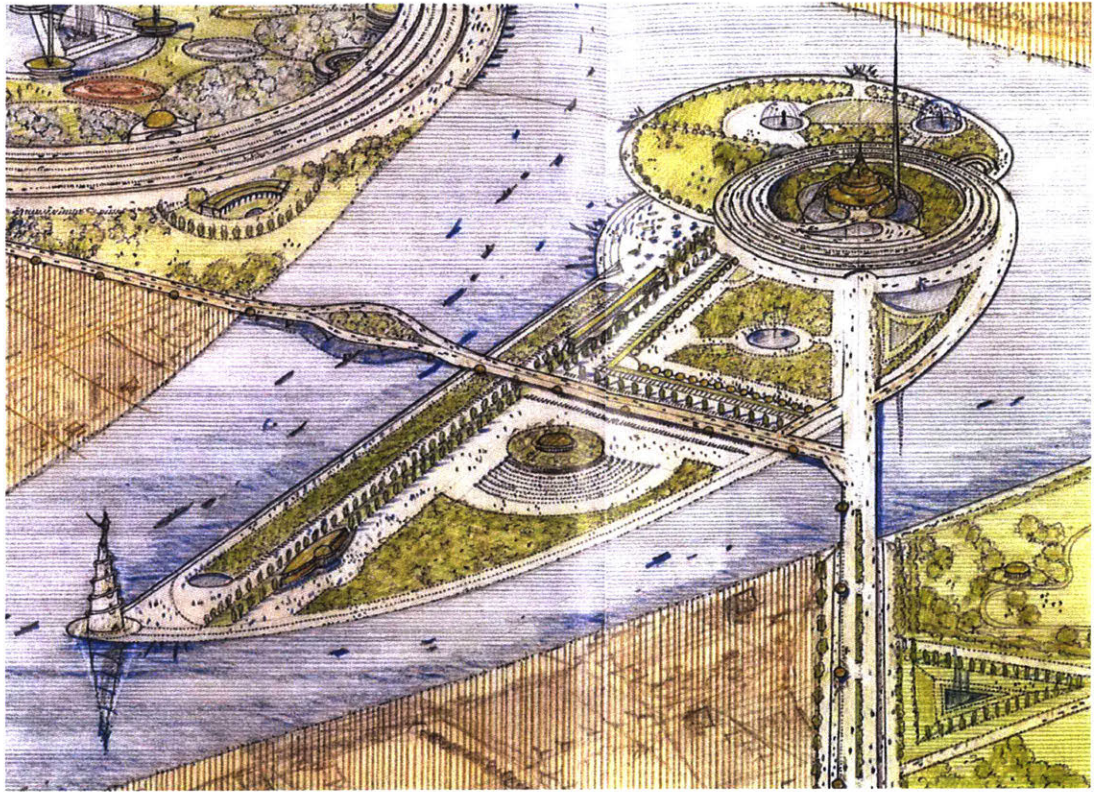


Fig. 5.39 Perspective view of campus center with mosque and auditorium, University of Baghdad, first scheme, in TAC, *Report on the University of Baghdad*, c. January 1959. Rendering: George Connelly. MIT Rotch Library




 HAROUN AL RASHID
 FRANK LLOYD WRIGHT ARCHITECT

Fig. 5.40 Frank Lloyd Wright, Plan for Greater Baghdad, aerial perspective (detail) and Harun al-Rashid monument, east elevation. FLWFA

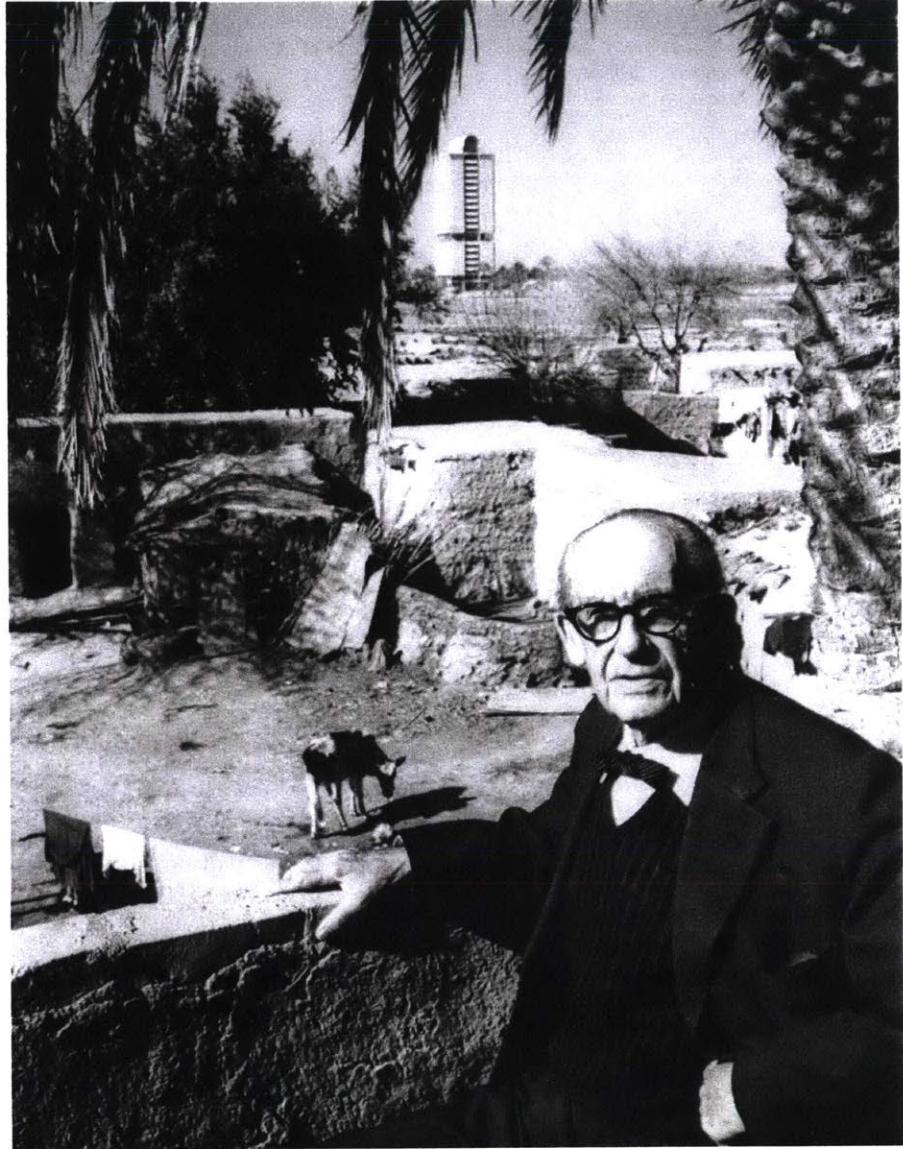


Fig. 5.41 Walter Gropius with University of Baghdad administrative tower in background, n.d. (c. 1966?). Walter Gropius Archive

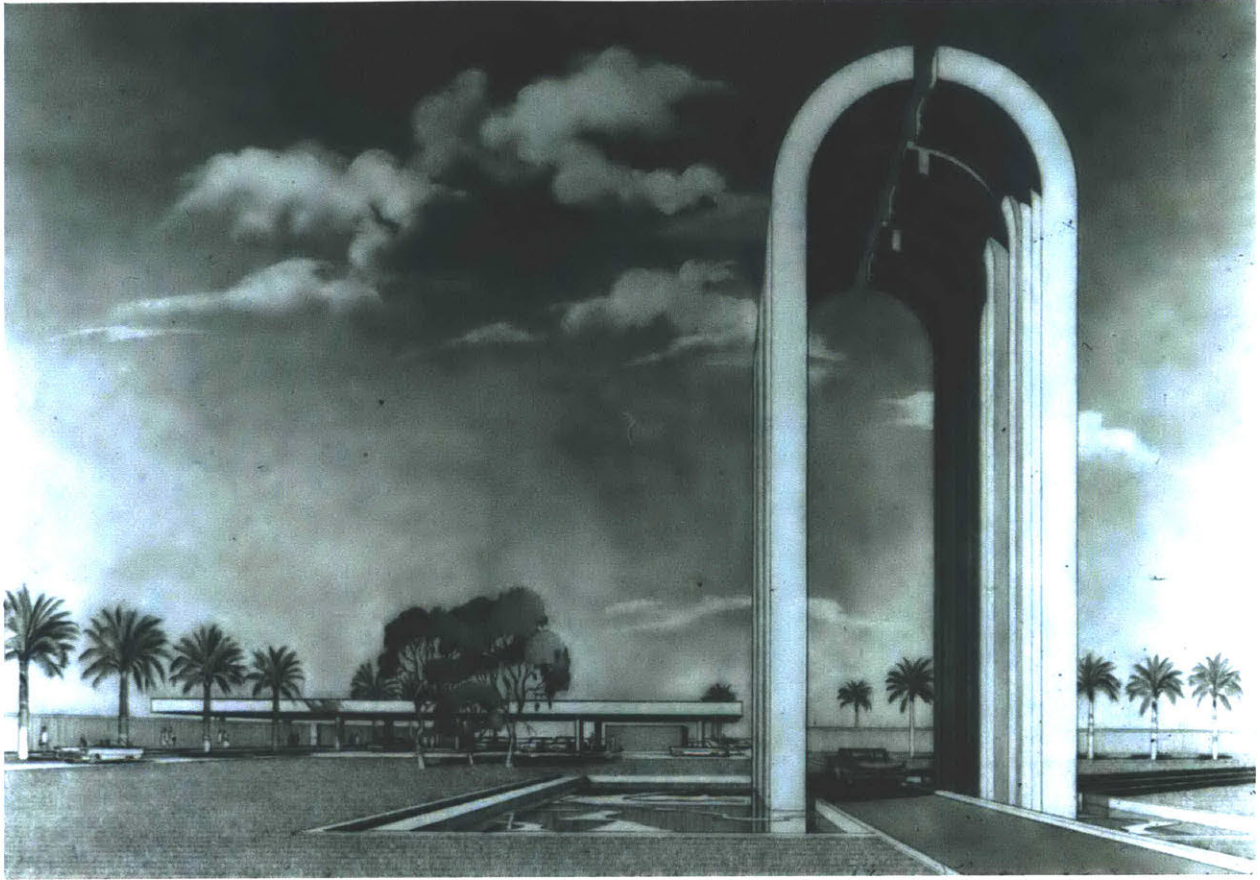


Fig. 5.42 Perspective view of “Open Mind” entry gate, University of Baghdad, second scheme. Rendering: Helmut Jacoby, c. 1959. Loeb Library Special Collections, Harvard Graduate School of Design

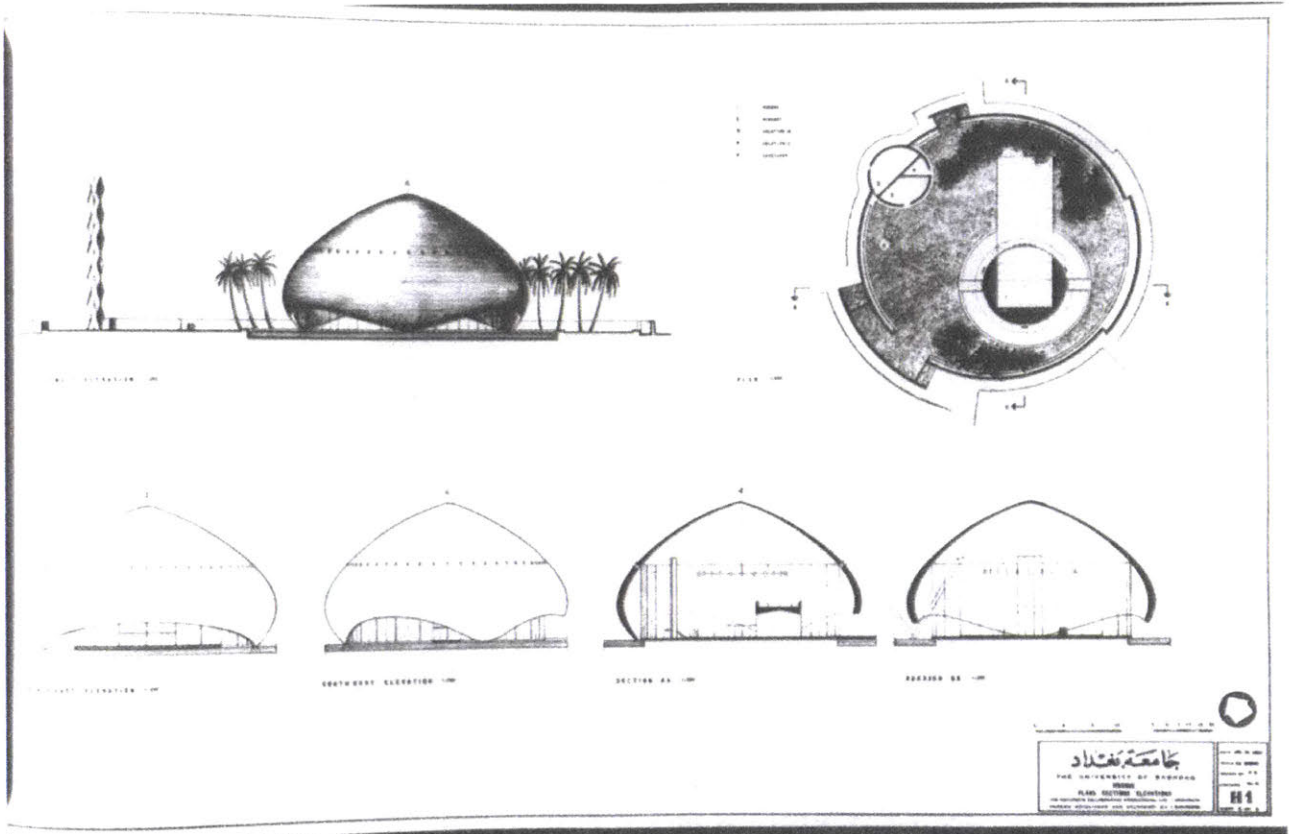


Fig. 5.43 Plans, sections, and elevation of mosque, University of Baghdad, second scheme, January 20, 1960. Loeb Library Special Collections, Harvard Graduate School of Design



Fig. 5.44 Walter Gropius and Louis A. McMillen at Al-Kadhimain mosque, Baghdad, n.d. (c. 1966). Walter Gropius Archive

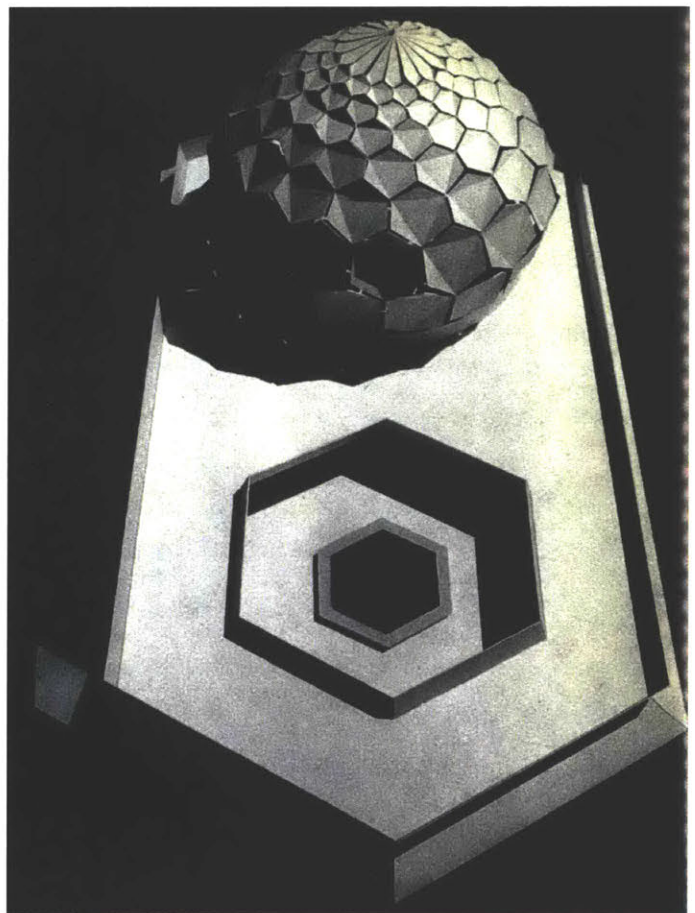
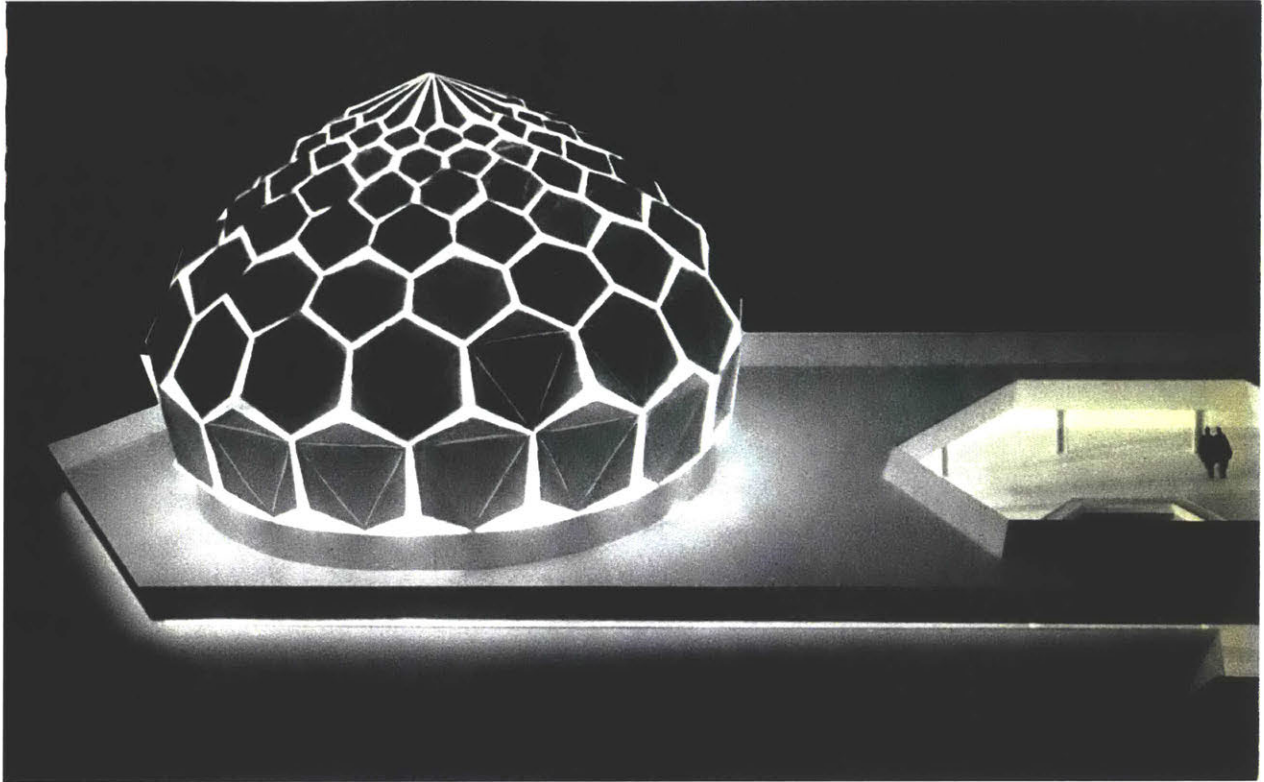


Fig. 5.45 Robert S. McMillen, mosque for University of East Africa, Dar es Salaam, Tanganyika (c. 1968), model photograph. *Robert S. McMillan Associates*, office portfolio, n.d. Avery Architectural & Fine Arts Library, Columbia University

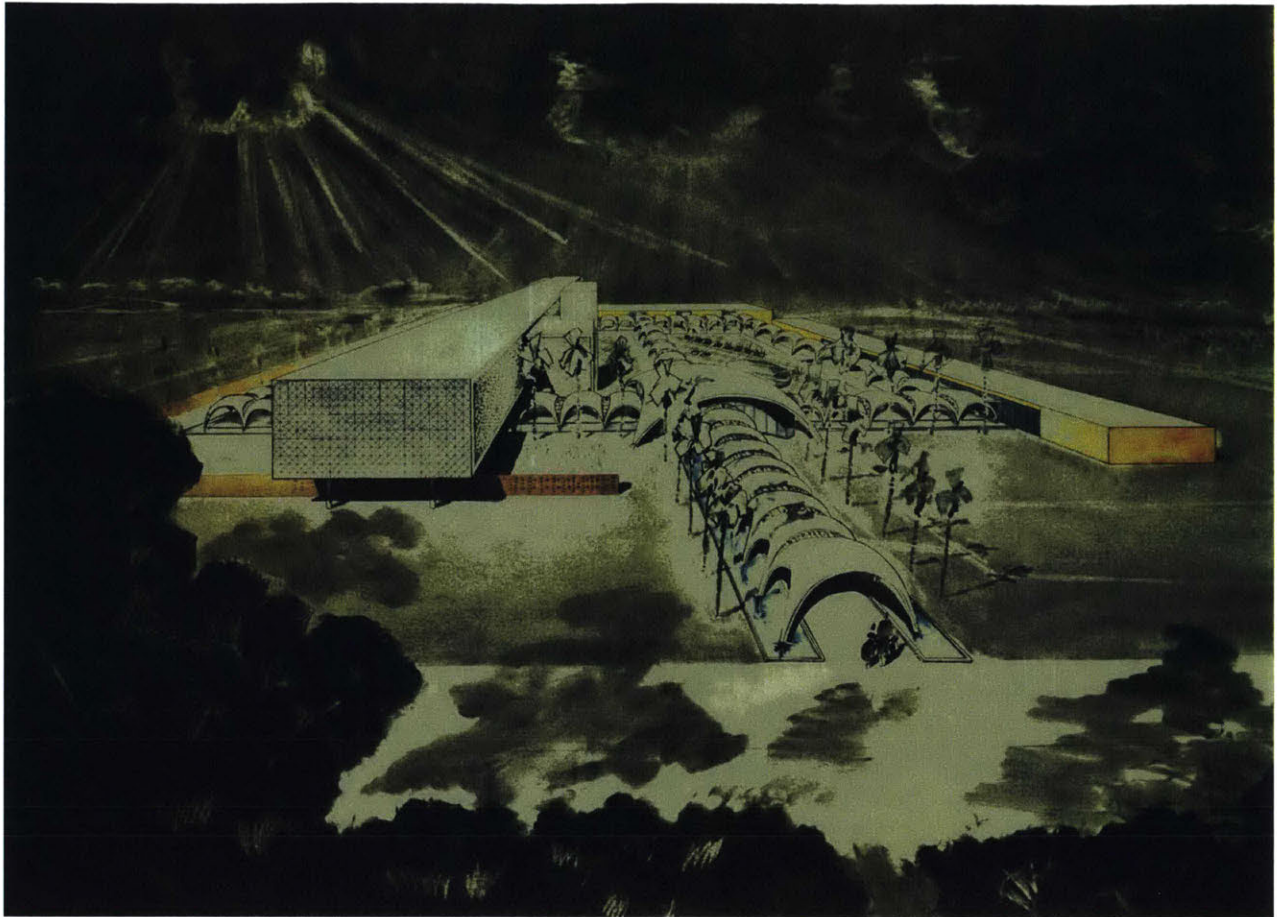


Fig. 5.46 Hisham Munir, perspective of hospital designed for graduate thesis, University of Southern California, 1956. USC Library

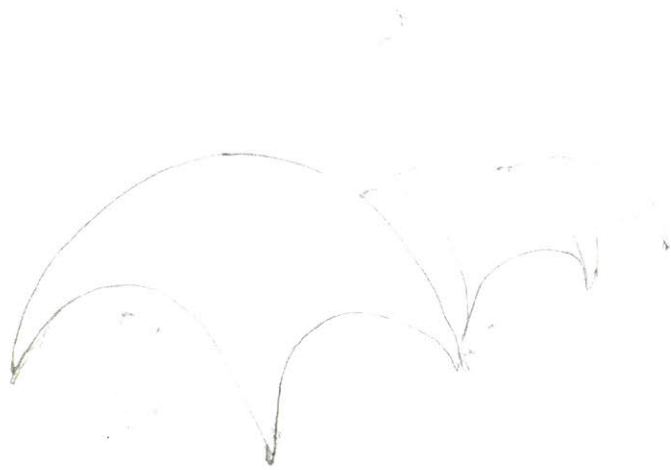


Fig. 5.47 Hisham Munir, sketch reconstruction (2015) of mosque designed for UT Austin thesis, 1953. Aga Khan Documentation Center



Fig. 5.48 Perspective view of mosque, University of Baghdad, second scheme. Rendering: Helmut Jacoby, c. 1959. Loeb Library Special Collections, Harvard Graduate School of Design



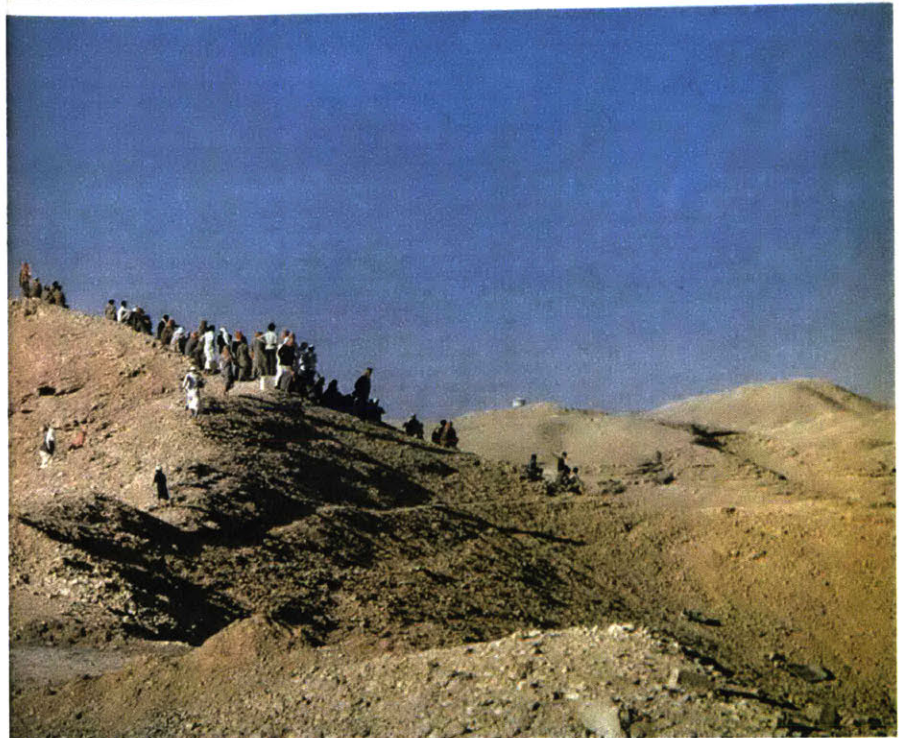
Fig. 5.49 University of Baghdad, mosque as built, c. 2013. Photographer unknown. "Gropius Mosque," *Watad Magazine*, Jul 7, 2013.

THE OIL-RICH MIDEAST:

The new frontier for professional services?

Most of the photos in the following article are by architect Der Scott, who is well traveled in the Mideast and who has just returned from his latest trip.

Suburban Riyadh: "waiting for housing!"

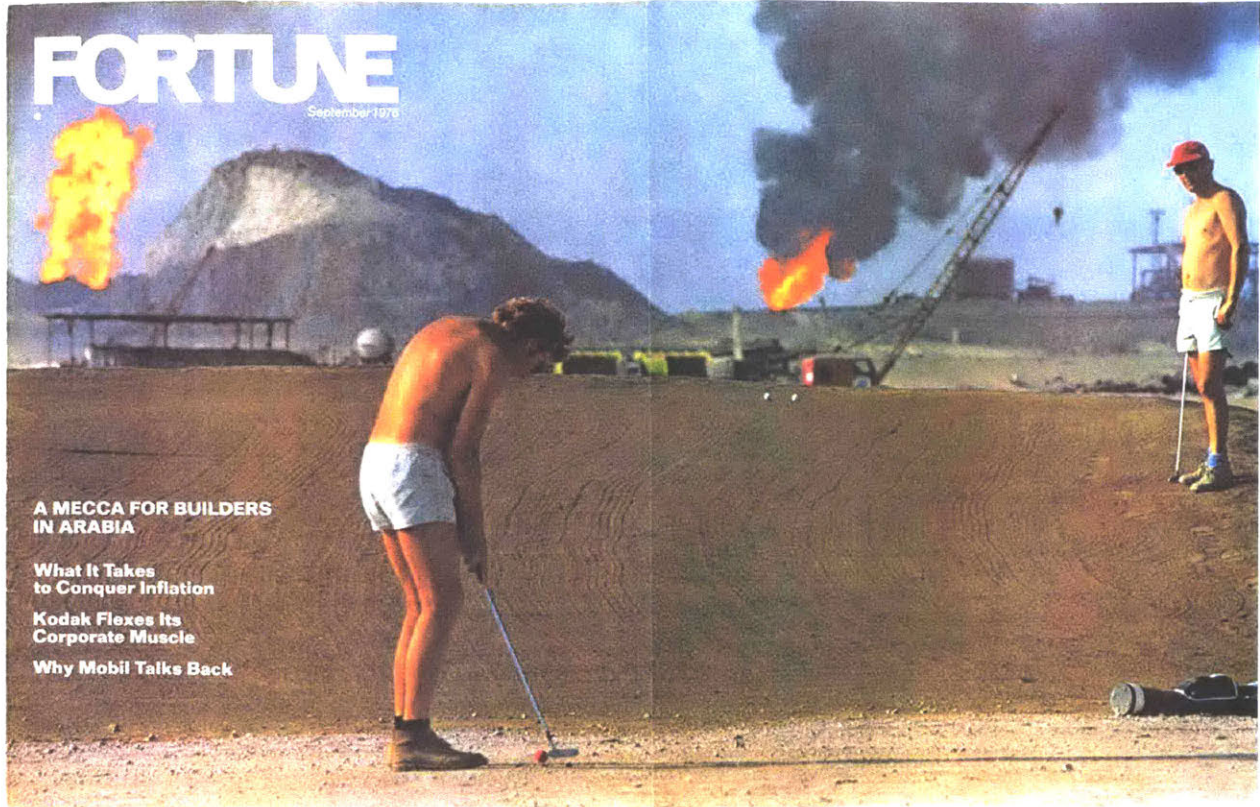


is this
the new client?



Symbolizing the often-present wall between architects and the pyramids of bureaucracy in Mideast governments: Saudi Arabians open the University of Petroleum and Minerals designed by architects Caudill, Rowlett and Scott.

Fig. 6.1 "The Oil-Rich Mideast."
Architectural Record, July 1975.



THE ARABIAN BUILDING BOOM IS MAKING CONSTRUCTION HISTORY

The projects are immense, and so are the problems. But the builders, many of them Americans, are devising ingenious solutions.

by Walter McQuade



Fig. 6.2 "A Mecca for Builders in Arabia." *Fortune*, September 1976.

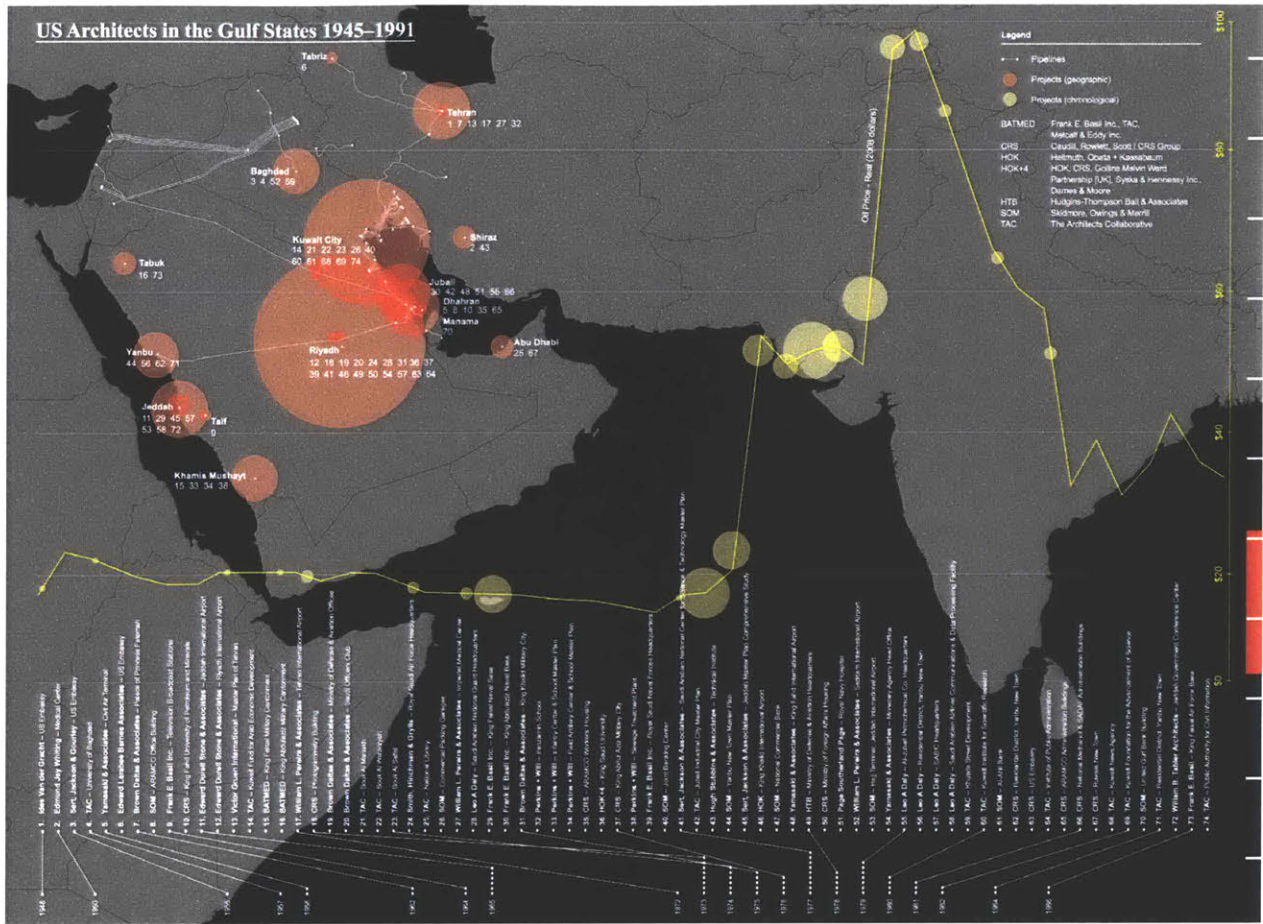


Fig. 6.3 Projects by U.S. architects in the Gulf states, 1945-1991, plotted against price of crude oil (yellow) and location of major oil pipelines (red). *OfficeUS Atlas*.



Fig. 6.4 Fahad Al-Salem Street project, 1960s, Kuwait City.

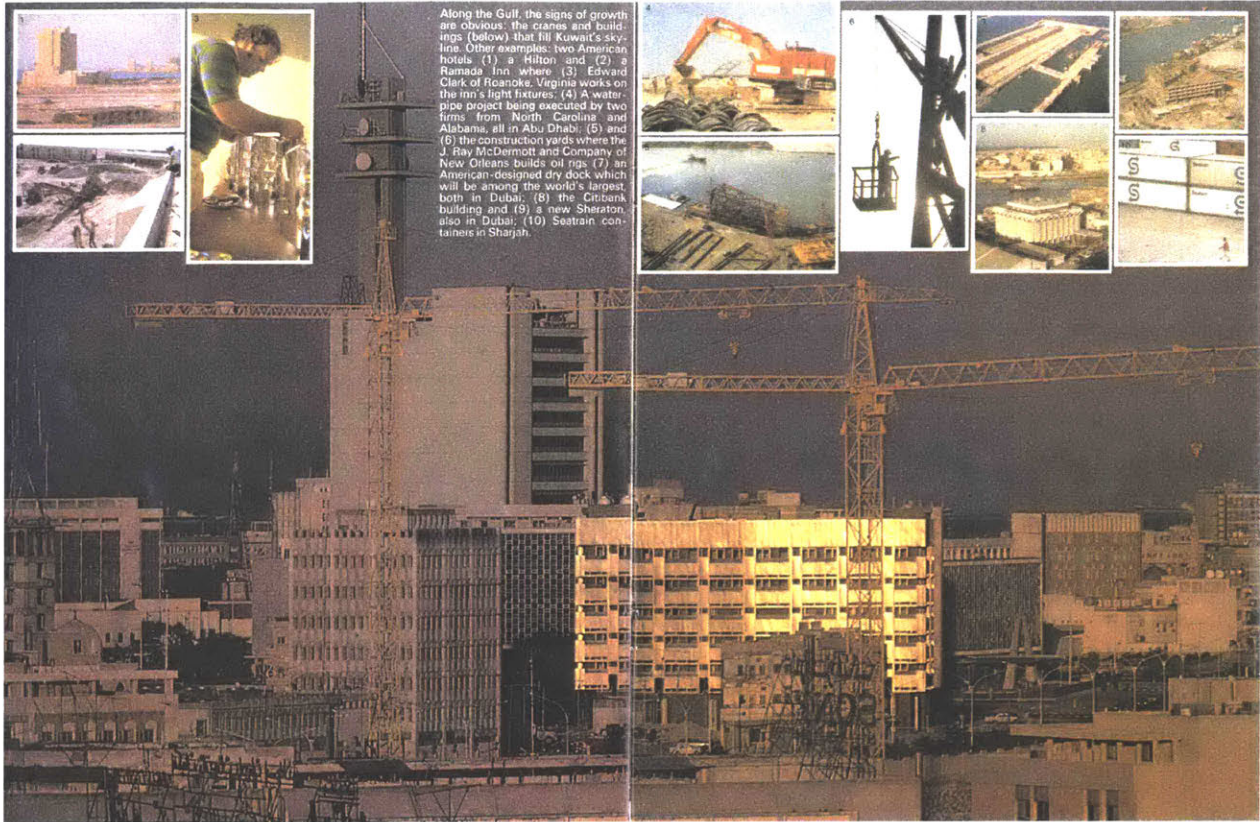


Fig. 6.5 "Partners in Growth: The Gulf." *Aramco World*, January-February 1977.


HD WIDENER
HJ KRSA 5

THE KUWAIT FUND FOR ARAB ECONOMIC DEVELOPMENT



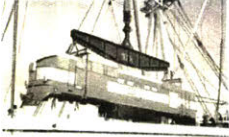
Fig. 6.6 *The Kuwait Fund for Arab Economic Development*. Kuwait Fund for Arab Economic Development, 1964.

SUDAN TRANSPORT





Railway transport is of vital importance to the economy of Sudan, as there is no other means of transporting large volumes of goods between the interior and Sudan's only deep-sea harbour of Port Sudan on the Red Sea.

A ten-year plan for expansion and modernization of the Sudan Railway has been worked out, during which a considerable increase in railway transport facilities is envisaged.




The Project also includes the expansion of storage and handling facilities at Port Sudan and construction of two new berths.

Long delays within the most important export product of the country must be freighted from the plantations in the area south of Khartoum, some 5000 km. of down to Port Sudan on its way to the overseas markets.






The Project for which the Kuwait Fund has not yet been provided mainly for the purchase of 20 large diesel-electric locomotives, 12 motor coaches, 140 freight cars, 21 passenger cars and various other equipment.




The Kuwait Fund loan of KD 100,000,000 (US\$ 60,000,000) will cover about 25% of the cost of the programme and 50% of the foreign exchange.

TUNISIA AGRICULTURE





A long-term programme is under way for utilization of the waters of the River Medjerda in Northern Tunisia. Some 90,000 hectares will be brought under organized irrigation, providing for a six-fold increase in the agricultural output of the valley.

The Project for which the Kuwait Fund loan will be used provides for raising irrigation structures, construction of farm water reservoirs, construction of storage and flood control and conservation works. The project is estimated to make a net contribution to the national income of about K11,000,000 (US\$ 6,800,000) per annum.



A large number of new tractors equipped with modern implements of agriculture will be set up in the valley. A number of different tractors are required with an increased capacity to transport, track and processing substances as well as providing work for the present agricultural labour force.



The Kuwait Fund has made a loan of K11,000,000 (US\$ 6,800,000) for the programme covering about 25% of the total cost of the project, and all the foreign exchange.

U. A. R. THE SUEZ CANAL



The Suez Canal, one of the busiest and most important waterways in the world, is also one of the major foreign exchange earners of the United Arab Republic. The Canal opened for traffic in 1869, was nationalized by the State in the 20th of July 1956, and is now successfully operated by the national Suez Canal Authority.


The Authority has continued the extension of the canal and related facilities at an accelerating pace to meet the demands of traffic, particularly the rapidly growing oil transport from Arab countries of the Middle East to Europe.

A policy for the expansion was set out in the "Master Programme" formulated right after the nationalization and this policy is being implemented in successive constructive stages.



Extensive and improvements of the Canal are based on scientific research in modern laboratories.

The Project comprises the first phase of the second stage of the Master Programme. The canal will be deepened to allow the passage of ships with 40 foot draft, i.e. of fully laden tankers up to about 80,000 tons (i.e. 22 feet of 40,000 tons), before this stage of expansion. Work will be completed. The first phase of the project will be equipped to handle ships up to 12,000 tons and will offer improved rapid facilities for transiting ships. Port facilities will be extended to enable smooth movement of large ships. Important additions will be made to the Authority's equipment for maintenance, service and expansion work.



The Kuwait Fund loan of K10,000,000 (US\$ 6,250,000) will cover about 25% of the total cost of the project and all of the foreign exchange.

Fig. 6.7 The Kuwait Fund for Arab Economic Development, development projects. Kuwait Fund for Arab Economic Development, 1964.

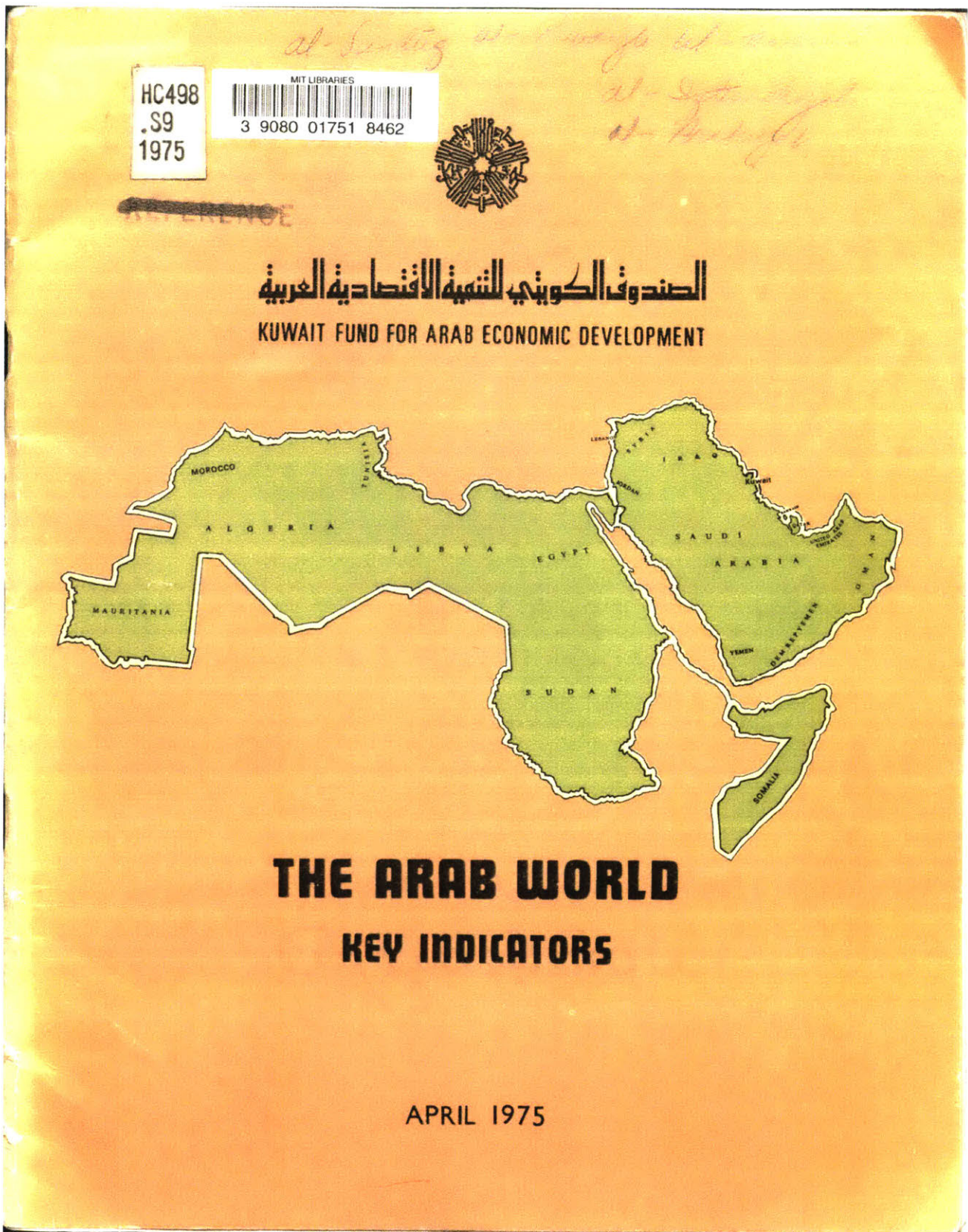


Fig. 6.8 *The Arab World: Key Indicators*. Kuwait Fund for Arab Economic Development, 1975.

Kuwait

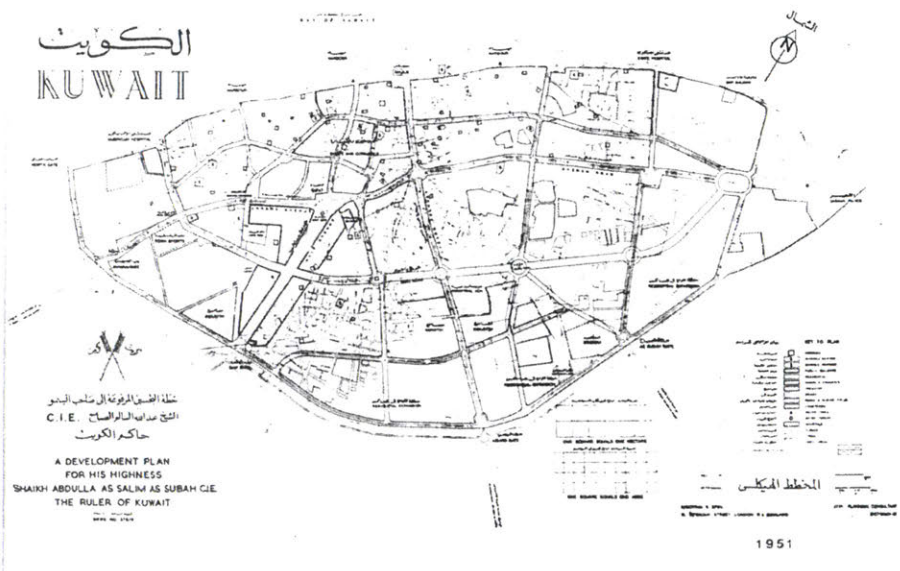
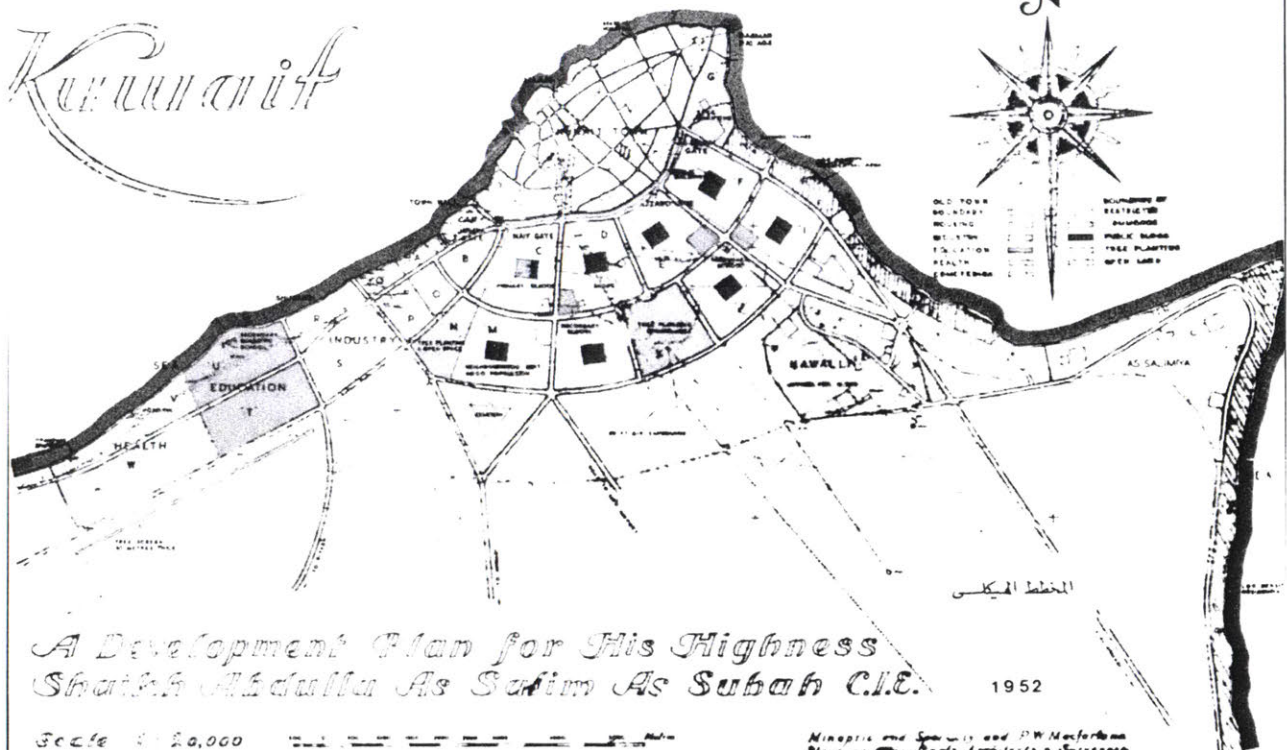
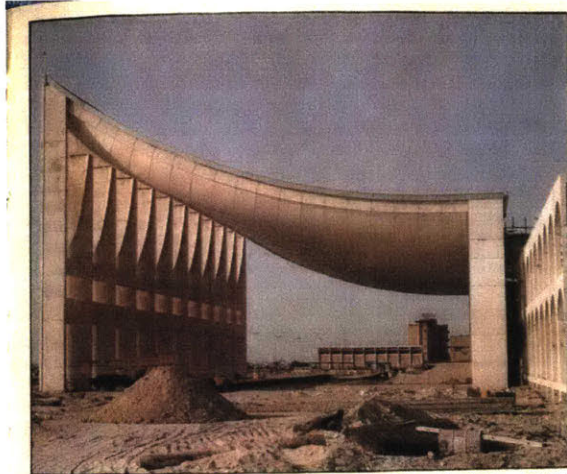


Fig. 6.9 Development plan for Kuwait and old town, Minoprio, Spenceley & Macfarlane, 1952.



KUWAIT REVISITED



Above & right: the National Assembly building (architect: Jorn Utzon, Denmark) — the huge sweeping roof, looking outwards to Kuwait Bay (epitomises the emirate's traditional 'embrace of the sea...pearl fishing, trading).

traditional patterns of solid and void, enclosure and openness, pattern and plain surface in his design for the Foreign Ministry alongside the Sief Palace. Many local observers are puzzled by the outcome; the building's *partial* symmetry, strong, almost schoolroom colours, flat roofscape and somewhat secretive face to the world have proved hard to digest, yet the architectural audience wanted him to succeed.

More palatable, if modish, remains Jacobsen's National Bank a few hundred yards away. This tiny building will never grow old. Its horizontal sunscreen louvers, bound by what seem almost 'classical' vertical column bays, rise calmly from a canted tooled granite podium. A controlled essay in proportion, taste and material, a true Arab thoroughbred.

Goings on at the palace

Three recent additions to the Kuwait Collection of world-class buildings merit closer study. As it happens two are within a Pepsi-can throw of each other, close to the Sief Palace, which is itself the subject of an invited architectural competition for an extension to provide spacious new accommodation for the Emir, the Crown Prince and their Council of Ministers. Moving up from the Palace on Mubarak Al-Kabeer Street you pass the near-complete State Mosque (a: Makiya Associates, c: United Building Co) which will undoubtedly prove the outstanding item in the City's 'collection', apart from its religious and cultural significance. It can impress as statistics — the largest mosque to be built this century, larger than the Dome of the Rock in Jerusalem, able to contain 7,000 worshippers, total built area of 12,500 m² and so on — but its most salient quality is not sheer size, although it stands four-square on its rising



Above: 'Old modern' Kuwait. A 'classic' building, the National Bank of Kuwait, near the Sief Palace, is still one of the most elegant structures in the Gulf — but very small — a jewel-like building. Below: the older Kuwait. The legendary Mrs Scudder's house (the wife of the American missionary doctor who set up the first medical service in Kuwait for the renowned Emir Mubarak the Great). The house is still in the old hospital compound, off the sea front central Kuwait.



Fig. 6.10 Neil Parkyn, "Kuwait Revisited." Middle East Construction, September 1983.

**The Architects
Collaborative**

TAC ت.ا.ك

Middle East

Architecture
Urban Design
Master Planning
Campus Planning
Land Use Planning
Landscape Architecture
Interior Architecture
Graphic Design
Programming
Space Planning
CADD
Feasibility Studies
Cost Analysis and Control
Construction Administration

TAC was founded in 1945 in Cambridge, Massachusetts by eight architects who established a firm based on collaborative professional practice. The founders included Walter Gropius, the celebrated modern architect and former director of the Bauhaus in Germany, who was also chairman of architecture at Harvard. The young firm was soon well known for its innovative work. In 1964 TAC received the American Institute of Architects Architectural Firm Award and in 1966 built its own headquarters building in Harvard Square. A Middle East office was established in Kuwait City in 1974, and an office was opened in San Francisco in 1984 in response to the growth of TAC's national and international clientele.

**The Architects
Collaborative Inc.**

Middle East

TAC ت.ا.ك

Fig. 6.11 TAC Middle East, office brochures. Courtesy MIT Museum.

Recent Work

1 Hotel Inter-Continental Sharjah, United Arab Emirates
 Fourteen-story luxury hotel overlooking the Arabian Gulf. Facility combines 330 guest rooms with a wide range of commercial, recreational, and service facilities, plus sheltered parking. A lush garden atrium is the focal point of the design.



1

2 Kuwait Investment Company Souk Al-Manakh Kuwait City, Kuwait
 Urban complex in downtown Kuwait combines office, shopping, and parking in an eight-story, 42,800 sq. m. (gross) structure. Spacious skyvit courtyards with fountains provide focal points for both office and shop areas. Provision for future monorail station in building.



2

3 Kuwait Fund for Arab Economic Development Headquarters Kuwait City, Kuwait
 Five-story headquarters building, including library and parking. To offset severe climatic conditions, all office spaces face inward toward an enclosed, air-conditioned garden court. An adjacent 18-story office tower now under construction will provide an additional 25,000 sq. m. of space.



3



4

4 University of Baghdad Baghdad, Iraq
 Program master plan, and design of 18,000-student university, 273 buildings ranging in size from an 18,000-seat auditorium to individual faculty houses. Work initiated in 1960's. Project ongoing. Faculty Tower shown.



3

6 National Real Estate Company Souk Al-Wataniyah Kuwait City, Kuwait
 A multi-function building of 69,200 sq. m. (gross) located in the center of Kuwait City. Includes 50 residential courtyard apartments, parking for 1,000 cars, and 6,200 sq. m. (net) of shell space for shops. Shops are located at street and mezzanine levels and housing on the terraced roof levels. Two four-story skyvit courtyards containing fountains accent the shopping area.



5

7 Abu Dhabi National Library Abu Dhabi United Arab Emirates
 A three-story building with landscaped courtyards surrounded by arcades. Includes facilities for 500,000 volumes, reading rooms, a children's library, technical services, exhibition spaces, administrative offices, a 1,000-seat auditorium, lecture and conference halls, and meeting rooms with complete translating facilities. Extensive landscaping relates new building to the old palace which shares the site.



7

8 Northeast Sawaher Housing Project Kuwait City, Kuwait
 Project for the National Housing Authority consists of 368 units of luxury apartments on an 8-hectare site. Includes 736 parking spaces, shops, kindergarten, and support facilities. Central pedestrian plaza contains pergolas, fountains, and landscaping. Completion 1983.



8



6

Fig. 6.12 TAC Middle East, office brochure. Courtesy MIT Museum.



Fig. 6.13 Abdulatif Youssef Al-Hamad at Kuwait Fund headquarters. National Geographic, October 1975.



Fig. 6.14 Kuwait Fund for Arab Economic Development, construction. Courtesy Pan Arab Consulting Engineers.

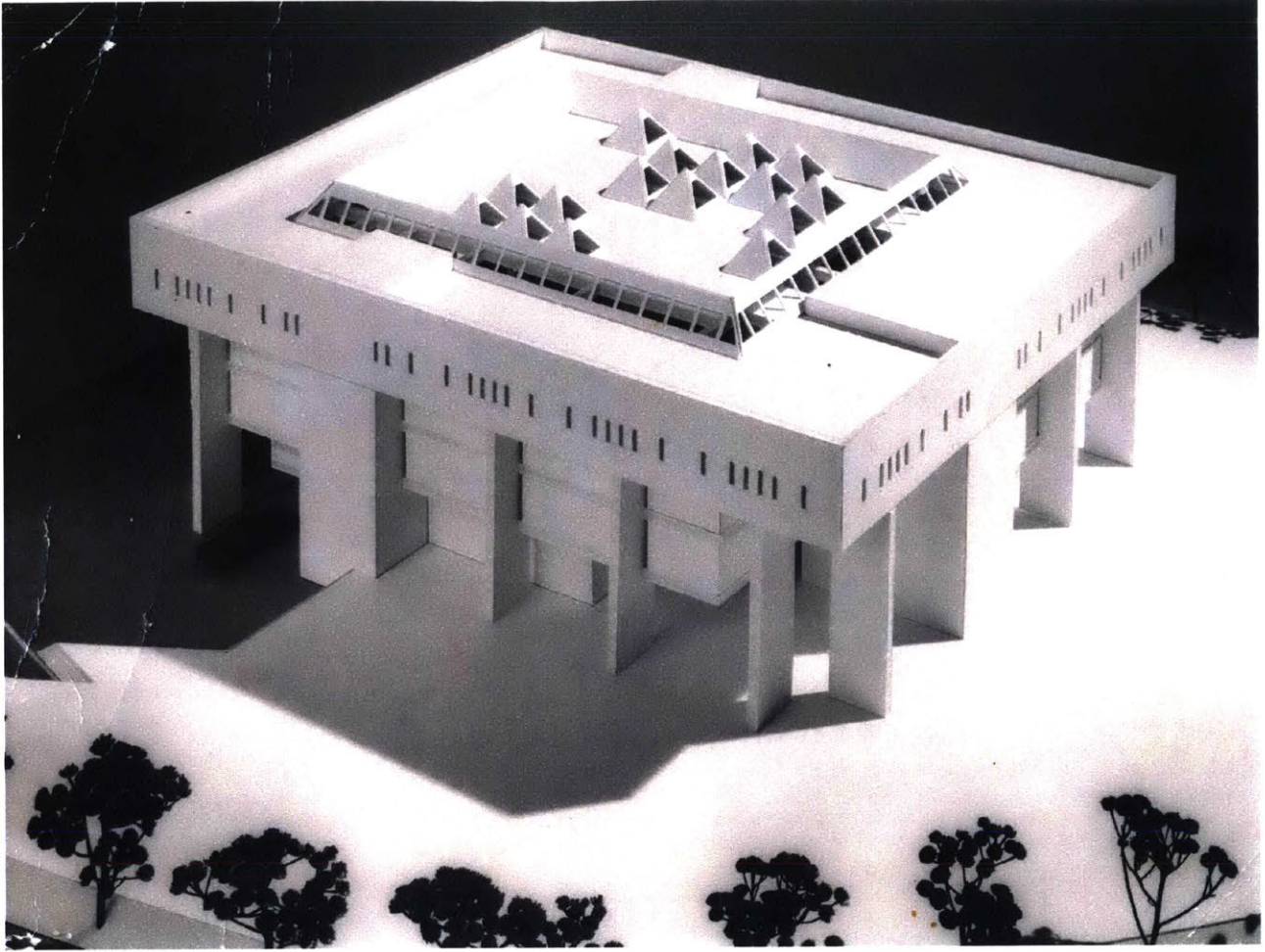


Fig. 6.15 Kuwait Fund for Arab Economic Development, model. Courtesy Pan Arab Consulting Engineers.



Fig. 6.16 Kuwait Fund for Arab Economic Development, construction. Courtesy Pan Arab Consulting Engineers.

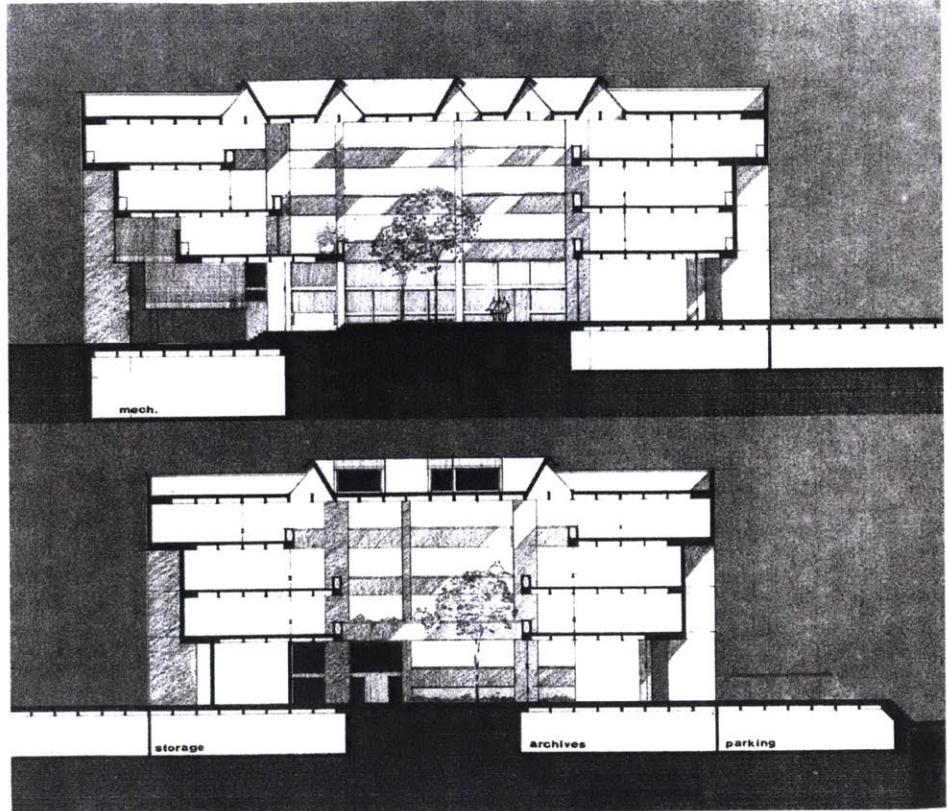
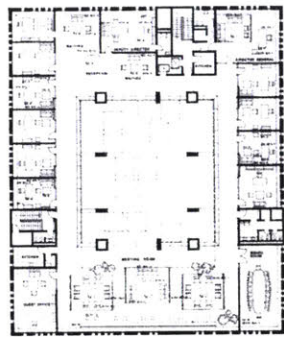


Fig. 6.17 Kuwait Fund, plans and sections. Stephen Gardiner, *Kuwait: The Making of a City* (1983).

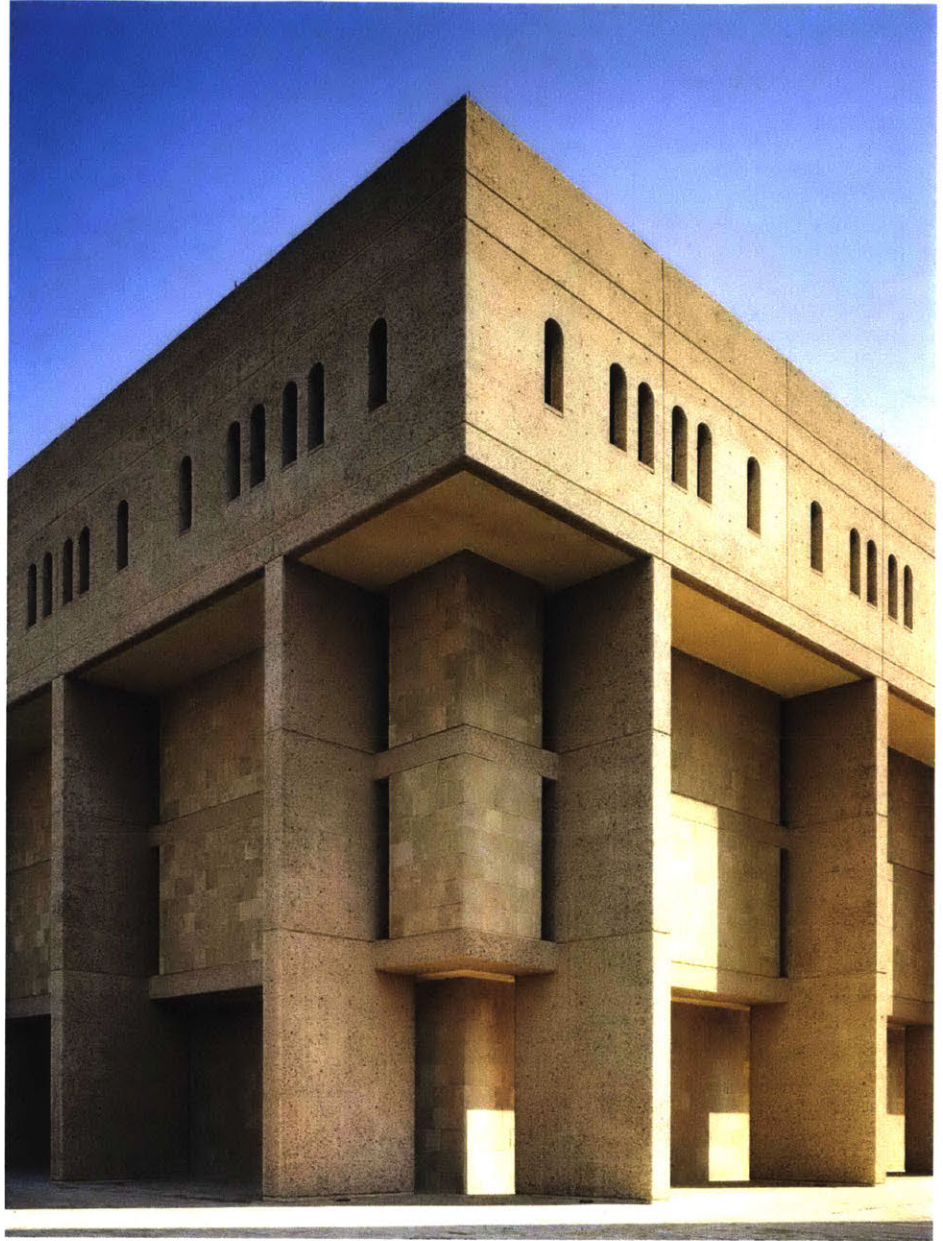


Fig. 6.18 Kuwait Fund for Arab Economic Development. Courtesy Pan Arab Consulting Engineers. Photograph: Nick Merrick © Hedrich Blessing.



Fig. 6.19 Pan-Arab Consulting Engineers (PACE), offices. Courtesy Pan Arab Consulting Engineers.

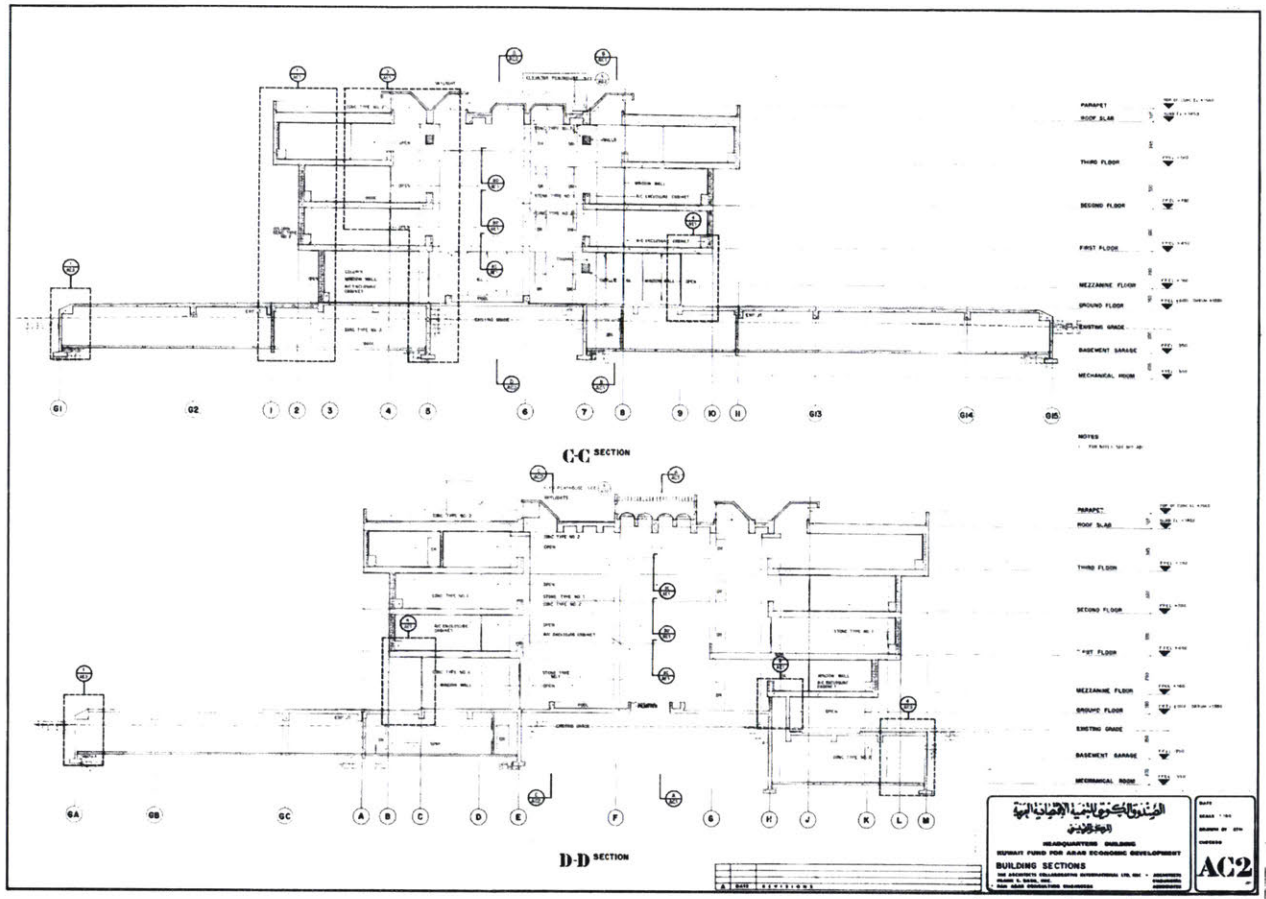


Fig. 6.20 Kuwait Fund for Arab Economic Development, building sections. The Architects Collaborative with Pan Arab Consulting Engineers, 1965-1972. Courtesy PACE.



CAUDILL ROWLETT SCOTT'S
ONGOING WORK
FOR A SAUDI ARABIAN
UNIVERSITY



Fig. 6.21 "Caudill Rowlett Scott's Ongoing Work for a Saudi Arabian University," *Architectural Record*, April 1976.



Fig. 6.22 Joint Banking Centre, Kuwait. Skidmore, Owings & Merrill, 1975–82.

Fig. 6.23 Al-Ahli Bank, Kuwait. Skidmore, Owings & Merrill, 1975–82.

Fig. 6.24 National Commercial Bank, Jeddah. Skidmore, Owings & Merrill, 1977–83.

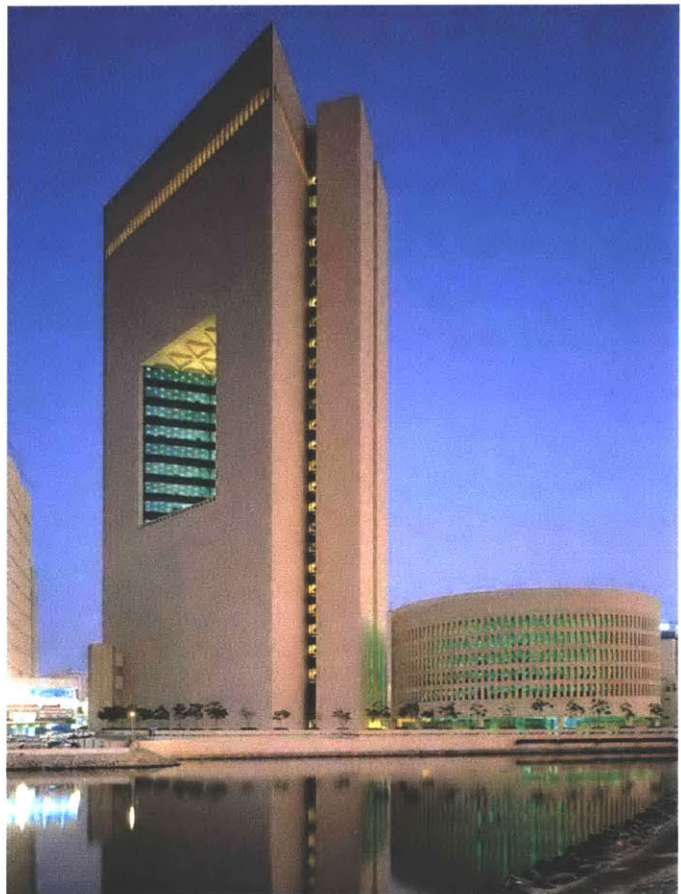




Fig. 6.25 Joint Banking Centre, Kuwait. Skidmore, Owings & Merrill, 1975–82. Courtesy Pan Arab Consulting Engineers.

KUWAIT PARKING GARAGE COMMERCIAL AREA 5 KUWAIT INVESTMENT COMPANY

طراز سياراتي المنطقة التجارية الخامسة الشركة الكويتية للاستثمار



ARCHITECTS
THE ARCHITECTS COLLABORATIVE INC.
46 BRATTLE STREET
CAMBRIDGE, MASSACHUSETTS 02138

STRUCTURAL ENGINEERS
SOUZA AND TRUE INC.
8 STORY STREET
CAMBRIDGE, MASSACHUSETTS 02138

MECHANICAL AND ELECTRICAL ENGINEERS
SHOOSHANIAN ENGINEERING ASSOCIATES
129 MALDEN STREET
BOSTON, MASSACHUSETTS 02118

Fig. 6.26 Drawing set for Souk Al-Manakh, The Architects Collaborative with Pan Arab Consulting Engineers, c. 1974. Courtesy Kuwait Municipal Archive.



Fig. 6.27 Kuwait City, old town center showing surface parking lots, c. 1983. From Stephen Gardiner, *Kuwait, The Making of a City* (1983).

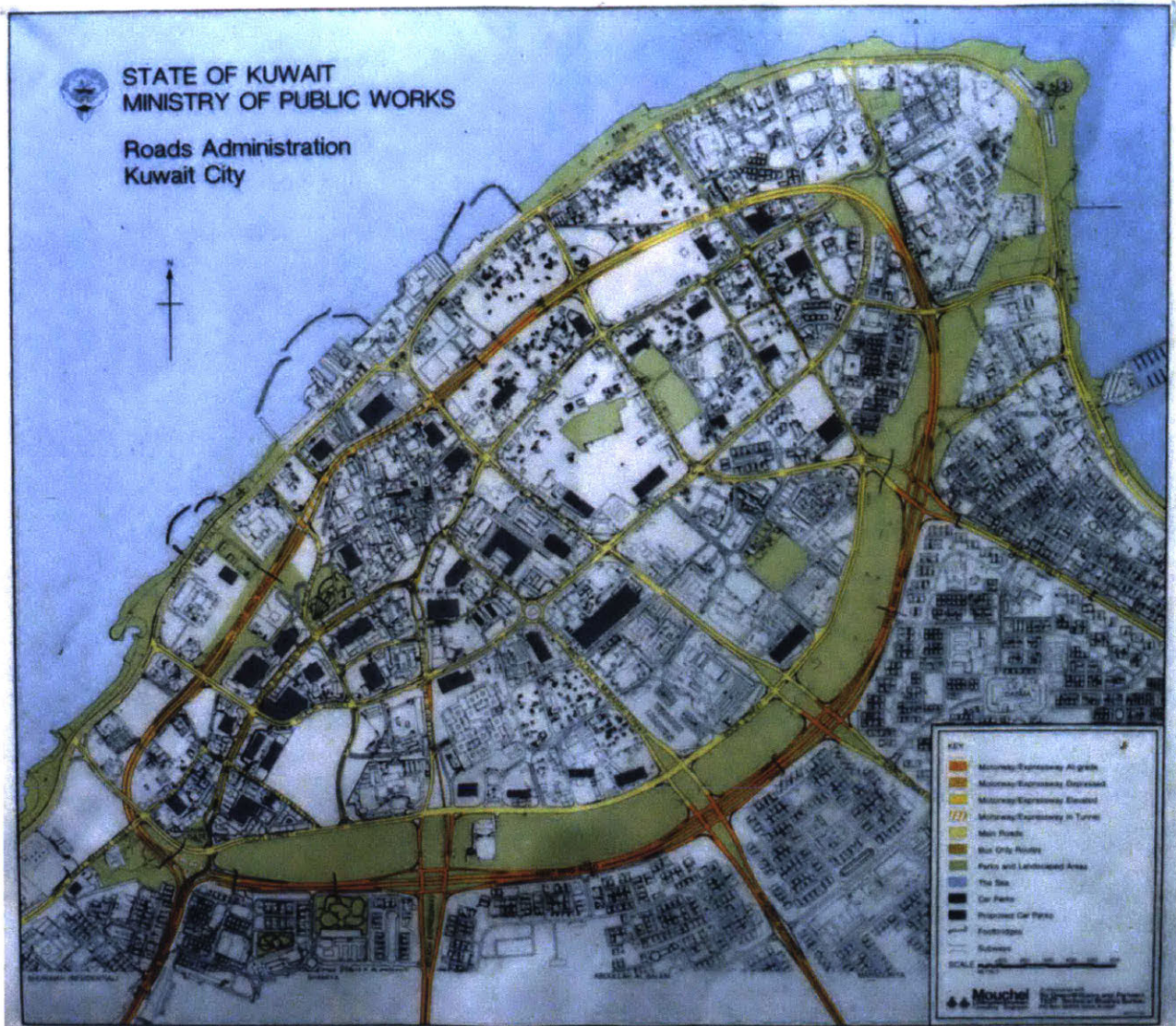


Fig. 6.28 Ministry of Public Works, State of Kuwait, map showing commercial parking garages (dark grey), c. 1980s.

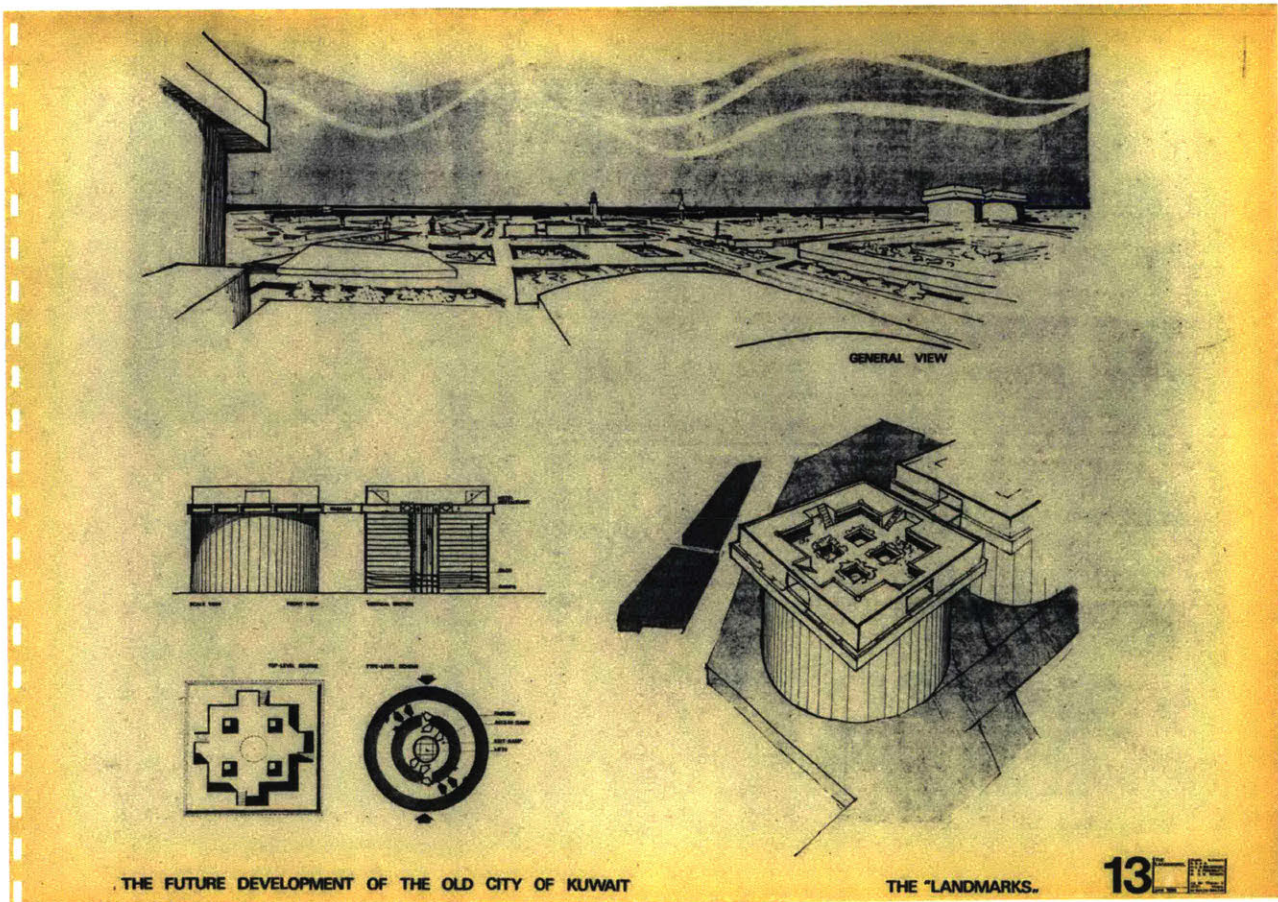
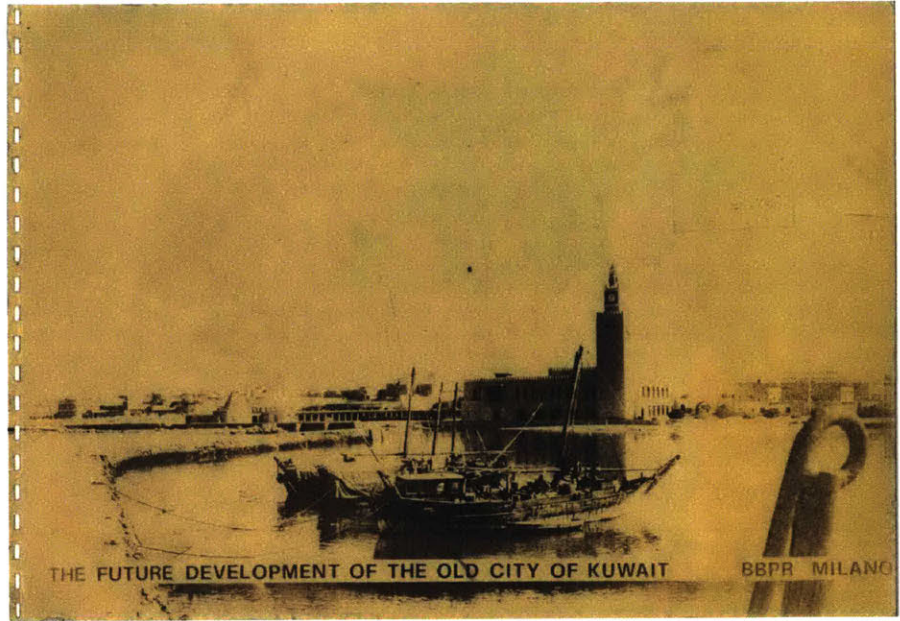


Fig. 6.29 BBPR, *The Future Development of the Old City of Kuwait*, 1969.

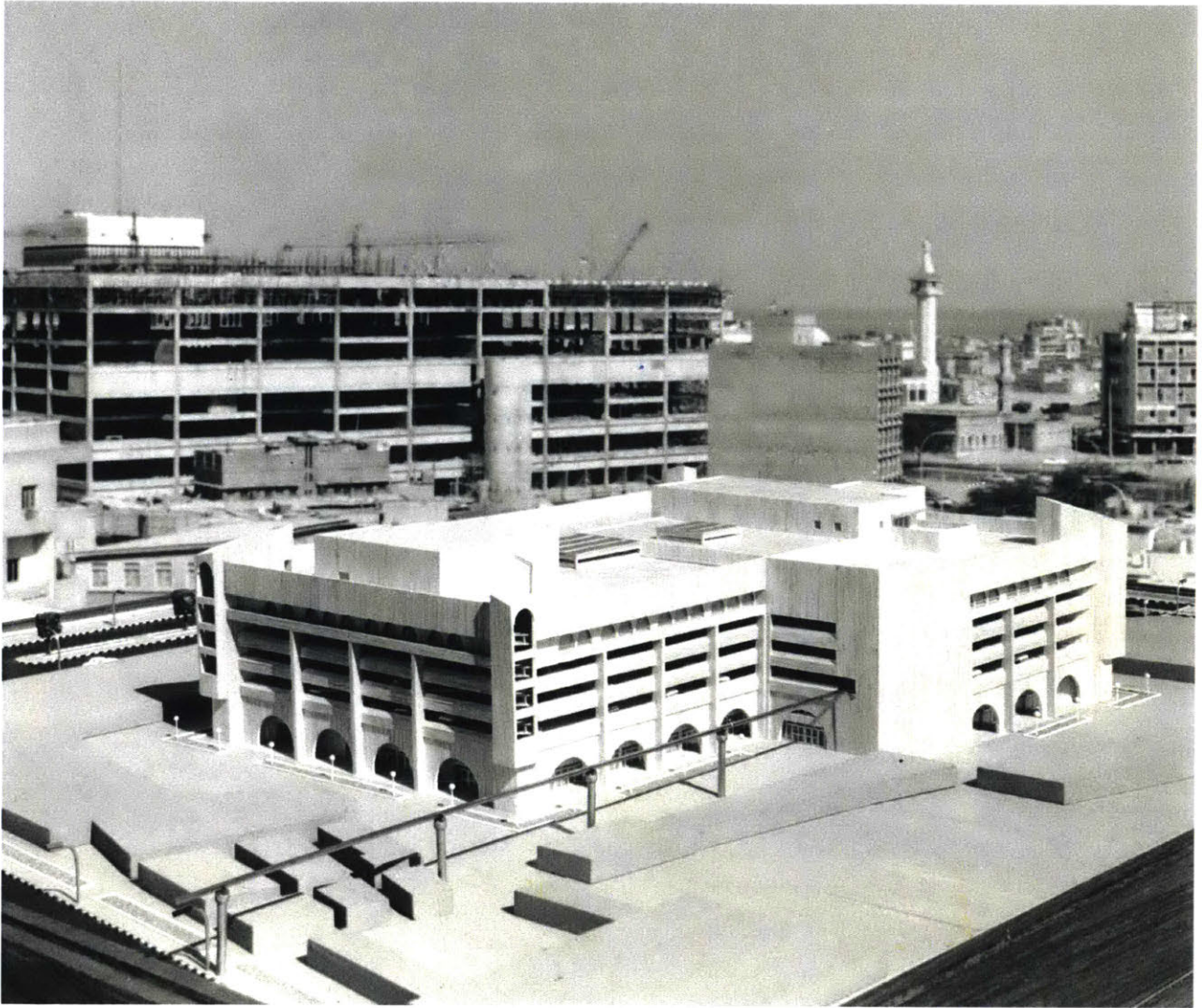


Fig. 6.30 Souk al Manakh, model photograph. Courtesy Pan Arab Consulting Engineers.

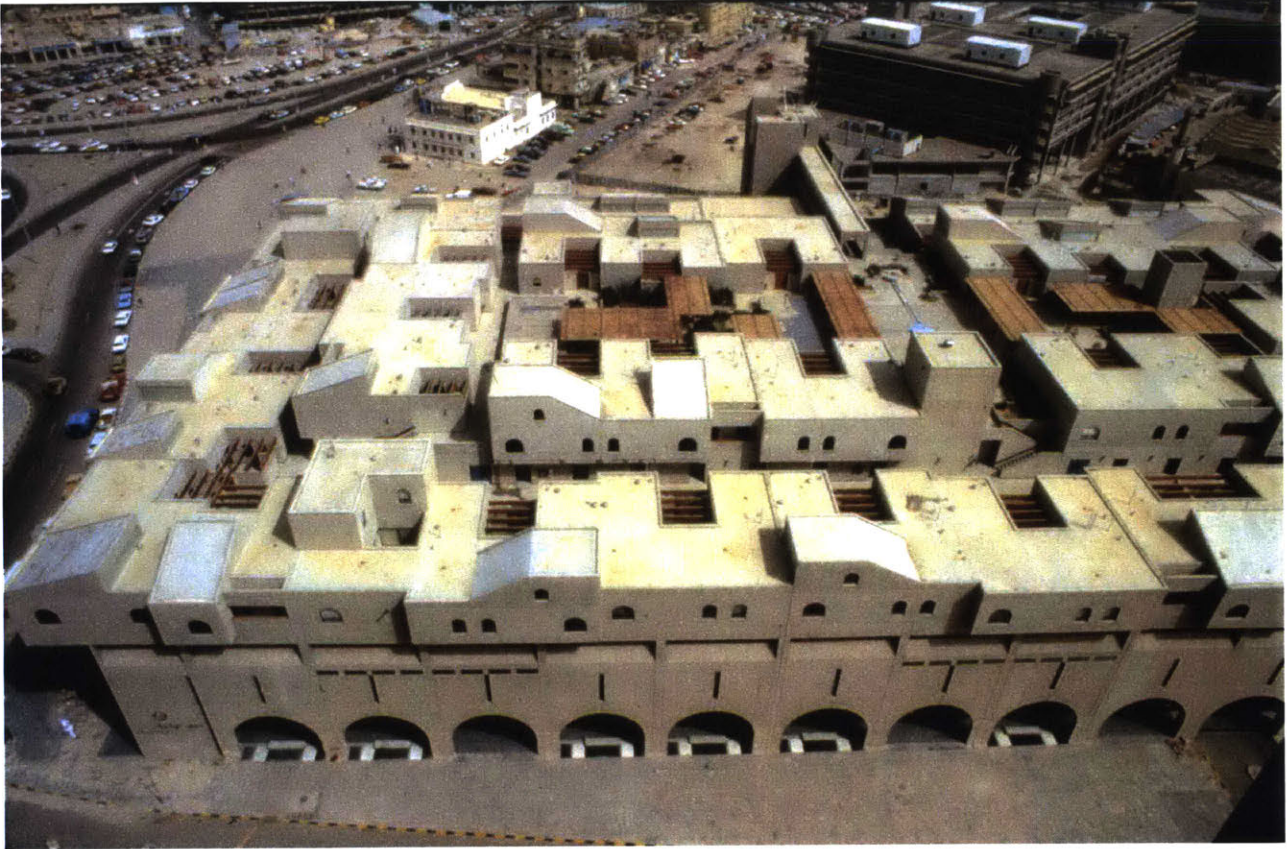


Fig. 6.31 Souk Al-Wataniyah. The Architects Collaborative with Pan Arab Consulting Engineers, 1973–79. Courtesy MIT Dome.

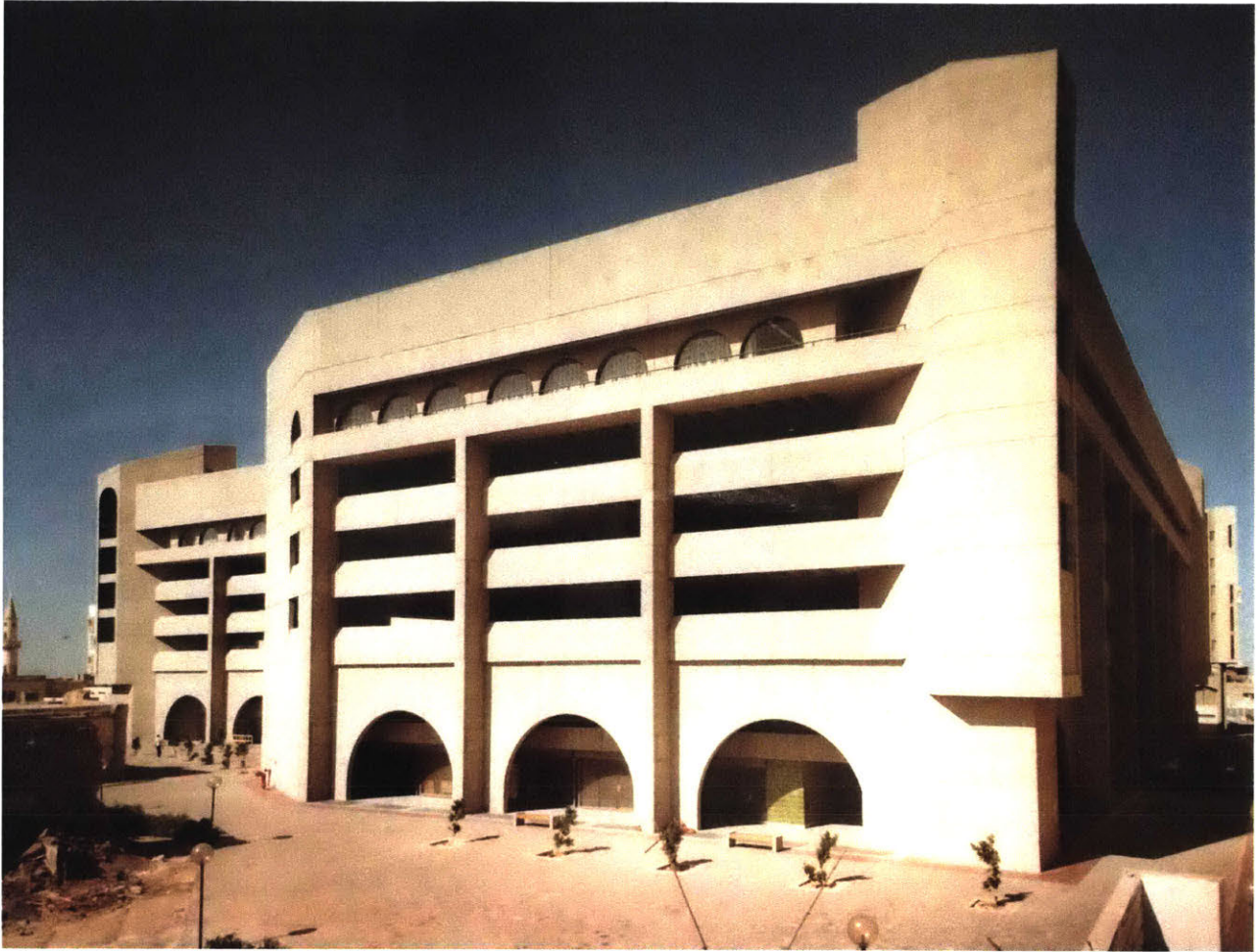


Fig. 6.32 Souk Al-Wataniyah. The Architects Collaborative with Pan Arab Consulting Engineers, 1973–79. Courtesy MIT Dome. Photograph: Wayne Soverns, Jr.

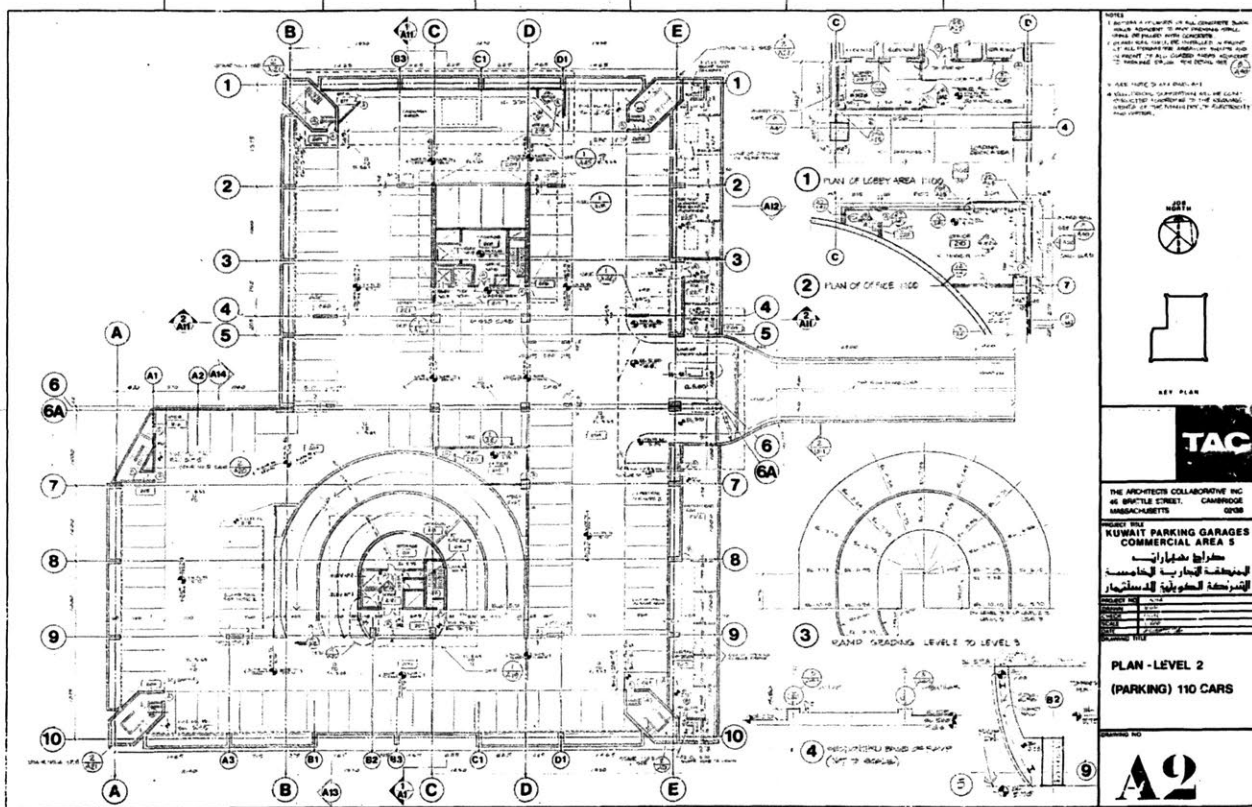


Fig. 6.33 Souk Al-Manakh, plan,
 level 2, September 1974. Courtesy
 Pan Arab Consulting Engineers.



A street in Kuwait. The Souk al-Manakh is an unofficial stock market that is worrying the Government.

Gamma-Liaison

Kuwait's Bustling Stock Souk

Special to The New York Times
KUWAIT — It's called Souk al-Manakh, but it has very little in common with the old Arab markets.

There is also an official Kuwait stock market, which deals in shares of domestic companies.
 Souk al-Manakh has had a delirious

"It is a cancer, and it may be too late to heal it," he went on. "These people are buying phony companies on credit and paying 100 percent inter-



Gamma-Liaison

Kuwait's unofficial market, the Souk al-Manakh, is an over-the-counter center where the securities of 45 companies registered in Persian Gulf countries outside Kuwait are traded. It was founded in 1977.

Kuwait in Bailout Effort After Market Collapses

RUHMAN A. HIZATI

The official stock market handles

Fig. 6.34 "Kuwait's Bustling Stock Souk." The New York Times, April 5, 1982.

Fig. 6.35 "Kuwait in Bailout Effort After Market Collapses." The New York Times, December 25, 1982.



THE ARCHITECTS COLLABORATIVE INC.

September 28, 1983

To All Members of TAC:

The last eight months have been troubling for all of us as we have seen very talented people, whom we have known well, leaving TAC as we have reduced our staff.

For that reason, I thought it was important to tell you, now, that we have completed the staff reduction program which was presented at the Annual Meeting last April. By the time you read this, the last people to leave will have met with Walter Rosenfeld and dates for the completion of their work will have been agreed. This will bring TAC to a size of 220 people, and we expect to hold steady at that size at least until the end of the year.

I have been impressed by the energy, effectiveness, and dedication which so many people have brought to the task of finding new work to replace our traditional sources of income overseas. While we expect the overseas market to become important again in the future, it is clear that the most important task for all of us right now must be to acquire new projects which will provide a stable workload for a firm of 220 people initially, but which will also permit us to grow as quickly as possible to a size at which we can provide opportunities for professional growth and financial security for all of us here.

Having completed our planned staff reductions, I propose that we now shift our attention single-mindedly to the issues of growth and the acquisition of new work. The Directors are working with the Marketing Department and outside consultants to develop proposals which will be discussed with the Policy Board. I would welcome your participation in this process by giving me your thoughts or suggestions on ways of achieving that growth.

All best regards,

THE ARCHITECTS COLLABORATIVE, INC.

Chip
John C. Harkness, President

JCH:MGC

46 BRATTLE STREET, CAMBRIDGE, MASSACHUSETTS 02138, U.S.A.
TELEPHONE: (617) 868-4200 TELEX: 92 1494 TACCAM CABLE: TACCAM U.S.A.

Fig. 6.36 Letter from John C. Harkness to All Members of TAC, September 28, 1983. MIT Museum Archives.

PRESIDENT'S REPORT

As we all know, 1983 was a very difficult year for TAC financially. Looking back at last year's Annual Report, we had established three major goals in order to balance the ship and head us back in a positive direction. These were:

1. To collect as much as possible of the large sums due us from Iraq. While this is still a long way from being completely accomplished, we did receive since the last Annual Meeting approximately \$4 million, and, as of the moment, we are continuing to receive payments according to schedule. To put it another way, we have received from Iraq a great deal more than we spent there since the last Annual Meeting.
2. To reduce the size of the office in line with our workload but without cutting into our stockholder group. Painful though this was, it had to be done and was accomplished pretty much on schedule.
3. To increase our new work so as to have work for the future, even if things do not get better in Iraq and the Middle East. Our results in this area have been particularly gratifying. We have signed up \$12 million of new work in 1983 and, so far, \$6 million in 1984. Although we substantially exceeded our budget to achieve this, it was essential and we must continue to drive in that direction.

I want to express my appreciation to each of the Directors who played key roles in these areas: John Hayes in predicting our financial situation with great accuracy in spite of all those variables, and in keeping the confidence of the bank in our ability to deal with them; Walter Rosenfeld in handling two years ago the great increase in staff, and in 1983 an even greater reduction, carried out this difficult task with patience and in the most humane way possible; and Roland Kluver for his constant drive and enthusiasm for getting new work and stimulating us all to help.

But more even than the Directors, I believe it has been the very positive response of the office as a whole, particularly the stockholders, which has made it possible for us to turn things around. You have accepted with good grace the reduction in salary and freeze on promotions, although I know it has brought great stress, particularly in some cases. You have undertaken assignments



OFFICE MEMORANDUM

TO : Directors
FROM : John Hayes
SUBJECT: Future Commitments in Iraq

DATE 28 Nov. 83

NOV 1983

There have been several recent discussions of possible new work in Iraq. I think it is important that we look at all of these possibilities at one time and decide upon the level of our commitment to new work in the country. In total, our existing work and potential new work amounts to:

Table with 3 columns: Existing Work, Client, TAC Contact. Rows include University Technical Assistance, 2000 Housing Units Site Supervision, Council of Ministers Building Design Coord., State Mosque Design Coordination, Khulafa St. Apartment Building, Housing for Iraq Prefab. Building Co., University Expansion - resume work, and 300w colleges.

There are four issues that limit our ability to take on new work in Iraq:

- 1. Our Bank At the end of the Summer, when Bank of Boston expressed hesitation about lending us more money, we told them not to be concerned because we did not expect to invest more money in doing work in Iraq - that we were just going to collect our receivables for the work we had already done, without taking on new work in the country.

It has been suggested that this risk could be minimized on the Makers' and Energoprojekt projects by arranging to have those firms pay us from overseas accounts rather than through Iraq. We should really get the answer to whether this can be done before we allow our name to be submitted for these projects, since once an Iraqi client has been told that TAC will be involved, it will be politically very difficult to withdraw with the explanation that we cannot do the work if we are to be paid from Iraq.

Fig. 6.38 "Future Commitments in Iraq," TAC office memorandum from John Hayes to Directors, November 28, 1983. MIT Museum Archives.

Points Discussed with Bank of Boston
July 18, 1983

1. TAC has always had an international outlook. We see our involvement overseas as a positive factor in providing a diversified income base, since economies overseas tend to be countercyclical to the U.S. economy. This diversification has allowed us to continue to grow at times when other purely domestic firms were having to retrench.
2. Our involvement in Iraq extends over 25 years; we have continued to work there through five different governments each of which came to power in a violent way. We are known there and understand the local scene. This gives us advantages over a firm arriving to Iraq for the first time. Despite the difficult current situation in Iraq, we see it as an important market for us when the situation improves and we are putting great effort into maintaining good relations with our clients there.
3. TAC has a Long Range Planning Committee. At its 1981 meeting in Woodstock the committee noted that, in addition to earlier work, we had just signed a contract for the Khulafa Street Project (\$13.5 million) and negotiations were proceeding for the expansion of the University of Baghdad (\$16.5 million) other projects such as the Mosul Hotel (\$4.0 million). The Committee's decision was that while such work could be profitable, it was not in the long term interest of the firm to have such a high proportion of our total income concentrated overseas. The goal set was to generate at least half of our income from the domestic U.S. market.
4. Since the Fall of 1981, we have not taken on any new projects in Iraq (other than special and limited situations such as the landscape and interior work for the Council of Ministers Building). We have turned down invitations to make proposals on projects such as the State Mosque and the Raschd University).
5. We have now completed virtually all our contracts in Iraq. Our current work on the University Expansion will be completed this month and will not be resumed until the situation becomes clearer. The Mosul Hotel will be completed in ~~September and~~ October and after that our only continuing work in Iraq will be the site supervision work at the University and responding to questions on other projects. The total amount of money we will spend on projects in Iraq during the last six months of this year will be only \$350,000 to \$400,000, so there will be no major increase in our risk there. While we would lose anticipated profits if payments from Iraq were cut off, we have recovered all our costs on the work done there and have, so far this year, received about \$2 million more from Iraq than we have spent on doing work there. All expenses of the Iraqi projects have been paid and we have no outstanding liabilities on the Iraqi work.

Fig. 6.39 "Points Discussed With
Bank of Boston," TAC office
memorandum, July 18, 1983. MIT
Museum Archives.