Roche and Dinkeloo's Center for the Arts at Wesleyan University: Classical, Vernacular, and Modernist Architecture in the 1960s

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rom their initial involvement in 1965 until the facility's opening in 1973, Kevin Roche and John Dinkeloo created the buildings and their landscape known as the Center for the Arts at Wesleyan University in Middletown, Connecticut (Figure 1).¹ When first encountered, Roche's buildings appear to most observers to be essays in midcentury modernism, directly expressing their varied interior programs in cubic volumes of limestone walls and reinforced concrete spans for floors and roofs. They bring to mind the work of then influential modernists Le Corbusier, Ludwig Mies van der Rohe, and Louis Kahn. Yet the Center for the Arts may be tellingly described as a condensation of ideas from the preexisting built environment, including the seventeenth-century regional vernacular, Greek revival, and earlier and contemporaneous modern architecture. As one English observer of the 1930s wrote of Ebenezer Howard's garden city concept, "Creative work always arises by the synthesis in one man's mind of material from otherwise unrelated sources."2 The Wesleyan buildings were original, but their innovative force came from a familiarity with many past models and multiple earlier styles. Creativity depends on the storehouse of the architect's memory, which here integrated a number of ideas from earlier works. As Roche put it in an interview in 2009, speaking of a colonial source for his Center for the Arts: "I suppose these influences exist in the periphery of the consciousness all the time, but every once in a while they are pushed to the surface."³

In this light, modernist originality does not imply an artist's rejection of sources, or how distant new work is from its predecessors, but rather an artist's ability to combine a number of earlier ideas into new work. As Vincent Scully wrote of Frank Lloyd Wright, "His own career clearly shows something he tended to conceal from [his apprentices]: that his work represented what Freud would have called a continual 'condensation' of multiple sources into 'new unities' with a special richness of their own."4 Thus, contrary to Louis Sullivan's dictum that "form follows function," forms come out of other forms. As Scully wrote, "Alas, art does in fact come out of art to a perhaps surprising degree in human history."⁵ Scully's observation recalls Matthew Nowicki's assertion of 1951 that "in the overwhelming majority of modern design, form follows form and not function."6 Similarly, Roche said of his method for designing the Wesleyan center in the mid-1960s, "When you approach a project, nothing comes out of nowhere; you come with baggage."⁷

These statements raise the general historiographic problem of how to understand originality in architecture. By definition, originality implies what is not derived from something else. Thus the unstated supposition in most art historical discussions is that high degrees of creativity represent the conscious distancing of new work from earlier sources, and that one measure of a work's importance lies in its apparent lack of precedent. Such an assumption is implicit in accounts of modernism as an evolving avant-garde, even though, when studied closely, highly innovative art can be seen to link deeply to earlier forms. The study of works like the Wesleyan Center for the Arts suggests that originality may be understood less as a rejection of sources and more as the integration of a high number of sources. This precept that innovation involves a condensation of multiple sources is a historiographic idea that can provide intellectual access to the creative process. Thus

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Figure 1 Wesleyan University, Middletown, Connecticut, aerial view from southeast, 1985, showing the Center for the Arts in oval at right (photograph by Deborah Boothby; Visual Resource Center, Wesleyan University).

analysis of this one work in relationship to its sources opens larger issues of method. 8

At Wesleyan, Roche and Dinkeloo's sources included local neoclassical and vernacular architecture as part of the broader pattern of midcentury American modernism's engagement with the past. The Center for the Arts adapted the modern movement to a site surrounded by Greek revival and Italianate houses from the early nineteenth century and nearby campus architecture that was almost uniformly neoclassical or neomedieval in style. The campus is located in a region with architectural roots extending back to the early colonial era of the seventeenth century, from Middletown's founding in 1651. Roche and Dinkeloo's references to context were abstract, in the form of geometrical and proportional relationships. Roche believed that the historic buildings and their landscape were crucial in establishing the responsive character of his design.9 His solution encompassed multiple pasts, from colonial to modernist, and condensed these references into an original synthesis. Thus an account of this work at Wesleyan broadens our understanding of the modern movement's potential to engage fittingly with earlier periods in older environments without duplicating their historical vocabulary. The relationship to the classical tradition is evident in Roche and Dinkeloo's other works of this period as well as those of a number of their prominent contemporaries, especially in terms of the spatial ordering of individual buildings within an encompassing landscape.

Wesleyan as Campus and Client

There is every indication that Roche was highly concerned about the relationship between his buildings and the existing campus. Since its founding in 1831, Wesleyan had stood on a hilltop site to the west of central Middletown. The campus's eastern or downhill edge is the north-south High Street, the early city's prime residential street. The buildings and streets of the central campus are shown in a map of 1936 (Figure 2). This central area, on the west side of High Street, includes the first academic buildings, South College and the original North College, both built 1824-25 to house an earlier academy that the college replaced. These two central buildings are flanked by later brownstone and brick structures, including, to the south, the Memorial Chapel (1868–71), what was originally Rich Hall (1866-68) and later Class of '92 Theater, Judd Hall (1869-72), and, north of North College, what was built as the brick Squash Courts Building (1934-35) by McKim,



Figure 2 Wesleyan University, Middletown, Connecticut, campus map, 1936, showing location of Alsop House (A), not then owned by the university, west of High Street opposite Court Street (Special Collections & Archives, Wesleyan University Library).



Figure 3 Ithiel Town, Samuel Russell House, Wesleyan University, 350 High Street, Middletown, Connecticut, 1828–30, viewed from the west (author's photo, 2016).



Figure 4 Alsop House (from 1952, Davison Art Center, Wesleyan University), 301 High Street, Middletown, Connecticut, 1838–39, showing Carriage House at right and Center for the Arts studios in the distance at right (author's photo, 2016).

Mead and White and remodeled in 2011 for academic uses.¹⁰ These six structures form what is known as College Row along the west or upland side of College Green. This generous open

space, with large mature trees and continuous lawns and paths, extends east downhill toward the town. The cubic stone buildings of College Row are separated by intervals of open lawn (see Figure 1), creating a rhythm of discrete solids and voids that informed Roche and Dinkeloo's Center for the Arts to the north. The center's green was later called a "sacred space," implying that it, like College Green, should not be built on or encroached upon by neighboring buildings.¹¹

The Center for the Arts site is a 6-acre grove bounded by Washington Terrace on the north, High Street on the east, and Wyllys Avenue on the south, which divides the site from the central campus to the south. Most visitors arrive at the campus along Washington Street to the north and then turn south onto High Street. There the first building that one encounters on the southeast corner of Washington and High Streets is the Samuel Russell House (1828–30), designed by Ithiel Town, which was acquired by Wesleyan in 1936 (Figure 3). Its Corinthian portico makes it one of the best known examples of the Greek revival in the country. Further south, on the west side of High Street, the Alsop House (1838-39) is a well-informed variation on Italianate villas (Figure 4). Both Russell House (as of 2002) and Alsop House (as of 2009) are National Historic Landmarks. Before Roche and Dinkeloo's center was built, courses in the visual arts were held in Alsop House, which the university had acquired in 1948 and expanded; it was renamed the Davison Art Center in 1952.¹² On Wyllys Avenue there were two "secret society" buildings: to the west, the septagonal Mystical Seven (1912; demolished 2007), designed by Professor Elmer C. Meril, and, to the east, the extant Skull and Serpent (1914), designed by Henry Bacon, who served as Wesleyan's campus architect from 1912 until his death in 1924 (see Figure 2). Roche cherished these buildings and used them to set the scale of his new structures along Wyllys Avenue.¹³

The \$11.8 million Center for the Arts was designed in the fall of 1965, at a time when Wesleyan had an endowment of \$151 million for a student body of about 1,240. This was

among the highest per capita endowments of any university in the country, and the school could afford to build generously for a relatively small collegiate program.¹⁴ Peer institutions in New England had recently invested in new arts buildings or centers, such as Paul Rudolph's Jewett Arts Center at Wellesley College, begun in 1955. This and similar projects exemplified the period's concern for identifying and preserving the spatial and formal character of historically significant campuses that were expanding.¹⁵ From 1962, under the presidency of Victor Butterfield (in office 1943-67), Wesleyan's trustees committed the college to develop into a small university, and in 1964 they commissioned a master plan that identified the eventual site of the Center for the Arts as an integral part of the expansion.¹⁶ The overall goal, in the words of the trustees, was to "reaffirm the relevance of liberal arts in a world of increased specialization."¹⁷

Butterfield had helped to shape a curriculum that required all students to participate in at least one hands-on workshop in the visual arts, and growth in student interest in the arts began to manifest itself in the 1950s. By 1962, Wesleyan, then still an all-male liberal arts college, had 600 student enrollments annually in arts courses. When the Center for the Arts opened in 1973, the college, after expansion and the move to coeducation, had increased in size to 1,810 students, yet enrollments in arts courses had more than quadrupled in the previous decade, to almost 2,400 per year.¹⁸ Nearly half the undergraduates took one or more courses in art, music, or theater. By 1965 instruction in visual arts had expanded beyond the Davison Art Center's rooms into small converted commercial spaces on the edge of campus, including a converted stable, an old dairy building, and remodeled garages, barns, and residences.¹⁹ Their inadequacy was equated with their peripheral sites and varied quality, which contrasted with the centrality and unity of the new Center for the Arts.

From 1963, to guide the planning for a creative arts center, a faculty committee met weekly over three years. Its chair, Professor of Art John Martin (1921-99), a local architect trained at Cornell, had an influential role in shaping the center's spatial program and its philosophical aims.²⁰ Eventually, the university wanted a 500-seat recital hall, a music rehearsal hall, two buildings dedicated to "ethnic music" (including African, Indonesian, Native American, and, then most important, Indian music), arts studios for each of the major media (painting, sculpture, architecture, ceramics, drawing, and printmaking), freshman art workshops, an art gallery intended for the university's collection, a 500-seat theater for drama, a separate 200-seat experimental theater or drama laboratory, and a 50,000-volume arts library. The scope of the program was breathtaking for a college of Weslevan's small size.²¹ But the aim was to facilitate interdisciplinary exchange, on the modernist premise that "since the turn of the century, the arts have moved away from the tightly bound categories of sioned that specific interdepartmental courses would evolve that would explore the interrelated forms of baroque music and architecture, or Gothic architecture and the Gregorian chant, since "to teach the history of one with the other would extend understanding far beyond the current practice of separate study." Combining music and art faculty in teaching history of architecture "would be further enhanced by faculty from the religion department speaking on the development and comparisons of liturgy."22 What was perceived as the fruitful breakdown of distinctions between fields had its parallel in the modernist "transition in architecture from the pictorial Beaux Arts approach of the turn of the century to consideration of the space between buildings and the total planning of the functioning visual environment."23 This interdisciplinary ideal led to the emphasis on spatial linkages between Roche's buildings.

music, drama, and fine arts." For example, it was envi-

In 1965 Butterfield charged the faculty committee that was developing the program to find an architectural firm. The criteria used in the selection were as follows: First, the architects must be responsive to the functional requirements and spirit of the creative arts program, which encouraged interdisciplinary work. The architects should interpret the program in closest possible collaboration with the faculty committee. Second, the architectural office should be of medium size, with a designer whose contact with the committee would continue throughout the process of the work up to completion. Third, of great importance was that the firm adapt the design to the site, which included mature trees and a playing field to the west that was to remain untouched, in addition to the nearby legacy of Greek revival houses. Fourth, and most elusive as a design criterion, the architecture's style "should be free not only of superficial aspects which might 'date' the work in the future, but also free of personal idiosyncrasy or pre-conceived theories."24 With the advice of Henry-Russell Hitchcock, Wesleyan considered prominent modernists, but Hitchcock and the arts faculty favored Roche, in part because each of his buildings "is a clear and impressive formal statement of what the building is used for. At the same time, it expresses what it stands for, or represents."25 Thus, in December 1965, Roche was initially commissioned to show how one or more creative arts buildings might be incorporated into the campus.²⁶

In his firm's team, Kevin Roche was the primary designer and liaison with the university. Born in Dublin, Ireland, in 1922, Roche recalled in a 1985 interview that "Mitchelstown, where I grew up, has what is regarded as one of the finest eighteenth-century spaces in the country, so I had an introduction to formal architecture without realizing it."²⁷ He studied architecture at University College Dublin (1940–45), where his first professor, who died in 1941, had been trained in the German Beaux-Arts and was heavily oriented toward Greek architecture. In school Roche became aware of European and American modernism. In 1946, he visited, among others, Le Corbusier's works on a trip to France, Switzerland, and Italy. After apprenticing with modernists Michael Scott in Dublin (1945–46, 1947–48) and Maxwell Fry and Jane Drew in London (1946–47), Roche traveled to the United States in the fall of 1948 to study under Mies at the Illinois Institute of Technology. Of his studies there, he later recalled: "But what I didn't realize then was that I was going through another kind of Beaux Arts education. It was a formalist architectural education, one which dealt with the elements, the vocabulary, the syntax of architecture, separated from its social and cultural service."²⁸

In the spring of 1949 Roche went to New York, where he worked with Wallace Harrison and Max Abramovitz and others on planning the United Nations Headquarters. In New York he later met Eero Saarinen, who hired him to work on the vast new General Motors Technical Center in Warren, Michigan, the first building of which was under construction. In 1950 Saarinen had formed a firm under his name, after his father Eliel had died that summer. Roche served as Eero's chief associate in design from 1954 until the latter's sudden death on 1 September 1961. One account noted that "Eero very seldom finalized a design without reviewing with Kevin."²⁹

John Dinkeloo, born in Michigan and educated in architecture at the University of Michigan, served in a naval construction battalion during World War II and became head of production at Skidmore, Owings & Merrill in Chicago before joining Saarinen in 1950, in the same month as Roche. Dinkeloo was a master constructor, credited with a series of technical innovations.³⁰ In August 1966 the firm, then based in Hamden, Connecticut, near New Haven, changed its name to Kevin Roche John Dinkeloo and Associates. By then all its projects begun while Saarinen was alive had been completed, or nearly so.³¹

Roche Dinkeloo soon established its own national reputation with a series of formally powerful and technically precise corporate and institutional buildings, all in a modernist style based partly on structural expression. The first of these had been the critically praised Oakland Museum of California (1961-68), for the city of Oakland.³² In its interweaving of indoor facilities and outdoor landscapes over a sloping site, the Oakland Museum was related to Roche and Dinkeloo's approach to Wesleyan's center. When Roche won the Wesleyan commission, however, the Oakland Museum was not yet finished; his most famous built work at that time was the IBM Pavilion at the New York World's Fair of 1964–65.³³ In 1965, apart from the recognition of Eero Saarinen's buildings that Roche Dinkeloo brought to completion after his death, it was for Roche's own works that he individually received the Brunner Prize from the American Institute of Arts and Letters for excellence in design.³⁴ In 1964 Roche and Dinkeloo had been commissioned to design the Fine

Arts Center at the University of Massachusetts at Amherst, opened in 1974, and, early in 1965, the Powers Center for the Performing Arts at the University of Michigan, opened in 1971.³⁵ Like Wesleyan's center, these exemplified a national movement to build arts facilities on American college and university campuses, where the visual and performing arts were becoming more central and celebrated. When the members of Wesleyan's selection committee visited Roche's office in June 1965, they inspected his firm's presentation for the Creative Arts Center at the University of Massachusetts.³⁶ The Amherst and Ann Arbor projects were for much larger facilities at universities ten or more times Wesleyan's size, and both were set in vastly larger-scaled campuses. Of the three, only Wesleyan's center was in a nineteenth-century residential setting, and, as Roche later recalled, it was the only one shaped in response to an existing historic fabric.³⁷

Chronology of Design and Construction

Roche developed preliminary plans for the arts center through the summer of 1966. After the project was finished, Martin recalled that he and his colleagues gave Roche several directives: (1) the center must not be a megastructure, and its design must not violate the scale of the existing neoclassical architecture adjacent to the site; (2) the spaces had to serve the particular needs of each department while maintaining the unity of the whole complex; and (3) no trees were to be removed from the site.³⁸ Throughout the site were large numbers of fine mature hemlocks, beeches, sycamores, and many other species that Wesleyan wanted to preserve as much as possible. Roche felt that in general, since trees were so precious, he "wanted to do something that wouldn't kill a single tree." The built context and the landscape were conceptually inseparable, since a tree is "a piece of growing history you're trying to save."39 The earliest known detailed topographic and tree survey of the site, dated February 1965, distinguished among trees that were "excellent and should be saved," "good," and "fair" and noted those that were "poor or dying" and should be removed (Figure 5).⁴⁰ Subsequent surveys recorded each tree's location, species, trunk diameter, and canopy circumference, as well as the site's existing orthogonal and diagonal footpaths, the layout of which also informed the eventual design. Originally about 1,500 trees were marked and numbered over the 6.5-acre site.

In an interview in 1982, as the postmodern movement came to the fore, Roche stated: "You can look at history and say, 'What is there to learn from all this?' That's a very useful process. But if you look only at the textures and the light and the openings and the massing, then you've simply analyzed the results, not the cause."⁴¹ For his work at Wesleyan, one starting point was the seventeenth-century colonial home in Guilford, Connecticut, where Roche lived in the mid-1960s (Figure 6).⁴²



Figure 5 Topographical map of preexisting site for Center for the Arts, Wesleyan University, Middletown, Connecticut, showing tree canopy, 1965 (created by New England Survey Service, Newington, Connecticut, Feb. 1965; Box 87, Kevin Roche John Dinkeloo and Associates Records [MS 1884], Manuscripts and Archives, Yale University Library; reproduced by permission of DGT [Digital Geographic Technologies] Survey Group).

According to Roche, this house, with its timber frame surrounding a central hearth, aptly expressed the physical and psychological relationship between the early colonists and the landscape. Such houses' lack of transition between inside and outside is a universal condition of vernacular architecture. Collectively, simple houses form a village, an idea that led to his concept for the Wesleyan buildings as a "cultural village," where, in sympathy "with the heritage of this land," there is no spatial transition from inside to outside.⁴³ As Roche said, his Guilford house was a building for people who worked the land, including raising animals. The windows were relatively small. Hence, as he put it, "when you're inside, you're inside."44 At Wesleyan, construction of eleven buildings rather than one meant that "one avoids long, unattractive corridors. You have to step out of doors immediately from every building" rather than moving through corridors between classrooms.⁴⁵

Roche's reference to nearby seventeenth-century colonial architecture can be seen as an instance of his period's broader revisiting of vernacular American rural buildings. In 1965, at almost exactly the same time as Roche undertook to design the Wesleyan center, Charles Moore began his tenure at the nearby Yale School of Architecture, where one of the major themes of his teaching was to



Figure 6 Nathan Bradley House, 72 State Street, Guilford, Connecticut, originally built in 1665, remodeled in the 1800s, and later restored (courtesy of the Edith B. Nettleton Historical Room at the Guilford Free Library).

encourage students to appreciate the qualities of premodern rural and urban buildings. His photographs, travels, and writings continually stressed the value of studying vernacular types. Moore, Donlyn Lyndon, William Turnbull Jr., and Richard Whitaker's Sea Ranch in Sonoma County, California (1962–66), had been partly inspired by local



Figure 7 Edward Larrabee Barnes, Haystack Mountain School of Arts and Crafts, Deer Isle, Maine, 1957–61 (photograph by Isidore Samuels; courtesy of the Frances Loeb Library, Harvard University Graduate School of Design).

barns.⁴⁶ In the historiography of architecture, from the late 1940s, the revaluing of New England colonial vernacular and its links to modernism figured in Yale art historian Vincent Scully's studies of what he termed the Stick Style and the Shingle Style of the later nineteenth century. He later identified its revival in the work of Robert Venturi and others as early as 1961.⁴⁷

The fusion of vernacular and modern also occurred in houses designed by faculty and students at Harvard's Graduate School of Design under Walter Gropius in the 1940s. These included Marcel Breuer's houses in New Canaan, Connecticut, of 1947-48 and 1951. Among the major architects to emerge from this circle was Edward Larrabee Barnes, whose Haystack Mountain School of Arts and Crafts on Deer Isle, Maine (1957–61), is similar to the Wesleyan complex as a place for making art that draws on vernacular precedents. Its 8-acre site plan has an axial stair up a hill, off of which its original twenty-four buildings branch along cross axes (Figure 7). Moore and his colleagues had studied this project as a source for Sea Ranch. It was likely because of the Haystack School that Barnes was considered for the Weslevan center.48 From this perspective, Roche's recalled appreciation for Connecticut's seventeenth-century architecture in relation to Weslevan's modernist arts center exemplifies a preoccupation of his period.

Roche's emphasis on making a clear distinction between sheltered enclosure inside and open nature outside appears to be in gently polemical opposition to the modern movement. As Frank Lloyd Wright had written: "We have no longer an outside as outside. We have no longer an outside and an inside as two separate things. Now the outside may come inside, and the inside may and does go outside. They are of each other."⁴⁹ Among examples of this approach closer in time and place to Roche's own formation would have been the transparent aesthetic of Mies in such later American works as the Farnsworth House (1946–51) in Plano, Illinois, west of Chicago, created in the period when Roche was studying with Mies at IIT. There, wholly glass walls created an encompassing visual continuity with the surrounding wooded landscape. Roche recalled that he created the Wesleyan center as the antithesis of the Farnsworth, where one always has to adjust blinds to create different degrees of privacy or enclosure. By contrast, the keynote of the regional colonial house was a clear sense of enclosure.⁵⁰

Roche chose a method of design and style of presentation that emphasized these points. The Center for the Arts would be placed on a site ringed with smaller houses, and Roche began with a plan and model of these structures and their outbuildings over the green. Then, "small renditions of the proposed arts buildings were made individually, much like a child's toy village. These little buildings were then dropped into the existing spaces on the tree-studded model board."51 When Roche presented his design to the faculty committee, as one member later recalled, he repeated this procedure, beginning with a scale model of the site without any of the newly designed buildings on it. Then he placed the proposed structures in the model one by one among the existing trees, until the whole scheme had been explained.⁵² He prepared a slide presentation in this way, starting with a plan of the unbuilt site including the existing houses (Figure 8), then adding individual structures in successive images to show how their position and shape allowed them to fit between the trees.⁵³ The final image from that presentation shows the placement of all buildings closely set between stands of trees as they appeared in Roche's first model of the center's design made in the summer of 1966 (Figure 9). He planned the site in this way "because he desired a quiet, contemplative atmosphere Figure 8 Kevin Roche John Dinkeloo and Associates, Center for the Arts, Wesleyan University, Middletown, Connecticut, preexisting site plan, 1965: (A) location of the center west of High Street between Wyllys Avenue (south/left) and Washington Terrace (north/right) (courtesy of Kevin Roche John Dinkeloo and Associates LLC)

Figure 9 Roche Dinkeloo, original model for Center for the Arts, Wesleyan University, Middletown, Connecticut, 1966, The pair of trees at the south end (circled at left) framed the axis of the main north-south path (arupc_cfa_051, Special Collections & Archives, Wesleyan University Library; building letters added by author).





for the art complex." Hence "he included a large number of walk-ways, and various areas where students and faculty could meet and talk. In addition, he sought to retain existing buildings, believing that they provide a necessary connection with the university's past."54

Roche presented this large model to the trustees on 8 October 1966. The model view shows the site's south end along Wyllys Avenue (on the left in Figure 9) with High Street and the Davison Art Center to the east, and the open North Field for athletics to the west. Roche later published a bird's-eye view of this 1966 model (Figure 10).⁵⁵ He had proposed an array of separate yet interrelated structures distributed over the landscape. The scheme of multiple smaller buildings rather than a single larger structure with wings for the three departments of art, music, and theater was intended to enable the center to be "completed gradually on a long-term basis," although it was ultimately funded and built as a single project in one campaign. Also, as Roche stressed, he designed the series of individual buildings rather than a single large unit in order to be "responsive to the terrain."56 Of the trees then on the site, he reported that only one would have to be eliminated, although ultimately, after the design was modified, more were removed. Another advantage of the village-like plan of smaller buildings was that, as Martin later wrote, "additions in the vicinity could be integrated without destroying the integrity of the original complex," although ultimately no additions were built.57

As shown in Roche's original model of 1966, the center, as it was later built, was divided into three areas corresponding



Figure 10 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, bird's-eye view photograph of 1966 model (Special Collections & Archives, Wesleyan University Library).

to the three arts departments. High Street was shown along the base of the model, and the buildings of the Center for the Arts were set to the west between Wyllys Avenue (south, at left in the model) and Washington Terrace (north, at right) (see Figure 9). The model view shows how, to accommodate the competing aims of connectivity between different departments and minimal disturbance to the site, Roche initially planned a group of small buildings, separated aboveground, interspersed with the trees throughout the grove. As he wrote: "The extensive program is broken into its separate parts and housed in small buildings, carefully arranged to preserve the trees and gain the maximum visual effect from the spaces between these buildings."58 Dividing the program into many separate buildings would cost more than putting it into a single large structure. From the start, the idea was to arrange the buildings along an axial north-south path parallel to the east end of the playing field, which was to remain inviolate.⁵⁹ Roche noted that "the axis of the central spine is determined by two trees about eight feet apart at the south end and all the buildings are related to that."60 (These trees, on Wyllys Avenue between Mystical Seven to the west and Skull and Serpent to the east, are circled in Figure 9.)

The 1966 scheme shows the music buildings to the south, the area closest to the central campus across the east–west Wyllys Avenue. These included a 450-seat concert hall, later Crowell Concert Hall (B in Figure 9), a rehearsal hall (A), a classroom and office building (F), and a separate building specifically for the university's newly acquired gamelan (C), built as the World Music Hall.⁶¹ A second building (D) for the university's pioneering program in ethnomusicology, then called ethnic music, was planned to the east of the Gamelan Hall but was never built. Also unbuilt was the Music Lecture Hall (E), with its auditorium's V-shaped rear. A low square building (e)

southeast of the music studios and southwest of the Davison Art Center, likely to be devoted to ethnic music, was not built.

Further north, the Art Department was to occupy the central buildings, including a square skylit western gallery addition (M) to the Davison Art Center's Carriage House. This addition was not built; rather, the freestanding Zilkha Gallery was built, to the north of the Art Workshops (L). The art studio buildings (G and H) were to have both indoor and outdoor working spaces for faculty and students. To the north was the separate studio (I) for the freshman humanities workshop program, with a graphics building (J), although this was not built. A two-story library (K), not built, and a separate 150-seat cinema (k) were to "serve as the core of the entire art-music-theater development."62 The cinema, now Ring Family Hall, seating 266, was built as a freestanding building.63 Studios were to be linked by aboveground enclosed passageways. As built, however, all buildings were connected through underground tunnels, which Roche envisioned "would be used primarily by performers and stage technicians rather than the general public."64

For the Theater Department, on the complex's northerly end along east–west Washington Terrace, there was an administration and rehearsal building (R) and a 500-seat main theater (P), both built, as well as a 200-seat pentagonal experimental theater (N), not built. The main theater was then designed with its frontal entrance court to the north, facing Washington Terrace. As built, the building would be reversed, with its entrance to the south and stage to the north. Altogether, Roche's original scheme of 1966 was for seventeen distinct buildings seven for music, seven for art (counting each pair of studios as one building), three for theater—and the library. Wesleyan was then an all-male college, but the "model was designed with a view toward the possible eventual use of the buildings by



Figure 11 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, rendering by James Henderson "Jay" Barr looking southwest, early 1970s, showing freestanding wall with gateway openings along Wyllys Avenue (left), Rehearsal Hall (center), and Concert Hall (right) (Wesleyan University Center for the Arts).

women undergraduates. If this possibility failed to materialize, however, some cutbacks would reportedly have to be made."⁶⁵ This likely would have meant reducing the number or the size of the buildings, or phasing the construction over a longer period.⁶⁶

Roche's early model conveyed the density of the buildings and the consequent intimacy of the spaces between them. He said the "reason for trying to create small spaces is so there'll be a sense of excitement when people are in them. There'll be the series of experiences. People will want to walk through."⁶⁷ He took what was essentially the core of a residential block with its combination of backyards and gardens for its small peripheral nineteenth-century houses, containing fine trees and landscaping, and made it a positive architectural entity with a central axial path and unified design. A large total floor area of academic space (165,000 square feet) was built, as one observer wrote, "amidst modestly scaled structures that had always been the tradition of the small and open collegiate setting."68 The architects "sought to maintain the scale of the other buildings in the area . . . by decentralizing the functions of the center through eleven buildings."69 As the bird's-eye view shows, the buildings were to be set back from High Street, behind the Davison Art Center, making their cubic forms less intrusive in their residential context (see Figure 10).⁷⁰ To control the mass of the larger buildings for performances (the Concert Hall, Gamelan Hall, Art Lecture Hall, and Main Theater), wherein tiered seating demanded a tall interior volume, Roche placed these buildings at the site's outer edges and also lowered them partially underground, a decision that "helps to maintain the prevalent campus scale."71

This is effectively shown in the series of perspectival renderings that Roche had made of the scheme. After a site model was made, as Eeva-Liisa Pelkonen has written, Roche had it photographed in his office, using theatrical lighting to create realistic effects. Then he asked his associate James Henderson "Jay" Barr, a longtime member of the Saarinen firm, to make pencil renderings based on the photographs (Figure 11).⁷² Barr's technique is extraordinary in that tonal areas are built up as concentrations of lead pencil dots. Thus, while edges are precise and shadows vivid, there are no "lines" per se in the images. Pelkonen and others have aptly termed this technique "pointillist" in homage to the late nineteenth-century tradition of French postimpressionist painting intended to simulate the evanescent effects of optical experience. As in that tradition, so in the renderings for Wesleyan's Center for the Arts, as Pelkonen writes, the outcome looks like "a picture in which the eye and mind merge to create a naturalist image."73 This style of drawing conveyed the dappled light and shadow falling on Roche's smooth planar walls, which he considered essential for the integration of buildings and landscape. The model shows linear freestanding walls along pathways or turning corners to shape courtvards near enclosed buildings. These walls accentuated the site's processional axis that began at its south edge, where Roche designed the freestanding wall parallel to Wyllys Avenue. This wall (shown at left in Figure 11) completed the definition of an outdoor space bounded by the Rehearsal Hall to the west and the Concert Hall to the north. This wall had two squared passages through it to create gateways to the Center for the Arts from Wyllys Avenue. Other built walls partly enclose grass courts as outdoor extensions of the four art studio blocks.74

Such a building program for the university's three arts departments prompted a long list of questions from the faculty's Educational Policy Committee, which represented the full range of departments in the humanities and the natural and social sciences. Among the first of these questions directed to Martin and his arts colleagues was "Are there too many individual buildings on the site? Does it appear cluttered?" To this they replied: "Very few buildings will be seen in their totality as isolated structures and it is the play of space, modulated by the light and shade from trees that will provide the visual interest as one moves through the complex."⁷⁵ The committee also asked, "Is the attempt to save trees exaggerated in the solution



Figure 12 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, site plan, 21 November 1968, showing east (below) and west (above), with Wyllys Avenue (south; left) and Washington Terrace (north; right) (Box 81, Kevin Roche John Dinkeloo and Associates Records [MS 1884], Manuscripts and Archives, Yale University Library; graphic additions by author; reproduced by permission of Kevin Roche John Dinkeloo and Associates LLC).

and does it distort what might otherwise have been a solution for this area?" Martin replied, in part, that "it is true that the location of existing trees has affected specific siting of buildings but the fragmented structure would have been desired had these trees not existed."⁷⁶ Finally, the committee asked, "Will the similarity of construction and material of the buildings be a source of monotony?" Martin responded that "it is thought that with the various light effects on the site and the number of trees that will appear in silhouette both in summer and winter enough variations and interest would be provided to call for a uniformity of material and simplicity of façade."⁷⁷ The final choice of limestone, with its subtle color variation, for walls addressed this concern.

In June 1966 Edwin D. Etherington was elected to succeed Victor Butterfield as president of Wesleyan, and in April 1967 the trustees affirmed their intention to construct the center, yet there was debate about how to contain costs, either through consolidating the design into three buildings, one for each department, or by phasing the construction of Roche's 1966 scheme of seventeen buildings.⁷⁸ In the fall of 1967, following discussions between Martin and Roche over the summer, a second model of the complex went on display, and on 21 October the trustees unanimously authorized Roche to proceed with detailed drawings and awards on construction contracts. Total costs for the center, including fees and furnishings, were then estimated at \$7 million.⁷⁹ A year passed before Roche's office prepared the first set of working drawings. For the Music Department, along Wyllys Avenue, the site plan, dated 21 November 1968 (Figure 12), showed the Rehearsal Hall (A), Recital (later Concert) Hall (B), Gamelan Hall (C) set back from Wyllys between the Skull and Serpent and Mystical Seven buildings, Ethnic Music Hall (D; not built), Music Lecture Hall (E; not built), and Music Administration (F). To the north were Art Studio South (G) and Art Studio North (H). The Art Lecture Hall (J; now Ring Family Hall) was now a freestanding block, as it was built. The library



Figure 13 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, final site plan as built, 1973 (Special Collections & Archives, Wesleyan University Library).

(K), then designed for 100,000 volumes, appeared on this 1968 plan but was cut from the project in the spring of 1969 when the decision was made to incorporate its holdings into the main library.⁸⁰ To the north were the Art Workshops (L), an east–west block linked by a breezeway to the Art Gallery (M), later the Zilkha Gallery. Also to the north were a service building (O; not built), Theater Studios (R), the Main Theater (P), and the Drama Laboratory (N; not built). The plan specified which trees should be kept and which should be removed. Shown in outline were the houses standing around the site's periphery, some of which would have to be removed.⁸¹

Another set of working drawings, dated 2 September 1969 and including the same structures documented in the drawings of October–November 1968, was made available to prospective bidders when the total allowable costs had been set at \$8 million.⁸² Yet the four bids received in October 1969 were all about \$11 million, with estimated total costs, including furnishings, rising to \$13.75 million. Although Roche's site plan of 1968 had reduced the number of buildings from his models of 1966 and 1967, his vision for the Center for the Arts had both an expanse and an expense that made it a daunting project for its institutional client. Wesleyan was collegiate in scale and residential in context, and it had as yet no large works of modernist architecture. The university explored ways of either reducing costs (a smaller project, phased building schedule) or increasing available funds.⁸³ In December it decided to rebid the project.⁸⁴ Through the winter of 1970, when building costs were increasing at the rate of 1 percent per month, the university consulted frequently with the architects to find ways to reduce costs.⁸⁵

In April 1970, the trustees eliminated the Music Lecture Hall (E), the Ethnic Music Hall (D), and the pentagonal Drama Laboratory (N) from the 1968 plan.⁸⁶ The loss of these three buildings, plus the cancellation of the library (K) a year earlier, increased open space between the remaining ones, creating courtyards with the buildings around their edges. A 1973 site plan (Figure 13) shows the Center for the Arts as built around the large central green, with the south–north axial path



Figure 14 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, working drawing of 11 November 1968, showing walls of precast concrete block (Box 87, Kevin Roche John Dinkeloo and Associates Records [MS 1884], Manuscripts and Archives, Yale University Library; reproduced by permission of Kevin Roche John Dinkeloo and Associates LLC).

leading from the World Music (Gamelan) Hall (C in Figure 12) north to the Theater Studios (R). To control costs, no general contractor was hired. Rather, the university hired a project manager, who, as its agent, oversaw bids and the hiring of subcontractors.⁸⁷ The new bidding system was credited with saving \$1.2 million.⁸⁸ This and the saving of \$1 million from the omission of three buildings brought the center's total costs down by \$2.2 million, so that they fell within funding limits. This enabled the board to approve the eleven-building project in June 1970.⁸⁹ Although the design process had been protracted due to several major revisions, the construction was free of serious difficulties for a project of the center's size.⁹⁰ Building began in August, and the center opened three years later, in September 1973. To limit disruption of the landscape, Roche sought minimal excavations and foundations. His concern for not removing trees meant that they were often near to foundation lines. This made laying the foundations and walls difficult, but the process went smoothly.⁹¹

Roche's Relationship to Neoclassical and Modernist Architecture

The proposed method of construction for Wesleyan's center departed from the modernist norm of the steel or steelreinforced concrete frame with columns upholding floors and set apart from walls that enclosed space but did not bear weight. Rather, from the start, Roche envisioned the center's buildings to have bearing walls like the more substantial nineteenth-century houses nearby, such as the Alsop House (Davison Art Center). Also, unlike the brownstone bearing walls or brick bearing walls faced with brownstone found on the campus, the center's buildings were projected to be the then light cream color of the Davison Art Center's stuccoed walls. Yet, unlike the limestone eventually selected, the original specifications that accompanied the working drawings of October-November 1968 noted that walls would be made of precast concrete masonry units finished inside and out and incorporating insulation. In 1969-70, the architects considered less costly poured-in-place concrete rather than precast concrete block for the walls, yet working drawings dated 2 March 1970 still show the walls as precast aggregate concrete block with a modular dimension of 3 feet 8 inches long, 2 feet 6 inches high, and 14 inches thick. Roche Dinkeloo carefully considered the width, depth, and tooling of the joints between blocks, as shown on a drawing of 11 November 1968 detailing a sample wall (Figure 14).⁹² The block-on-block bearing-wall construction, with exposed poured-in-place concrete slabs for floors and roofs, meant that "no steel frame-work would be required, lessening the need for disturbing the natural appearance of the land."93 As Martin wrote, Roche's scheme "was one that seemed suitable to the project and the problems of the site and particularly the preservation of trees."94 Lack of a steel framework and its necessarily deep foundations lessened the need for heavy equipment, so the buildings' method of construction, as well as their siting, would preserve the trees. To minimize disturbing tree roots, there are no full basements under Roche's smaller buildings, such as the art studios, which have floors set at ground level. Their enclosing walls have individual pier foundations, with concrete floor slabs spanning between piers.

Roche has stated that he used toy wooden blocks to design the buildings' massing and their stone-on-stone assembly, and the center's buildings all display block-like proportions with their edges squared.95 The concrete block was a remarkable choice, for which there was no precedent either on the surrounding campus or in Roche's own architecture.96 He proposed to use a large-scale version of such a system, in which the block bearing walls would be supporting concrete floors and roofs. During preliminary stages in design, the university solicited bids on precast concrete blocks and various structural alternatives.⁹⁷ However, Indiana limestone surprisingly turned out to be less expensive than the concrete block, which also would have required constant cleaning. Given that it was more economical, likely owing to depressed conditions at quarries in Indiana, light-gray limestone was ultimately substituted for the concrete block. The stone was not inexpensive, but it did save the cost of outside cladding and inside walls.⁹⁸ Nationally this especially pure limestone had long been preferred for public architecture, from the American Renaissance in the late nineteenth century through 1929.⁹⁹ The stone's coloristic and textural richness, as a record of its geologic origins, is essential to its character. Its softness of texture (relative to other building stones, such as granite and marble) and velvety appearance make it warm to the eye and inviting to the touch.

Roche's design consistently presents and exploits all of these material qualities. Historically, the lack of noticeable strata in Indiana limestone allowed it to be planed, lathed, sawed, and hand-worked in any ornamental style. In the modernist tradition, Roche's Wesleyan buildings are of simply cut blocks with no ornamental treatment. The height and thickness of the wall courses remained from the precast block scheme, although the length of the stones was up to 8 feet. Even this longer unit could be compactly transported to the site and maneuvered into place with relatively light equipment. The poured-inplace concrete floors are also 2 feet 6 inches high, the height of the limestone courses, while the concrete roofs, with their parapets, are 5 feet high, equal to two stone courses. According to John Martin, the design committee was delighted when the bid on limestone came in lower than that for concrete.¹⁰⁰ In his view, "the limestone buildings designed by Roche Dinkeloo captured the spirit of the nearby classical buildings without imitating them. The new buildings have a soothing, timeless quality."¹⁰¹ Although the stone was treated in minimal, planar modernist forms, it was chosen for historical and contextual reasons. The limestone also serves as the interior finish, creating a material continuity inside and outside. Walls are made of nearly 100,000 cubic feet of limestone taken from gritty strata and worked with a diamond gang saw-that is, a saw with multiple diamond-edged blades that make simultaneous parallel cuts. Such a saw creates similar markings on the faces of blocks sawn together and yields a rough, textured appearance overall. There is a rich if subtle coloristic variation within each stone, including blue and tan hues, and varied shades of warmer or cooler gray.

In theory, Roche could have used slabs of limestone as an exterior veneer rather than blocks of stone as constructional supports. Indeed, since the dawn of modernism in architecture around 1900, the capacity of mechanically powered stonecutting machinery to slice quarried blocks into veneer slabs economically and precisely had been praised by such leaders as Otto Wagner and Frank Lloyd Wright, who saw this new industrial technique as offering great potential for aesthetic expression, given the rich color and grain in stone.¹⁰² This had been a major theme in the canonical works of Roche's teacher, Mies, who assembled large slabs of polished marble veneer into freestanding space-defining walls in his Barcelona Pavilion (1928–29) and Tugendhat House (1928–31) in Brno, Czechoslovakia. In the postwar

era, among renowned American modernists, Louis Kahn, in the Kimbell Museum in Fort Worth, Texas (1966-72), used travertine slabs as exterior and interior veneer for concrete block infill walls. Such a solution might have been used at Wesleyan, but Roche envisioned limestone, like the concrete block, as constituting the full thickness of his walls, with no insulating or infilling materials. The use of structural limestone blocks for the Wesleyan center departed from long-standing modernist practice. Although Kahn used load-bearing brick on occasion, as for the outer walls of the Phillips Exeter Academy Library (1966-72), he did not use stone as a load-bearing structural material, nor did Eero Saarinen. In Roche's oeuvre, his Wesleyan work was among his few uses of load-bearing stone. The other notable case was his later Robert Lehman Pavilion at the Metropolitan Museum of Art (1975–76) in New York.¹⁰³

The use of stone with a dimension that enabled ease of handling helped to control the scale of the finished buildings. On the one hand, the blocks were small enough so that, as Roche had wanted from the start, the building could proceed without the use of heavy machinery such as bulldozers, which likely would have destroyed tree roots and thus defeated the purpose of siting buildings to avoid the removal of trees (Figure 15). Stone blocks of limited size both saved on equipment costs and limited disruption to the landscape during construction.¹⁰⁴ On the other hand, the individual blocks were an order of magnitude larger than the conventional brick or brownstone units in the walls of nearby campus buildings. Thus, while Roche's structures were not as a rule taller than their older neighbors, their limestone blocks created a larger scale. As one observer wrote, the newly completed center "expresses its own claim to monumentality. It does it, not so much by the size of the buildings-kept to a low profile in an attempt to achieve a sense of residential continuity and quality with the rest of the campus-but more by the size of building detail." The limestone blocks "appear over-sized and over-weight-for such short-height buildings-to their residential surroundings."105

Externally the limestone walls are in the same planes as reinforced, poured-in-place concrete beams, floors, and roof parapets, so that one reads the blocks as vertical supports that carry the spanning concrete. One decision that had to be made concerned how the stones would be joined. Both the vertical and horizontal joints have the same thickness (¾ inch), depth, and color. Such consistency led William Marlin to conclude of the center's buildings, "Their strength is in subtlety."¹⁰⁶ Because of their weight—up to 1.5 tons each—the blocks were laid up dry (without mortared joints), with plastic separators or pads to maintain accuracy in joint thickness, "without any bonding other than the edge joint caulking, just as children's blocks might be laid up" (see Figure 15).¹⁰⁷ The joint material visible is not a mortar that



Figure 15 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, laying of limestone blocks with plastic separators to maintain consistent joint thickness, ca. 1972 (arupc_cfa_027, Special Collections & Archives, Wesleyan University Library).

bonds one stone with another, as in a brick wall; rather, it is a grout that acts as a sealant to prevent water from seeping between the stones. Neither were any anchors used in erecting the precisely aligned limestone blocks, so that we are confronted with a most ancient type of assembly. Such structural clarity was likely inspired by Mies, whom Roche recalled as "a very strict disciplinarian on structure. If a structure didn't make absolute formal sense, then it had no worth at all." For Roche, similarly, "Of necessity, all architecture is conditioned by the manner in which it is constructed and it is an expression of that manner."¹⁰⁸

The selection and treatment of the limestone constituted one element of Roche's overall effort to integrate the contextual demands of Wesleyan's neoclassical residential environs with earlier ideas about optimal planning of modern campus spaces developed by such mentors as Mies at IIT and Eliel and Eero Saarinen at Cranbrook. As the Wesleyan site plan of November 1968 shows, Roche Dinkeloo overlaid a square survey grid with a unit dimension of 90 feet onto the whole site to provide a module for shaping both the buildings themselves and the spatial intervals between them (see Figure 12). The grid was a working tool to locate trees, buildings, and other elements in relation to a common unit system. Roche also employed the grid to create consistency between dimensions for both buildings and the open spaces between them. One model for this approach would have been Mies's single grid for planning both buildings and open spaces at IIT, the country's first modernist campus from its origins in the late 1930s, as shown in a model photographed in 1947 (Figure 16).¹⁰⁹ As a student at IIT for two semesters, Roche knew this campus plan at a relatively early stage in its realization, and, although his limestone structures at Wesleyan are unlike Mies's glass, brick, and steel pavilions at IIT, the concept of a planning grid is similar. As Roche's site plan was in part classically inspired, so Vincent Scully has noted and Phyllis Lambert has described the classicizing tendencies in Mies's IIT campus plan.¹¹⁰

Comparing IIT's plan to Wesleyan's Center for the Arts, we see that IIT's site is conceptually flat, whereas Wesleyan's ground slopes noticeably, as recorded in the contour lines on the site plan. In Mies's model, the ground plane is a horizontal datum, consistent with IIT's lakeside topography. The resulting experience is one of vertical building planes framing level spatial pathways. Juxtapositions of rectangular buildings and spatial intervals at the IIT campus bring to mind analogous architectural moments in Roche's site. Among the earliest spatial passages realized at the postwar IIT was one known as "Mies Alley," a view of which looking north includes, at left (west), the three-story Chemistry Building (Wishnick Hall); ahead (north), the Navy Building (Alumni Memorial Hall); and at right (east), the two-story Metallurgical and Chemical Engineering Building (Perlstein Hall) (Figure 17). The space between the buildings on the left and right is ca. 32 feet, or 1.33 times the unit dimension that Mies used to plan the buildings themselves. Similarly, a common measure shapes built volumes and voids at Wesleyan, where Roche used spatial intervals between foursquare buildings to frame views of the campus landscape. As one observer wrote of the Center for the Arts, while eight of the eleven buildings can be entered off the 900-foot north-south axis, "there is no single sweeping view of the center. The courts, trees and open spaces display themselves in stages available only to a moving viewer."¹¹¹ For example, a view west toward North Field shows an interval of space 40 feet 4 inches wide (about equal to five 8-foot stone block lengths) between the tall cubic volumes of Art Studio South (left) and Art Studio North (right) (Figure 18).

The Wesleyan buildings are also related in their height. Roche took one level as the center's datum, and buildings were variously set into the earth below that referential plane, or they rose above it in multiples of a vertical unit based on the height of a stone course (2 feet 6 inches). Courses of limestone, set in a running bond, have horizontal joints that are precisely aligned from building to building to enhance the center's apparent unity. Between the south and north art studios, low steps mark



Figure 16 Ludwig Mies van der Rohe office, Illinois Institute of Technology, Chicago, 1947, photomontage aerial view showing model within Near South Side (Chicago History Museum, HB-26823-B; Hedrich-Blessing, photographer).

the elevation from the lower foreground to the higher level of North Field in the background. Vertical walls and the horizontal ground plane frame space. IIT's materials differ from those at Wesleyan's center, yet the sites share a rigorously orthogonal logic. This logic also relates to Roche's affinity for colonial vernacular and local neoclassical houses that informed his approach to how his arts buildings meet the ground. Regional houses from the seventeenth century had vertical walls that met the horizontal earth directly. At the Center for the Arts, the architects intended "to capitalize on the site and to that end they designed the buildings to complement the neo-classic houses along High Street."112 The same precise formal contrast of cubic building walls and the earth's plane recalls that in the nearby Greek revival houses, such as the Edward A. Russell House across High Street to the south, built 1841-42, where the brownstone base meets the ground (Figure 19). Roche adopted this approach with his decision to have vertical walls meet the horizontal lawn directly, without broad stairways and plazas (Figure 20). His concrete bases support limestone walls that continue upward in one vertical plane to the roof.

As an associate of Eero Saarinen since 1950, Roche worked at Saarinen's office in Bloomfield Hills, Michigan, where the Cranbrook educational complex was also located. Its Art Academy, designed from 1925 by Eliel Saarinen, must have been in Roche's mind as he was contemplating the Wesleyan project. Perhaps as important was Saarinen's Cranbrook School for Boys, his first completed work in the United States, which opened in 1929.¹¹³ Its campus had been imagined as a set of remodeled farm buildings previously on the site. Saarinen retained much of their arrangement in his grouping of exquisitely crafted brick buildings around a quadrangle, courts, and terraces somewhat in the manner of



Figure 17 Ludwig Mies van der Rohe (architect), Alfred Caldwell (landscape architect), Illinois Institute of Technology, Chicago, view of "Mies Alley" showing Chemistry Building (Wishnick Hall), 1945–46 (left); Navy Building (Alumni Memorial Hall), 1945–46 (center); and Metallurgical and Chemical Engineering Building (Perlstein Hall), 1944–46 (right) (photograph by Edward Teitelman; Visual Resource Center, Wesleyan University; © The Architectural Archives, University of Pennsylvania).

English collegiate quadrangles. The Art Academy, created from 1928 through the 1930s, featured more utilitarian brick buildings with studios and living quarters flanking a central axis, Academy Way, with courts and plazas facing gardens. The use of walls to partly or wholly enclose spaces, the balance of axial formality and asymmetrical informality, the resonance with vernacular types, the articulate level changes, and the sensitivity to scale in the boys' school and the Art Academy all have their analogies in the Wesleyan center. Roche's solution also brings to mind Erik Asplund's Woodland Crematorium for the Skogskyrkogården (Woodland Cemetery) in Stockholm (completed in 1940), where a long ascending pathway from the entrance to the main chapel passes two smaller cubic, limestone-clad chapels with courtyards partly defined by walls. These look like the art studios in Wesleyan's center, but, as with the other possible sources of Roche's inspiration, his synthesis was original and intuitive.¹¹⁴

Another point of reference for Roche would have been Eero Saarinen's General Motors Technical Center in Warren, Michigan, for which he was "deeply involved" in the design from 1950 until the center opened in 1956.¹¹⁵ Its central area of 326 acres is vastly larger than the Wesleyan center, and it was designed for access and internal movement by automobile, but the two projects share certain overall strategies, if at very different scales. The GM center's buildings were in five main groups extending around three sides of a great rectangular lake and surrounded by an enclosing forest of eventually 13,000 planted elms, maples, pines, beeches, magnolias, birches, spruces, oaks, and willows.¹¹⁶ Before designing the overall site, Saarinen made "a special tour of Europe's great Renaissance squares and spaces."¹¹⁷



Figure 18 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, 1973, view west to North Field between Art Studio South (left) and Art Studio North (right) (author's photo, 2016).



Figure 19 Edward A. Russell House (Office of University Relations, Wesleyan University), 318 High Street, Middletown, Connecticut, 1841–42, third floor added and cornice altered in 1934 (author's photo, 2016).



Figure 20 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, 1973, music studios from the northwest (author's photo, 2016).

When completed, the project, which included elaborate fountains, was termed "GM's industrial Versailles."¹¹⁸ By 1956, one observer noted: "The first impression of the center is one of a tree-studded university campus. Because the five central operations were separate entities, the architects were able to group the buildings constellation-wise around the 22-acre lake, like the colleges of a university."¹¹⁹ As at Wesleyan, the relationship between the rectangular, cubic buildings and the trees was critical. At General Motors, overall there was "the unity conferred by surrounding tree groves, the buildings having the effect of being placed at the edge of a large glen."¹²⁰

Among Roche Dinkeloo's works, closest in function and scale to the Wesleyan center was the Fine Arts Center for the University of Massachusetts, Amherst, in design from 1964 and initially published in May 1965, prior to Wesleyan's selection of the architects, although the project was completed in 1974, just after Wesleyan's center. For the Amherst site, many of the same kinds of spaces, although larger, were included in the program: a 2,220-seat concert hall, a 750-seat theater, an experimental theater, a recital hall, artists' studios, an art gallery, a library, television studios, and a school of music.¹²¹ Yet instead of arranging these functions in a complex of small buildings as at Wesleyan, at Amherst Roche Dinkeloo organized them into a single building, a megastructure that bridges the campus's main mall between existing humanities buildings and existing science buildings. The art studios are aligned along the upper level of the bridge-like structure, along whose lower portico are the performance facilities. The massive linear form of the whole building is made of exposed, poured-in-place concrete, with walls cut open in varied ways



Figure 21 Roche Dinkeloo, Fine Arts Center for the University of Massachusetts, Amherst, in design from 1964 and initially published in May 1965, completed in 1974 (courtesy of Kevin Roche John Dinkeloo and Associates LLC).

to ensure optimal lighting (Figure 21). The reflective concrete masses and recessed openings create striking effects of light and shadow on a large scale. The Amherst art center's context is one of large academic buildings and a heroically broad mall, whereas at Wesleyan, the residential scale of the surroundings invited the division of the spatial program into smaller buildings. In terms of classical analogies, the Amherst center brings to mind a Roman aqueduct, whereas its Wesleyan counterpart is more like the series of Greek treasuries in the sacred precinct below the temple at Delphi.

Embodying midcentury American modernism's relationship to classicism, the Lincoln Center for the Performing Arts in Manhattan, completed in 1966, has a formalist symmetry that recalls the Campidoglio in Rome. It is the period's most prominent example of the arrangement of the program of an arts center (including the central opera house and flanking concert hall and theater) as discrete buildings defining a ceremonial space of arrival. The elevation of Lincoln Center's main plaza above the street contributes to its perceived isolation and the presentation of the arts in temple-like pavilions.¹²² The plaza's plan had been fixed before architects of individual buildings were chosen. Philip Johnson designed the New York State Theater on the south side and influenced a number of decisions. While they are not large buildings in an urban setting, Wesleyan's cubic pavilions are sited to convey an aura of distinction for the arts within the larger campus. Closer to the scale and setting of Wesleyan's project was Johnson's plan for buildings on his estate in New Canaan, Connecticut, developed from the later 1940s. Although Roche sought to preserve trees and Johnson cleared them, both sites emphasize carefully considered pathways across lawns linking the buildings, whose mutual visibility is an important part of their architectural effect. In an essay of 1950 Johnson described the multiple classical precedents that informed his design for the house and its site, including Mies's plan for IIT.¹²³ In this light, what Roche did at Weslevan was consistent with

his regional modernist contemporaries' reengagement with classicism. His scheme's sympathetic relationship with nearby Greek revival houses was another instance of trying to integrate functional expression with inherited aesthetic conventions.

The Wesleyan center is a poignant case of modernist abstraction set into a context of historic buildings of neoclassical, Italianate, and neo-Gothic ornamental styles. Their decorative delicacy (with many details handcrafted in wood, metal, or plaster) contrasts forcibly with Roche's stark stoneand-concrete blocks. The limestone courses allow the eye to measure intervals of height. But, although the new buildings' height is limited to be consistent with that of their older neighbors, the lack of ornamental detail in the new blocks is another quality that increases their apparent scale. As Roche said: "You could argue that the Wesleyan complex, even though composed of single buildings, has a fairly bold scale. And again, one begins to get the impression of scale because of lack of detail. The classicists always use detail to transfer the various scales from smaller to larger, larger to smaller, etc. But if you sheer off all those details, then by the very nature of it, the building seems to have a larger scale."124 This is apparent in the view of the World Music (Gamelan) Hall compared with Henry Bacon's adjacent Skull and Serpent (Figure 22). The latter's brownstone walls are mannered in their uneven coursing to suggest older local stonework, and the portico's crowning cornice has delicate wood moldings above Ionic columns. The World Music Hall is no taller, yet its broad planar expanse, the size of its stones, the depths of its concrete spans, its large sheets of plate glass, and its unrelieved surface combine to give this modernist building a larger scale.

Although Roche as a modernist forswore ornament per se, he introduced decorative texture in renderings and commissioned photographs that emphasized shadows of nearby trees that were to create rich visual patterns on the limestone walls. The literal foliage overhead and its shadowed patterns on the vertical wall surfaces would together create a kind of



Figure 22 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, 1973, view along Wyllys Avenue showing World Music (Gamelan) Hall (left) with roofline aligned with cornice of Henry Bacon, Skull and Serpent, 1914 (right) (author's photo, 2014).

naturalistic ornament on the otherwise unadorned walls. Presumably Roche anticipated this effect when he followed the university's wish to disturb as few trees as possible across the site, and when he chose to place his buildings so close to the trees to be preserved. The rationale for preserving the trees was thus aesthetic as well as conservational. Although the buildings' walls are uniform limestone, the species of the trees vary greatly, as seen in the shadows of their branches and foliage on the walls. Thus the architecture enhances appreciation of the site as a scene of nature's variety.

Finally, Roche's aesthetic depended also on clear contrasts between the solid planar walls of stone and the recessed voids of the windows, which are nearly all fixed and all set back from the wall plane, so that one sees the full thickness of the stone as supporting piers or walls. As Roche noted, the windows were set back to eliminate glare in the interior.¹²⁵ Also, the "system of double opening whereby the window, which is set back from the face, is actually larger than the masonry opening in the wall, gives one a sense of the interior volumes from the outside."126 Ratios of window width to height are all consistently related in dimensions to the modular size of the stone blocks around them. There are as few vertical mullions between sheets of glass as possible (see Figure 20). Aluminum mullions that hold the huge glass sheets in place are minimally thick. The glass is as large as possible consistent with stability, so that its planes read as nearly undivided within each structural bay bounded by the stone verticals and concrete horizontals. The same disciplined positioning of the glass planes recurs inside, where they are set back from the inner plane of the wall so that there is a generous interior reveal. Thus, inside and outside, there is as clear a distinction as possible

between the framing structure and the infilling glass, which is wholly transparent and nowhere tinted.

The immediate context of Greek revival houses from the nineteenth century may have inspired Roche to think of the Center for the Arts as reinterpreting the classical tradition of ancient Greek architecture. As one critic wrote shortly after the center opened in 1973: "The small size of the blocks consciously or unconsciously strengthens the classicizing tendency already inherent in the overall conception of the site-to-building relationship, recalling the temples at Delphi. The walk reinforces a sense of procession moving from the theater complex to the arts studios and the music buildings (or from temple to temple). Each building is a prismatic cube, isolated and serene. The formal purity heightens an awareness of nature in the same way a Greek temple does."¹²⁷

Roche adapted the Greek constructive principle of trabeation, using piers or columns to uphold horizontal stone lintels. The spans of reinforced concrete in the Center for the Arts take the place of such lintels, with the vocabulary of supporting limestone blocks exposed through the walls. In the carefully studied proportions of its cubic buildings, Roche's center connects contextually to its Greek revival neighbors and revisits the classical tradition, as if the new architecture were a lesson in the elemental aesthetic that modernists valued. Roche's solution has a didactic effect, abstractly reinterpreting the purely post-and-lintel or trabeated method of ancient Greek temple construction. As he described, "Blocks of limestone . . . were used to make the bearing walls of all buildings, creating a discipline of pure forms and simple openings."128 This rediscovery of lithic simplicity exemplifies his view of history: "I can, and



Figure 23 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, 1973, view from the southwest, showing art studios (left and center) and music studios (right) (author's photo, 2016).

do, benefit from the lessons of the past, but when I use a form which may have a historical recall, it is not because I wish to copy history; it is to repeat the experiment and learn from it."¹²⁹

Yet for all its many links to ancient Greece and the Greek revival, Wesleyan's Center for the Arts is unmistakably modernist and of its moment in the architectural culture of the mid-1960s. Its rectilinear blocks, as studies in solid sunlit planes and deep shadowed voids (Figure 23), inevitably bring to mind comparisons with Louis Kahn's work of this same period, such as the Salk Institute in La Jolla, California, completed to broad acclaim in 1965, the year that Wesleyan commissioned Roche.¹³⁰ Both sites work with large cubic volumes to define and partly enclose outdoor space, lending it a quasi-ceremonial character. Although the Wesleyan site has no dramatic court facing the ocean like the Salk Institute, the Center for the Arts emphasizes the processional axis that begins at its south edge, where Roche designed the freestanding wall parallel to Wyllys Avenue, and culminates at the center's north end.¹³¹ Resemblance to Kahn's work exemplifies a period style, also seen in the work of I. M. Pei, who likewise admired Kahn. As Roche said: "I am a part of my time. Everybody, regardless of what art he is working in, is part of the same time and culture. And so the expression is made almost unconsciously."¹³²

Underlying both Roche's and Kahn's reinterpretation of ancient Greek sites is that of Le Corbusier. His ramp ascending to the outdoor window atop the roof terrace of the Villa Savoye (1928–31) (Figure 24) would be a renowned precedent for Roche's ramp, complete with the requisite modernist pipe railing, ascending to the sheltered breezeway between the Art Workshops and the Zilkha Gallery (Figure 25). As the design progressed, Roche experimented with both staircases and ramps to give access to various buildings from the varied topography of the pathways. The ramp to the gallery door



Figure 24 Le Corbusier, Villa Savoye, Poissy, France, 1928–31, view along ramp to roof terrace (Le Corbusier and Pierre Jeanneret, *Oeuvre complète de 1929–1934* [Zurich: Éditions H. Girsberger, 1935]; © F.L.C./ ADAGP, Paris/Artists Rights Society [ARS], New York 2016).

diverges from the long processional axis leading north through the site. So Roche transposed the Corbusian convention of the ramp, just as he reinterpreted the Miesian spatial grid as a planning concept and Kahn's approach to massing and detailing concrete.

Conclusion

Roche's buildings were meant to be without idiosyncrasies of style that would tend to date them. In one sense, their minimal aesthetic has enabled them to achieve this aim. On another level, the Center for the Arts is of its moment in the history of American and modernist architecture, embodying formal values of abstraction that no longer have the pervasive



Figure 25 Roche Dinkeloo, Center for the Arts, Wesleyan University, Middletown, Connecticut, 1973, view up ramp leading to entrance to Art Workshops (left) and Zilkha Gallery (right) (author's photo, 1993).

force they did in the mid-1960s. As modernist architecture, what these buildings lack in handcrafted ornament they compensate for in material and spatial effects. Yet Roche was also working in a context where Greek revival houses from the previous century provided points of departure for his solution. His approach also embraced the seventeenth-century regional vernacular.133 Roche was an early winner of the Pritzker Prize in 1982 and a recipient of the gold medal of the American Institute of Architects in 1992. Yet for most people outside academic architectural culture, modernist architects -even those as sensitive to site, materials, proportions, and spatial experience as Roche-create buildings that are relatively mute, at least at first glance. When his center opened in 1973, some felt it was "too spartan" or "too institutional looking." Its blocks were compared to government buildings, among other types.¹³⁴ Writing of Roche's work in 1965, President Butterfield had foreseen that "with this overemphasis on geometric plane and arrangement, the building would prove a

dated building."¹³⁵ Such responses have recurred in later commentary, although, as Roche hoped, students who spend long hours at the center appreciate "the negative space—the courtyards, benches, and trees."¹³⁶ As one account noted, "Ultimately what one is conscious of when viewing the new Center for the Arts is not the structure but the sense of negative space, the tree lined courts, the shadow or the silhouette, and most essentially... the sense of place."¹³⁷

Clearly Roche was concerned with the cultural legibility and fitness of his work. In this he anticipated an aim of later postmodernism, whose apogee of influence followed the completion of his Wesleyan project by about a decade. By 1984 he was voicing those values that were latent in his Center for the Arts and that had since become keynotes of postmodernism: "I have a feeling that people, to a large extent, don't really see much of modern architecture in a positive way, because the aesthetic is too remote for them, too specialized. People don't understand it. It means nothing to them. You're not touching them as great art must touch. And it is the first requirement of great art that you touch even the uninitiated, even the uneducated, and the visually inexperienced. So now we are trying to find ways whereby one can make that contact."¹³⁸ One way Roche did so was to invoke both the New England village green and Greek temple sites. As William Marlin wrote: "The origins here are not so much in antiquity as in our own early history. And, in either case, they are origins which have to do with a sense of what is suitable to the nature of an established environment. If this be derivation, so be it."¹³⁹ This was the attitude that Roche appears to have brought to Wesleyan's Center for the Arts, whose architecture connects to many different facets of classicism and modernism. Much like Louis Kahn's architecture, it is wholly of its midcentury moment, yet it has a transcendent effect.

Transcendence implies timelessness, but Roche's Center for the Arts represents an integration of sources that likely could have been produced only at a particular phase in modern architecture's history. It is also historically specific to its place. Roche's forms exemplify the broader precept that originality can be understood as a condensation of multiple sources. Modernists through the 1960s worked selectively with inherited forms. As the Indian architect Charles Correa said: "It is necessary to have a resonance with the past-as Corb, Aalto and Frank Lloyd Wright had with theirs. They were artists, with no direct one-to-one relationship with the past. The images worked like depth charges-they sank to the bottom of the consciousness, exploded and re-emerged in a different form."140 What distinguished these figures was how they chose to incorporate sources into their individual syntheses. Roche spoke of his approach to integrating sources in much the same way, saying that "in going back to historical precedents, I do not open architectural history books and begin to study the nature of various periods.... Whatever it is I express is coming through from the common experience, rather than a conscious effort to relate to different movements. I believe in the intuitive response. What one has as an artist is the ability to respond intuitively to experience."¹⁴¹ For Roche, as for Saarinen and others, the vernacular and the classical as historic points of reference meant issues of scale, material, geometry, and space making that were independent of specific ornamental motifs. In these ways, Roche's approach to Wesleyan's center was an abstraction of vernacular and classical principles that was unmistakably of his moment in the modernist architectural culture of the mid-1960s.

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Notes

1. In the course of my research, I have been most grateful for assistance from Suzy Taraba and Leith Johnson at Wesleyan University Library's Department of Special Collections and Archives, Wesleyan's Center for the Arts (especially its former director, Pamela Tatge), Wesleyan's Facilities Planning Office, Yale University Library's Department of Manuscripts and Archives, the late Professor John Martin, and Kevin Roche. For editorial guidance, I am indebted to Patricia Morton, the anonymous reader of this article manuscript for the *JSAH*, and my wife, Professor Susanne Fusso, Wesleyan University.

Publications on the Wesleyan Center for the Arts include "Fresh Forms and New Directions: The Work of Kevin Roche," Architectural Record 143, no. 5 (May 1968), esp. 152-53; Alphonsus J. Mitchell, "The Center for the Arts Opens," Wesleyan University Alumnus, Fall 1973, 6-18; Paul Goldberger, "Wesleyan Arts Center: A Refreshing Design," New York Times, 29 Dec. 1973; "Sacred Groves: Three University Fine Arts Centers," Architectural Forum 140, no. 2 (Mar. 1974), 64-75; Yukio Futagawa, ed., Kevin Roche John Dinkeloo and Associates 1962-1975 (Tokyo: A.D.A. Edita, 1975), 13, 15, 16, 20, 124-31; William Marlin, "Two Splendid Fine Arts Centers by Roche Dinkeloo and Associates," Architectural Record 157, no. 5 (May 1975), 102-6; William Marlin, "Wesleyan's Art Center: Its Strength Is Subtlety," Christian Science Monitor, 16 May 1975, eastern edition, 19; "Wesleyan U. Buildings Classic Examples of Stone Use," Journal: International Union of Bricklayers and Allied Craftsmen (Nov. 1983), 3; Francesco Dal Co, ed., Kevin Roche (New York: Rizzoli, 1985), 130-33; Eeva-Liisa Pelkonen, ed., Kevin Roche: Architecture as Environment (New Haven, Conn.: Yale University Press, in association with the Yale School of Architecture, 2011), 67-69, 125-29, 166-67, 262; David B. Potts, Wesleyan University, 1910-1970: Academic Ambition and Middle-Class America (Middletown, Conn.: Wesleyan University Press, 2015), 393-94. John Dinkeloo died in 1981, but the firm, still based in Hamden, Connecticut, has continued under the name of Kevin Roche John Dinkeloo and Associates. This study focuses on the site plan, construction, and exteriors of Roche and Dinkeloo's buildings. Not discussed are their interiors or later changes to and partial restorations of both the buildings and the site.

2. Frederick J. Osborn, preface (1946) to *Garden Cities of To-morrow*, by Ebenezer Howard (1902; repr., Cambridge, Mass.: MIT Press, 1965), 20.

3. Kevin Roche, discussion with Kathleen John-Alder, Oct. 2009, quoted in Kathleen John-Alder, "The Gardens, the Greenhouses, and the Picturesque View," in Pelkonen, *Kevin Roche*, 146n16.

4. Vincent J. Scully Jr., introduction to *The Nature of Frank Lloyd Wright*, ed. Carol R. Bolon, Robert S. Nelson, and Linda Seidel (Chicago: University of Chicago Press, 1988), xiv.

5. Ibid., xviii. As a graduate student at Yale in the late 1940s, Scully had been deeply influenced by Henri Focillon, *La vie des formes* (1934; translated as *The Life of Forms in Art* by George Kubler and Charles Beecher Hogan in 1942). Neil Levine, "Vincent Scully: A Biographical Sketch," in Vincent Scully, *Modern Architecture and Other Essays* (Princeton, N.J.: Princeton University Press, 2002), 9.

6. Matthew Nowicki, "Origins and Trends in Modern Architecture," *Magazine of Art* 44 (Nov. 1951), 273–79, reprinted in *Architecture Culture* 1943–1968: A Documentary Anthology, ed. Joan Ockman (New York: Rizzoli, 1993), 150.

7. Roche, conversation with author, 17 June 2013.

^{8.} William J. R. Curtis explored this issue in "Authenticity, Abstraction and the Ancient Sense: Le Corbusier's and Louis Kahn's Ideas of Parliament," *Perspecta* 20 (1983), 181–94; and *Balkrishna Doshi: An Architecture for India* (New York: Rizzoli, 1988), esp. 10–22, 33–39, 118–35.

^{9.} Kevin Roche, discussion with Gretchen Hilyard, 16 Feb. 2006, cited in Gretchen Hilyard, "Campus Preservation Planning: The Center for the Arts, Wesleyan University" (master's thesis, University of Pennsylvania, 2006), 46.

10. On College Row, see David B. Potts, *Wesleyan University*, 1931–1910: *Collegiate Enterprise in New England* (New Haven, Conn.: Yale University Press, 1992), 78–81. Rich Hall became the Class of '[18]92 Theater, now renamed the '92–Patricelli Theater. The brownstone came from the quarries in Portland, across the Connecticut River, which also supplied much brownstone for New York City.

11. On "sacred" campus spaces, see Clare Cooper Marcus, "Outdoor Spaces for Living and Learning," *Landscape Architecture* 77, no. 2 (1987), 60, cited in Hilyard, "Campus Preservation Planning," 27n44.

12. At the dedication of Alsop House as the Davison Art Center, the renowned architectural historian Henry-Russell Hitchcock, who taught at Wesleyan from 1929 to 1948, said that Wesleyan "has shown that responsibility toward a cultural heritage which is, alas, too rarely felt by those very educational institutions of whom one might expect the most." Henry-Russell Hitchcock, quoted in "Creative Arts Program, Questions and Answers for the EPC [Educational Policy Committee]," revised, 27 Oct. 1966, 2–3, Edwin D. Etherington Papers, Creative Arts Center (Facilities Planning Office), Special Collections and Archives, Wesleyan University (hereafter SCA-WU).

13. A memorandum of 1966 noted that "Mr. Roche rather cherishes the Senior [i.e., secret] societies." Educational Policy Committee, Memorandum on the Art-Music-Theater Complex, 7 Oct. 1966, Victor Butterfield Papers, Creative Arts Center, Box c, SCA-WU. Around the center's site there were also smaller houses facing Washington Terrace and Wyllys Avenue, with related outbuildings behind (see Figure 8). "Arts Center Clearance Starts Here," *Middletown Press*, 21 July 1970, 1. Another nineteenth-century house serving a fraternity, Delta Tau Delta, at 315 High Street (shown in Figure 2), north of the Davison Art Center, was damaged by fire on 18 December 1964. In March 1965 the university acquired and then demolished this house.

14. Mitchell, "Center for the Arts Opens," 16. See also Potts, Wesleyan University, 1910-1970, 321, 422-24 (app. 2, "Enrollments at Wesleyan, Amherst, and Williams, 1910-90"), 425 (app. 3, "Endowment Dollars per Student at Wesleyan, Amherst, and Williams, 1930-90"), 591n24; "Sacred Groves," 65. 15. Paul V. Turner, Campus: An American Planning Tradition (New York: Architectural History Foundation/Cambridge, Mass.: MIT Press, 1984), 294-304. See "A Modern Arts Center to Harmonize with the Architectural Traditions of Wellesley College," Architectural Forum 105, no. 6 (Dec. 1956), 100-106; "Wellesley's Alternative to 'Collegiate Gothic,' "Architectural Forum 111, no. 1 (July 1959), 88-95; "New Architecture in an Old Setting: Jewett Arts Center, Wellesley College," Architectural Record 126, no. 1 (July 1959), 175-86. Edward Larrabee Barnes expressed contextual concerns in his design of 1973 for a Fine Arts Building for Bowdoin College in Brunswick, Maine. See Mildred F. Schmertz, "An Art Center by Edward Larrabee Barnes," Architectural Record 163, no. 3 (Mar. 1978), 107-16; Edward Larrabee Barnes, Architect (New York: Rizzoli, 1994), 104-7.

16. "New Creative Arts Center in Planning Stage; Will Contain Music, Art, Theater Departments," *Wesleyan Argus*, 16 Mar. 1965, 3. The planned expansion included a new Science Center, which opened in 1971, and, much later, new dormitories and an athletic center.

17. "Clee Outlines Wes Development; \$58 Million Is Fund Drive Goal," *Wesleyan Argus*, 11 May 1965. The heads of the three arts departments had urged the creation of a "joint arts building" since the early 1940s and sent a detailed rationale to the administration as World War II ended. Memorandum from Mr. [Joseph] Daltry to Messrs. Pendleton [Theater], Limbach [Art], Callisen, Rider, Butterfield, and Sternfeld, 30 Aug. 1945, Center for the Arts Vertical Files, Folder 1 08-021, SCA-WU. In the mid-1950s the faculties of the three arts departments jointly recommended to the administration a new complex that would lend cohesion and focus to arts education. "At Arts Center Saturday Smooth Opening Foreseen," *Wesleyan Argus*, 14 Sept. 1973, 3.

For enrollments, see Potts, Wesleyan University, 1910–1970, 424. In the early planning for the center, living quarters for visiting artists and professional actors were also considered. "New Creative Arts Center in Planning Stage," 3.
 J. Ernest Gonzales, "Wesleyan Complex Sparkles," New Haven Register, 26 Aug. 1973, F1; "A New Center, a Reason to Be Happy," Wesleyan Argus, 21 Sept. 1973, 1.

20. "New Center, a Reason to Be Happy," 1. The site west of High Street, north of Wyllys Avenue to Washington Terrace on the north, was "a combination of backyards and gardens of early nineteenth century houses" on these streets and Mount Vernon Street to the west. [Kevin Roche?], "Creative Arts Center, Wesleyan University, Middletown, Connecticut, 1965," Box 74, Folder 1, Roche & Dinkeloo Collection, MS 1884, Yale University Archives. Early in 1965, before Roche and Dinkeloo were hired, Martin described how the arts departments should be housed "under the same roof.... Each of the departments would be enclosed in a separate wing with the central core of the building serving as a connection. The core would contain a lobby, common library and administrative offices, as well as a main exhibition area." "New Creative Arts Center in Planning Stage," 3. Roche recalled that when he first met with the faculty, they envisioned that all three departments would be housed in one building, and that each department was concerned that its specific programmatic needs be accommodated within this single structure. Kevin Roche, conversation with author, 17 June 2013.

21. "Wesleyan Retains Designer for Center," *Hartford Times*, 23 Dec. 1965; "Creative Arts Program; Statement of Purpose, Space Requirements, Description of Major Spaces," 15 Mar. 1966, Edwin D. Etherington Papers, Creative Arts Center (Facilities Planning Office), SCA-WU.

22. "Creative Arts Program; Statement of Purpose," 2.

23. Ibid., 1.

24. "Sacred Groves," 65, citing the committee's document, "Selection of Architect for the Creative Art Center," 2 June 1965, Victor Butterfield Papers, Creative Arts Center, Box c, SCA-WU.

25. Samuel M. Green, in "Selection of Architect for the Creative Art Center,"3. The committee approached Charles H. Warner Jr., Vincent G. Kling, Hugh Stubbins, Edward Larrabee Barnes, Helge Westermann, Harry Weese, and John Carl Warnecke.

26. Agenda, Buildings and Grounds Committee, Trustees, Buildings and Grounds, 13 Dec. 1965, Victor Butterfield Papers, Box g, SCA-WU. See also "Meeting with Eero Saarinen and Associates," 13 Dec. 1965, Victor Butterfield Papers, Box g, SCA-WU. Of the center's site, Martin noted, "If the center is placed there it probably would be designed in individual units which would be connected by walkways and gardens, and it would be informal and wandering." Quoted in "Name Architect for Wes Center," *Middletown Press*, 16 Dec. 1965, 1, 4. See also "Kevin Roche of Eero Saarinen Firm Will Design Arts Center," *Wesleyan Argus*, 3 Dec. 1965.

27. Kevin Roche, "Kevin Roche on Design and Building: Conversation with Francesco Dal Co," in *Kevin Roche*, ed. Francesco Dal Co (New York: Rizzoli, 1985), 19. Kingston College, in Mitchelstown, County Cork (1771–75), is a set of two-story almshouses designed by John Morrison for the local landowning family. It takes the form of a large quadrangle bordering one half of a large urban square. See Dan Cruickshank, *A Guide to the Georgian Buildings of Britain and Ireland* (New York: Rizzoli, 1986), 162, 163, 296.

28. Roche, "Kevin Roche on Design and Building," 20.

29. H. Lee Jones, university architect, University of Chicago, to Howard B. Matthews, vice president and treasurer, Wesleyan University, 9 July 1965, John Martin Papers, SCA-WU. On Roche's origins, see Futagawa, *Kevin Roche John Dinkeloo and Associates*, 6; Pelkonen, *Kevin Roche*, 12–16.

30. "John Dinkeloo, 63, Innovative Architect and Engineer," *New York Times*, 16 June 1981, B19.

31. "Saarinen Firm Changing Name," *New Haven Journal-Courier*, 29 Aug. 1966, 1. The timing of the change was to fulfill Saarinen's wishes, expressed

in a partnership agreement, that the name should be changed within five years of the date of his death.

32. Housing three museums (art, history, and natural history), the Oakland Museum building reads as a series of terraces, such that the roof of one enclosed gallery becomes the open terrace of the one above. Pedestrian pathways connect these levels and other spaces (an auditorium, classrooms, and other facilities), each of which opens directly onto lawns, terraces, trellised passages, and broad flights of stairs. Beige concrete, sandblasted for texture, is the principal building material, inside and out. Cedars and redwood trees on the site were carefully protected during construction, and others planted. See Mildred F. Schmertz, "The Oakland Museum," *Architectural Record* 147, no. 4 (Apr. 1970), 115–22.

33. Wesleyan had purchased from the fair an Indonesian gamelan as a centerpiece of its world music program, for which Roche would design a performance building in the arts center. The firm was designing the Ford Foundation Headquarters on East Forty-Second Street in New York (1963–68), with a multistory glass-enclosed atrium around a garden. In 1971 Wesleyan hosted a fund-raising event there. "Wesleyan Looks to Arts Center," *New York Times*, 17 Nov. 1971, 41. In Connecticut, Roche and Dinkeloo's sole educational project was the Richard C. Lee High School (1962–67) for the city of New Haven's Hill neighborhood. In 1965, on the edge of New Haven's downtown, the firm began to design the Knights of Columbus Headquarters (opened 1969) and the Veterans Memorial Coliseum (opened 1972; closed 2002; demolished 2005–7). See "Fresh Forms and New Directions," 145–68; and entries in Pelkonen, *Kevin Roche*, 151–53, 154–55, 160–61, 163, 165.

34. According to a profile in *Architectural Forum*, Roche was known as "more of a rationalist designer than Saarinen," yet Martin felt that this "does not suggest that Roche is lacking in imagination," for "he is one of the leading designers in the country." Quoted in "Kevin Roche of Eero Saarinen Firm Will Design Arts Center," 6. Roche was selected "because we felt his solutions to programs [are] unique. He does not use a static design for all buildings." His range of ideas is wide, "depending on the needs of clients, the students and the building space." Quoted in "Name Architect for Wes Center," 1, 4.

35. "Sacred Groves," 64–75; Marlin, "Two Splendid Fine Arts Centers," 97–106.

36. Creative Arts Center, Meeting Number 1, 2 June 1965, John Martin Papers, SCA-WU.

37. Roche, discussion with Hilyard, 16 Feb. 2006, cited in Hilyard, "Campus Preservation Planning," 39.

38. "Wesleyan Opens \$11.6m Arts Center," *Boston Globe*, 16 Sept. 1973. Early notices included "New Arts Center Plans Ready by August; Occupancy by '69," *Wesleyan Argus*, 12 Apr. 1966, 1; "Roche to Design Wesleyan Arts Center," *Progressive Architecture* 47, no. 9 (Sept. 1966).

39. Roche, conversation with author, 17 June 2013.

40. New England Survey Service, "Topographic Map for Wesleyan University," Feb. 1965, Box 87, Roche & Dinkeloo Collection, MS 1884, Yale University Archives.

41. Kevin Roche, "A Conversation: Kevin Roche," *Perspecta* 19 (1982), 169. **42.** This house, known as the Nathan Bradley House, or the Abel Chittenden House, at 72 State Street, Guilford, was built in 1665, but was altered in the nineteenth century, and was later restored as accurately as possible to its seventeenth-century look. Connecticut Historical Commission, Historic Resources Inventory: Buildings and Structures; Survey of Guilford, New Haven County, June–Dec. 1981. Sarah McCulloch, *Guilford: A Walking Guide* (Guilford: Guilford Preservation Alliance, 1989), dates the extensive remodeling to the late 1800s, and the restoration to the early 1900s. Joel Eliot Helander, *A Treasury of Guilford Places* (Guilford: Joel Eliot Helander, 2008), 323, dates the extant house to about 1800, replacing one of 1665. The 1965 Price & Lee City Directory for Guilford listed Roche as living there. My thanks to Joel Helander for providing this information. **43.** John-Alder, "The Gardens, the Greenhouses, and the Picturesque View," 128. The phrase *cultural village* recalls Thomas Jefferson's famed description of his plan for the University of Virginia as an "academical village," although there is no evidence that Roche was referring to this model. Rather, for him, the word *village* conveyed vernacular associations. Roche values indigenous urban architecture: "If the buildings that are in the postcards is architecture (which is what it is in most people's minds), then what is the rest of the city? . . . What we should be striving to achieve then is not material for postcards, but an indigenous architecture of real quality which would make cities and towns wonderful places to live." Roche, "Kevin Roche on Design and Building," 66–67.

44. Roche, conversation with author, 17 June 2013.

45. Kevin Roche, quoted in "Art Center Talk Attracts 150 People," *Wesleyan Argus*, 19 Nov. 1971, 1. This idea recurred in Roche's remarks quoted in a *New York Times* article around the same time. "Wesleyan Looks to Art Center," 41; Roche, conversation with author, 17 June 2013. As he wrote: "The Arts Center is really thought of in terms of a series of small buildings set in the woods with doors that bring one immediately outside. It is the nicest experience of campus life, when the weather is fine, to move out of one building and get a breath of air before going into another. Wonderful in the spring time, but even in the middle of winter it is refreshing." Kevin Roche, "Creative Arts Center, Wesleyan University," July 1987, Box 74, Folder 1, Roche & Dinkeloo Collection, MS 1884, Yale University Archives. The aim was "to make the students and faculty experience the environment no matter the weather." John-Alder, "The Gardens, the Greenhouses, and the Picturesque View," 128.

46. On Sea Ranch and its relation to the local vernacular, and Moore's study of traditional environs, see Kevin P. Keim, An Architectural Life: Memoirs and Memories of Charles W. Moore (Boston: Bullfinch Press, 1996), 70–93, 94–110.
47. Vincent J. Scully Jr., The Shingle Style: Architectural Theory and Design from Richardson to the Origins of Wright (New Haven, Conn.: Yale University Press, 1955), later republished in expanded form as Vincent J. Scully Jr., The Shingle Style and the Stick Style: Architectural Theory and Design from Downing to the Origins of Wright, 2nd rev. ed. (New Haven, Conn.: Yale University Press, 1971). See also Vincent Scully, The Shingle Style Today; or, The Historian's Revenge (New York: George Braziller, 1974).

48. "Twenty-Four Roofs, Same Pitch, Shelter Arts and Crafts Camp," *Architectural Record* 130, no. 4 (Oct. 1961), 126–27. The building was later given an AIA Twenty-Five Year Award. "Haystack Mountain School of Crafts," *Architectural Record* 182, no. 2 (Feb. 1994), 54–55. See also *Edward Larrabee Barnes, Architect*, 70–78. Breuer's houses in New Canaan and in Lincoln, Massachusetts (1939), part of a larger collaborative project with Walter Gropius, combined modernist cubic forms with local wood and stone. See Isabelle Hyman, *Marcel Breuer, Architect: The Career and the Buildings* (New York: Harry N. Abrams, 2001), 329–30, 348, 361–63.

49. Frank Lloyd Wright, *An Autobiography* (1932), in *Frank Lloyd Wright: Collected Writings*, vol. 2, *1930–1932*, ed. Bruce Brooks Pfeiffer (New York: Rizzoli, 1992), 368. The fusing of interior and exterior was also a theme for Le Corbusier. As he wrote in his *Vers une architecture* (2nd ed., 1924) on the impact of a work of architecture on its site, "The outside is always an inside." Le Corbusier, *Toward an Architecture*, trans. John Goodman (Los Angeles: Getty Research Institute, 2007), 224.

50. Roche, conversation with author, 17 June 2013.

51. "Wesleyan Opens \$11.6m Arts Center," 85.

52. Bill Ward, conversation with author, 11 Sept. 2007.

53. Roche gave a version of this first slide presentation to the author, 17 June 2013.

54. "Roche Reveals Tentative Design for Art-Theater-Music Center," *Wes-leyan Argus*, 11 Oct. 1966, 2; Agenda, Buildings and Grounds Committee, 30 Sept. 1966, Trustees, Buildings and Grounds, Victor Butterfield Papers, Box g, SCA-WU.

55. "Fresh Forms and New Directions," 152-53.

56. "Roche Reveals Tentative Design," 2.

57. John Martin, "Creative Arts Program: A Summary Related to the Question of Staging of the Proposed Facilities," 31 Mar. 1967, 11, Edwin D. Etherington Papers, Creative Arts Center (Facilities Planning Office), SCA-WU.

58. [Roche?], "Creative Arts Center, Wesleyan University, Middletown, Connecticut, 1965."

59. "Sacred Groves," 65.

60. Roche, "Creative Arts Center, Wesleyan University," 1987.

61. The chair of the Music Department later described the World Music Hall as the only building in the country built especially for this instrument's acoustical and visual demands. William Winslow to William White, 8 Apr. 1989, in *1964–1989: A Personal Retrospective, 25th Reunion Book for the Class of 1964.* I thank Wesleyan's historian, Professor David Potts, University of Puget Sound, for sending me a copy of this letter.

62. "Roche Reveals Tentative Design," 2.

63. The library was to hold 200,000 volumes on art, music, and theater, consolidating previously separate libraries for art books and musical scores. "Expansion of Library Will Alter Location of Art, Science Books," *Wesleyan Argus*, 11 Feb. 1967, 1.

64. "Roche Reveals Tentative Design," 2.

65. Ibid. Roche wrote, "Of the total of seventeen buildings in the original plan, eleven were built." Roche, "Creative Arts Center, Wesleyan University," 1987. The center was based on the assumption that women might be admitted, but that total future enrollment would be 1,500 to 2,000, fewer than the current 2,700 undergraduates. Wesleyan decided to revive coeducation in May 1968, with the first women arriving that September. The first fully coeducational freshman class arrived in the fall of 1970. In 1968 coeducation was expected to increase undergraduate enrollment from 1,350 to 2,150. "\$100 Million Plan at Wesleyan," *Hartford Times*, 14 May 1968, 1; "Wesleyan Will Begin Admitting Women in Fall," *New York Times*, 15 May 1968, 35. In 1871 Wesleyan had been among the first New England men's colleges to admit women, but the program, which never exceeded fifteen women in a graduating class, was phased out in 1912.

66. "Roche Reveals Tentative Design," 2.

67. Roche, quoted in "Questions raised at the showing of slides & model of the proposed Creative Arts Center on 10/5/66," 2, John Martin Papers, SCA-WU.

68. M. K. Penn, "Limestone: An Overview," *Building Stone Magazine*, Jan.-Mar. 2005, 23.

69. "Roche's Arts Complex to Bring Arts Back Home This Winter," *Wesleyan Argus*, 20 Sept. 1972, 3.

70. Mitchell, "Center for the Arts Opens," 8.

71. Marlin, "Wesleyan's Art Center." See also "Sacred Groves," 66.

72. Barr's four exterior views show Crowell Concert Hall from the east, the art studios from the north, Zilkha Gallery from the east, and the theater from the southwest. His nine interior views depict a classroom in the Ethnic Music Hall, two of Crowell Concert Hall (for chorus or orchestra), a music studio, the Zilkha Gallery, two of the theater (with a proscenium or a thrust stage), and two of the cinema (arranged for film or for a lecture). Box 74, Folder 6, Roche & Dinkeloo Collection, MS 1884, Yale University Archives.

73. Pelkonen, Kevin Roche, 67-68.

74. The motif of the gate through a wall to frame arrival recurred in the campus planning of Edward Larrabee Barnes, as in his State University of New York at Potsdam (1962–73) and Fine Arts Center at Bowdoin College, Brunswick, Maine (1972–76). See Turner, *Campus*, 301; *Edward Larrabee Barnes, Architect*, 104–07, 118–21. A gate-like wall framed arrival at Michael Graves's Hanselman House, Fort Wayne, Indiana (1967), which alludes to the Propylaea at the ancient Athenian Acropolis.

See Five Architects: Eisenman, Graves, Gwathmey, Hejduk, Meier (New York: Wittenborn, 1972), 39–53.

75. "Creative Arts Program, Questions and Answers for the EPC," 2–3.76. Ibid., 4. Some trees were removed, but most were left close to the new buildings, as Weslevan and Roche wished.

77. "Creative Arts Program, Questions and Answers for the EPC," 2-3.

78. On 20 December 1966 Roche met with President Butterfield, Charles Rapuano, John Martin, and others to discuss the plan. In light of new information "concerning trees that should be protected and those that might be destroyed," Roche was asked to "consider consolidating the number of buildings in the complex and generally pulling the whole complex somewhat more closely together." Howard B. Matthews, Meeting Minutes, Creative Arts Center, 20 Dec. 1966, Edwin D. Etherington Papers, Creative Arts Center (Facilities Planning Office), SCA-WU. In April 1967 the trustees again questioned the scheme. "University Announces Study of Programs and Buildings," Wesleyan Argus, 15 Apr. 1967, 1; "Expansion of Library Will Alter Location," 1; Board of Trustees, Minutes, 8 Apr. 1967, SCA-WU. But Martin was averse to asking Roche to reconsider his design before the faculty had revisited the issue of the number of buildings needed. Martin wrote: "Of concern to me is the fact that we are dealing with one of the country's most distinguished architects. I feel that he has been (and is) most cooperative and I am hesitant to try his patience too far on items that can be solved internally. This is not so much out of concern for his time but out of concern that the creative impetus he gives to the work may be dissipated. For the present, I would recommend that the architect be urged to concentrate on the scheme so far agreed to and under development." John Martin to Howard B. Matthews, vice president and treasurer, 15 Apr. 1967, Edwin D. Etherington Papers, Creative Arts Center (Facilities Planning Office), SCA-WU.

79. "Trustees Approve Art Complex, Skating Rink," *Wesleyan Argus*, 25 Oct. 1967, 1. A bird's-eye view of this model from the north looking south was soon published, with a different lettering system for buildings than that shown on the 1966 model (see Figure 9). "Trustees to Construction Projects," *Wesleyan Argus*, 4 Oct. 1967, 1. A photograph of the model on display appeared in "Amusements and the Arts," *Wesleyan Argus*, 7 Oct. 1967, 4. In 1967 the Main Theater was reversed, with its entrance on the south side toward the central green, as it was built.

80. "Bids Push Up Estimated Price for Art Building's Construction," *Wesleyan Argus*, 24 Oct. 1969, 6. As fund-raising proceeded, Wesleyan received \$625,000 from the U.S. Office of Education toward construction of the new arts center. "Nearly \$1,000,000 Received for Research and Construction," *Wesleyan Argus*, 8 June 1969, 3.

81. These included three houses on Washington Terrace where Drama Administration (R in Figure 12) was to go and one where the Gamelan (World Music) Hall would be on Wyllys Avenue.

82. "Bids Are Let for Construction of the 16-Building Arts Center," Wesleyan Argus, 23 Sept. 1969, 1.

83. "Bids Push Up Estimated Price," 1; "Wesleyan's Art Center Bids Zoom," *Middletown Press*, 24 Oct. 1969, 1.

84. "Wes Will Rebid Art Center Job," *Middletown Press*, 9 Dec. 1969, 1; "Bid Too High for Center; University Will Ask Again," *Wesleyan Argus*, 9 Dec. 1969, 1.

85. "New Wes Art Center Plan Scheduled for March Bid," *Middletown Press*, 14 Feb. 1970, 1. For the walls the original specifications of November 1968 noted only poured-in-place and precast concrete, and not any limestone. Kevin Roche John Dinkeloo and Associates, "Outline Specifications; Creative Arts Center, Wesleyan University," 14 Nov. 1968, Box 74, Folder 7, Roche & Dinkeloo Collection, MS 1884, Yale University Archives.

86. "Trustees Pare Proposed Wesleyan Art Center," *Wesleyan Argus*, 14 Apr. 1970, 1; "Board Pares Down Wes Arts Center," *Middletown Press*, 15 Apr. 1970, 1, 7; Minutes, Adjourned Annual Meeting of the Board of Trustees, 11 Apr. 1970, Board of Trustees Minutes, 1968–70, 120, SCA-WU. At some point the service building (O in Figure 12) toward the site's northwest corner was also dropped from the plan.

87. It was reasoned that the omission of a general contractor would allow "more selective and judicious spending through more direct association with the sub-contractors." "Trustees Pare Proposed Wesleyan Art Center," 1. The board also approved a general resolution for all university projects that "construction contracts must include a commitment to affirmative action with respect to the employment of minority group members and disadvantaged persons." This applied to "each construction contract relating to the Arts Center." "Facilities Committee Reports on Progress of Construction," *Wesleyan Argus*, 6 Oct. 1970, 1, 2. Deletion of the arts library was noted in the minutes of the Board of Trustees meeting of 12 Apr. 1969, Board of Trustees Minutes, 1968–70, 2, SCA-WU.

88. "Art Center Set for Board OK," *Wesleyan Argus*, 5 June 1970, 1. The subcontractor for concrete work was Rissil Concrete, Inc., of New York City. Carol J. Corner, "Foreman Terms the Center Better than Workers Thought," *Wesleyan Argus*, 18 Sept. 1973, 3.

89. "Science Center Almost Ready; Art Center Bids Are Lowered," *Wesleyan Argus*, 25 Sept. 1970, 2; "Wes Okays \$9 Million Art Center," *Middletown Press*, 15 June 1970, 1. Once subcontractors were signed, E. & F. Construction of Bridgeport, Connecticut, managed construction and assumed responsibility for completing the project. It was thought then that the three buildings omitted in April 1970 might be built later, but they were not. "Arts Center Clearance Starts Here," 1.

90. In July 1970, three houses were demolished on the site's north side along Washington Terrace plus one building on Wyllys Avenue, along with several outbuildings in the site. "Arts Center Clearance Starts Here," 1.

91. After an unusually mild winter, building was about 20 percent complete by June 1971. "Eleven Buildings Emerge as Arts Center Construction Continues," *Wesleyan Argus*, 4 June 1971, 7. To meet its affirmative action goals, the project matched the percentage of minority groups in the area in its hiring. Wesleyan worked with the project manager to hire and train African Americans and Puerto Ricans, who made up 10 percent of the workforce. See "Arts Center's Plans Detailed for '72–'73," *Wesleyan Argus*, 15 Feb. 1972, 1, 7. On the start of building, see "New Center, a Reason to Be Happy," 5.

92. "Pre-cast Detail; Sample Wall," 11 Nov. 1968, Box 87, Roche & Dinkeloo Collection, MS 1884, Yale University Archives.

93. "Roche Reveals Tentative Design," 2.

94. Martin, "Creative Arts Program," 11.

95. Roche, conversation with author, 17 June 2013. In an earlier interview Roche noted that he developed forms for the Wesleyan buildings using Froebel blocks. Pelkonen, *Kevin Roche*, 73n123.

96. Louis Kahn had employed small-scale load-bearing blocks in such buildings as his Jewish Community Center Bath House (1954–58) in Trenton, New Jersey. See Susan G. Solomon, "Secular and Spiritual Humanism: Louis I. Kahn's Work for the Jewish Community in the 1950s and 1960s" (PhD diss., University of Pennsylvania, 1997). Kahn used concrete block, but covered with stucco, in his Esherick House (1959–62) in Chestnut Hill, Pennsylvania. See George H. Marcus and William Whitaker, *The Houses of Louis Kahn* (New Haven, Conn.: Yale University Press, 2013), 169–91.

97. "Stone-on-Stone Construction," *Building Stone Magazine*, Nov./Dec. 1983, 20.

98. Kevin Roche, email to author, 4 Nov. 2014. See also "Eleven Buildings Emerge," 7.

99. Penn, "Limestone," 12-14, 16, 18.

100. Martin noted that "we felt it would be more visually interesting and much more appropriate to the campus." "Wesleyan U. Buildings Classic Examples of Stone Use," 3.

101. Quoted in "Stone-on-Stone Construction," 11.

102. Wagner used stone cladding in his Postal Savings Bank (Postparkasse), Vienna, 1904–6. See the discussion of Wright's "The Art and Craft of the Machine" (1901) in Joseph M. Siry, "Frank Lloyd Wright's 'The Art and Craft of the Machine': Text and Context," in *The Education of the Architect: Historiography, Urbanism, and the Growth of Architectural Knowledge*, ed. Martha Pollak (Cambridge, Mass.: MIT Press, 1997), 30–31n25.

103. Paul Goldberger and Hilton Kramer, "New Lehman Wing's Architecture and Art: Two Appraisals," *New York Times*, 14 May 1975, 47; Hilton Kramer, "The Lehman Museum-within-a-Museum," *New York Times Magazine*, 25 May 1975, 12–20, 24; Ada Louise Huxtable, " 'Wrong but Impeccable': Lehman Wing, Metropolitan Museum of Art, New York," *Progressive Architecture* 56, no. 8 (Aug. 1975), 60–63. The buff Indiana limestone for this project was selected to match that quarried for the abutting Ruskinian Gothic entrance wall of 1880 designed by Calvert Vaux and Jacob Wrey Mould.

104. Roche, conversation with author, 17 June 2013. See also Pelkonen, *Kevin Roche*, 68.

105. Gonzales, "Wesleyan Complex Sparkles," F1.

106. Marlin, "Wesleyan's Art Center."

107. [Roche?], "Creative Arts Center, Wesleyan University, Middletown, Connecticut, 1965." See also "Uses of Stone," *Progressive Architecture* 68, no. 2 (Oct. 1987), 105. Another account notes that "masonry craftsmen set the stone directly on mortar, using pads to maintain accuracy in joint thickness." "Wesleyan U. Buildings Classic Examples of Stone Use," 3.

108. Roche, "Kevin Roche on Design and Building," 72.

109. On the development of Mies's plan for IIT, see Phyllis Lambert, "Mies Immersion: Learning a Language," in *Mies in America*, ed. Phyllis Lambert (Montreal: Canadian Centre for Architecture/New York: Harry N. Abrams, 2001), 222–75.

110. Scully discussed IIT's plan as classically inspired in "Modern Architecture: Toward a Redefinition of Style," *Perspecta* 4 (1957), 4–10, republished in Scully, *Modern Architecture and Other Essays*, 82. He reiterated this idea in Vincent Scully, *American Architecture and Urbanism* (New York: Praeger, 1969), 184–85. See also Lambert, "Mies Immersion."

111. Loadbearing Systems in Indiana Limestone (Bedford: Indiana Limestone Institute of America, [1986?]), Box 74, Folder 3, Roche & Dinkeloo Collection, MS 1884, Yale University Archives.

112. "Arts Center's Plans Detailed for '72-'73."

113. See Kathryn Bishop Eckert, *Cranbrook* (New York: Princeton Architectural Press, 2001).

114. Eero Saarinen's Kresge Chapel at MIT (1950–55) may have been inspired by Asplund's Woodland Chapel (1918–19). See Jennifer Komar Olivarez, "Churches and Chapels," in *Eero Saarinen: Shaping the Future*, ed. Eeva-Liisa Pelkonen and Donald Albrecht (New Haven, Conn.: Yale University Press, 2006), 270, 274.

115. Roche, "Kevin Roche on Design and Building," 22.

116. "Architecture of Tech Center Frees Bonds on Imagination," *Detroit News*, 15 May 1956, 23. See Antonio Román, *Eero Saarinen: An Architecture of Multiplicity* (New York: Princeton Architectural Press, 2003), 155–70; Jayne Merkel, *Eero Saarinen* (London: Phaidon, 2005), 69–75; Rosamond Fletcher, "The General Motors Technical Center: A Collaborative Enterprise," in Pel-konen and Albrecht, *Eero Saarinen*, 230–35.

117. "GM Nears Completion," Architectural Forum 101, no. 11 (Nov. 1954), 114.

118. "GM's Industrial Versailles," Architectural Forum 104, no. 5 (May 1956), 122.

119. "Architecture of Tech Center," 23.

120. "Research Project," *Architectural Forum* 91, no. 1 (July 1949), 71. J. Henderson Barr had prepared the bird's-eye view renderings of the General Motors Technical Center.

121. On the University of Massachusetts at Amherst Fine Arts Center, see "Fine Arts Center," *Architectural Record* 139, no. 5 (May 1966), 180–83;

"Fresh Forms and New Directions," 158–59; "Sacred Groves," 68–69; Marlin, "Two Splendid Fine Art Centers," 97–101; Futagawa, *Kevin Roche John Dinkeloo and Associates*, 82–95; Dal Co, *Kevin Roche*, 154–57; Pelkonen, *Kevin Roche*, 162.

122. Robert A. M. Stern, Thomas Mellins, and David Fishman, New York 1960: Architecture and Urbanism between the Second World War and the Bicentennial (New York: Rizzoli, 1995), 677–717, esp. 682; Franz Schulze, Philip Johnson: Life and Work (New York: Alfred A. Knopf, 1994), 257–63. Lincoln Center's relative isolation from its immediate urban surroundings has been recently rethought. See Edward Dimendberg, Diller Scofidio + Renfro: Architecture after Images (Chicago: University of Chicago Press, 2013), 170–95.

123. Philip Johnson, "House at New Canaan, Connecticut," *Architectural Review* 108, no. 3 (Sept. 1950), 152–59, republished in Philip Johnson, *Writings* (New York: Oxford University Press, 1979), 212–25. Soon after, Scully identified Johnson's work as central to midcentury modernism's classicizing tendencies. See Vincent Scully, "Archetype and Order in Recent American Architecture," *Art in America* 42 (Dec. 1954), 250–61, republished in Scully, *Modern Architecture and Other Essays*, 64–73.

124. Kevin Roche, "Kevin Roche in His Own Words," in Pelkonen, Kevin Roche, 262.

125. [Roche?], "Creative Arts Center, Wesleyan University, Middletown, Connecticut, 1965."

126. Roche, "Creative Arts Center, Wesleyan University," 1987.

127. "Sacred Groves," 66. This reading of the site may indicate the author's familiarity with Constantinos A. Doxiadis, *Architectural Space in Ancient Greece*, trans. Jaqueline Tyrwhitt (Cambridge, Mass.: MIT Press, 1972).

128. Roche, "Creative Arts Center, Wesleyan University," 1987.

129. Roche, "Kevin Roche on Design and Building," 72.

130. The Salk Institute was renowned for its meticulously detailed poured-in-place concrete. The pattern of circular dowel holes for tie screws in its plywood formwork was a kind of constructional ornament. The dowel holes showed how formwork panels were secured with tie screws to each other across the voids between panels where the concrete would be poured. See Edward R. Ford, *The Details of Modern Architecture*, vol. 2, *1928–1988* (Cambridge, Mass.: MIT Press, 1996), 317–21. A working drawing of 15 December 1970, by Rissil Construction Associates, for the Art Lecture Hall (now Ring Family Hall) at Wesleyan shows a similar pattern; each 4-by-8-foot panel is shown with eight dowel holes in two columns of four set 2 feet apart, with each pair of dowels set 2 feet apart vertically. Office of Construction Services, Wesleyan University.

131. Roche stated that he respected and admired Kahn: "I wish I could have known him better or studied with him, but there is no conscious effort on my

part to relate to his work. His work is superb and has the universal appeal which makes it great art." Roche, "Kevin Roche on Design and Building," 77. Paul Goldberger wrote: "There are some excellent interior spaces that, in another departure from Mr. Roche's usual style, resemble nothing so much as the work of Louis Kahn. The art gallery—which alas, offers little flexibility as a picture-hanging room—is wonderful Kahnlike space, with its concrete walls awash with light from long, vaulted skylights." Goldberger, "Wesleyan Art Center."

132. Roche, "Kevin Roche on Design and Building," 74.

133. An important consequence of Roche's keying the new center to the scale of these older types is that his spaces, both inside and outside, were relatively small. In the center's first eight months of operation in 1973–74, when its buildings hosted more than 350 events, John Martin, who served as the center's first director, held that its "success stems in part from its intimate atmosphere," which heightened participation and gave a fuller experience to its halls' limited audiences. According to Martin, the auditoriums were small because the center was "not designed for competitive activity as commercial arenas are. These are thought of primarily as laboratory spaces for the arts . . . scaled to student performers and artists." Quoted in "Wes Arts Center: 'It Really Works,' "*Middletown Press*, 21 Oct. 1974, 1.

134. "Wesleyan's Art Center Debuts Soon," *Middletown Press*, 25 Aug. 1973, 1, 2. Comparisons were also drawn to the Maginot Line, the French fortifications of the 1930s.

135. Victor Butterfield to John Martin, 13 Sept. 1965, John Martin Papers, SCA-WU.

136. "CFA Design Sparks Praise, Curiosity, Criticism," Wesleyan Argus, 18 Feb. 2000, 10.

137. Loadbearing Systems in Indiana Limestone.

138. Roche, "Kevin Roche on Design and Building," 51.

139. Marlin, "Wesleyan's Art Center."

140. Charles Correa, quoted in Dan Cruickshank, "Variations and Traditions," *Architectural Review* 182, no. 1086 (Aug. 1987), 57. Correa made similar comments in his essays, including "The Public, the Private and the Sacred," *Architecture + Design* 8, no. 5 (Fall 1989), 91; and "Learning from Ekalavya," in *A Place in the Shade: The New Landscape and Other Essays* (Ostfildern, Germany: Hatje/Cantz, 2012), 135. In these, he cited Gaston Bachelard, who expressed related ideas in *Lair et les songes* (1943), or *Air and Dreams: An Essay on the Imagination of Movement*, trans. Edith R. and C. Frederick Farrell (Dallas: Dallas Institute Publications, Dallas Institute of Humanities and Culture, 1988), 250.

141. Roche, "Kevin Roche on Design and Building," 74.