

The Universal University: How Bauhaus Came to Baghdad

Mina Marefat

We have had enough and to spare of the arbitrary reproduction of historic styles. In the progress of our advance from the vagaries of mere architectural caprice to the dictates of structural logic, we have learned to seek concrete expression of the life of our epoch in clear and crisply simplified forms.¹

The intellectual atmosphere of Baghdad in the 1950s was vibrant with the presence of young Iraqi artists, sculptors, architects and engineers, most of them trained in the West. The youthful architects were eager to break the British monopoly over the building industry, dominated since the early 1920s by the neoclassical tradition prevalent in the European colonies. Rifat Chadirji, Mohamad Makiya, and Nizar and Ellen Jawdat were among the elite young architects trained in the West who used their positions to support Iraq's ambitious development plan and modernist vision.² Nizar Ali Jawdat, son of Iraq's ambassador to the United States, was a student of Walter Gropius at Harvard University's Graduate School of Design. He married fellow student Ellen Bovey and returned with her to Iraq where they began architectural careers just before Iraq's Development Board embarked on its ambitious building program.³ By 1957, Nizar's father was prime minister under King Faisal II. These family connections enabled them to convince Iraq's Development Board to broaden their architectural choices, bringing to Iraq world famous figures.

Baghdad University came to Walter Gropius by way of the Jawdats after he had been in America for

20 years. He had begun his practice in Europe where his first building, the Fagus boot factory, won him instant fame and became the model for the "New Architecture" Gropius promoted for the rest of his life.⁴ He founded the Staatliches Bauhaus in 1919, a holistic architecture and design school offering a new paradigm for a post-World War I architecture that would be functional, cheap, and mass produced. First in Weimar and then Dessau the Bauhaus (1919–33) promoted a collaborative educational environment with parallel workshops on various arts and crafts; as Gropius put it, there would be "no teachers or pupils at the Bauhaus but a workshop system following the guild practices of masters, journeymen and apprentices."⁵ Although the Bauhaus itself came to an abrupt end in Germany, its influence did not. Throughout his career, Gropius advocated Bauhaus principles for a collaborative process of design that eventually revolutionized architectural education throughout the world.⁶

Well before 1957 the Jawdats started working behind the scenes to bring Gropius to Iraq and introduce him to key decision makers, ensuring that he would be among the first Western architects to be considered for a development project.⁷ On a trip to Japan in 1954, Gropius visited the Jawdats in Baghdad. The following excerpt from Ellen's letter to him sheds light on both a successful visit and the outlook of the young, educated elite his ideas influenced:

Not only we, but everybody who met you reacted in the same way—we felt as though a large window had opened...such a wealth of new ideas, wise advice, and most of all a calm optimism, that we must find some way of reviving the experience.⁸

She added that unlike most Western visitors, who showed “sweeping optimism” after “their first shock of horror”, Gropius demonstrated an “instinctive understanding of the situation, in no way minimizing the problems, yet not being overwhelmed by them;” Jawdat also clearly expressed a desire to find a way for Gropius “to make your contribution to this country.”⁹

Thus Gropius began with the connections to help him steer a plum commission through unfamiliar bureaucracies. A symbolic centerpiece of independence and modernization, Baghdad University was a singularly important Development Board architectural project.¹⁰ Educational institutions were crucial to emerging countries such as Iraq as they forged their own identities and built indigenous modern institutions.¹¹ The creation of a university based on the Western model represented the possibility for an indigenous knowledge infrastructure. In 1957, at the age of 74, Walter Gropius received the lucrative, long-term university commission. It would gradually transform his architectural office, The Architectural Collaborative (TAC), into a large corporate firm that pioneered in setting the parameters of international architectural practice after World War II.¹² Promoting partnerships with large engineering firms, TAC forged unprecedented, corporate-style collaborative design on an international level. Baghdad University remained Gropius’ largest architectural commission and one of his most influential projects. And, as Gropius would write in the *Architectural Record*,

Baghdad is an ideal project. To an architect and teacher long dedicated to the principle that members of the profession must play the broadest possible role in the pursuit of a better life for mankind, the total design of a university is a goal achieved.¹³

Gropius had to wait for the British firm Minoprio, Spencely, and Macfarlane to complete Baghdad’s 1956 master plan to determine the university location. Of two alternative sites the plan allowed, Gropius selected the one in Karradah, south of the city at a prominent bend of the river Tigris, a

large peninsula with date groves and long river frontage directly across from the island Frank Lloyd Wright had chosen for his cultural center.¹⁴ Gropius and TAC defined not just the architectural program, but formulated the university’s teaching principles, designed all the iterations of a master plan, and constructed numerous university buildings in a long-term, several decades-long relationship that weathered two assassinations and four changes of government.

A contract dated 2 June 1959 reveals how pragmatic Gropius was in arranging details to fuel his business, guarantee steady payment, and insure his chances of success.¹⁵ The contract includes provisions, from a \$1 million payment deposited into a Swiss account and \$2.3 million in the second year to a guarantee that the contract would bind successor regimes.¹⁶ By contrast, while Wright was envisioning past and future organic relations between East and West, Walter Gropius’ attention to detail served to lock up the practicalities and payments. With strong political support in place TAC found an Iraqi firm for “guidance through the maze of local customs and regulations” and advice on local materials, building techniques and regulations.¹⁷ Baghdad-based architects Madhloom and Munir ensured that TAC would continue through all phases of the project. Hisham Munir had returned to Iraq in 1957 after studying architecture at the University of Texas (Austin) and at the University of Southern California.¹⁸ He continued his association with TAC from 1959 to 1990. To reduce problems of distance, TAC also established offices in Rome, working there with project engineers Panero, Weidlinger and Salvadori to complete the working drawings.¹⁹

In Baghdad Gropius was charged with more than the physical design of a 500-acre campus for a student body of 12,000. He was also to define the philosophy of education for the new university. He thus aimed to do for Baghdad what he had done for Germany in the Bauhaus, “to plan a total University... as a consistent entity in both its physical plant on new land as well as its philosophy of education.” His aim was nothing short of expressing “the meaning of Universitas, which is

‘wholeness,’ offering the creative setting for a full, well-integrated life of the students.”²⁰ Gropius structured teams to develop both educational and architectural plans; the educational program was developed by a group from Harvard’s School of Education including professor Cyril G. Sargeant and former professors Donald P. Mitchell and Keyes Metcalf.²¹ They provided “a thoroughly complete and acceptable program” recommending that “no department should own or have for its exclusive use any general classroom or teaching space.”²² Classrooms were to be used on a university-wide basis with only specialized laboratories belonging to specific departments.

TAC principals Robert S. McMillan and Louis A. McMillen and young associates Richard Brooker and H. Morse Payne, Jr. formed the original design team working at the TAC offices at 63 Brattle Street in Cambridge, Massachusetts.²³ Using his signature “teamwork” methodology, Gropius oversaw the development of the university master plan without ever putting pencil to paper.²⁴ “The idea of *teamwork* is part of Gropius’ very nature as well of his actions,” Sigfried Giedion would explain.

His faith in the value of teamwork—of human cooperative effort—has stood unshaken throughout his life. It means more to him than a simple addition of human forces, it means a way towards a higher level of performance.²⁵

H. Morse Payne describes Gropius as a thoughtful “coordinator” who allowed others to design “in the spirit of his ideas.”²⁶ Weekly review sessions were “pin-ups” in the conference room where principals gathered to discuss the progress made, not unlike the juries Gropius arranged at Harvard. Gropius was very attentive and apparently had a gift for bringing out the best in his team members and their collaborators. [Fig. 1] According to TAC principal Louis McMillen, Gropius “took a very active role as a design critic during the master planning and preliminary design phases.”²⁷ Margaret (Peggy) Eskeridge, a young architect married to TAC member Robert Eskeridge, made the three-dimensional model as the design developed. For final



Figure 1.

Walter Gropius with young Iraqi architects visiting the Baghdad University site resplendent with palm trees. “This site has the great advantage of being flanked on three of its sides by the River Tigris so that no matter how much the city may develop and expand it will not submerge the University or become mixed with it.” (Bulletin of the Republic of Iraq, 1960): 11.

presentation, TAC hired the well-known architectural renderer Helmut Jacoby.

Gropius’s “design-by-crit” method was flexible enough to promote the ideas presented by second-tier members of the firm, among whom H. Morse Payne counted himself.²⁸ As the young author of the master plan, Payne communicated his ideas in expressive thumbnail sketches. For the weekly rounds of conference room discussions, the group used in-house sketches and renderings prepared by Payne and other young collaborators. Of the main TAC principals, Louis McMillen was most directly involved in the project, especially in contractual discussions and travel to Baghdad. Nevertheless, to the outside world and certainly to the client, Gropius was the chief architect and creator of Baghdad University.

Rather than look to the past and dwell upon cultural traditions of the region as Wright was generally inclined to do, Gropius took a practical approach to the campus. He wanted to avoid “too much Americanism” for “a school that will help conquer the illiteracy problem and train all kinds of leaders to use the country’s wealth wisely.”²⁹ While this statement seems to leaven a certain cultural

imperialism with a hint of cultural sensitivity, Gropius proposed to let climate control dominate the architectural motif, much in line with Bauhaus principles: “all possible ways of controlling the effects of climate were explored.”³⁰ In order “[t]o counteract the excessive heat from May to September, often considerably higher than our blood temperature,” Gropius made sure that “not only are all the buildings air conditioned throughout...but they are put close enough to overshadow each other, providing simultaneously a reduction in temperature as well as short horizontal line of communication.”³¹ According to Louis McMillen, TAC researched and applied evaporative cooling principles and also studied sun control, proposing sun breakers. To deflect sunlight, there were roof overhangs (which Gropius called eyebrows) above window openings, louvers, grills, and white concrete “umbrella” roofs. There were also sprinklers turned upward to cool the air above by evaporation.³² In addition, Gropius’s engineers “developed some very advanced cooling air conditioning machinery which was used throughout all buildings.”³³

If we credit Ernesto Rogers’ judgment that Bauhaus “purity [was] set aside” in the university design to make room for “liberties of the vernacular,”³⁴ the liberties do not seem to have been intentional. Speaking of the overall campus design, H. Morse Payne recalls that he “stumbled upon the concept by accident” when he was inspired by the existing dikes or retaining walls on the site. “We would have blitzed the site,” according to Payne, referring to the usual practice of cutting down all the trees to prepare a clean slate for an orthogonal plan. As it was, he adopted “the local idiomatic form,” incorporating many of the trees from a large date orchard that had occupied the site.³⁵ Five hundred “trees were transplanted for shade and to outline the road system,” McMillen noted, “and only one or two trees died as a result of the move.”³⁶ “It was a stroke of luck and Gropius was supportive,” Payne said about the rather organic evolution of the plan.³⁷ Gropius also responded positively to Payne’s resulting use of courtyards. Existing trees and canals on the site were incorporated and Gropius endorsed using the rows of “irregularly zigzagging bunds or



Figure 2.

Plan of the central core of Baghdad University with the library, auditorium, administration, faculty tower, student center, museum, theater and art gallery surrounded by academic buildings. The irregular pattern of buildings and courtyards emerged as a result of the existing dikes.

dikes—about 10 feet high...a significant feature of the otherwise flat site.” McMillen noted that Gropius thought «that these bunds might give a structure to the master plan and it was decided to use most of them as elevated walkways between buildings and groups of buildings,” resulting in different levels for entrances with terraces around the main plaza where teaching and administrative buildings were concentrated.³⁸ Thus a formal pattern emerged from the organically constructed dikes already on the site and the “heavy irregular lines” and asymmetry were then described as creating “great spatial variety and complexity.”³⁹ [Fig. 2] Perhaps the flexibility suggested by the educational plan that called for multiple-use classrooms also introduced elasticity into some of the stylistic formal treatments associated with the New Architecture. Or, as Gropius himself expressed it, “Particular stress has been laid throughout this study on the greatest possible flexibility of the organizational system as well as of the physical plant itself.”⁴⁰ As each publication about the project would stress repeatedly, “the university of Baghdad is planned for flexible adaptation to change.”⁴¹

The master plan grouped the common classrooms, lecture halls and laboratories around the asymmetrical central plaza with the student center, library, auditorium, theater, administration, faculty club and faculty office tower around the periphery



Figure 3.

Model of the central campus area showing the library, auditorium, administration and faculty tower and the shared common classrooms, lecture halls and laboratories set around the asymmetrical courtyards. Gropius had insisted on a pedestrian only central core. Most of the buildings were low rise except for the faculty tower.

for the “general life of the university in contrast to the specific educational function at the center.”⁴² Low-rise buildings along a scattered campus with nothing over three stories were part of a deliberate intent to build on a human scale. A ring road around the academic area was to express the Bauhaus tenet “unity of function” and limit vehicular access except for the purpose of servicing administrative buildings.⁴³ [Fig. 3]

Across and north of the central plaza and on the axis of the entrance view was the mosque. The purposeful separation was meant to create a “quiet oasis near the central area of the campus that would be alive and teeming.”⁴⁴ Over the years, the mosque, which had started as a square building with a typical Islamic dome, was transformed into an unusual design, a large circular paved court with two groups of palm trees and a central rectangular prayer platform surrounded by a circular pool of water, all covered by a gigantic concrete dome supported on three points. It was functional but equally, perhaps for its designers, it was dramatic. The dramatic effect of some of the key buildings was intentional: the auditorium, mosque, museum and vaulted passages softened the rectilinear buildings.

Concrete was the principal construction material, along with brick, because it was locally available and inexpensive. Housing was segregated with men’s dormitories in the south and southeast and women’s dormitories in the northern part of the campus. Dormitory rooms had north and south orientation; rooms facing east and west had fewer windows and were protected with exterior roller blinds. Again being practical, the TAC designers added that, “if air conditioning proves too costly, it is hoped that the orientation and overall design of the dormitories will make them fairly comfortable.”⁴⁵ Again, functionality and flexibility were the organizing principles.

Referring to the courtyards and dome of the campus plan, one critic noted, “For the first time, typological and formal elements drawn from oriental tradition and yet in no sense ‘vernacular’ appear in an architectural project signed by Gropius.”⁴⁶ Indeed, rather than characterize a contextual use of vaults and domes, Gropius explained it as giving “dramatic accent in the silhouette.”⁴⁷

The interrelationship of the individual buildings and the landscaped open spaces with their water fountains between them as well as the shadow effects from the strong sunlight obtained by cantilevers and undercuts will cause a significant rhythm.⁴⁸

In the end, Gropius’ plan celebrated International rather than local style. The structures themselves looked remarkably similar to other projects he had completed, such as the Embassy in Athens that had the same fluted roof as the auditorium originally proposed for Baghdad University. Contemporary descriptions underscored that the project was typical of TAC and that other projects were “prototypes of the Baghdad scheme”, especially three projects then completed or underway: a school designed for *Collier’s* magazine, Hua Tung University in Shanghai, China and, notably, the Harvard Graduate Center in Cambridge, Massachusetts. Although, as noted, the plan presented Baghdad’s extreme climate as its main inspiration, the responding system of

horizontal cantilevers and vertical baffles on every façade was, ironically, precisely the same system TAC used in other countries and other climates. Baghdad University sported “cantilevered roofs and floor slabs and vertical screens of bricks or concrete frames [to] give shade to the exterior walls”⁴⁹ quite like those Gropius had used in Cambridge, Massachusetts. In fact, as Giedion wrote, there was

an interplay of solids and voids that belong to the feeling for spatial experience inherent in our period. The two and three story dormitories have a reinforced concrete frame with yellow infilling... the buildings are linked by covered passageways and their elongated horizontal planes and slender widely-spaced supports confer simultaneously a sense of movement and a feeling of coherence. The intention of the architect can be readily discerned: to articulate the space through the interplay of different horizontal planes.⁵⁰

This description, capturing Baghdad University quite perfectly, was written about the Harvard Graduate Center. [Fig. 4]

Gropius and TAC were clearly guided by a universalist philosophy. Like the Bauhaus, Baghdad University represented a totality. It carried the unmistakable Gropius ‘signature’ at the level of overall campus and at the scale of building design and architectural detail. From 1957 until his death in 1969 Gropius was to realize in Baghdad the ideal of the architect as a coordinator who unified technical, formal, social and economic building solutions. In other words, the Baghdad University site was largely a clean slate for universal Bauhaus values. The University thus embodied all the tenets of Gropius. It was technologically advanced, modern and universal. It signified for Gropius, as he wrote, “the balance of unity and diversity, of integration and differentiation in order to provide for the students the intellectual and emotional experience from both East and West.”⁵¹ In addition to creating practical buildings, the overall design was also meant to produce psychological impact, defining and promoting the academic and social life Gropius and his followers envisaged.



Figure 4. View of the central library from one of the walkways. Sunscreens were an essential design feature for sun protection but, equally important, a prominent sculptural design element Gropius used in all his projects. Using the dikes as walkways allowed different levels and reflect his strict separation of pedestrian and vehicular areas. Drawing by Helmut Jacoby.

Gropius himself had occasion to honor the flexibility he was advocating for the University design. When General Abdul Karim Kassem took control of Iraq after assassinating the young King Faisal II on July 14, 1958, the University project hardly faltered. Gropius apparently quietly continued work on the master plan even after the military coup, as his contract assured monthly payment.⁵² Gropius was also astutely flexible in his relation to Kassem, as he had been with the Prime Minister under the kingdom. In fact, the new government of General Kassem ensured Gropius “priority for execution of the project.”⁵³ Further, the General specifically asked for a tall building, one that he could see “from his office in the Ministry of Defense that was some miles up the river from the University site.”⁵⁴ Gropius’ plan easily accommodated the symbolic monumentality required by the new government. The enthusiastic General shortly approved the first tender allowing for the construction of the 20-story Faculty Office Tower visible from his office, as well as a symbolic, 80-foot campus entrance arch known as “The Open Mind,” and the ring road. [Fig. 5] The auditorium perhaps saw the greatest change as its fluted butterfly roof, asymmetrically fanned, was replaced



Figure 5. View of the completed faculty tower that was demanded by General K. Kassem who insisted upon seeing the building from his office window across town. Kassem had seen to it that the building of the university was given high priority and the high-rise structure was one of the first buildings to be completed in the first phase.

with a much larger square shaped structure. Gropius often sent his collaborators to meetings but was “in constant touch with the project and made frequent trips to the office in Rome and to visit the site in Baghdad.”⁵⁵

By July 1961 “contractors all over the world were preparing bids for the \$80 million Baghdad University plans.”⁵⁶ When Kassem was himself assassinated in 1963 by his chief of staff, Colonel Abdl Salem Arif, the Colonel continued the project. Shortly after Tender II was let, the Colonel died accidentally. His brother, General Abdl Rahman Arif took over until 1968 when he was asked to leave by the Baath Party. In 1966 Gropius went to Baghdad to meet with officials and was warmly welcomed by the client, now the Minister of Works and Housing, and by other architects in Baghdad. By this time a great project was greater still, with additional buildings and the capacity of the University increased from 12,000 to 18,000 students. As leadership changed, so did identity. For instance, when Islamic ideals began to emerge, TAC was tasked to design on the far north of the site an isolated women’s college, Tahrir College.

Gropius’ Baghdad University can legitimately be considered his quintessential master project, a work

in which the totality of his ideas about modern architecture were shown and implemented. The university also became something of a Gropius handbook for spreading Bauhaus ideas in a broad way to a new part of the world. In the West, contemporary assessments of the project could not have been more laudatory. Indeed, the Baghdad University design was recognized by many Bauhaus peers as Gropius’ evolutionary development of his universal educational principles. In 1959 *Time* featured “Gropius’ exuberant plans for Baghdad.”⁵⁷ Giulio Carlo Argan anticipated a triumph: “Gropius is finally going to erect in Baghdad his ideal project—the university town.”⁵⁸ As early as 1961, *Architectural Record* summarized the significance of the project, affirming Gropius as the master of architectural method and a major cultural force:

To an architect and teacher long dedicated to the principle that members of the profession must play the broadest possible role in the pursuit of a better life for mankind, the total design of a university is a goal achieved.⁵⁹

No one better summarized the way Baghdad University was commended for its ideological, rather than architectural, success, than Ernesto Rogers. As he saw it, Gropius had “thoroughly effected the perfect symbiosis between moral instructional content and architectonic space for the instrumental and symbolic purpose of that vital organism,” a full realization of what the Bauhaus was, “this testament to rationality and faith in mankind.”⁶⁰ In the West, Baghdad University was indeed embraced as the realization of the New Architecture Gropius had promised. Crucially, the university was also well received in Iraq and the Middle East. Prominently featured in reports distributed by the new Iraqi Republic, it was an iconic project introducing a new era in “Iraq as in other Arab countries [where] the need and the demand for education was tremendous.”⁶¹ It was up to its purpose: «to enable the country to go forward at the speed required by the changes that were taking place in it and in the modern world to which it wished to belong.”⁶² Years later, McMillen noted that “the client, although

demanding, was highly professional and very appreciative of TAC's input, particularly the efforts made by Gropius."⁶³

Among all the international giants called to Baghdad, Gropius was the most successful in setting an architectural standard for Iraq, and as a result, for much of the Middle East. Although they were also completed, neither Le Corbusier's sports complex nor Gio Ponti's office building similarly expanded in scope or had as fundamental influence on regional developments. Baghdad University became perhaps the most influential case study for the dissemination of architectural modernism outside Europe and North America at a time when Western ideas were embraced. The modernist tenets it embodied incited a generation of younger architects from and outside the West to be part of the New Architecture. To Iraqi elites, Bauhaus ideas

about the modern and flexible organization were politically suited to a desire to participate in an advanced, technological world. Insofar as Gropius's buildings retained an aura of technological development and modernity, they were accepted as worthy symbols of a nation's entry onto the world stage. Thus the Baghdad University campus became a key symbol of Iraq's membership in the community of modern nations, a lynchpin in the sense of a new identity that was part of the nationalizing process.

Catholic University of America's School of
Architecture and Planning, Washington DC

*Note: All figures use here are copyrighted by
Francis Loeb Library, Harvard Design School*

Notes

- 1 Walter Gropius, *The New Architecture and the Bauhaus* (Cambridge, MA: MIT Press, 1965: p. 44).
- 2 Many thanks to Nizar and Ellen Jawdat, Hisham Munir, Rifat Chadirji, and Mohamad Makiya for multiple interviews over several years. Their contribution to Baghdad's architectural development is commendable. This paper is part of a larger research project encompassing the work of key Western architects designing in Baghdad in the 1950s. I have previously published several articles and am now completing a book manuscript. I thank NEH and TAARII for generous support and the MIT Rotch Library staff for access to materials. I am especially indebted to Mary Daniels, chief archivist of the Francis Loeb Library at the Harvard Graduate School of Design, for her invaluable help over many years. All images in this article are courtesy of the Loeb Library.
- 3 The Development Board was created to coordinate expenditure of new oil revenues for modernization and infrastructure. Under its first 5-year plan, the Board succeeded in making dramatic headway. For a detailed discussion of this important phase in Iraq's modern development see Fahim Qubain, *The Reconstruction of Iraq 1950-1957* (NY: Praeger, 1958). I am grateful to Mr. Qubain for a fruitful interview. See also Mina Marefat, "1950s Baghdad, modern and international," *The American Academic Research Institute in Iraq Newsletter* 2:2, Fall 2007: pp. 1-7.
- 4 Sigfried Giedion, *Walter Gropius, Work and Teamwork*, (New York: Reinhold, 1954: p. 17). Giedion was a chief Gropius propagandist. For a comprehensive biography, see Reginald R. Isaacs, *Walter Gropius Der Mensch und sein Werk. Vol. 1* (Berlin: Mann Verlag, 1983) and *Vol. 2* (Berlin: Mann Verlag, 1984). A shorter English edition by the same author is *Gropius, An illustrated Biography of the Creator of the Bauhaus* (Boston, Toronto, London: Little Brown and Company, 1991).
- 5 Doreen Ehrlich, *The Bauhaus* (Lombard IL: Mallard Press 1991, 10). Much has been published on the history and origins of the Bauhaus. See, for example, Magdalena Droste and Bauhaus Archiv, *Bauhaus: 1919-1933* (Berlin: Taschen 1990).
- 6 In 1937, Gropius was invited to Harvard University where he would have a profound influence on reshaping architectural education.
- 7 Ellen and Nizar Jawdat, interviews with the author. John Harkness, a founder of TAC, credits the Jawdats for the Baghdad commission; see John Harkness, ed., *The Walter Gropius Archives*, Vol. 4, 1945-1969 (New York and London: Garland Publishing, 1969: p. 189). The Gropius-Jawdat friendship is well documented by the Ellen Jawdat correspondence with both Ise and Walter Gropius through the 1960s.
- 8 Letter from Ellen Jawdat, October 3, 1954. MSGR 208 folder 956 Houghton Library, manuscripts and unpublished letters from the Gropius file.
- 9 *Ibid.*
- 10 Other architectural projects included an opera house, an Olympic stadium, a museum and the Board's own office building were among the major architectural projects commissioned to Frank Lloyd Wright, Le Corbusier, Alvar Aalto, and Gio Ponti, respectively who in addition to Gropius were invited to offer their design ideas, but none would succeed at the level that Gropius did.
- 11 The first institution of higher learning in Iraq was the Teacher's Training College established in 1923 followed by the College of medicine in 1927 and the College of Engineering in 1942 but all these colleges "were no more than vocational institutions" and it was not until the establishment of Baghdad University in 1958 that a new international academic standard was achieved *Bulletin of the Republic of Iraq*, August 1960, p. 5.
- 12 Gropius established TAC in Cambridge, MA with seven younger architects in 1945 and soon moved into 63 Brattle Street, a TAC designed building.
- 13 Walter Gropius, "Planning the University of Baghdad," *Architectural Record*, February 1961: p. 108.
- 14 This was also the site upon which Wright designed his campus for Baghdad University even though he knew that Gropius had received the official commission.
- 15 Microfilm copy of the contract dated June 2 1959 in English and Arabic, with renewals in 1961 and 1964; MIT Rotch Library, Gropius/TAC Archives. Gropius had considerable help from the Jawdats and their connections in developing contract language. Nizar Jawdat interview with author, February 2008.
- 16 *Ibid.* 1959 Contract, p. 4.
- 17 Nizar Jawdat introduced Gropius to his partner firm in Baghdad; author's interview, February 2007.
- 18 Hisham Munir interview with author, August 2007. After the departure of Madhoom (who died

- not long after), the firm became Hisham Munir and Associates. Munir was among the active young architects and original founders of the School of Architecture in the University of Baghdad. He was actively engaged in both practice and academic work throughout a very productive career, joint venturing from 1980–86 with Canadian architect Arthur Erickson.
- 19 The Rome office was at 126 Nomentana. The international office was a tactic TAC introduced in pioneering corporate architectural practice. The structural engineering firm of Panero-Weidlinger-Salvadori, SA already had an office in Rome. Nizar Jawdat noted in his interview of February 2008 that he had encouraged Gropius to set up a base in Italy so as to be closer to Baghdad.
- 20 Walter Gropius, "TAC, the University of Baghdad," *Architectural Record*, April 1959: p. 148. The article printed a full page of Gropius' own description of the project.
- 21 *Ibid.*
- 22 Louis McMillen, 6 April 1989, "Notes for Gropius Book," p. 7. TAC and Gropius files, Harvard University Graduate School of Design Archives.
- 23 Gropius 1961, p. 119. The title page of the article listed: "In charge, Walter Gropius, Robert S. McMillan, Louis A. McMillen; Associates, Richard Brooker, H. Morse Payne, Jr. and the structural and mechanical engineers, Pnero Weidlinger-Salvadori, SA.»
- 24 H. Morse Payne notes that he never saw Gropius draw. I am grateful for his July 2006 interviews with me and his insights into Gropius as an architect and TAC's methods. Unlike many TAC principals, Payne had not been a Harvard student. He was a young graduate of the Boston Architectural Society.
- 25 Giedion, 1954, p.13.
- 26 *Ibid.*
- 27 McMillen, 1989, p. 4.
- 28 Payne interview with author, July 2006.
- 29 "Planning a University," *The Christian Science Monitor*, April 2, 1958: p. 9.
- 30 McMillen, 1989, p. 4.
- 31 Gropius, 1959, p. 148.
- 32 *Ibid.*
- 33 McMillen, 1989, p. 6.
- 34 Ernesto Rogers, "Architecture of the Middle East," *Casabella* 242, August 1960: p. vii.
- 35 Payne interviews, *Op. cit.*
- 36 *Ibid.*
- 37 *Ibid.* "Organic" in the Bauhaus vocabulary at this time apparently described design features less rigidly orthogonal, more amorphous. It was different from Frank Lloyd Wright's use of the term.
- 38 McMillen, 1989, p. 7.
- 39 Gropius, 1959, p. 148.
- 40 *Ibid.*
- 41 Gropius, 1961, p. 108.
- 42 *Ibid.*, p.109.
- 43 *Ibid.* p. 110. Thus, the central part of the campus was designed to be pedestrian only.
- 44 *Ibid.* p. 121.
- 45 Gropius, 1961, p. 119. The title page of the article listed "In charge, Walter Gropius, Robert S. McMillen, Louis A. McMillen; Associates, Richard Brooker, H. Morse Payne, Jr. and the structural and mechanical engineers, Pnero Weidlinger-Salvadori, SA.»
- 46 Rogers, 1960, p. 1.
- 47 Gropius, 1959, p. 148.
- 48 *Ibid.* This appeared as a caption for images of three TAC buildings.
- 49 *Ibid.*, p. 148.
- 50 Giedion, 1954, p. 12.
- 51 *Ibid.*
- 52 When payments were initially delayed, the Jawdats were "not kind" to their colleagues at the Development Board and made sure it would not happen again. Ellen Jawdat correspondence, Houghton Library, manuscripts and unpublished letters from the Gropius file.
- 53 Gropius, 1959, p. 148.
- 54 McMillen, 1989, pp. 2, 6.
- 55 *Ibid.*, p. 4.
- 56 "Everybody's Baby," *Time*, July 14, 1961.
- 57 "The Lawgiver," *Time*, June 29, 1959.
- 58 Giulio Carlo Argan, "The University of Baghdad, by The Architects Collaborative International, a Town for Scholarship." *Casabella*, 242, August 1960: pp. 1-31.
- 59 Gropius, 1961, p. 108.
- 60 Rogers, 1960, *Casabella*, 242, August 1960: p. 1.
- 61 *The Bulletin of the Republic of Iraq* prominently featured the building in its first issue, August 1960, pp. 5–12.
- 62 *Ibid.* p. 5.
- 63 McMillen, 1989, p. 8.