PAUL RUDOLPH
THE FLORIDA HOUSES

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CHRISTOPHER DOMIN AND JOSEPH KING

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TO SARA KING AND DANA VAN TILBORG FOR THEIR
LOVING PERSISTENCE AND CRITICAL INSIGHT

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PREFACE

C. FORD PEATROSS

The work of Paul Rudolph has had a profound effect on the architecture of the second half of the twentieth century, but its potential for further influence has only begun to be explored. A new generation of students and historians is drawing inspiration from and discovering his built works and a critical reevaluation of his professional contributions is underway. Mr. Rudolph's bequest of his professional papers and his extraordinary archive of drawings, representing his entire career, to the Library of Congress and the nation, together with an additional bequest to support the establishment of a Center for Architecture, Design, and Engineering in the Library of Congress, are certain to stimulate a greater appreciation and understanding of his work and of the contributions of all design professions.

Peter Blake and Sibyl Moholy-Nagy were among Rudolph's earliest and most successful champions, but his failure to follow the postmodern drumbeat and reluctance to promote his work in the press caused it to fade from view in the 1970s and 1980s. In his 1997 *New York Times* obituary, Herbert Muschamp commented upon the rehabilitation of Rudolph that has followed: "In recent years, American architectural students too young to remember the 1960s have rediscovered Mr. Rudolph as a model of rare integrity. In 1993, in a lecture at the Cooper-Hewitt Museum in New York, he drew a standing-room-only crowd composed mostly of the young and held the audience spellbound, as if he were a visitor from a long-vanished golden age."

Paul Rudolph drew upon many influences in his Florida work. The period is notable for his openness to new and experimental methods of construction, to stretching the structural possibilities of materials to their limits while celebrating both their static and aesthetic possibilities; for his ability to explore and develop the spatial richness, complexity, and interrelationship of the interiors and exteriors of his buildings, their sites, their natural surroundings, and their climate. His appreciation of these qualities in both modern architecture and in the vernacular buildings of his native South had been fostered by E. Walter Burkhardt, under whom he studied architecture at Alabama Polytechnic Institute (now Auburn University). Burkhardt's recommendation of his student to Walter Gropius was instrumental in Rudolph's admission to Harvard's Graduate School of Design. During the 1930s, as district officer in Alabama, Burkhardt had been one of the most energetic and enlightened directors of the Historic American Buildings Survey, now one of the most frequently consulted collections in the Library of Congress, with over 300,000 measured drawings, photographs, and other documents available on-line. It is a happy circumstance that Burkhardt's and Rudolph's archives are now juxtaposed.

Paul Rudolph: The Florida Houses both reintroduces and substantially expands our knowledge of the innovative, adventurous, and elegant Florida buildings and projects that caught the attention of the international architectural press and launched a highly productive, creative, and influential career, spanning more than half a century. It is the first publication to make use of Rudolph's vast archive since it was received by the Library of Congress in 1997 and demonstrates the archive's enormous potential for enlarging our understanding and appreciation of Paul Rudolph's work and his contribution to modern architecture. It was a pleasure for the library's staff to work with the authors on their search

through the Rudolph archive to identify the drawings for his Florida buildings. Although a number of these drawings have appeared regularly in publications on twentieth-century architecture and architectural drawings, many more were presumed lost or had not been consulted since they were created. Our joint explorations and discoveries were often exhilarating and brought to light drawings and houses that are published for the first time in this book.

It was in Florida where Rudolph developed many of his bold and brilliant new techniques of graphic presentation, innovations that were to change the look of future architectural publications. As a curator of architectural drawings at the Library of Congress for over twenty-five years, it has been my privilege, pleasure, and constant education to work with original drawings and prints by many of the greatest masters of that art, from Bibiena and Piranesi to B. Henry Latrobe, Charles Bulfinch, Richard Upjohn, James Renwick, Cass Gilbert, Frank Lloyd Wright, and Ludwig Mies van der Rohe, to name but a few. With the exception of Wright, however, I have found none of their graphic works to be as consistently daring, stimulating, accomplished, and often beautiful, as those of Paul Rudolph. Rudolph's drawings convey his restless intellectual curiosity, his prodigious spatial imagination and, in Philip Johnson's words, the "speed of his mind." They have an immediacy and a clarity that is exceedingly rare in any medium. They explore and explicate complex ideas and investigations in the invention of three-dimensional space, the interaction of light and shadow, the contrast of mass and void, the interplay of forms and textures, and the development of patterns and geometries. Collectively, they represent a treasure chest of lessons, ideas, and possibilities that will speak to and inspire generations to come.

As both an architect and a teacher, Paul Rudolph was amazed by the quality and breadth of the library's holdings. He was especially excited by the library's dedication to make its collections accessible online, instantly and free of charge anywhere in the world. He observed the library's success in mounting over five million documents on its popular website (www.loc.gov), which currently handles over three million transactions daily. This potential inspired him not only to donate his own archive, but also to do what he could to help make these millions of drawings, photographs, prints, books, and written documents more widely known and available to students of architecture, professionals, and to whomever might make use of them.

According to his wishes, the Paul Rudolph Trust was established at the Library of Congress in 1997. Its purpose is to support and further the goals of a Center for Architecture, Design, and Engineering in the Library of Congress. The center's mission is not only to support the preservation of the library's enormously rich collections in these subject areas, but also public knowledge of and access to them. Paul Rudolph sincerely hoped that others would join him in supporting these efforts. The Library of Congress is therefore pleased to accept memorials in Mr. Rudolph's name as additions to the Paul Rudolph Trust to further this progress.

Inquiries regarding contributions should be made to "The Library of Congress—Paul Rudolph Trust" and sent to the Development Office, Library of Congress, Washington, DC 20540-1400. For additional information you may also visit the website: http://www.loc.gov/development/rudolph.html.

ACKNOWLEDGMENTS

While coming of age as architects along the west coast of Florida in a landscape increasingly homogenized by air-conditioning and prolific land development, Paul Rudolph's architecture stood alone in our eyes as a rigorous counter argument. We both independently found our way to the graduate program at the Georgia Institute of Technology under an engaging program organized by Guiseppe Zambonini. Bolstered with this education and a sincere interest in Sarasota's intense contribution to mid-century modernism, we continued our work as designers and educators with a time-consuming avocation of searching out buildings designed by Rudolph and his colleagues across the state of Florida. With persistence and encouragement this long-term research project began to take the form of a book.

Many discussions of Paul Rudolph's work begin with the Art and Architecture Building at Yale University set within the tumultuous context of the late 1960s, but the major public and academic projects are in fact the second important chapter in Rudolph's complex career. The early work in Florida, produced over a twenty-year period, provided the necessary testing ground for Rudolph to develop a multi-layered design methodology that he would implement throughout his career. These houses were widely published at the time of their design and played a significant role in American modernism at mid-century. Unfortunately, the lack of current scholarship on this subject and the decay of many of the early periodicals have left a conspicuous void in the history of modern architecture.

Researching and trying to make sense of Paul Rudolph's Florida houses was always a piecemeal undertaking, searching through a wide variety of articles and snippets of information in various books. It became clear that a project that attempted to frame Rudolph's Florida houses within a larger context would be an invaluable resource for future scholarship. Such a book might well revive an interest in Rudolph's early work, both in terms of general architectural discourse and historic preservation.

Maintaining the focus on a residential and a regional scale kept this project manageable in scope and directed on a specific body of work that is important in its own right and worthy of close inquiry. This book is organized into two distinct but interconnected sections: work with Ralph Twitchell and Rudolph's independent practice. Each half of the book is divided again: an exploratory essay is followed by a chronological presentation of projects. A brief presentation of Rudolph's public work in Florida follows.

The Florida houses constitute an accessible entry into a formidable career. It is helpful to think of these intimate, clear, and seemingly impermanent buildings in the way that Rudolph recalled them wistfully in later years: as his "sketches in the sand." But, when taken as a group, this work offers a compelling example of a regionally inspired American modernism.

This book would not have been possible without substantial support from The Graham Foundation for Advanced Studies in the Fine Arts.

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Esto Photographics, Inc. has been an extraordinary resource for this book, having kept and maintained the photographic record of Rudolph's work over many years. The organizational skill and superb darkroom abilities of the Esto team have greatly contributed toward making this book the rich visual experience that it is. Our appreciation to Erica Stoller for taking our project under her wing. We thank Ezra Stoller for his beautiful photography. A number of now demolished buildings remain only in Ezra Stoller's images—forever new and crisp and clear in the Florida light.

Sarasota County Historical Resources has been of invaluable assistance with this project. Lorrie Muldowney, David Baber, Ann Shank, Mark Smith, Susan White, and Charlotte Roberts have all generously contributed time and professional expertise in historical research. Archival and computer resources were made available to the authors that have greatly enriched this book.

The authors also thank the University of Florida Fine Arts Library, University of New Mexico Fine Arts Library, Columbia University Avery Library, the Society of Architectural Historians and the Museum of Modern Art.

We are indebted to the architects who worked with Paul Rudolph on the Florida houses. They have all been generous in sharing memories and insight regarding the Florida work from a firsthand perspective. Thanks to Bert Brosmith, Gene Leedy, Jack West, Tim Seibert, Mark Hampton, William Morgan, William Rupp, and Wilder Green.

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Christopher Domin thanks William and Rosemary Domin for their caring support and guidance.

Princeton Architectural Press saw the strength in this project and its potential to contribute to the architectural discourse early on, while the authors were seeking funds for image acquisition and before a word of text was written; the leap of faith is much appreciated. Through beautiful design and printing, Princeton Architectural Press does justice to the talent and skill that produced this architecture. With gratitude to the whole team, especially Kevin Lippert, Clare Jacobson, Jennifer Thompson, Evan Schoninger, and Ann Alter.

The authors are grateful to Robert Bruegmann for contributing his professional insight and guidance, for reviewing the text as it developed, and for providing the introduction to this book.

Many thanks to Greg Hall for his assistance in assembling the bibliography and gathering historical documents and images.

CHRISTOPHER DOMIN
JOSEPH KING

INTRODUCTION

ROBERT BRUEGMANN

In Ezra Stoller's masterful photograph, the Healy Guest (or "Cocoon") House perches at the very edge of the Bayou Louise. In the interior of the house, visible through an opening that can be seen on the extreme right of the image, a pair of light-weight metal chairs and a table stand out in silhouette against the glass front wall. In the foreground of the photograph, on a deck cantilevered well out over the water, a pair of slippers, a book casually laid down on a low seating area, and a group of oranges on a glass table all suggest an occupant who has just ducked into the house but will be back momentarily to pick up the peeled orange, re-open the book, and settle contentedly back on the low bench to read. In the background, behind the receding lines of the building's window louvers and diagonal tie rods, a boat tethered to a landing punctuates a nearly still stretch of water. Beyond this a sandy beach and a cluster of trees on the horizon give way to an immense sky dramatically filled with clouds.

This photograph immediately suggests some of the qualities of Paul Rudolph's early Florida houses that made them so appealing when they first exploded onto the pages of the architectural journals in the late 1940s and that lie behind the revival of interest in the work of the architect today. The image conveys a sense of exhilarating freedom. Here is a building that rejects entirely the confining solid walls of traditional houses. The light, unconventional structure seems to defy traditional restraints of gravity. With its moveable louvers, it blurs the line between outside and inside, between the building as sculptural solid and the building as a volume of space. It also operates alternatively as secure shelter and as vantage point from which to view the landscape. In the photograph the building's interior beckons. We can imagine an interior awash in warm sunshine in the early morning or a cool pattern of shimmering shadows at noon, all controlled by a simple adjustment of the louvers.

The photograph also seems to suggest perfect privacy, a small self-contained world set in a landscape devoid of any trace of human activity. It is a kind of up-to-the-minute Swiss Family Robinson shelter on a pristine sandbar. At the same time, although the building is perfectly married to its particular site, it also has a generic, standardized quality, as if it could have been dropped, ready-made, into place, with minimal disruption to the landscape. Looking at this photo, it is easy to imagine that this house would have permitted a life free from the gaze of neighbors, from social conventions and day-to-day worries, and even from the vicissitudes of climate. It is difficult to imagine anything but days that reach a balmy eighty degrees in the afternoon, but that are always cooled by a light breeze blowing off the Gulf of Mexico. The image conjures up a vision of walking barefoot in the sand and enjoying hours of uninterrupted vacation reading.

The building seems more like a small garden pavilion than a real house. It suggests a fantasy that goes back to the time of the Romans at least, of an escape to a life unencumbered by bulky necessities, one directly in contact with the land and the elements, and one in which all of the necessary supporting cast of characters could be banished from view. Making the fantasy real was always very expensive, however, with the result that throughout history, from Hadrian's Villa at Tivoli to Marie Antoinette's *hameau* at Versailles, it was a luxury confined to the wealthy and powerful. But here, the photograph

seems to suggest, we have a version of this simple but elegant retreat at a much more modest scale and accessible to an American middle-class clientele. Particularly today, after American houses have inflated to proportions that would have astonished homeowners of the 1950s, this house looks more like a piece of personal property than real estate. It seems to belong to the same class of postwar objects as a plywood chair by Charles and Ray Eames or a Corvette convertible. Although the house was obviously a one-of-a-kind luxury product, in this photograph it appears that it, like the chair or the convertible, might be mass-produced for a substantial middle-class market for use anywhere.

Of course, as we all know, photographs lie, the most effective photographs perhaps most of all. As much as we might want to believe the fantasy the photograph is trying to create for us, at some level we are always aware that this house was unlikely to be the complete paradise that the picture suggests. We know that the building was not dropped ready-made onto the site, barely disturbing the sand. We can imagine that the seawall that anchors the house to its site must have been a very substantial piece of construction but even so is as vulnerable to the elements as any construction on a fragile barrier island where no houses probably should have been permitted. We suspect that the contractor's heavy truck bulldozed repeatedly across this apparently pristine stretch of sand to deliver tons of building materials, and we can well imagine that in the muck at the bottom of the bayou there is still a layer of debris that, despite the contractors' best efforts, accidentally fell into the water. Once the house was built, it is likely that the inside temperature in summer was sometimes unbearable without air-conditioning, which was not common in private houses in Florida until later, and we recognize that air-conditioning would have defeated the very openness of house that Rudolph was aiming for, as indeed some of his later, air-conditioned houses prove. We sense that the suspended roof structure, a very ingenious adaptation of techniques Rudolph learned during the war, is not really appropriate for this building. As even Rudolph himself admitted, it would have been better suited to a much larger structure, and the sagging at the middle of the room produces an unfortunate spatial effect. It is likely that repairmen were constantly needed to fix all of the things that undoubtedly malfunctioned on such an elegantly attenuated structure, and we are not at all surprised to learn that the building had to be substantially rebuilt in the 1980s.

This photograph is probably not even a good representation of the house as imagined by the architect. Although we know that Rudolph and Stoller were friends and worked jointly to create appropriate images for the architect's work, it is almost certain that Paul Rudolph thoroughly disliked the props—the slippers, the book, and the oranges—that Stoller inserted into the image. Stoller himself later explained that he felt obliged to do this for the benefit of readers of what he called a "consumer magazine." By focusing on the occupant rather than the architecture, they tend to make this house at least as much about lifestyle as about architecture. In fact, Rudolph was always wary about giving anyone control over how his buildings were represented. This was probably one of the major reasons that he increasingly tried to avoid professional photographers in his later career, instead relying on his own drawings, which he developed so that they were as readily reproducible in magazines as

photographs but subject to total control by himself. No matter how much the architect distrusted photographs like these, however, they were undeniably the chief vehicles for his early fame. The publicity the photographic images generated was out of proportion to the size of the actual building project. The photograph we have been discussing showed up over and over again in the magazines and journals of the day, often in full-page treatment, for example fully bled to the edges of the nine-by-twelve-inch pages of the January 1951 issue of *Architectural Forum*. The extraordinarily large size of the image for such a small building suggests the appeal of Stoller's vision to the journal's editors and designers. More than the building itself, which was in an out-of-the-way location in a relatively small town and difficult to find once there, and more than Rudolph's own drawings, these photographs helped establish Rudolph's reputation.

It is also photographs like these that are perhaps the primary artifacts in the current revival of interest in Rudolph's early houses. They set up a complex response. Anyone familiar with the history of architecture would suspect that this building was the product of post–World War II modernism in some warm part of the United States. On the other hand, the building will not be familiar to many people. Unlike the case of Mies van der Rohe's famous glass house for Dr. Edith Farnsworth near Chicago, which is so familiar that it is hard for many people to see in it anything but an icon, this little house still maintains its surprise value. It appears as an exotic offshoot from the main tree of modernist design evolution, a poignant reminder of the many possibilities never fully explored. The dark, saturated colors, the almost comically earnest structural gymnastics, the monumentality that seems completely out of proportion to the tiny size of the building, and the highly dramatic siting give this design a quirkiness, a personality that is missing from many of the other buildings of this period. Like the villas of Palladio, the bungalows of the brothers Greene or the prairie houses of Frank Lloyd Wright, these small houses are both typical works of the period and, at the same time, brilliant aberrations, highly individual creations unlike almost anything else being built.

Another reason why the house in this image speaks to us directly is because there is so little in the photograph to stop us from believing this building could have been built yesterday. There are no automobiles, clothing, or hair styles that can be readily dated, and the book, oranges, and slippers, even the furniture in the house, betray very little about the time the photograph was taken. Stoller's props allow us to see the building wrenched both from the realm of pure architecture and from the world of architectural history and delivered into the world of consumable objects. We can imagine visiting, if not owning, a place like this.

Even though we know the date and pedigree of the building, our response is surprisingly ambiguous. It is difficult to imagine that any design as intimate and appealing as this would have seemed avant-garde, yet it was clearly this quality that propelled it onto the pages of the architectural magazines. We can still in some measure respond to the novelty, but by the beginning of the twenty first century, we inevitably see this building, as well as most other postwar modernist work, in a different and

somewhat bittersweet light. It no longer seems like a portent of some Utopian future to come. It is by now a quaint reminder of a wonderful dream of the future, sadly marred by a half century of attempts to build this Utopia. We cannot look at this image without thinking that it must be in violation of current environmental laws. We are painfully aware of what happens when a vastly enlarged population of affluent Americans descends on all-too-few miles of pristine beaches like this one.

The photograph attracts us because it speaks to all aspects of our complicated response. Against all odds, the building in the photograph still manages to function like a vision of a simpler and more perfect future world, but at the same time it also clearly portrays an antique, a period piece. We can still respond to the initial excitement that the building obviously generated but at the same time realize that it is part of a world irrevocably separated from us by the passage of over half a century. We can still see it as a typical product of international modernism but at the same time as a product of a specific creator at a specific moment in time.

This book and related research now underway provide a good indication of the extent of the current revival of interest in the work of Paul Rudolph. This revival, of course, is part of a growing appreciation of design in the postwar years. There seems to have been a kind of consensus among many of the most ambitious American architects of the time about an appropriate American residential architecture that balanced regional expression with international modernism. From West Coast designers such as Richard Neutra, Pietro Belluschi, and Gregory Ain to the East Coast Yale classmates of Rudolph such as Edward Larabee Barnes, Philip Johnson, Ulrich Franzen, and John M. Johansen, architects created a large group of houses that combined international modernist design ideas with a regional sensibility and were at once sheltering and open to the landscape through huge sheets of plate glass.

This consensus is especially noticeable in the work of designers in the warmer parts of the United States, where a kind of Sunbelt residential modernism reigned in the late 1940s and 1950s. From the hot, moist beaches of Florida to the hot, dry deserts of the American Southwest and Southern California, architects experimented with simple interior volumes of space enclosed by walls and screens of native materials, sheltered from the sun by overhanging roofs and opened by enormous plate glass windows connecting outdoors and indoors. The early houses of Rudolph are remarkably similar in many ways to several of the earliest Case Study houses in Southern California, for example those designed by Charles Eames, Eero Saarinen, and Ralph Rapson between 1945 and 1950. I could have started an essay similar to this one on the work of Southern California architects with the famous photograph by Julius Shulman of the Case Study House No. 22, designed by Pierre Koenig in 1959, in which two women sitting in the living room appear to be suspended out over the edge of the hill with Hollywood and the entire Los Angeles basin forming a backdrop. Here again is that intimate relationship between indoors and outdoors, dramatically enhanced by the lens of the camera. Here is also that tension between the building as timeless work of architecture and as period piece, the tension between the building as a simple piece of equipment, a universal space that could be built anywhere, and a design intended for only one spot in the world, a unique and unreproducible piece of ground and sky.

Clearly the Healy Guest House was part of a major trend. It takes its place in a large body of modernist work of the late 1940s and 1950s that ranged from the elegant and minimal structures of architects such as Rudolph or Neutra to the more decorative and florid work of designers such as Edward Durell Stone, Minoru Yamasaki, or to the overtly theatrical gestures of the largely anonymous designers of many fast-food restaurants, car washes or Googie-style coffee shops. After years of neglect, all of these pieces of the built environment have found a fast-growing group of admirers today.

Why this revival of interest? Part of the explanation is simply the result of the cyclical nature of taste. Just as the simple geometries of the colonial and federal revival styles of the late eighteenth and early nineteenth century were rediscovered about the time of the American centennial in 1876, after having been out of fashion during the ascendancy of a more heavily decorated and three-dimensional architecture of the preceding half century, so the light, minimal architecture of the 1950s seems to have returned to favor after several decades of a "baroque" late phase of modernism that included both the "contextual" design of the 1970s with its heavy use of historic precedents and the more recent avant-garde work that rejects historical details in favor of complex, sometimes aggressive geometries, often with complicated theoretical justifications. In reaction many architects now seem relieved to turn once again to the work of the postwar years, seeing it as a bright, optimistic point of departure not burdened by the stylistic and theoretical debates of the last several decades. This process has been accelerated by the fact that by now many of the creators of these buildings have disappeared from the scene and the buildings themselves are approaching or have passed the fifty-year mark, making them eligible for historic landmark designation.

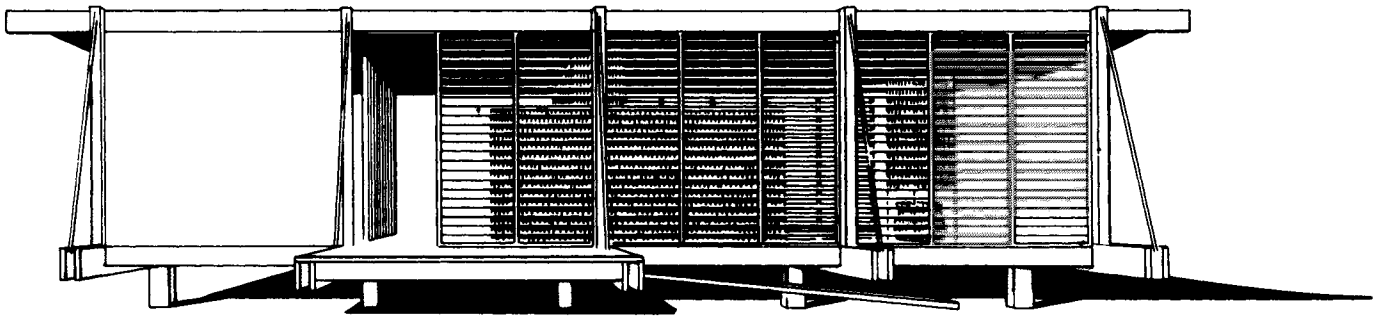
The particular appeal of Paul Rudolph's work resides in the intensity, ambition, and energy concealed behind the apparently simple forms. As we have observed, we can sense that beneath the surface of the Healy Guest House there is a great deal of tension, as if the architect were trying to do a number of incompatible things simultaneously. In this building Rudolph, the rationally minded student of Gropius, comes face to face with a more romantic Rudolph heavily influenced by the work of Frank Lloyd Wright. This conflict shows up clearly in some of the tensions involving the internal space of the building. The interest in single, simple geometric volumes of space as seen in the work of Mies collides with the desire to mold space intuitively into complex, three-dimensional patterns. The hanging roof structure, while undoubtedly an experiment in structural rationalism, also betrays a desire for the kind of personal and intuitive spatial shaping visible in the later works of Le Corbusier.

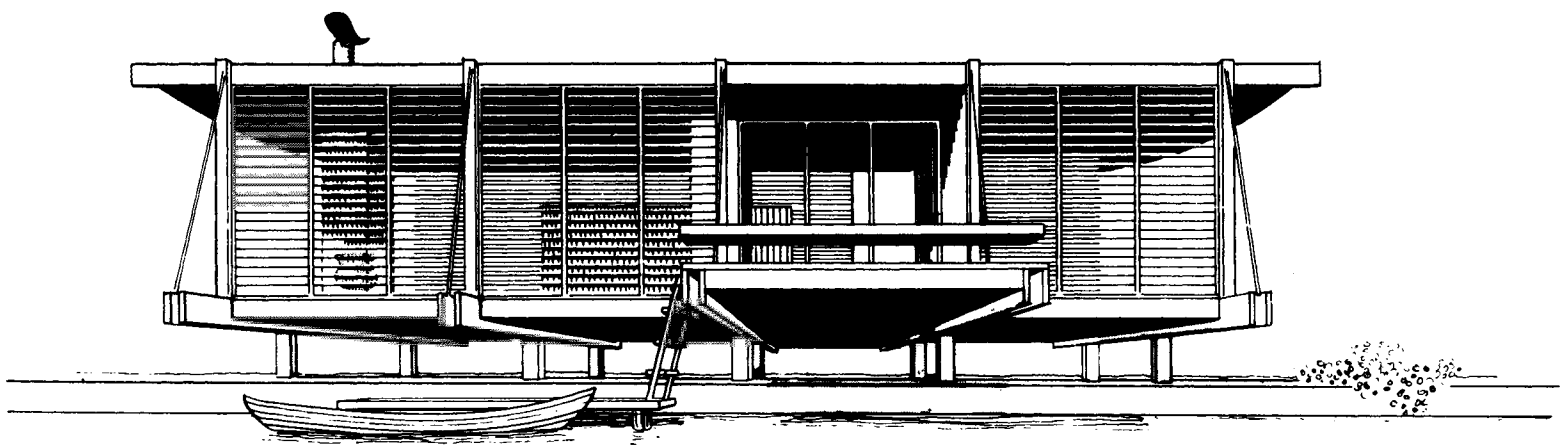
Another conflict revolves around the difficulty in reconciling an appropriate response to a specific geographic location with the notion that good design can or should transcend accidents of place and time. This building is clearly designed for this site and climate and no other. Rudolph was very conscious of his Southern heritage and often remarked on what he felt was a special affinity between modernist architecture and warm climate. In the case of the Healy Guest House, the visibly raised floor level, perhaps recalling those seen on Southern sharecroppers' cottages, the attention to cross ventilation, the louvers designed to let in air but block the sun, could all be called regionalist. On the

other hand, the small size, simple volume of space, and the components, which seem as though they could easily be standardized and pre-fabricated, suggest a design that could be used in other sites and conditions. Finally, there was the tension between the very small and very large in scale. Rudolph was one of the few architects of his time who tried to bridge this scale gap, designing everything from small pieces of furniture to entire cities. In this case the building seems at once tiny and surprisingly monumental.

We know that in his later work Paul Rudolph would spin out many of the strands of thought already visible in this small building into larger, heavier, and more visually complex structures. This was a process that generated enormous attention and controversy as the work appeared monthly in the architectural journals though the 1950s, 60s, and early 70s. As tastes changed and attention focused elsewhere in the 1980s and 1990s, the work of Rudolph was eclipsed by other designers. Although buildings like the Art and Architecture Building at Yale were never forgotten, they owed much of their continued currency to the fact that they were unavoidable landmarks in the history of taste and the fact that they had played a large role during the formative years of many influential architects and critics. The recent work in Southeast Asia, on the other hand, never generated the same surge of excitement and interest because it seemed to most observers to be a mere repetition of earlier themes and patterns. This judgment will almost certainly be overturned.

For the moment, it seems likely that this and other books signal the start of a new, more intense phase in the rediscovery of the work of Paul Rudolph. It is quite likely that this rediscovery will proceed chronologically in a manner analogous to the way the work originally appeared on the architectural scene. For anyone enthusiastic about these earliest houses it will not be a large leap to the Jewett Art Center at Wellesley College, and from there the way is clear to recontextualizing the complexities of the A&A Building at Yale University and the Southeastern Massachusetts Technological Institute at North Dartmouth, Massachusetts, probably Rudolph's most complete and characteristic design statement of the years when he was widely considered to be at the peak of his career. Once arrived at this point, sympathetic observers will be better able to see the late work in Southeast Asia and to consider anew Rudolph's entire career. The course of this rediscovery, however, is anything but inevitable or predictable. It depends in large measure on the issues that will interest designers and historians in future decades. It is a process that is just as interesting and as dynamic as the one that brought us these remarkable buildings in the first place.





COCOON HOUSE

TWITCHELL AND RUDOLPH

TWITCHELL AND RUDOLPH

JOSEPH KING

Ralph Twitchell and Paul Rudolph set out to create a new architecture for southwest Florida. In the process, they expanded the discourse of mid-century modernism by developing a series of strikingly original modern buildings whose character was derived in no small part from the unique characteristics of a particular place. The interest in regional expression at the time was an effort to counter the universalizing tendency of early modernism, and was seen as a way of making the new architecture a meaningful contemporary expression of the cultures and climates in which it was designed. Twitchell and Rudolph developed a design and construction methodology, a way of building that they intended to implement during the postwar era of rapid economic and population growth in Florida.

This combination of a wider view of modernist concerns with space, form, and technology, along with a focus on the specifics of the local culture and landscape, reflected each architect's individual skills and dispositions. Rudolph was the designer in the partnership and had close ties to advanced thinking in American modernism. Twitchell contributed a substantial portion of the locally and climatically inspired conceptual underpinnings of the work. He developed the construction technology, found and worked with the clients, dealt with the overall course of the design work, provided the land in some cases, and built the houses.

The location of this work was the small, yet ambitious, resort town of Sarasota, Florida, particularly its outlying islands, where the romantic idea of constructing beautiful little pavilions in the untamed subtropical wilderness contributed to their charm. Twitchell and Rudolph's clients were generally people of means from the north who desired second residences away from their settled, conventional lives (and cold winters), and who wished for a sense of exoticism and adventure in their seasonal homes. These houses, simple in program and set in the rich, sensual Florida landscape, gave the architects a nearly perfect opportunity for exploring ideas of modern expression, and as Rudolph claimed, there was "a certain freedom there that was exquisite."[1] Though intimate in scale and often disarmingly simple in appearance, the houses possess an intense character, infused with meaning. In this sense they represent an intellectual and intuitive distillation process, in which the architects sought to resolve into clear architectural form interests in modern technology and spatial concepts, indigenous materials, and the relationship of the building to the landscape.

Twitchell and Rudolph, substantiated by the architectural press, realized that they were making an important contribution to contemporary architecture. Their collaboration, in terms of skill and ambition, led to greater work than either of them could have accomplished independently at the time. However, as they gained greater recognition, each architect found it increasingly difficult to share credit with the other. With clients and in the Sarasota community, Twitchell identified himself as the sole creative force behind the houses and the leader in developing the new architecture. Outside of Sarasota, it was generally understood that the houses were the conceptual and compositional work of a bright young Harvard graduate who was likely to continue on to transform American architecture. Rudolph's contemporaries have recalled their memories of these years, and as his friend Philip Johnson said, "I

think he was the most admired architect of his period... Every one of us said, 'Well, Paul Rudolph is going to be the Wright of his time."[2] Peter Blake, leading editor and chronicler of mid-century modern architecture, wrote:

> Unlike any other architect of his generation, Paul managed to reinterpret all the important lessons learned from the likes of Mies and Wright and Corbu and recast them into his own molds... He was, I think, the one direct descendant of, the one heir to, the work of what Alison and Peter Smithson like to call the 'Heroic Period' of modern architecture.
>
> To me, and to others who experienced his work, he was the most important architect of the years immediately following World War II—in the U.S. and probably in the industrialized world.[3]

As with Frank Lloyd Wright, Le Corbusier, and Mies van der Rohe, the notion of the heroic modern architect pursuing his own particular vision had great appeal for Rudolph, and he positioned himself to be such a figure. Undoubtedly, he was an immensely talented architect. This heroic point of view, though, tended toward a reductive understanding of his work as relatively autonomous and largely to be understood through analysis of architectural form. Very intentionally, it also led to Rudolph's participation in modern architecture's "star system," which vaulted him to the national scene and led to an extraordinarily productive period in his career beyond Sarasota.

Today we are able to gain a more complex understanding of the Florida work by looking beyond the buildings as objects with their obvious quality of visual delight, and seeing them as both the product of an individual creative endeavor and as the result of a unique confluence of cultural forces and influences that came together in Sarasota through this particular architectural and construction practice. The houses of the partnership constitute a unique chapter in the careers of Rudolph and Twitchell in the way that they marry the arts of design and construction in a nearly seamless integration with the goal of developing a new kind of regional domesticity. They developed a way of using local materials and modern technology to represent ideas about architectural expression, while creating an atmosphere for clients in which the notion of inhabiting the natural environment became an integral part of the architecture.

PAUL RUDOLPH

Born on October 23, 1918 in Elkton, Kentucky, Paul Rudolph spent most of his childhood in various towns in that state. In the itinerant tradition of the Methodist church, his father, a minister, periodically moved the family from assignment to assignment, and young Paul observed and lived with the vernacular architecture of the American South. He pursued many creative endeavors and showed considerable talent, including playing the piano, painting with oils, and drawing. One anecdote from his childhood illustrates his sense of independence and drive to creative expression. By the age of ten or twelve, he had become an accomplished pianist and wanted to play the church organ as well. His father prohibited this, believing his son too young and unable to handle the complex instrument. Nevertheless, late one night an inquisitive Paul sneaked from the parsonage to the church next door and began skillfully playing the pipe organ, waking the family in the process.[4]

Rudolph studied architecture at the Alabama Polytechnic Institute (now Auburn University) from 1935 through 1940, when he received his Bachelor of Architecture degree.[5] In his youth and in college, he developed a thorough understanding of the means to deal with the climate and physical environment in the South. At Alabama Polytechnic, the specific mechanisms of climate control in the local vernacular architectural tradition were a subject of academic documentation and analysis, particularly by Professor Walter Burkhardt, who led the Historic American Buildings Survey in Alabama.[6] Burkhardt's work documented such devices as adjustable shutter and awning systems that had been developed over many decades and in many different site-specific iterations to catch breezes, provide shade from the sun, and allow for micro-adjustments of climate in interior spaces. Plan and spatial elements such as dogtrots and porches were also being documented and were used, in addition to building forms and construction materials, to mediate climate. The broad experience of Southern architecture would be an important influence in the experiments of the Florida houses.

DRAWING, HISTORIC AMERICAN BUILDING SURVEY

In 1940 Rudolph had the opportunity to see Frank Lloyd Wright's most current work firsthand. One of the finest of the Usonian houses, the Rosenbaum residence, was built in Florence, Alabama during that year, and as his parents were living nearby he was able to see it on visits home from college. This house made a profound impression on the twenty-two year old and remained with him; as late as 1986 he remembered his emotional reaction to it.[7] As an American and a southerner, Rudolph was susceptible to the romanticism of Wright's notions of architecture. In its sweeping horizontality, responding to the vast expanse of the American landscape, the articulation of natural materials derived from the land, and the use of the art and craft of the machine to create an architecture for the present, he experienced for the first time architecture that was vital, meaningful, and modern.

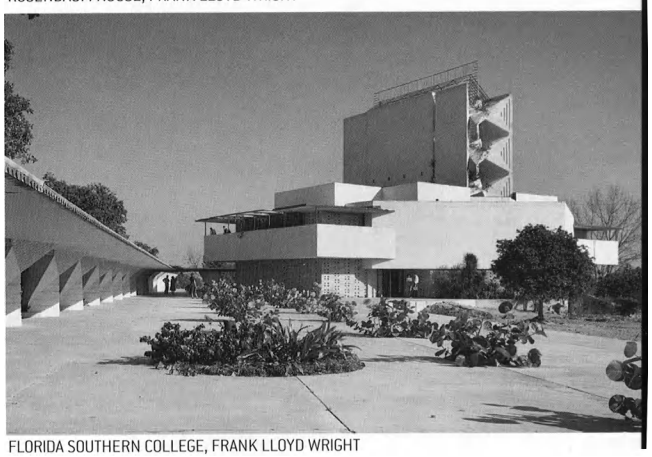
Like Frank Lloyd Wright, Paul Rudolph possessed a rare ability to conceptualize architectural space, and he became a master of its handling. Both architects had been trained as musicians in their early years, and their work can be thought of in such musical terms as rhythm and harmony, theme and variation, proportion, balance, and composition. There is a lyrical quality to their work, in the ways that they played the ebb and flow of space, enclosure and openness, movement and stasis. Each was acutely aware of spatial experience and the opportunity for beauty in composition.

A classmate of Rudolph's recommended that he move to Florida and work for his former employer, a progressive architect named Ralph Twitchell. The opportunity to see Wright's Florida Southern College in Lakeland Florida, then under construction, was undoubtedly an attraction to west central Florida as well.[8] Rudolph came to Sarasota in 1941 and worked for Twitchell for six months before entering the Harvard Graduate School of Design in the fall. Twitchell was evidently pleased with the young man's design talent, for he was thoroughly involved in the design of Twitchell's own house. Rudolph, young, inexperienced, and deferential according to his southern upbringing, was nevertheless assertive in his ideas about design and evidently enthusiastic about working with Twitchell, as he wrote in a letter from Harvard to Twitchell's secretary Lu Andrews, attests:

> Lu, there are so many things I want to know about Mr. Twitchell's house, and the others. I'm still telling everyone here about it and they are waiting for photographs for the real truth. I'll be only too glad to pay for them. There were so many things I had wanted to suggest for Mr. Twitchell's but they were probably too expensive anyway.... I still would like to do a mural for the living room for it needs it so badly I think. Please tell Mr. Twitchell and Mr. Root [project superintendent] I asked about them. I think I will never enjoy working again as much as I did this past summer with them.[9]

As the request for photographs illustrates, Rudolph was eager to make a connection between the architecture he had experienced the previous summer and the broader ideas of modernism that he was absorbing at Harvard.

ROSENBAUM HOUSE, FRANK LLOYD WRIGHT



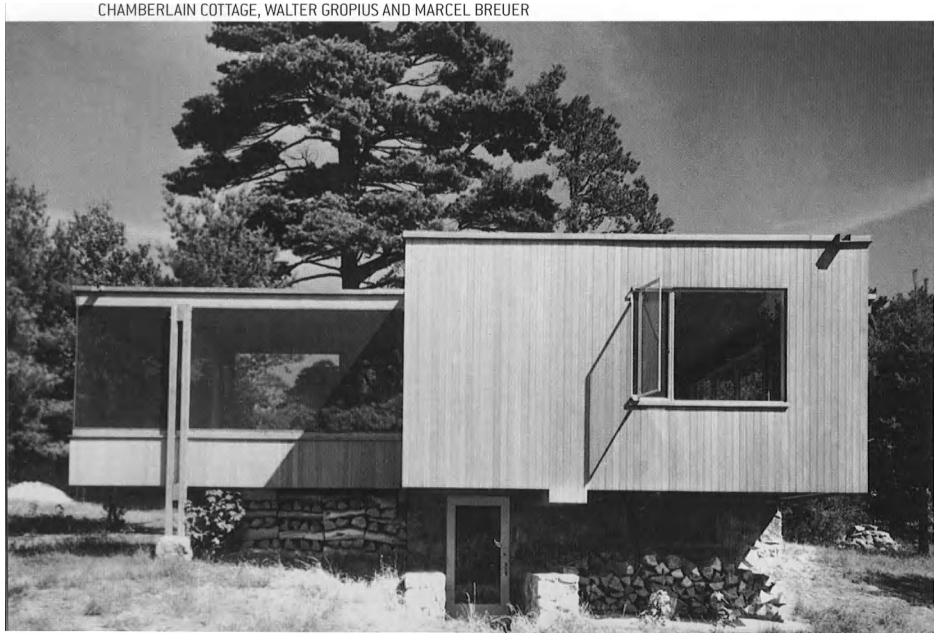
FLORIDA SOUTHERN COLLEGE, FRANK LLOYD WRIGHT

MODERNISM AND ITS CULTURE

While Rudolph was developing a strong affinity for subtropical Florida, he also found himself in a unique time and place in the master's class at Harvard led by Walter Gropius. He participated in the most current explorations of modern theory and design and experienced a cultural environment that was entirely new to him. Upon his arrival at Harvard in 1941, the wide-eyed southerner described to Lu Andrews his initial experience:

> The Graduate School of Design is limited to fifteen and honestly I don't know exactly why I'm here among them. Every one of them has won some sort of prizes, traveled all over the world, taught and built. The fellow who sits next to me was the head of the city planning commission of Buffalo, the one behind me had $3,000 to spend last year for travel in South America. Philip Johnson, a well-known critic of architecture, who has written much on the subject, but never executed any is among the fifteen. The competition is keen, as you can see.
>
> The thing that I came for is so much more than I had thought it could possibly be... Mr. Gropius is the most dynamic man that I've ever come in contact with. I have only the one course, design, and he gets $25,000 per year for teaching it. He gives us individual criticism three times a week. Last Friday he had us out for cocktails at his famous home. There was a butler and his famous, actress wife. She was truly charming and flirted with all of us.

CHAMBERLAIN COTTAGE, WALTER GROPIUS AND MARCEL BREUER



Walter Gropius, founder and director of the German Bauhaus, had emigrated from Germany to England in 1934, then to the United States and Harvard in 1937. The Bauhaus had been profoundly influential in the development of modern architecture, art, and industrial design. With Gropius's Harvard appointment, European modernism became institutionalized into the American academic environment. His presence attracted many of the most talented students of architecture to Harvard in those years, including Philip Johnson, I.M. Pei, Edward Larabee Barnes, John Johansen, Ulrich Franzen, and Victor Lundy—men who would become leaders of the postwar architectural profession.[10] Paul Rudolph, eager to learn, thrived on the wealth of ideas that were advanced at Harvard, and he evidently earned the respect of his contemporaries. Philip Johnson stated, with some hyperbole, that "he could draw and none of the rest of us could, simple as that." He was also admired for the "speed of his mind."[11]

Gropius taught that the logic of the modern scientific method should be applied to questions of aesthetics and design. His students made detailed studies of the efficacy of bay systems, types of floor structures, technologies for wall cladding, and so on. Such cool, detached thinking is sometimes perceived as having led to sterile, dehumanized modern architecture, but this structural rationalism was only part of Gropius's approach, as logic informs what must of necessity be the creative and essentially intuitive process of design. Gropius realized that the creative individual possesses the singular ability to make the conceptual leap from the known to that which is entirely new. If ideas and solutions were to be legitimate advances in architecture they must be firmly based in an understanding of science, technology, the spirit of place and time, and the craft of construction. Because of the many and varied demands placed upon the modern architect, Gropius advocated architectural practice based on teamwork as the means to useful and meaningful work.

Marcel Breuer was also an influential figure in the Graduate School of Design and practiced architecture for a time with Walter Gropius. It is evident that Rudolph studied Breuer's sense of form and material very closely, along with his interest in lightness and floating masses. The Miller Guest House of 1949 pays homage to Breuer's work, especially to the Chamberlain Cottage of 1940 that he would have seen at the time.

GROPIUS RESIDENCE, WALTER GROPIUS AND MARCEL BREUER

The house that Walter Gropius and Marcel Breuer designed for the Gropius family in Lincoln, Massachusetts (1937) is a manifestation of their ideas that influenced Rudolph's work in Florida. The house makes use of the twentieth-century opportunity, technologically and conceptually, to abstract the traditional appearance and spirit of the freestanding house. This abstraction is evident in the simplified cubic form, the strip windows, the articulation of wall as thin plane, and the interpenetration of mass and space. For Gropius the modern house was not to be considered universal. In deference to New England building traditions, he used wood siding in the design, though applied vertically, and incorporated low fieldstone walls in the landscape. The screened porch, a traditional American design element, is used here very consciously as a part of modern design; neither fully in nor out, it is an American expression of the modernist interest in the interrelationship of, what was called at the time, inner and outer space. In his biography of Walter Gropius, Sigfried Giedion speaks of this house as a counterexample to the notion of modern architecture as independent of the specifics of place. One may consider his description also applicable to Rudolph's Florida work after his time at Harvard:

HEALY GUEST HOUSE (COCOON HOUSE), UNDER CONSTRUCTION

> This house is closely related, both in structure and conception, to all truly contemporary architecture: respect for the natural conditions of a particular region and the ability to fashion these to meet contemporary living requirements. This desire to create a harmonious relation between the present and the eternal—between the cosmos and the earthly environment—I have called the New Regionalism.[12]

Rudolph entered the Navy at the onset of World War II after his first semester at Harvard and, after brief training as a naval architect, was stationed at the Brooklyn Naval Yard. His wartime experience, from 1942 to 1946, proved to be an internship in industrialized construction at a vast scale, an opportunity that would have hardly been possible in the civilian world. His Florida work after the war possesses a characteristic lightness and efficiency of space and structure that can be thought of as being derived from the characteristics of modern ship construction. The enclosing hull, or roof, is thin and strong in its planar quality and may take shapes different than those formed by partitions within the overall enclosure of the ship or house. He responded to Gropius's injunctions to his students: "What I do want is to make young people realize how inexhaustible the means of creation are if they make use of the innumerable modern products of our age, and to encourage these young people in finding their own solutions."

The Healy Guest House (Cocoon House) of 1950 is perhaps the clearest example of Rudolph's architecture derived from ideas of naval technology:

> It had to do purely with the idea of using the least material possible and making it as light as possible and as efficient as possible and the whole notion of it being structurally clear. I was profoundly affected by ships... I remember thinking that a destroyer was one of the most beautiful things in the world. I still think that. The whole notion of tension structures which you find in ships... because they're light in weight. And then the whole idea of the flexibility of the cocoon. I saw the mothballing of navy destroyer escorts especially, and how that worked and that was fascinating to me because of its elasticity."[13]

During the war years, as Rudolph had the opportunity to experience New York and to become acquainted with modern architects, critics, and architectural journalists, the feeling of his own provincialism became a memory. He reentered Harvard in September 1946 and received a master of architecture the following

February, remarkable considering that he was at the Graduate School of Design for only a total of two semesters. Perhaps Gropius thought that he had already experienced a full and balanced education: the combination of intensive academic training in Alabama and at Harvard, and construction experience with Twitchell and in the Navy. Exhibiting his characteristic impatience and desire to move on to the next thing, Rudolph described his second period at Harvard: "It was a very different story this time. I'd been around; I'd been in the Navy; I'd seen a lot of things. My heart was not in it. I wanted to build. Once you've tasted that, you never get it out of your system."[14]

Ludwig Mies van der Rohe's influence on Rudolph's work is notable after the war. In 1947 Philip Johnson organized a retrospective exhibition of Mies's work at the Museum of Modern Art, which Mies himself designed.[15] Rudolph would have seen this exhibition, studying such projects as Mies's Resor House of 1938, an elongated glass and wood box designed to span across a narrow stream in Wyoming, a design that clearly influenced the Finney Guest House on Siesta Key. While Mies's work was far more austere than Rudolph's, it informed his expression of linear structure, use of glass walls as a means to view and incorporate the landscape, and his manipulation of walls independent of structure.

In 1948 Paul Rudolph received Harvard's Wheelwright Fellowship and traveled in Europe and England through mid-1949.[16] This journey brought to his attention the concerns of urban design as the responsibility of the architect. He stayed for some months in Paris and edited a special issue of the French periodical *L'Architecture d'aujourd'hui* that was devoted to Gropius's work in the United States. This was an opportunity for Rudolph to express gratitude for Gropius's significant influence on his education, not to mention granting the traveling fellowship. The issue comprised a series of essays and projects, primarily by students of Gropius, illustrating the influence of disciplined analysis and cooperative work, yet yielding a wide variety of independent expression. There was a sense of excitement about addressing the vital architectural problems of the day, particularly postwar reconstruction. For Gropius, architects were to be leaders in this effort, working together with the building industry and with each other. This notion of teamwork evidently resonated with Rudolph at the time, as he spoke of this sense of mission in his preface, saying, "that an army of men have been prepared for the great tasks ahead."[17] In the coming years Rudolph would move away from the collaborationist doctrine of Gropius, particularly in dissolving his partnership with Twitchell, as he became committed to the necessity of pursuing his own creative vision, unhindered by the inherent compromises of the team.

There is a tendency among any group of people to look after their own, and this is no less true among the teachers and practitioners of modern architecture at mid-century. During the time of the Korean War, Rudolph was called back into the service. Both Walter Gropius and G. Holmes Perkins, dean at the University of Pennsylvania, where Rudolph was teaching in the fall of 1951, wrote letters to the Navy in support of his deferment, and he was able to remain in the civilian world. The Gropius letter, reprinted here, is a strong testimonial to his feeling for Rudolph's work.[18] With this deferment, he was able to continue his work in Florida with Ralph Twitchell and shortly thereafter, in independent practice.

HARVARD UNIVERSITY
CAMBRIDGE 38
MASSACHUSETTS

GRADUATE SCHOOL
OF DESIGN

DEPARTMENT OF
ARCHITECTURE

November 7, 1951

The Chief of Naval Personnel
Department of the Navy
Washington 25, D.C.

Dear Sir:

I am writing on behalf of Lt. Paul M. Rudolph, USNR 297906/1405 who has requested deferment until May 1, 1951 on the grounds that he has seven contracts with private clients, residential buildings that cannot be adequately completed until that date.

Lieutenant Rudolph has been my student from September 1941 to February 1942 and from September 1946 to February 1947 and he received his degree Master in Architecture from Harvard University in February 1947.

I have closely followed up Lieutenant Rudolpl's work in practice as I consider him to be one of the outstanding brilliant American architects of the younger generation. He is well on the way to becoming internationally known for the strong and independent approach he has taken in design and construction of contemporary buildings.

During recent years he has started to build up his own practice. I know from the way he and his firm are working that it is imperative for him to detail and supervise for himself the buildings he has been commissioned to do, as his approach and his unusual type of construction need Lt. Rudolph's specific attendence in order to be carried through to its intended affect and usefulness.

I do not hesitate to state herewith that I consider the architectural pioneer work that Lieutenant Rudolph is doing at present to be most desirable from the point of view of American leadership in this field. I, therefore, strongly support his application for deferment.

Sincerely yours,

Walter Gropius
Professor of Architecture

rhg

RALPH TWITCHELL

An architect and builder with more than twenty year's experience before they met, Ralph Twitchell provided the means to construct the designs that Paul Rudolph created on the drafting board. Twitchell had lived with and thought about the special characteristics of the Florida environment and developed architectural concepts and building technologies that he intended to implement and thereby transform residential construction in Sarasota. Twitchell hired and trained skilled craftsmen to work for his construction company, Associated Builders, Inc. In a similar way, he had the good judgment to employ and cultivate Paul Rudolph to do the work at the drafting board in his architectural firm. Between his men in the field and in the office, Twitchell was able to build extraordinary houses for his clients.

Born in 1890 in Mansfield, Ohio to progressive and well-to-do parents, Ralph Twitchell and his brothers and sister lived a comfortable life in the largest house in town. He remembered late in life how much he enjoyed the experience of the glass conservatory attached to the family home, looking out to the lawn and gardens, and observed that the pleasantness of this space influenced his later ideas about building open houses in Florida and integrating the landscape.[19] When his father died at an early age, his mother moved the family to Winter Park, Florida, where he attended Rollins College. He studied architecture at McGill University, and at Columbia, interrupted by service and a near fatal injury in World War I. He received his bachelor's and master's degrees from Columbia University in 1920 and 1921, respectively.

Twitchell was a test pilot in France during World War I, and on July 13, 1918 his plane went down and he suffered profound head injuries, remaining unconscious for twenty-three days. He underwent extensive surgery, and was in convalescence of varying degrees for years. Twitchell recalled that one of his doctors sought to encourage him to use and exercise his brain but to avoid subjecting it to mental stress, saying: "never do anything you don't want to do, and you will never go wrong." He said later: "This has become my religion. It does not differ from my Quaker grandmother's teaching—'Listen to the still small voice within.'"[20] He found that what he wanted was to work in the the fields of design and construction.

For a time Twitchell worked in New York for the beaux-arts firm of Carrère and Hastings. Years earlier the firm had designed numerous Spanish-derived buildings for Henry Flagler, who commissioned palatial hotels and homes along the east coast of Florida concurrent with his ongoing railroad expansions to the South. The first and most magnificent of these buildings was the Hotel Ponce de Leon in St. Augustine, built in 1887 primarily of concrete with local coquina shells as exposed aggregate.[21] This early use of architectural concrete utilizing indigenous materials, along with a sophisticated awareness of the larger cultural context, may very well have influenced Ralph Twitchell in his youth, assuming that his family traveled through St. Augustine while going back and forth to Winter Park. The Hotel Ponce de Leon is an early example of architecture derived from Mediterranean influences that has been popular from the 1920s to the present.

SHOWBOAT HOUSE, RALPH TWITCHELL, 1937

After working in New York and then living in France for two years, Twitchell came to Sarasota in 1925 at the height of the Florida land boom to manage construction for architect Dwight James Baum's Venetian-inspired palazzo for John Ringling. Twitchell also designed and built luxury homes in the then-popular Mediterranean Revival style . After the boom ended in 1926, Twitchell worked in the Northeast, designing and building contextual, historically-inspired houses for genteel clients. In a 1934 *Better Homes & Gardens* article, one of his clients wrote: "Mr. Twitchell, it might be explained, is a sort of architectural department store.... He does everything. He has a unique arrangement whereby he undertakes the entire job of creating a home for a client—designing it, contracting it, building it, landscaping it, interior decorating it, and all the rest—for a flat percentage of the total cost."[22]

From 1936 on, Twitchell focused his design and construction practice entirely in Sarasota. The style of the day in Florida was art deco/moderne, most notably developed in Miami Beach and characterized by rounded corners, strip windows, and angular stylized ornamentation. Typical of all his work, Twitchell utilized the current stylistic language as a means to express ideas about climate and context. One striking example of this is his 1937 Showboat House on Lake Louise, a composition of planes, entire walls of glass, and extended horizontal rooflines, built at the edge of, and partially in, the lake, as though a boat moored along the bank. Pipe railings encircled the balconies and a ship's steering wheel was prominent in the living room.[23] This house was very literally based on Le Corbusier's inspirations in ship design. With the notion of living in a house actually in the water, Twitchell carried the ubiquitous waterfront house type in Florida to an extreme, immersing it in the natural environment.

For those living on the west coast of Florida during this period, life was largely dominated by the landscape. Despite problems of heat, humidity, and mosquitoes, Florida remained a paradisiacal land with a gentle climate, expanses of sky and water, and striking indigenous plant life. Twitchell, like so many others, possessed an insatiable drive to inhabit this paradise. More than most others, however, Twitchell realized that the wild, overabundant Florida wilderness also possessed a certain delicacy, and he generally sought to design with it, rather than to dominate it. He was able to do this in large measure because he controlled both design and construction of the houses, including site planning and landscape design. At the time, the profession did not look favorably upon the idea of an architect engaged in construction, and in 1938 the American Institute of Architects revoked his membership. As the

years before his death, the AIA reversed its decision and honored Twitchell for his work as architect and builder, naming him "Architect Emeritus."[24]

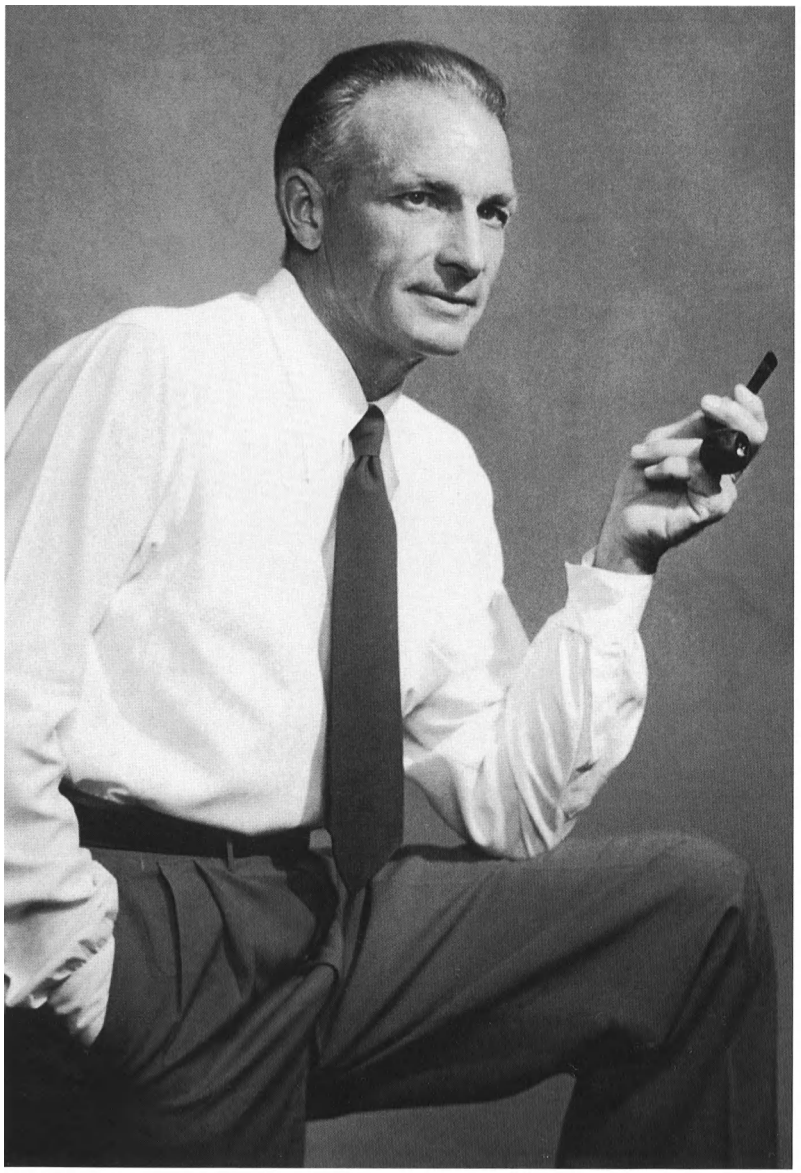
In the late 1930s, as Sarasota was attracting wealthy, progressive, seasonal residents and developing a significant cultural presence, Twitchell positioned himself to be the architect of choice for these sophisticated newcomers. His prewar office located in downtown Sarasota created a striking image of subtropical modernity and was described as "dazzling whiteness," with accents of blues and greens.[25] Twitchell combined the modern crispness of his buildings with an intense interest in color and materiality. Responding to Sarasota's natural context, "he believed the greenish blues and blue-greens featured in his office echoed the colors of Florida's sky and gulf waters."[26] In many of the Twitchell and Rudolph houses, the ceilings were painted in these colors to create a feeling of continuity with the exterior environment.

PARTNERSHIP

After World War II, Paul Rudolph returned to work for Ralph Twitchell in Florida. Instead of staying in the northeastern urban centers like many of his contemporaries, he said later that he felt he could be "more effective with clients who were building second homes." "There, for me, is something about modern architecture which makes it more sympathetic to warm climates than cool climates," he added.[27] And because of Twitchell, Rudolph had the opportunity to see his designs built.

By and large Rudolph did all the drawings for the firm. Though Twitchell was a capable designer, he realized that Rudolph possessed a rare design talent, and so made use of it. He oversaw Rudolph's work as well as that of his men in the field; he worked with clients and represented the firm in the community. Although he was something of a father figure, Rudolph grew rapidly in ability and independence. In 1947 Twitchell made him an associate and granted him a financial interest in the firm. Upon return from the Harvard traveling fellowship in Europe in 1949, Twitchell granted him full partnership, and the firm of Ralph S. Twitchell, Architect became Twitchell & Rudolph, Architects.[28] Rudolph received his Florida architectural registration in 1950.[29]

One can imagine these two strong figures working together in a tiny office on Siesta Key, a barrier island along the coastline of Sarasota, seemingly at the outposts of civilization, producing some of the most advanced architecture of the time. The two architects' skills and interests were complementary, leading to better work than either of them could have produced independently. Rudolph produced design and construction drawings, as well as the exquisite presentation renderings. He designed and drew with great speed and tended to develop one idea after another in rapid succession. Rudolph worked at the drafting board, and once a house was fully designed, he was on to the next one. Consequently, he had a certain impatience for craft, and the vagaries and shortcomings that inevitably occur in construction. For Rudolph it was the idea that counted.[30]



RALPH TWITCHELL

PAUL RUDOLPH

In contrast Twitchell's priority was the constructed building, and his interest was in the physical reality of material, joinery, and detail. The houses of the partnership possess a strong material presence with their varnished cypress and rich colors, elements that are not often seen in Rudolph's independent practice, as he typically painted wood and emphasized line and mass over material. His later Florida buildings were usually articulated in white and shades of gray so that they tended to photograph, in black and white, more attractively and with more crispness and airiness than the partnership buildings with their deep colors.[31] As Twitchell was more interested in the direct phenomenological experience of the architecture rather than its image or representation, materiality and craft were emphasized during the partnership.

The residential designs of the partnership illustrate a pattern that occurs throughout Paul Rudolph's career: an intense interest in particular formal and structural ideas expressed in several sequential projects. Usually, after three or four iterations the idea is discontinued and a new set of theme and variations is begun anew. The initial series, with Twitchell, is characterized by heavy cypress structural bays, utilizing wood joists on top of the bents, and later with spanning tongue-and-groove wood decking. The flat-roofed concrete houses are another series, yet another followed with concealed wood joists. The steel tension/cocoon roofs and the vaulted plywood series conclude the partnership's formal experiments. This pattern illustrates Rudolph's preoccupation with architectural form and its visual effect. In this sense he comes to a particular project with an already conceptualized design strategy, to be worked out with the specifics of site and program. He was also acutely aware of the need for constant innovation in the Florida houses; he had to produce novel projects that would be perceived as newsworthy and published in architectural journals.

While Twitchell and Rudolph had ambitions of developing a new, widely disseminated house type, their actual body of work remained small and very specialized. A number of the houses, such as the one for Louise Denman, were winter residences for wealthy clients, designed to accommodate visiting guests and for entertaining. These seasonal residences were closed up during the hot summer and the large expanses of glass were covered to protect them from hurricanes when the owners were away at their primary homes in the north. Guest houses, such as the one for Marion Miller, were so small in scope and had so few programmatic requirements that they could be designed with a remarkable amount of architectural freedom. The Russell Residence is a good example of a full-time home. Overlooking Sarasota Bay, it was designed for an active family with accommodations for five children, incorporating such features as a swimming pool, sailboat slip, and a production-oriented kitchen.

A surprising number of the Twitchell and Rudolph houses were designed for "in-house" clients. The Twitchell Residence was built for his first wife and children. The Finney Guest House was designed for his second wife Roberta Finney as was the Revere Quality House for the same site, where Twitchell lived for the rest of his life. The Healy Guest House was designed for Roberta's parents. The Shute Residence was to be a starter home for a young married couple; he was an Associated Builders project superintendent. Clients who were so close to the architects were clearly sympathetic to their ideas of modern design.

As is often the case with experiments, there were successes as well as failures. The tension roofs of the Healy Guest House and the Coward Residence changed shape in the heat, and the Cocoon material proved not to be watertight, so these projects had to be reworked.[32] Additionally, the houses were not always as economical to build as clients hoped.[33] Twitchell, by all accounts a charming and good-looking man, possessed a remarkable ability to convince the clients, family or not, to accept the inevitable shortcomings of the houses. An architect of the younger generation remembered an example of his charm:

> I heard Ralph say once to a lady who complained that her roof leaked, that 'Of course it leaks, nobody has ever built a house like this before. This is unique in architectural history, and you would expect a house to leak.' And when he got through, she was happy. Ralph was very gifted that way.[34]

While Twitchell clearly enjoyed living and working in Sarasota, there is a sense that for Rudolph it was a place to work and a means to an end. He lived at the studio, where a small bedroom and bath were built for him. A friend recalls walking along the beach in front of the office at all hours of the day and evening and always seeing Rudolph through the large glass windows working at the drafting board.[35] From 1950 on he was looking beyond Sarasota, traveling frequently to New York and lecturing and teaching at various architecture schools. Though the specific cause of the breakup of the partnership is not known, it is clear that there was considerable strain in the relationship prior to Rudolph's departure in March 1952 to start his own practice. In an interview years later he explained the end of the partnership: "It was a difficult period. Twitchell was 25 years older. It was a very small office. The partnership just didn't work; there were jealousies about who did what. But he did give me a start, and I'm indebted to him. It was my temperament, let's face it. Now I know it, and I'll never work with another partner again."[36] It is also the case that over time Rudolph had learned everything he could from Twitchell. He assimilated the lessons of technology, craft, and landscape and was eager to explore new directions. As he gained his own independent reputation, Rudolph was able to support himself by teaching in architecture schools and maintaining an independent practice in Sarasota, both of which in time led to larger work and greater influence elsewhere.

While Rudolph continued to advance in one of the most important careers in mid-century architecture, Twitchell, who was sixty-two years old in 1952, was beginning to slow down, although he continued to be involved with modern houses in Sarasota through his architecture firm. Job Superintendent Jack Twitchell, Ralph's nephew, started his own business in the early 1950s, and Ralph's construction firm, Associated Builders, Inc., did little work in later years. It is worth noting that Ralph Twitchell was also raising a second family at this time. He did not share Rudolph's drive for national prominence and larger commissions, as he gained much satisfaction in building modern houses and enjoying the fullness

of life in Sarasota. In 1951 Twitchell spoke with youthful enthusiasm to a group of architecture students from the University of Florida, sharing a feeling for the vitality of the firm's work:

> Art is always at its greatest before it reaches perfection. It is in that period when it struggles to assert itself that lies its power. Great art is always vibrant with spirit—vibrant with the joy of a vital idea.
>
> What we think of today as the perfect job tomorrow we will discard. The completed object, the material manifestation is only a symbol of the creative power that gave it birth. The true reality lies wholly in the spirit—the vibrant power that we call the 'soul of the thing.'
>
> Never force yourself into anyone else's pattern but do only the things you like best to do until you become their master. Enter into the spirit of creation and produce what's fun. Suddenly you'll awaken to find that your design will be orderly, beautiful, living, and you'll know that you have arrived. You will have found peace in simple work that will live—a peace that comes to a blessed few.[37]

SARASOTA IS ON THE CENTRAL WEST COAST OF FLORIDA, SOUTH OF TAMPA BAY.

SARASOTA DEVELOPMENT

While Twitchell and Rudolph were establishing a successful architecture practice in Sarasota, the community was becoming well-known and prosperous. Among towns in southwest Florida, Sarasota was notable as a resort destination with a strong interest in the arts and sports, supported by wealthy patrons and investors. From its early days, Sarasota developed its own unique combination of ambition for development and a certain cosmopolitan air, derived from a shared awareness of the strikingly beautiful natural setting and eagerness to participate in the larger cultural and commercial world. The community's growing sophistication gradually made it possible for Sarasota to become, for a time, the setting for a highly innovative modern, regional architecture.

The Louise Edmondson House is an example of a prominent family home of the settlement period. The woman shown in the photograph at left is dressed in period attire, which, although stifling in the Florida heat, concealed the skin from mosquitoes and demonstrates a certain level of stylistic awareness and consumer commerce. The house is of a very typical wood-framed carpenter vernacular, common throughout much of the United States, although in many ways well-adapted to the hot Florida climate. The floor level is elevated a few steps above the adjacent ground, to stave off moisture and rot problems, as well as to catch the breeze. Large windows provide light and ventilation, and trees are retained around the house to provide shade. A front porch provides a place to escape the heat that inevitably builds up inside and creates a pleasant social environment in the cool of the evening. An upstairs balcony and sleeping porch appear to be additions and reach out to the cool night air.

EDMONDSON HOUSE, CIRCA 1911

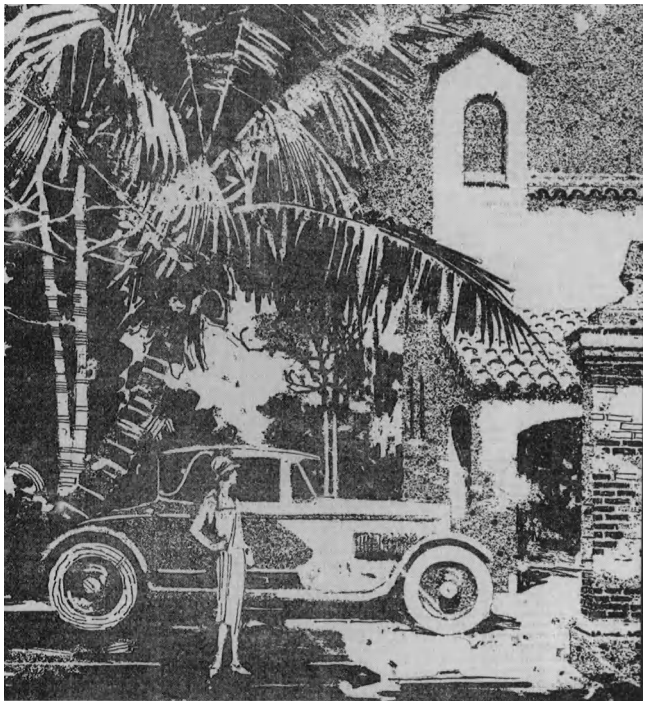
During the 1910s, Sarasota began to attract a growing number of wealthy visitors from the north, some of whom, such as Chicago's Mrs. Potter Palmer and circus owners John and Charles Ringling, began to acquire property and develop business interests. An active and ambitious group of business people, called the Progressives, sought to build upon the basic attractiveness of Sarasota's natural setting and benign climate by developing the town into a first-class resort, with all the appropriate amenities. They worked to build new roads, bridges, and schools. They attracted a baseball team for spring training, established a sport fishing industry, and built golf courses. As part of the development of their business interests in Sarasota, the Ringlings made it the circus's winter headquarters. Two events in 1921 freed Sarasota to develop as it wished: First, Sarasota County split from larger Manatee County in July 1921, allowing for the creation of a local government that would be more responsive to local development interests. Second, in the fall of the same year, a devastating hurricane swept through the area, destroying much of

the waterfront area of the city and creating an opportunity for a new image. Fish houses, boat yards, shipping facilities, and related businesses were rebuilt north of downtown, and the bay front was turned into a park with a band shell, emphasizing the idea that what Sarasota had to sell was its beauty more than its fish, agriculture, or other commodities.[38] During the Florida land boom of the 1920s, hotels, banks, commercial businesses, sports attractions, and residential areas were developed. As a result, Sarasota began to take its place on the national scene, although some of the ambitious projects that were planned or undertaken in the 1920s did not survive the subsequent bust in 1926.[39]

The imported architectural imagery of this period was referred to interchangeably as Mediterranean, Mission, or Spanish, and consisted of stuccoed masonry construction ornamented with historically derived details meant to evoke far-away lands adjoining the Mediterranean Sea. This style was used collectively by the community as a marketing tool, to promote the idea that Sarasota was a glamorous, yet stable, place.[40] As seen in a 1920s advertisement for Whitfield Estates, the development in which Ralph Twitchell built houses at the time, Mediterranean architecture was promoted as luxurious and sophisticated, attracting a wealthy, stylish population. The buildings, made to look old, also created the fiction of a long cultural history. The idea was to attract people to come to Sarasota for its desirability and exoticism, and to convince them to invest their money in a town of alleged age and stability.

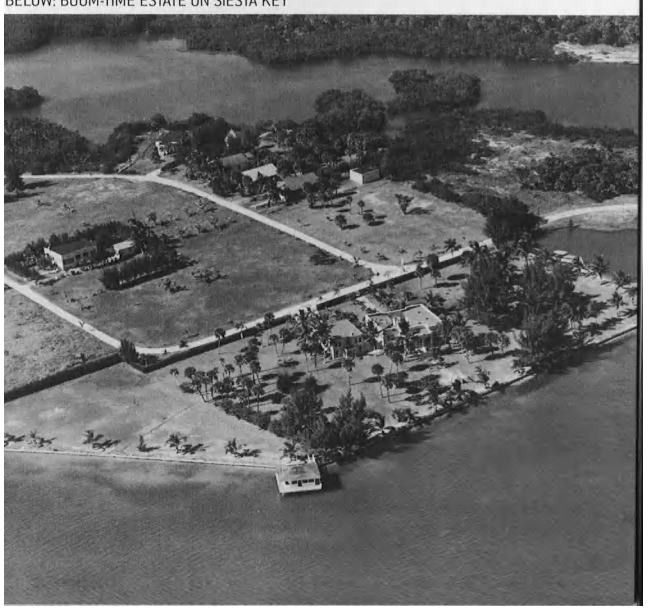
The aerial photograph at right is of a typical Sarasota boom-time estate constructed on Siesta Key. The masonry structure is built on cleared, filled, sea-walled land, and one observes a typical carpet of lawn with exotic palm trees and other landscaping that creates an expansive tropical image much different from the actual dense indigenous landscape. The goal of both landscape and architectural design was to construct a fantasy environment while taming the seemingly wild existing native lands. After the boom, the necessity of actually living in the Mediterranean-derived houses became a reality, and the weaknesses of the style became more and more apparent. In the prewar years, Twitchell used his voice in the community to describe the problems of Sarasota's earlier design style. He advocated a new architecture that he intended to develop, as well as a way of living in the natural environment. In an article entitled "Where Goes Sarasota?," Twitchell set forward his ideas:

> All of the work of the "boom" period was Mediterranean in style with low-pitched tile roofs and stuccoed masonry walls. No one then gave a thought to the outstanding characteristics of the Florida climate. The Mediterranean style was the product of a semi-tropical, hilly and dry environment. Florida is neither hilly nor dry. Its warm sea breezes carry a high degree of moisture. Where the Mediterranean style answered the needs of its birthplace, its thick walls, small openings, enclosed courts and roofs with no overhang utterly failed to answer the needs of Florida...



ABOVE: FROM A WHITFIELD ESTATES ADVERTISEMENT, 1920S

BELOW: BOOM-TIME ESTATE ON SIESTA KEY



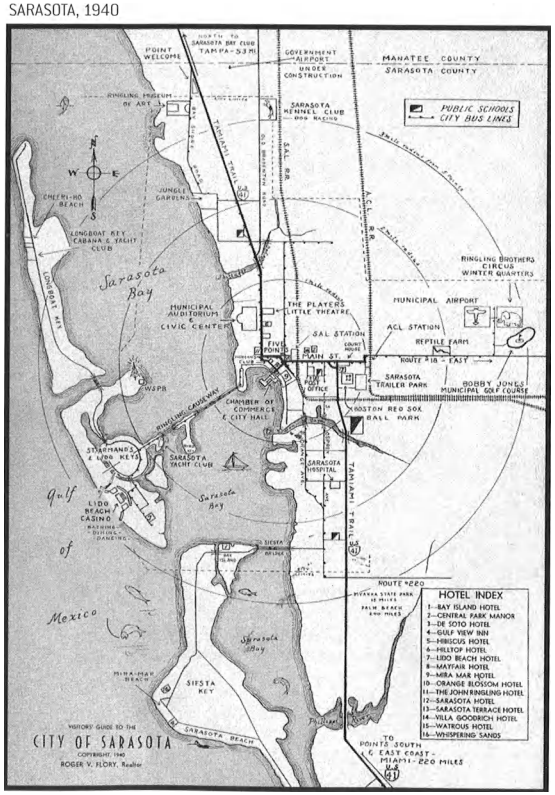
An ever-increasing proportion of humanity is now awake to the possibilities of a house planned to make the environment a part of the home—the whole integrated for outdoor as well as indoor living.

Sarasota's summer breezes are from the west by day, from the east by night. Winter breezes are warm from the south and east, cold from the west and north. The sun is south of us in winter, nearly overhead in summer. Rains are few in winter, overly abundant in summer. High humidity makes the summer sun soft, breezes soft, sunsets gorgeous...

Florida is a land dependent on sunshine. A Florida home should be built with many and large openings. Small windowed, high-ceilinged rooms make a home that resembles a silo. Florida is damp: materials dry rapidly only in moving air. A Florida home should be easily opened and opened wide...

Sarasota and its neighboring keys possess a variety and color that fascinates. Modern building, with modern equipment, sanely planned, answers today's sophisticated demand for easy informal living. Sarasota is just beginning to answer man's longing for an open, free, way of life—true democracy.[41]

SARASOTA, 1940



The map at left, excerpted from the 1940 *Sarasota Visitor's Guide*, illustrates the city's general geography as well as the various cultural and tourist attractions that had been developed in Sarasota prior to World War II.[42] As can be seen, Sarasota had developed adequately to attract tourists from the north and was poised for the tremendous growth that would occur after the war.

During the period before and after World War II, a remarkable community of creative individuals came together in Sarasota. Among artists, writers, and architects there was a notion of creating a sophisticated, if informal, community in the semi-wilderness of the outlying islands and the small resort town. In both a social and professional role Twitchell, and later Rudolph, participated in this community. In 1935 Twitchell designed a renovation for the home of Karl Bickel, the retired head of the United Press, an activist in the Sarasota community, who wrote an important history of the area, *The Mangrove Coast*.[43] In 1937 Twitchell designed a home on Siesta Key for MacKinlay Kantor, winner of the Pulitzer Prize for his novel *Andersonville*. Twitchell and Rudolph designed a studio for Joseph Steinmetz, the noted photographer for *Life* magazine.[44]

An aerial view of the north end of Siesta Key taken before the war shows that much of the island remained in its native state, though some boom-time development is apparent in the foreground. On the right (west) portion of the key, Bayou Louise meanders back into the mangroves and scrub. This area was to become the site of the Finney Guest House project, Revere Quality House, Cocoon House, and the

Cohen Residence. In conception, each of the modern designs would establish a sensitive and interactive relationship between architecture and landscape, as compared to the older, more imposing pattern of development. Through site design, scale, simplicity of architectural form, color, transparency, and materiality, each of the Twitchell and Rudolph projects made a case for a new, indigenous modern architecture intimately suited to the natural Sarasota environment.

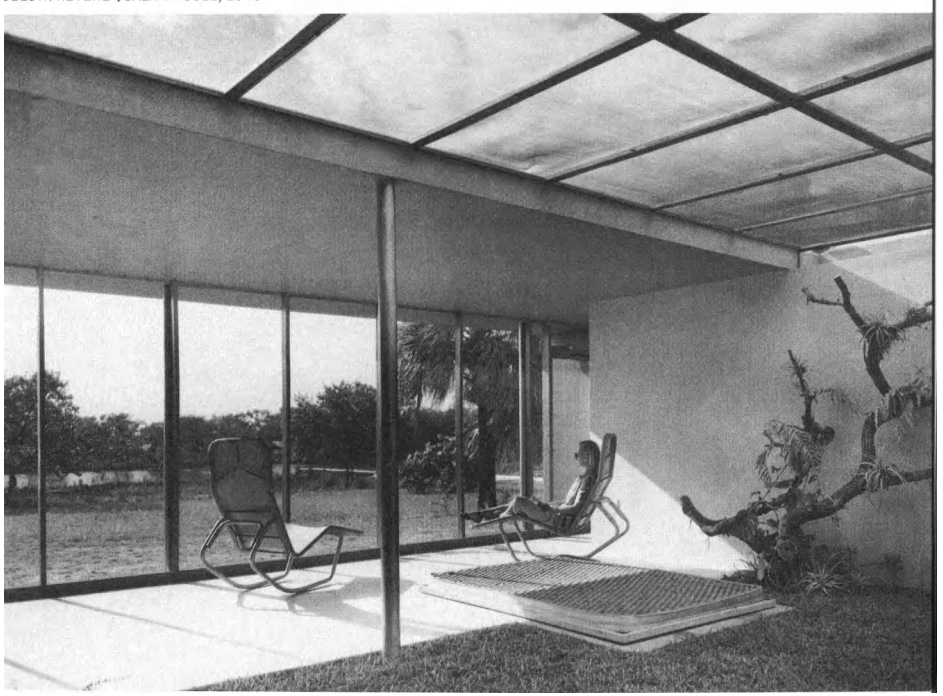
The photograph, below right, looking through the Revere House patio, illustrates the mature development of Twitchell and Rudolph's ideas about the relationship of architecture and the natural context. Radically different from the earlier Sarasota houses, this one opens up to sky, land, and water, integrating them into the architecture. A literal carpet of grass is placed in the center of the patio, and one can see the cushion laid seemingly on top of it. Unlike the Edmondson House, which asserts a sense of place in the new settlement, or the Whitfield Advertisement House, which beckons enticingly to investors, the Revere House speaks directly to a relaxed, easy way of life in the gentle Florida environment. The need to tame nature is gone, and the energy and ambition of Sarasota boosterism seem largely absent from this tranquil image, replaced by the simple act of occupying the landscape.

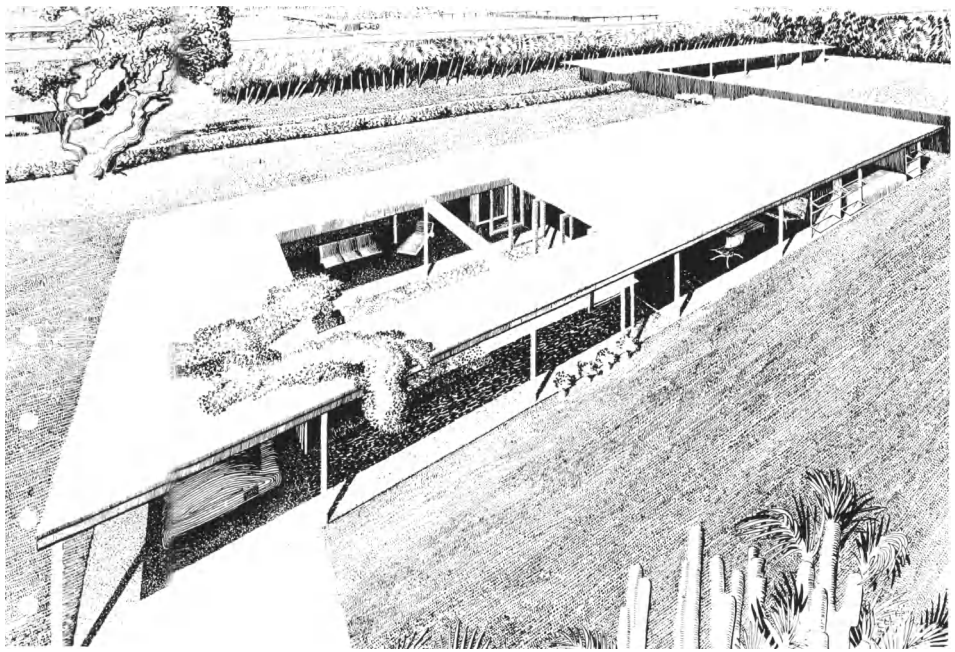
This is not to say that Twitchell and Rudolph did not promote their work. The Revere House was designed to be a showpiece, and in fact 16,000 people toured it after its completion.[45] However, unlike the Mediterranean style that had been accepted and promoted by the entire local business community, Twitchell and Rudolph's work did not receive wide support among Sarasota construction and business interests. Twitchell stated in 1950:

> I was a member of the original Revere Quality House Institute, and found architect-builder relations were not improved locally, but that a vast service was rendered the building conscious public. With some, they felt they had seen a revelation, 'a quiet bit of Heaven;' some (and in particular an F.H.A. representative), it made fighting mad. It drew tremendous public acclaim and centered attention upon a type the F.H.A. and all lending institutions in this area are opposing.[46]

ABOVE: NORTH END OF SIESTA KEY, 1940

BELOW: REVERE QUALITY HOUSE, 1948





REVERE DEVELOPMENT, 1948

Part of the difficulty was in the fact that such minimal modern houses as the Revere House ran counter to the acquisitiveness of most people in the house-buying market. In purchasing a Mediterranean house, one had the feeling of trading money for an object of mass and substance, thoroughly detailed and ornamented. In contrast, Twitchell and Rudolph's houses were open and small in scale, incorporating the surroundings as part of the architecture. To the unsympathetic observer there seemed to be very little to them, and consequently, they seemed to be a poor investment.

Twitchell and Rudolph worked to create a vision for the development of Sarasota in which the human and natural environments were to be woven together in a new way. One may compare the Revere Development project to Frank Lloyd Wright's Broadacre City proposals, in which low-density residential development was to be spread across the land, enabled by the growing ubiquity of the automobile. Both Wright and Twitchell and Rudolph advocated the necessity of architects coordinating such large-scale design, based on clear conceptual intentions. The idea of this integrated architectural/automobile/landscape design was promoted with an optimism for the future, long before the lowest common denominator of suburban sprawl and endless strip malls engulfed much of the west coast of Florida. The architects' task was, in part, socially motivated: they sought to create a broad acceptance for what they felt was a modern lifestyle well suited to Sarasota, while providing a corresponding architecture.

In the Lamolithic Houses Rudolph had his first opportunity to design a group of adjacent houses, and he began to explore ways to compose views, create borrowed space, and balance privacy and openness. He was convinced that improvements could be made in the typical "soldiers in a row" appearance of most suburban developments. Beyond the architect, though, was the necessity of a committed owner and client. Typically, residential real estate practices developed gradually, with the necessity of much attention to the market accepting incremental changes, but Rudolph sought to transform the accepted way of laying out houses. He and Twitchell articulated this new design methodology as a way toward a better, more appropriate way of modern living with the idea that the market would necessarily follow because it was simply a better solution. All the architect and client needed were courage and commitment. An *Architectural Forum* article in October 1948 spoke to the challenges J. E. Lambie faced in implementing the design:

> Since these houses were the builder's first venture into contemporary design, he approached them with some trepidation. Informal siting and landscaping and the large glass areas which open up interiors at both front and rear, proved particular stumbling blocks. In a letter to the architects [Lambie] confessed: "You may think of us as moral mice and not men at all, but it has been quite a struggle to go through with the plan as originally contemplated, many timid voices having been raised against it.

The Lamolithic prototype was a major conceptual step forward in terms of site planning. When implemented, it received positive reviews, although Lambie did not repeat its specifics further. Nonetheless, concrete construction, usually in the form of steel-reinforced concrete masonry, gradually became standardized in local residential development, allowing longer spans and wider openings for large expanses of glass in production housing.

After World War II, the typical Sarasota house design type was in a period of transition, as can be seen in the house at the far end of the sidewalk in a late 1940s photo of the Steinmetz Studio canopy. Simple, economical concrete block walls are built on a concrete slab at grade, much like the earlier 1941 Twitchell Residence. In contrast, this house is compact and boxy in plan, with conventional, albeit relatively large, window openings rather than entire walls of glass.

By the late 1950s, the Sarasota building industry had developed its house type and marketing strategy to attract a new generation of postwar seasonal and full-time residents, incorporating some of the ideas that Twitchell and Rudolph had advocated; however, they missed much of the point of occupying the natural landscape. Such is an advertisement for Bird Key, which was a massive dredge-and-fill project developed circa 1960. Here, in the middle of Sarasota Bay, a small mangrove island was converted into a sprawling housing development. One can also imagine that the mass housing market had little to do with the relaxed, somewhat

ABOVE: STEINMETZ STUDIO, 1947

BELOW: BIRD KEY DEVELOPMENT ADVERTISEMENT, CIRCA 1960

bohemian Sarasota lifestyle embodied in the Revere House photo, where a group of Bird Key residents, displaying their material accoutrements of shiny new clothes, air-conditioned house and automobile, appear to be on their way to dinner at the exclusive new Bird Key Yacht Club. The material characterization of what it meant to live the good life in Sarasota was hardly different from the 1920s advertising scene of nearly forty years before.

The Bird Key photograph shows the adoption of the modern low-slung horizontal building type, although here it is stylized with a pitched tile roof and a stone entry accent. Large expanses of glass are incorporated, and undoubtedly there is a wall of sliding glass doors placed at the back of the house overlooking the water. Twitchell and Rudolph had introduced large moveable glass panels to Sarasota, and their early ones had been job built, framed in wood, and carefully detailed. By the time of this photograph, aluminum-framed sliding glass door assemblies were manufactured locally and in standardized sizes.[47] Modern architecture, by definition, had always concerned itself with housing for the industrialized age, and Twitchell articulated such an interest in a *Sarasota Herald-Tribune* article at the time of opening his Sarasota office in 1936:

> Building...is still in the "hand-loomed" stage while all the rest of man's necessities are being produced by machines. We don't like the term "standardization"...but if we are to achieve efficiency in housing we must make use of standardized methods.... But just as it is true that few of us, nowadays, have our suits and shirts made to order, so, I believe, a time is coming when the "custom-made" house will be the exception. And just as the best clothes designers are working for the "ready-to-wear," so will the country's best architects apply their talents to the factory production of houses.[48]

As production housing developed in Sarasota in the 1950s and 1960s, only a few of the local modern architects were called on to design them. Rudolph designed some production housing prototypes in his independent practice, but the crisp and rigorous designs did not particularly convey the lifestyle imagery that the market-driven/advertising interests desired. By the 1960s the early Twitchell and Rudolph houses probably seemed oddly naïve in their ardent desire to create an architecture of extreme simplicity and openness. They appeared not to participate in Sarasota's ambitions of economic and physical development, and supposed growing sophistication.

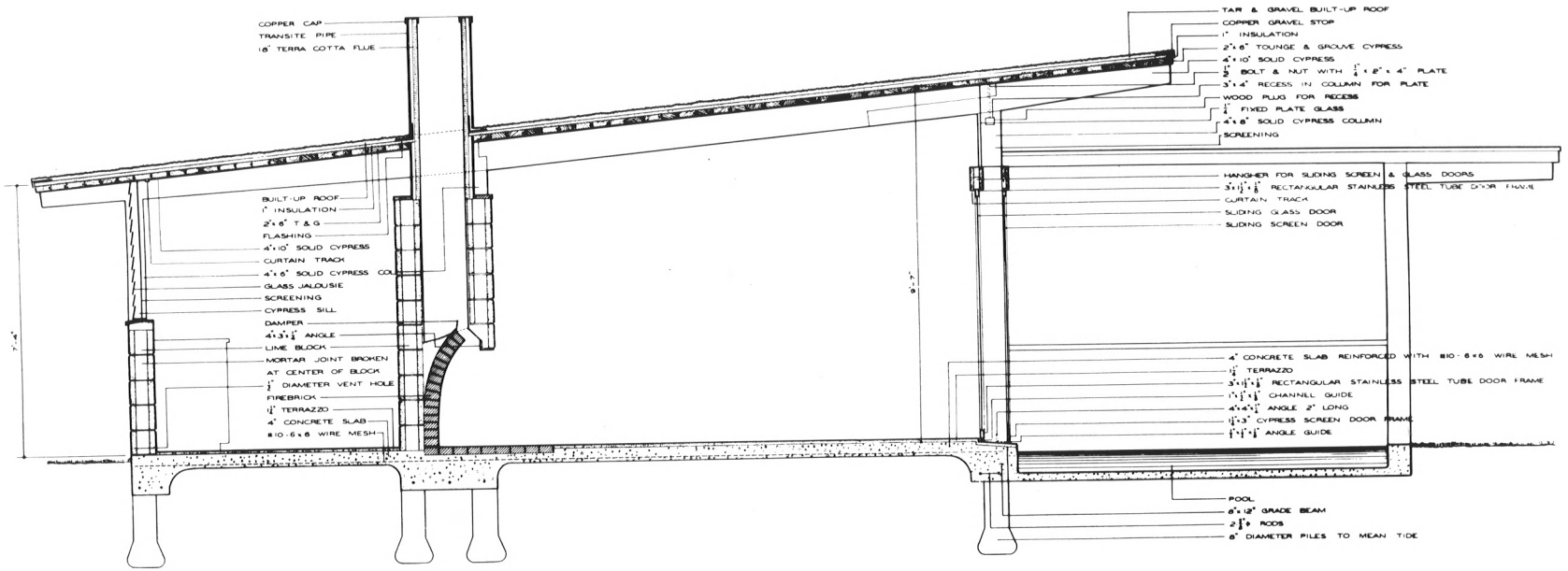
Of course, Rudolph's work was anything but naïve. A keen observer of architectural theory, the built environment, and contemporary culture, Rudolph throughout his career practiced a critical modernism. That is, he constantly worked to interpret, develop, and transform modern architecture. And so he faced the challenge of providing a client with an acceptable building according to current needs and expectations, while at the same time interpreting and carrying forward ideas about architecture. As

Sarasota became increasingly preoccupied with economic development, clients and the community could find less interest and time for progressive ideas of modernism. In the 1960s, the influence of the low-key artist subculture in Sarasota that began developing in the 1920s and the cultural environment that supported the modern regional architecture went into decline. A number of the architects, like Rudolph, moved away. However, to some extent, the memory of the earlier period, which so helped to define Sarasota's identity, has remained and Sarasota continues to think of, and market itself, as an arts community. Explorations of regional modern architecture have continued over the years, albeit at a much diminished scale and with less cultural influence than during the postwar period.

DESIGN, TECHNOLOGY, AND CRAFT

The successful design and construction of the Twitchell and Rudolph houses were a direct result of the poetic and prosaic uses of material and technology. Twitchell had developed a system for using a type of lime block that was manufactured in Ocala, Florida, made from crushed indigenous limestone that gave the block a pleasing buff color. The blocks were laid in a stack bond, one wythe thick, with steel reinforcing in periodic grout-filled vertical cells and in every third horizontal mortar joint. The walls were coated with clear silicone on the exterior to resist water intrusion. Internal webs of the blocks were left unmortared, and venting holes located in the bottom and top of the walls created essentially a cavity wall out of one thickness of masonry.[49] In this way the ever-present coastal humidity and moisture could migrate back and forth, minimizing condensation and mildew problems. This system represents Twitchell's thorough understanding of the particularities of the local climate and is a direct interpretation of Wright's textile block technology, developed in his California houses in the 1920s and used at Florida Southern College. Underlying the complexity of making the block wall function properly was a simple idea: the structure served also as the unornamented finished surface. The block walls had the same appearance regardless of location, so that the exterior and interior spaces were experienced as part of the same composition. In this way the exterior garden setting was as much a space of the house as the interior.

As a foil to the planar qualities of the Ocala block walls, Twitchell and Rudolph made expressive use of the linear character of lumber and heavy timbers, especially heart-red cypress which they used for all exposed structural wood. The deep color and tight grain of this native wood possess an extraordinary depth and beauty and it is highly decay resistant, a necessary quality in the humid Florida environment. At that time, old growth cypress was harvested from the Florida swamps and was plentiful enough so that Twitchell could specify using only the heartwood that was dense, of even color, and virtually knot-free. In later years this lumber source was depleted, as the ancient trees were timbered nearly out of existence.



ABOVE: SIEGRIST RESIDENCE, SECTION

OPPOSITE: SIEGRIST RESIDENCE, NIGHT VIEW

The foundation and floor of the houses generally consisted of a monolithic concrete slab cast at ground level, a simple and economical technique, inspired by Wright's Usonian houses, that was just being developed in the residential construction industry. The interior living space is located at the same elevation as the surrounding landscape, providing an immediate connection to the outdoors.

In the Rosenbaum House Wright opened living spaces to the outside using hinged, glass-filled doors, which, with their small scale, created a rhythm of open and closed, of light and reflection. Twitchell and Rudolph's innovation was to open entire bays between structural columns with large sheets of glass framed in cypress, typically hung from a roller assembly in the roof structure above. One may compare such panels to the giant, crank-operated rolling glass wall at Le Corbusier's Villa Savoye of 1928.[50] In both cases structure is articulated separately from enclosure, allowing the building envelope to achieve a new thinness and mobility, and promoting the connectedness of interior and exterior space.

The use of large expanses of glass was the most notable material feature of the Twitchell and Rudolph houses, creating, as it did, never-before-seen transparency in a residence. A beaux-arts architect, Electus D. Litchfield, visited Twitchell and Rudolph and wrote about the effect of the expanses of glass in a letter to the editor of *Architectural Forum* magazine in February 1948:

> ...I am frank to say that amid the lush planting of tropical Florida...traditional architecture seems somewhat abhorrent, and that which men like Twitchell and Rudolph have been doing is entirely blessed. Of course, it seems to me there are problems of psychology yet to be explored. How comfortable is it to realize that the casual passer-by, unbeknownst to you, may have you in complete surveillance; and will one always recognize the necessity for pulling the curtains or lowering the venetian blinds when one starts to disrobe—or have we reached a time of Eden-like frankness and simplicity when this is no longer necessary.
>
> Again with all the beauty of the sea and the more intimate interest of the garden made part of the very furnishing of one's room, is it possible to be surfeited with, or to become blind to, these beauties and to find life of less consuming interest because of having all of one's good things at once....

Litchfield seems overwhelmed by the implications of living in a glass house. Could it really be possible in the complicated modern world to live in such an idealized state of openness, innocence, and grace? This does indeed seem to be the romantic, Utopian vision that Twitchell and Rudolph sought to create for Florida living: comfortable, simple, open to nature, and full of life.

Glass is thought of as a subtractive material, replacing more substantive opaque elements. Through its transparency and detailing, the glass was made to seem as though it were hardly present at all. In the Siegrist Residence, for example, large sheets of glass were inserted into the structural members and

held in place with flush cypress stops and at the ceiling the glass was placed in the joint between pieces of tongue-and-groove decking. In this way the edges of the glass are minimized in appearance creating the feeling of spatial continuity between inside and out. This is exactly opposite to the way traditional windows are detailed. Here, the joint between glass and wall is articulated by a frame of decorative moldings, thereby pointing to the distinction between the interior world and the exterior and emphasizing the boundary in between.

Twitchell and Rudolph did not use trim and moldings, feeling they would distract from the pure expression of mass, opening, planes, and structure. Twitchell described this as a fundamental change in architecture: "Now we do not ornament—We are in the new age—the age of air and we use sunshine, color penetrating surfaces—It is not a new style but a new basic principle. It is governed wholly by a new spirit."[51] By composing the elements of the houses with attention to principles of proportion, scale, and harmony, their fundamental beauty was expressed with no need for decoration or coverings. If this Eden-like attitude applied to the architecture, so it did to the idea of living in the houses. Domestic life was to achieve a new (or ancient) level of simplicity and harmony in which there was no need to cover things up.

Frank Lloyd Wright's Usonian houses presented solid walls to the street but opened fully to the private exterior areas at the back of the houses. In this sense, Wright's openness to nature was essentially a private enterprise, casting a wary eye to the public realm. In an example of striking contrast, one observes that Twitchell and Rudolph's Siegrist Residence is designed so that the most open side of the house faces directly to the street. In postwar suburban housing the "picture window" was becoming a common element on the front elevation, allowing a framed view into the decorated living room, family life, and its Rockwellian imagery. Unlike this glimpsed view, the Siegrist house, which is completely open, presents a wide-screen panorama of the unedited drama of domestic life. One can see in the night photograph into the Siegrist living room that the only window coverings are drapes of a very sheer netting type. Rudolph used the term "theatrical gauze" in describing the effect he desired. So even if drawn, the curtains created only a slight shimmering veil in front of the domestic scene—the life of the house was intended to be observed as theater.

Twitchell and Rudolph understood the variable transparency of glass in different light conditions and composed their designs accordingly. As seen in the Siegrist daytime photograph, looking into the living room, glass reflects the surrounding environment. Additionally, it is difficult to make out the specifics of the interior as it is shaded under the broad overhanging roof, and the light coming through the glass-filled back wall casts interior elements in silhouette. In this house glass is used overhead for the first time above the screened patio and in the cantilevered entry canopy in a new orientation, combining openings to the sky with protection from the elements. In many of the houses, as seen in the site plan of the Denman Residence for example, the surrounding scrub forest is made to function as a bounding wall of the exterior room. Thus, the Florida houses were not as completely transparent as a "goldfish bowl," a term that Rudolph used repeatedly. Instead, the coordinated use of design elements created a dynamic, continually changing environment of openness and closure, observation and privacy.

These new ideas about design and technology were translated into constructed reality largely through the work of Ralph Twitchell's construction company. Associated Builders, Inc. took an integrative approach to the construction process. Though specialized trades such as plumbers and electricians were utilized, most of the work was done by company employees. By having the same people preparing footings, framing, laying block, setting glass, and building cabinets and built-in furniture, the houses achieved a remarkable level of coordination. There was really no other way to build, because very little "rough work" could be covered up.

Project Superintendent George Shute recalled that Rudolph did all the design and construction drawings, and that he was always trying to make things float, sometimes insisting that structures be built as designed, despite warnings from the men in the field. He remembered hiding additional supporting members, so that Rudolph would not see them. In ways that they might not have always known, Twitchell and Rudolph relied on the intelligence and good sense of the craftsmen to make the buildings work. This is not unlike the role of the Taliesin apprentices that Wright made sure to have on site during the construction of his projects from the 1930s on.[52]

James Stroud, another superintendent, was a skilled cabinetmaker. The attention to detail required in assembling these houses made skills such as his especially valuable, as they were implemented at the scale of an entire building. Stroud went on to found and run one of the prominent contracting firms in Sarasota in the 1950s and 1960s. He built several of Rudolph's projects, such as the Sanderling Beach Club and the Davis and Harkavy Residences, and he constructed some twenty-six houses in Philip Hiss's development of Lido Shores. Stroud was also the client for the Tastee Freez and a series of unbuilt speculative houses.

Jack Twitchell worked for his uncle Ralph in Connecticut in the 1930s. After service in the war he owned a custom furniture shop in Sarasota before he resumed working for his uncle. In terms of both skill and disposition, Jack Twitchell was the consummate craftsman. In a revealing observation, James Stroud remembered that he was so meticulous that even his toolbox was organized with the precision of a doctor's bag. He was apparently immune to Twitchell's and Rudolph's ego-driven temperaments and thus the even keel of the organization. While he was aware of Rudolph's interest in operable flaps on buildings, Jack Twitchell independently developed an advanced panel system for his own house, to be operated seasonally. Wood-framed walls of glass were folded up accordion-like and recessed into the ceiling. Along with remarkable innovation in construction systems, he and his workmen possessed considerable pride in their precisely detailed assemblies and materials, generating such old saws as: "Caulk and paint make a carpenter what he ain't."[53] Starting in the early 1950s, Jack Twitchell owned his own contracting firm and built houses for a number of local modern architects, including Jack West, William Rupp, and E. J. "Tim" Seibert, among others. He built the beautifully-crafted Deering and Burkhardt houses for Paul Rudolph with Bert Brosmith.

LOCAL ARCHITECTURE AND THE LARGER AUDIENCE

As modernism became the shared architectural expression throughout postwar America, a strong interest developed in regional adaptations of modern design and construction techniques, and the work of Twitchell and Rudolph caught the imagination of practitioners and the architectural press. Most of the projects included in this book were published in one or more architectural journals. The Russell Residence was published on the cover of *Architectural Record*. The Miller Residence was the first to win an award, a 1949 Award of Merit from the American Institute of Architects. The Revere Quality House was advertised in such places as *The Saturday Evening Post* and published no less than eight times in architectural journals.[54]

This recognition attracted a number of architecture school graduates to Sarasota. Most of them worked for Twitchell and/or Rudolph and generally continued on to produce their own notable work. By all accounts both Twitchell and Rudolph were devoted to educating the younger architects in the conceptual qualities of regional modernism, the integration of craft, and experimentation in technology. Rudolph was especially generous, as long as the subject was architecture and someone showed both intelligence and aptitude. He depended on his employees to develop the skills to see projects through, particularly during the period of his independent practice. In this sense the later architectural graduates took on a portion of the role that Twitchell had during their partnership, becoming something of a buffer between Rudolph's idealizing intentions and the sometimes tedious realities of clients, construction, and costs. If Sarasota had its own Periclean Age, the period from the mid 1940s through the 1950s was that brief moment, with a focus on the work of Paul Rudolph and Ralph Twitchell. During this time there was an extraordinary confluence of architectural talent in Sarasota, an ability to construct innovative buildings, a local culture that valued modern art and design, and clients committed to seeing the work implemented.

As the Twitchell and Rudolph buildings were remarkably simple in form, it became necessary to develop an expressive and often dramatic rendering style to communicate the character of the spaces and the assembly of elements. In the Goar Residence project, for example, the elevation drawings, although showing the roof plane detached from walls below, do not convey a feeling for the space created, suggesting the importance, even the necessity, of the perspective drawing. Rudolph became very skilled in developing perspective projections, using unexpected station and vanishing points. Often, as in the Goar Residence rendering, the use of one dominant vanishing point draws the viewer into the experience of the space. These renderings made it possible to have projects published shortly after they were designed, without having to wait for construction and photography.

The drawing style that Rudolph developed in Florida and continued to refine throughout his career incorporates entirely black lines and marks on a white background. Planes and shade and shadow are represented by carefully controlled line work rather than conventional solid tones. Rudolph understood that crisp, high contrast line drawings would read clearly in the periodicals, even if printing quality was

poor and that well designed drawings would have a striking effect. This rendering style was widely emulated in postwar architectural practice . As he found himself lecturing with greater frequency, Rudolph also produced didactic drawings derived from Gropius's lessons in rational analysis, which were admired for their clarity in the academic setting. The diagrams of the various elements of the Siegrist and Burnette houses, for example, were used to illustrate site planning and the articulation of structure, space, and enclosure.

Ezra Stoller photographed most of Rudolph's Florida houses, from the early Denman Residence at the beginning of Stoller's career, to the late Milam Residence, when he was well established as one of the finest photographers of modern architecture. Indeed, Stoller's and Rudolph's careers developed more or less concurrently, beginning with their connections to Gropius and the students at Harvard and rising steadily through the postwar years.[55] Seeing Stoller's photographs, taken over an extended period of time, is essential in understanding the visual character and development of the Florida houses. Rudolph and Stoller developed a friendship and easy camaraderie, as each respected the other's skill and vision. Stoller's visits to Florida were met with anticipation, and everything possible was done to facilitate the photography. He and Rudolph spent days working together on the photo shoots; they were known to load up props such as a potted philodendron and an Eames chair in the back of Stoller's station wagon before setting out for the respective site. Arrangements were also made with a local furniture dealer to loan appropriate furnishings for the shoots.[56] The architect and photographer were collaborators in creating the imagery of the buildings, and their complementary views about compositions of light, perspective, shade and shadow, texture, transparency, form, and space can be seen in parallel in both Stoller's photos and Rudolph's drawings.

The drawings and photographs reveal the Florida houses today in precisely the ways that they were intended to be known. Time, real estate values, and changing styles have had no influence here.[57] The drawings and photographs not only transport us back in time, they take us to a fictional place where buildings and nature always look their best. In the perspective constructions of the drawing board and the views through the camera lens, Rudolph and Stoller manipulate the buildings to better show their drama and poetry. In doing so, they pull us into a vision of inhabiting the Florida paradise that is purer and more idealized than it was to actually live in the houses during the 1940s and 1950s.

NOTES

[1] Michael McDonough, "The Beach House in Paul Rudolph's Early Work." (M. Arch. History thesis, U. of Virginia, 1986): 3. The authors are indebted to McDonough for his insightful and wide-ranging scholarship on Sarasota and modernism.

[2] Philip Johnson, interview by J. King and C. Domin, New York, NY, September 23, 1998.

[3] Peter Blake, *No Place like Utopia* (New York: Knopf, 1993): 264.

[4] Marie Murphy, Paul Rudolph's sister, telephone interview by J. King, October 26, 2000.

[5] While still in college, Rudolph designed and supervised construction of his first house completed in early 1939, a small residence for T. P. Atkinson, chairman of the Foreign Language Department. Sarah Miller, daughter, telephone interview by J. King, January 8, 2001. See the upcoming book *First House* by Christian Bjone, Academy Editions that studies early houses by Harvard architects trained by Walter Gropius. After graduating from Alabama Polytechnic, Rudolph worked during 1940 for the firm of E. B. Van Koeren in Birmingham. William Rupp, "Paul Rudolph: The Florida Years," unpublished academic paper, 1978 on Biography page.

[6] C. Ford Peatross, Curator of Architecture, Design and Engineering Collections, Library of Congress, interview by J. King, Sarasota, FL, June 19, 2000.

[7] Paul Rudolph, interview by Michael McDonough, New York, NY, April 5, 1986. McDonough, telephone interview by Joseph King, October 19, 2000. Rudolph is said to have called the Rosenbaum living room "one of the most sublime spaces in American architecture." Alvin Rosenbaum, *Usonia: Frank Lloyd Wright's Design for America* (Washington DC: Preservation Press, 1993): 15.

[8] John Howey, *The Sarasota School of Architecture* (Cambridge, MA: MIT Press, 1995): 28.

[9] Paul Rudolph, letter to Lu Andrews, November 17, 1941, collection of John Howey.

[10] Mark W. Foster and William R. Torbert, "A Retiring Egotist Fighting Anonymity," *Yale News* (May 9, 1964): 12. Michael McDonough, "The Beach House in Paul Rudolph's Early Work." (M. Arch. History thesis, U. of Virginia, 1986). Sigfried Giedion, *Walter Gropius* (New York: Reinhold, 1954) (reprint New York: Dover, 1992): 11.

[11] Philip Johnson, interview by J. King and C. Domin, New York, NY, September 23, 1998.

[12] Giedion, *Walter Gropius*, 71.

[13] McDonough, 15.

[14] Foster and Torbert, 12.

[16] Paul Rudolph, "curriculum vitae," 1990s.

[17] "Walter Gropius—the spread of an idea," *L'Architecture d'aujourd'hui*, no. 28 (1950).

[18] Walter Gropius, letter to Chief of Naval Personnel, November 7, 1951, copy in the collection of James Deen, Architect, Miami, FL.

[19] Patty Jo S. Rice, "Interpreting Moods in Sticks, Stones, and Sunshine: The Life and Architecture of Ralph Spencer Twitchell." (Master's thesis in American Studies, University of South Florida, 1992): 1, 2. The authors acknowledge with gratitude Rice's extensive research on Ralph Twitchell. Much of the information that Rice utilized came from Paula Twitchell, Ralph's third wife, who made considerable efforts to record the history of her husband's career. Paula Twitchell conducted interviews with Ralph and with many of those who worked with him and she gathered documents of his career. Much of this information might well have been lost otherwise.

[20] Rice, 15–18.

[21] Thomas Graham, "Henry M. Flagler's Hotel Ponce de Leon," *Journal of Decorative and Propaganda Arts 23* (Miami: Wolfsonian-Florida International University, 1998): 96–111.

[22] Corey Ford, "All With My Own Two Hands," *Better Homes & Gardens* (November 1934): 13–15, 68.

[23] Rice, 61–64.

[24] Rice, 64, 135.

[25] Rice, 57.

[26] Rice, 58.

[27] McDonough, 3.

[28] Rice, 97–98. "Twitchell claimed full ownership of all designs coming from the office until 1949," 98.

[29] Rudolph received his Florida registration June 10, 1950. Mary Dumas at Florida Division of Professional Regulation, telephone inquiry by J. King, November 20, 2000.

[30] Wilder Green, telephone interview by J. King, October 17, 2000. Green, who worked for Rudolph in 1952 shortly after he established his independent practice, noted that Rudolph was at that time very impatient about craftsmanship. Projects seemed in a sense fragile, but this didn't seem to bother Rudolph as his primary interest was in seeing the houses built, then photographed.

[31] William Rupp, "Paul Rudolph: The Florida Years" (unpublished academic paper,

edition): 154, 171.

September 11, 2000.

[33] The correspondence for the Watson Residence in Gainesville has been preserved by the Watson family and is now at the University of Florida. The client's initial budget in June 1950 was ten to twelve thousand dollars. The budget was gradually increased as the design developed. A contractor finally agreed to take on the project on a cost plus basis in April 1951. According to Jack West, this was the same arrangement in which Associated Builders worked. By the time the Watson house was completed, construction cost had risen to twenty-four thousand dollars. Twitchell and Rudolph's fee for design services (without construction administration services) was 6% of the construction cost.

[34] E.J. "Tim" Seibert, interview by J. King and C. Domin, Boca Grande, FL, December 21, 1998.

[35] Shirley Hiss, interview by J. King and Tim Rohan, Sarasota, FL, January 28, 1998. George Shute, interview by J. King, Bradenton, FL, November 11, 1997.

[36] Foster and Torbert, 12.

[37] Ralph Twitchell, excerpt from "An Overall Design," speech given to U. of Florida Student AIA chapter, January 13, 1951. Typescript copy from Greg Hall, received from P. Rice.

[38] Ann Shank, Sarasota County Historian, telephone interview by J. King, January 26, 2001.

[39] Michael McDonough, "Selling Sarasota: Architecture and Propaganda in a 1920's Boom Town" *Journal of Decorative and Propaganda Arts 23 in* (Miami: Wolfsonian-Florida International University, 1998): 10-31.

[40] McDonough, "Selling Sarasota. "

[41] Ralph Twitchell, "Where Goes Sarasota," undated, publication unknown. Typescript from McDonough.

[42] Roger V. Flory, *Visitors Guide to the City of Sarasota*, 1940. Collection of Sarasota County Historical Resources.

[43] Karl A. Bickel, *The Mangrove Coast: The Story of the West Coast of Florida.* (Coward McCann, Inc., 1942, 4th Edition, 1989 copyright Omni Print Media, Inc.).

[44] In later years, Sarasota School architect Tim Seibert designed a home for the novelist John D. MacDonald, as did Gene Leedy for artist Syd Solomon; these are just two of many examples of artists as clients.

[45] Michael McDonough, "Four Architects in Sarasota," Typescript 1985, Collection of Sarasota County Historical Resources.

[46] Rice, 110. The Revere Quality House Institute was a semi-independent promotional organization of the Revere Copper and Brass Company, and had the involvement of *Architectural Forum* magazine and a number of architects nationally. The Institute promoted high quality, innovative construction in postwar housing, and it was understood that pipes, flashings, etc. should be copper in such quality houses.

[47] E.J. "Tim" Seibert, interview by J. King, January 14, 2001. Innovators in this industry in Sarasota who developed new aluminum technologies for modern architecture include Woody Witte, Don Halverson, and Ron Kaufman.

[48] Ralph Twitchell, quoted in Sarasota Herald-Tribune article, 1936. Typescript from McDonough.

[49] "Small House in Southeast Is Designed for Hot Humid Climate, Built with Breathing Concrete Walls," *Architectural Forum* (September 1947): 85-89. Also Twitchell & Rudolph Kerr Residence Specification. August 15, 1950. Collection of Joseph Petrone.

[50] Joseph Rosa, *Albert Frey, Architect,* (New York: Princeton Architectural Press, 1999): 9, 10.

[51] Ralph Twitchell, lecture to Florida State University students at Ringling Museum of Art, Sarasota, April 22, 1949. Typescript copy from Greg Hall, received from P. Rice.

[52] Edgar Tafel, *Years with Frank Lloyd Wright: Apprentice to Genius* (reprint New York: Dover Publications, 1985).

[53] "Improving Your Home," *Sarasota Herald Tribune*, Sept. 23, 1951. John Twitchell, son, interview by J. King, April 14, 2000. Jack Twitchell maintained throughout his career an extensive library of technical literature as well as writings on architectural design. He analyzed and interpreted technical specifications and properties of materials in the ongoing effort to develop new construction assemblies using modern materials.

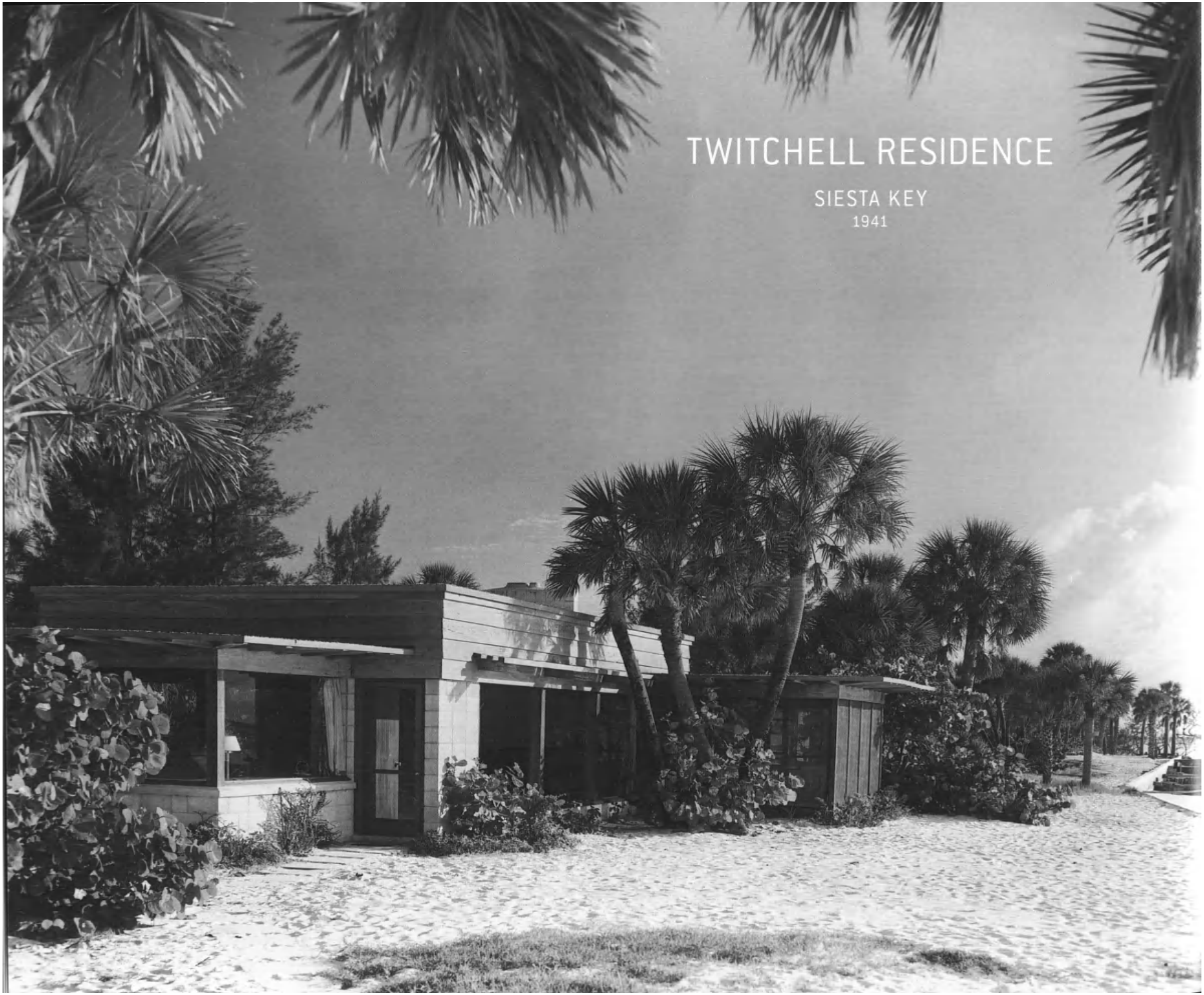
[54] Charles R. Smith, *Paul Rudolph and Louis Kahn: A Bibliography* (Metuchen NJ: Scarecrow Press, 1987): 5. "Advertisement," *Architectural Forum* (July 1948): 134.

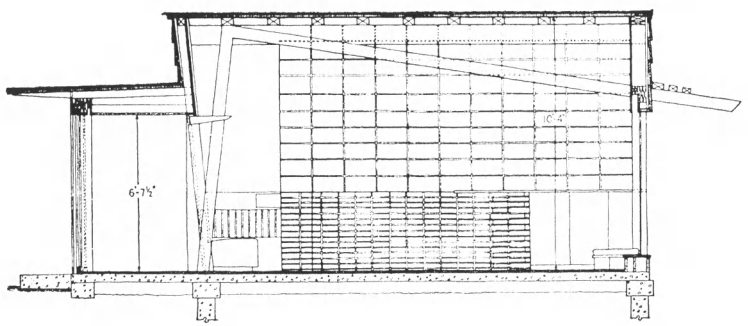
[55] William S. Saunders, *Modern Architecture: Photographs by Ezra Stoller,* with commentary to the plates by Ezra Stoller (New York: Harry N. Abrams, 1990): 9.

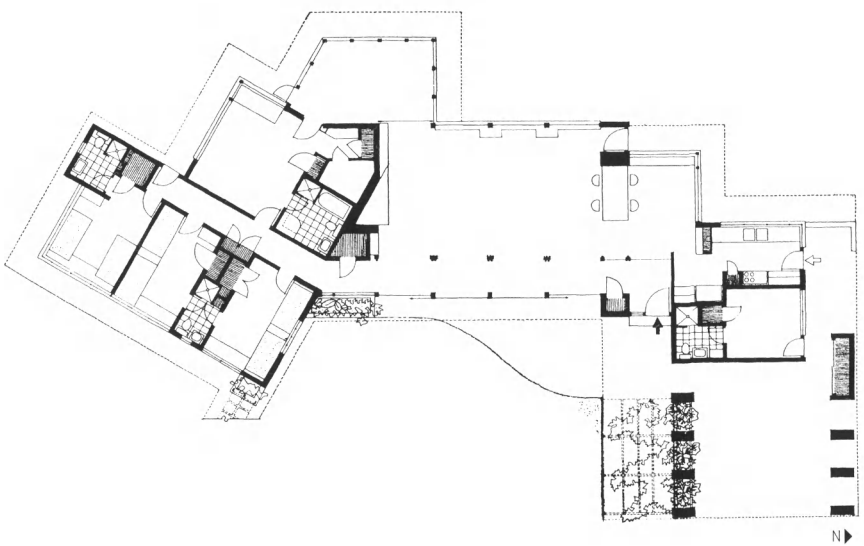
[56] Wilder Green, telephone interview by J. King, October 17, 2001.

[57]Though the current status of the built Twitchell & Rudolph houses seems to change constantly, the conditions in 2002 in summary are as follows Houses in which the design is essentially intact, whether in original condition, or having minor changes or after restoration: Twitchell Res., Revere, one or two of the Lamolithic houses, Deeds, Bennett, Cocoon, Kerr, Rubin, Coward. Significantly altered: Steinmetz Studio, Siegrist, Burnette, Miller Guest House, Watson.Demolished: Denman, Miller, Russell, Leavengood, Wheelan Guest Houses.Unknown Condition: A. Harkavy, Cheatham, Haskins, Maehlman.Projects that were designed, and some built but never published, that are not known in enough detail to be presented in this book: Morse Residence on Manasota Key, 1950; Lucienne Twitchell Residence, Martha's Vineyard, Mass. 1950; a two-story retail and apartment building in Sarasota, 1950; Carr Residence 1950; DeArmand Residence, Siesta Key, 1951; designs for Trinity Homes, 1951; and Hoblitzelle Residence, 1951.

TWITCHELL AND RUDOLPH:HOUSES

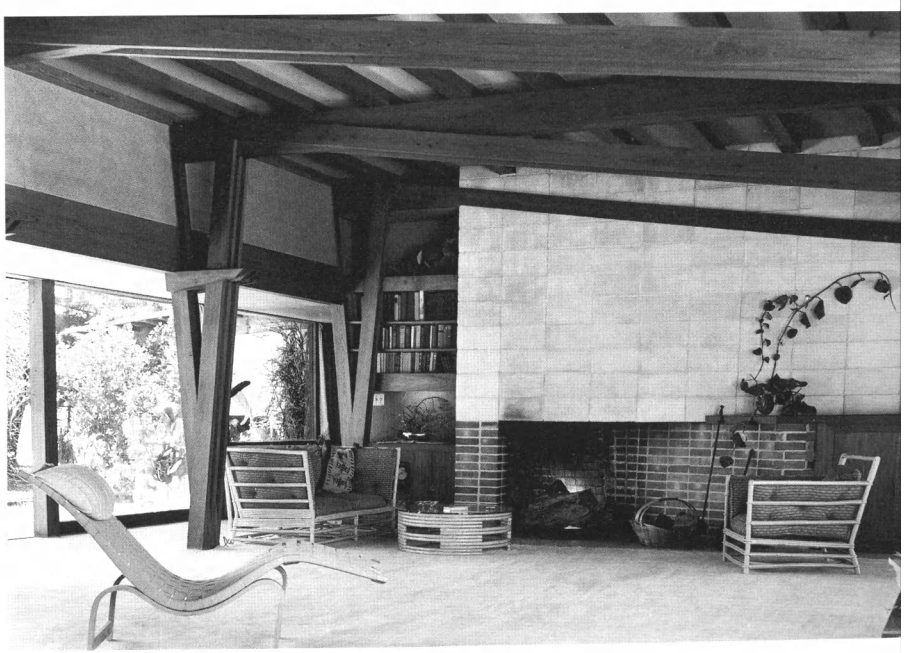

TWITCHELL RESIDENCE
SIESTA KEY
1941





The Twitchell Residence is the first project with Paul Rudolph's participation. It utilizes Twitchell's already established construction system of exposed Ocala lime block, cypress, and glass. The Twitchell Residence, a composition of openness and horizontality, is nestled into the subtropical scrub forest of Siesta Key, with views of the Gulf of Mexico.

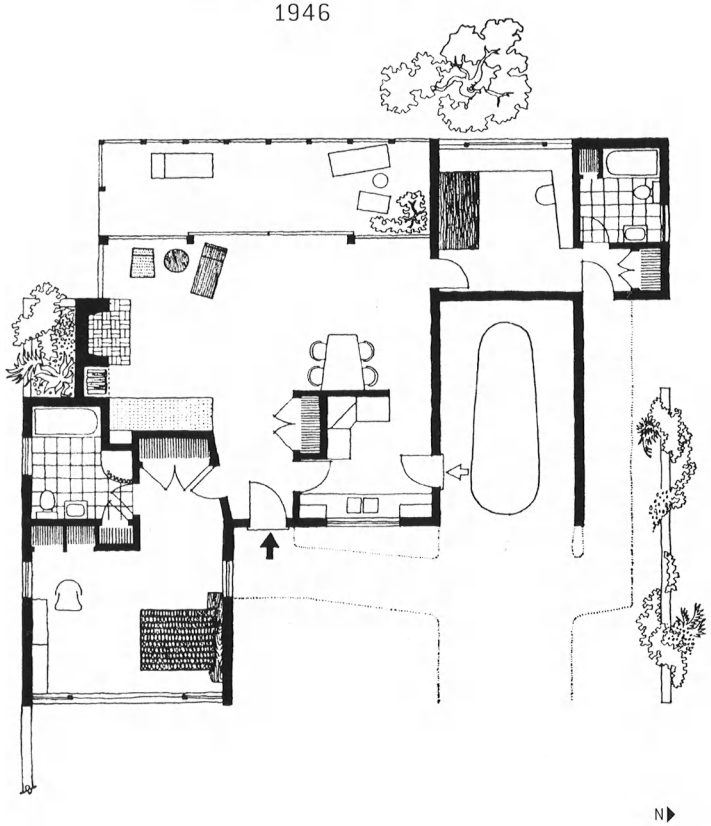
Unlike the older Sarasota building forms of the Mediterranean Revival or even the Florida frame vernacular houses, the Twitchell Residence does not give the impression of a house built vertically on top of the land. Rather, it reads as a series of layers parallel to the earth, with the horizon of the sea and sky beyond. The sandlike color and subtle texture of the lime block, the natural color of the cypress, and the transparency and reflection of the glass all contribute to make the house an integral part of the Florida landscape.

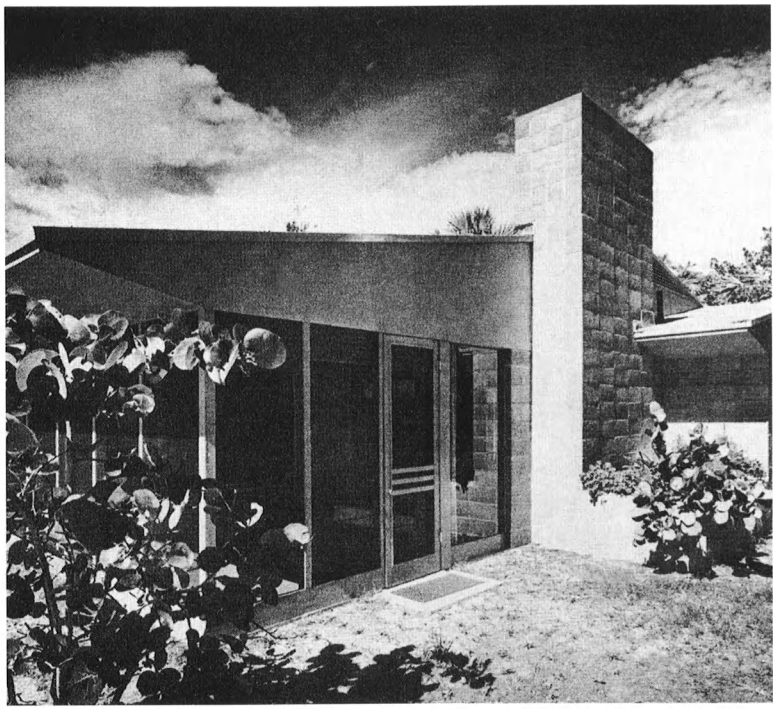


ALEXANDER HARKAVY RESIDENCE

SIESTA KEY

1946





This cottage is small in scale and neither revolutionary in appearance nor in plan. However, it interprets the type of suburban house construction and site planning that would come to characterize Sarasota "builder" houses in the 1950s and 1960s. The house is of simple, low-maintenance concrete block construction with an abundance of glass, looking out through a shaded porch to water beyond.

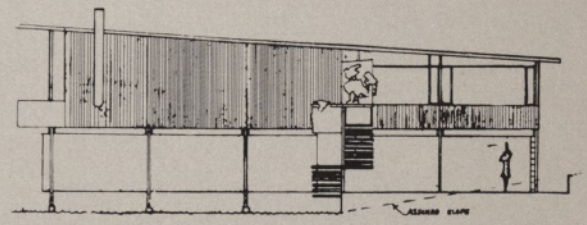
The overhang of the gable roof is notable in that it slopes down to door and window height, representing an effort to make the roof appear as its own mass atop the walls and reflecting light into the house. Unlike the Twitchell Residence, the materials used here were manipulated to create a monochromatic gray color scheme, resulting in a feeling of coolness in the house.

MILLER BOAT HOUSE

CASEY KEY

1946, PROJECT

Of the three Twitchell and Rudolph projects designed for the Gulf-to-Bay property of Marion Miller on Casey Key, this early design remained unbuilt. With a mono-pitch roof projecting up and out in the opposite direction of the sloping earth, and the body of the house elevated over the water, this is Rudolph's first design to read as an independent geometric object in space, contrasting with such land-hugging projects as the Twitchell and Denman residences.

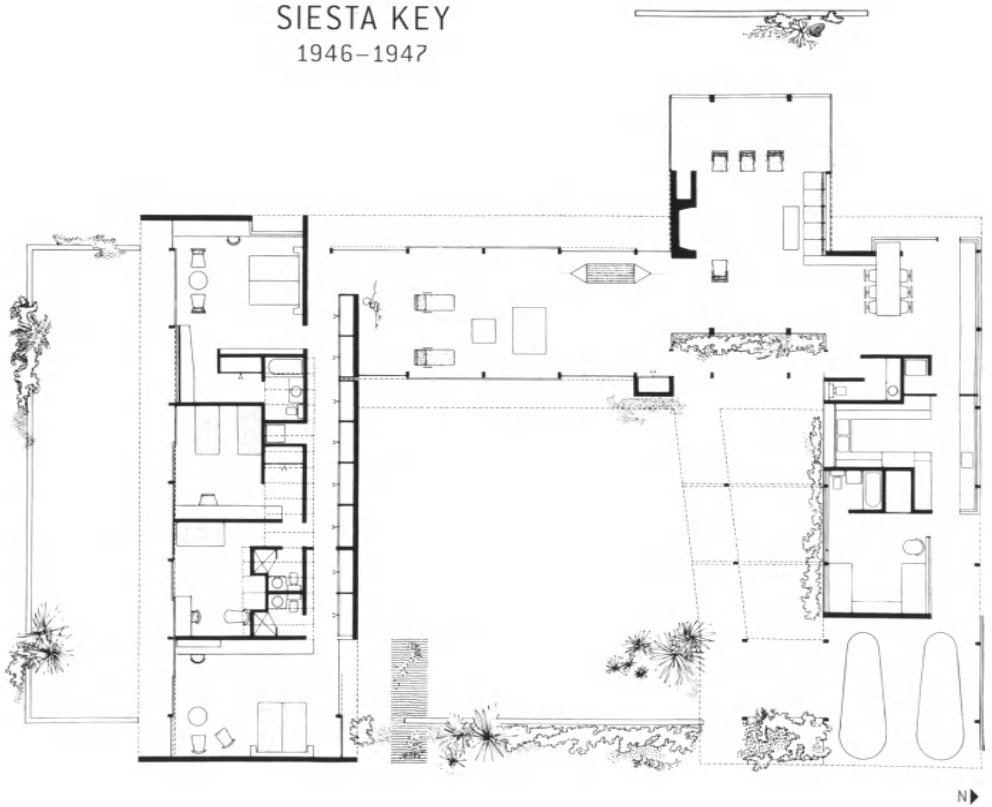


NORTH ELEVATION

DENMAN RESIDENCE

SIESTA KEY

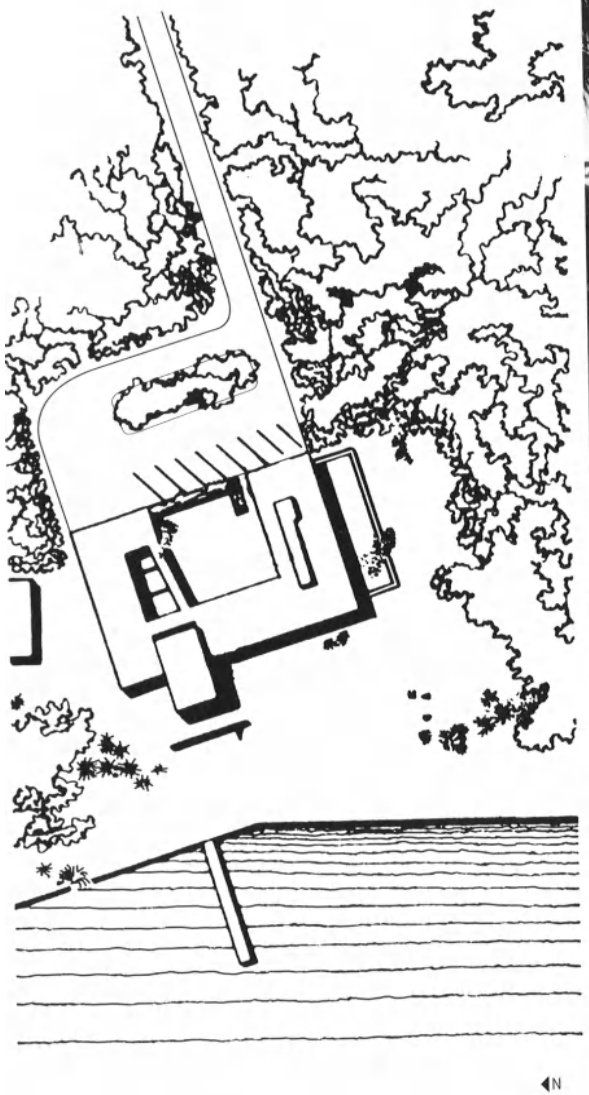
1946–1947



The Denman Residence was designed as a winter home on property purchased from Ralph Twitchell near his 1941 house and is a development of the design ideas and technology seen there.

In this house Rudolph designed the roof and its edge as a thin plane, while accommodating the required thickness of the roof structure. The wood ceiling plane continues to the exterior and slopes up to the roof edge, creating a visual effect of considerable lightness—the ceilings appear as great wings floating over the spaces below. The heavy, exposed living room trusses provide a contrasting visual element and span the length of the room, directing the view to the Gulf beyond. Here, Rudolph manipulated the rules of structural rationalism, as he developed techniques to compose visual and spatial experience.

Low block walls are used here for the first time to mark the boundary of the exterior living areas as distinct from the scrub environment beyond. With large panels of glass opening to the outside, the exterior garden and beach become as much a part of the living area of the house as the interior. The pavilionlike structure provides just enough shelter to be protected from the elements without creating a feeling of being closed in.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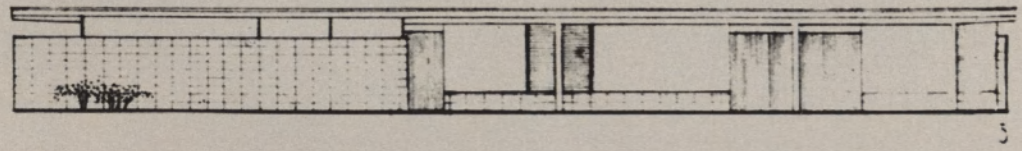
GOAR RESIDENCE

SARASOTA

1947, PROJECT

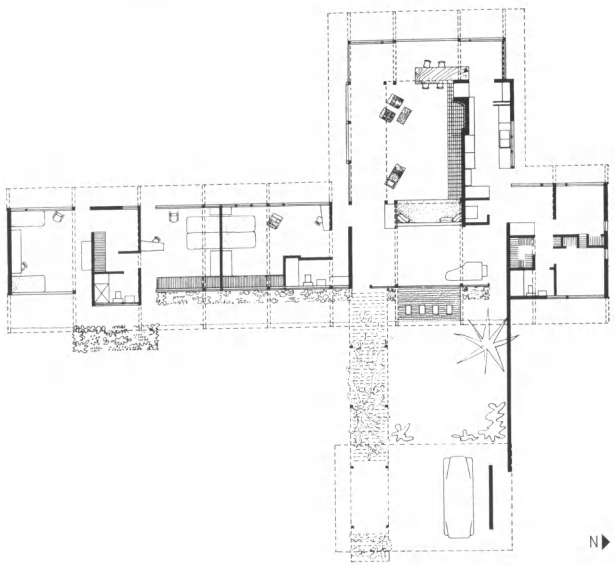


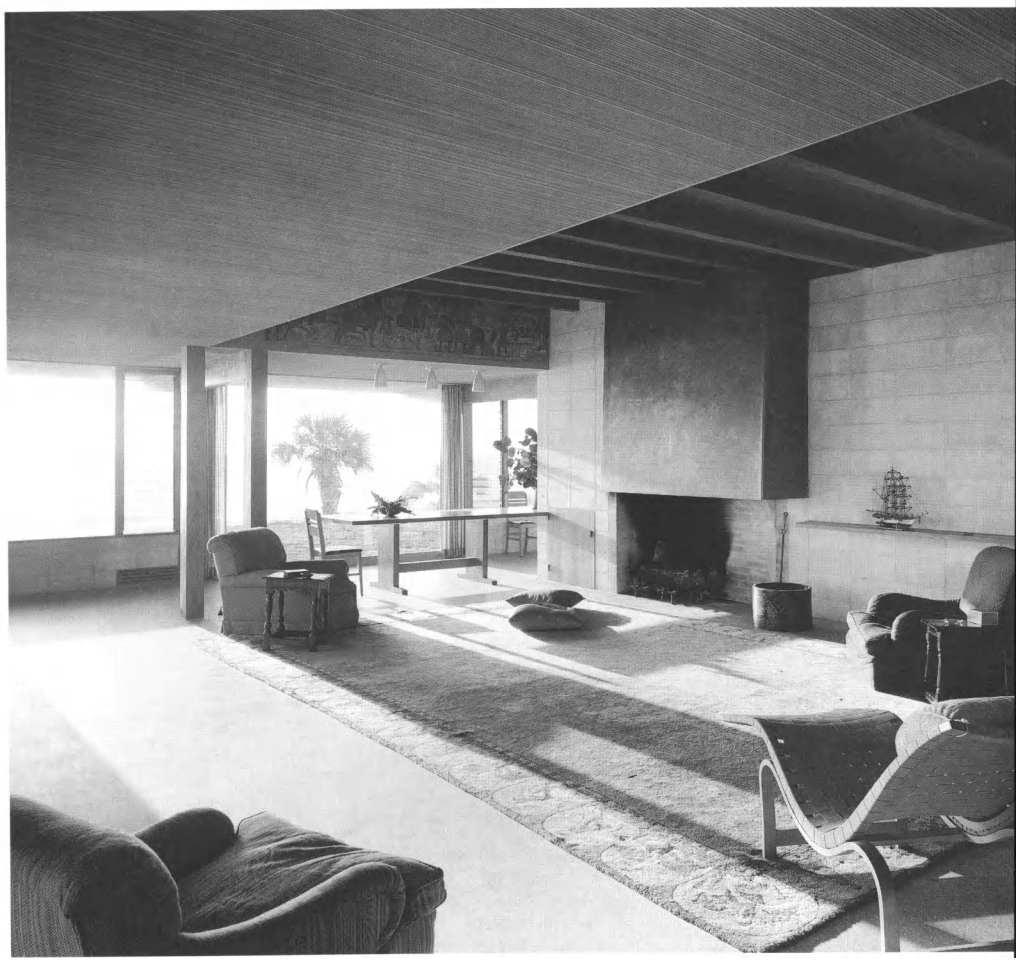
The Goar Residence project is the first of the internal patio houses. A uniform flat roof of simple overall geometry is placed over the entire house, supported by columns and beams on a regular bay system. The roof plane is removed from the center of the plan, creating an exterior space in the middle of the house. This type of organization allows interior spaces to be opened up to light and breeze at both the perimeter of the house and the internal courtyard, resulting in a house that is essentially one room deep.

MILLER RESIDENCE

CASEY KEY

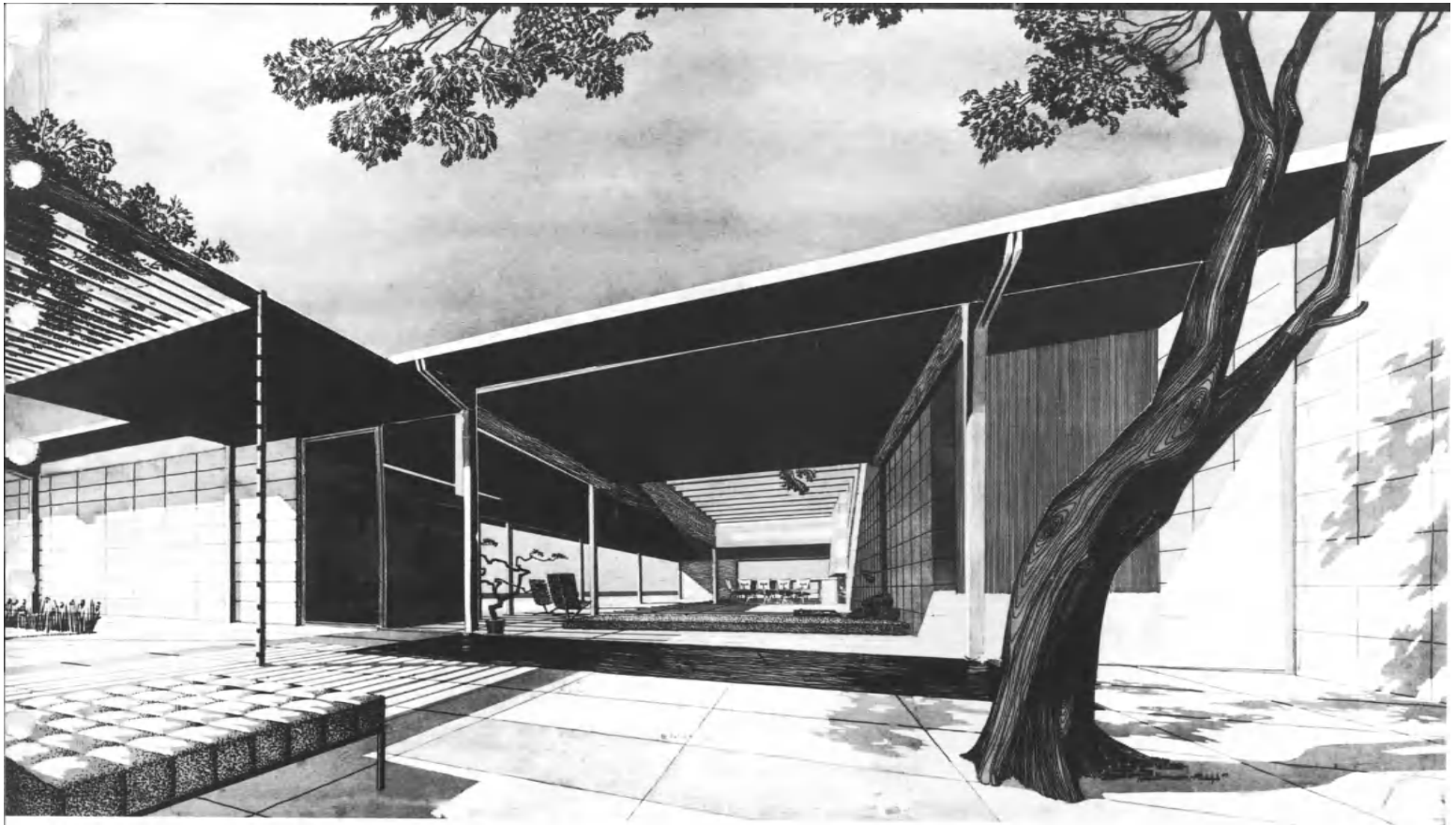
1947–1948

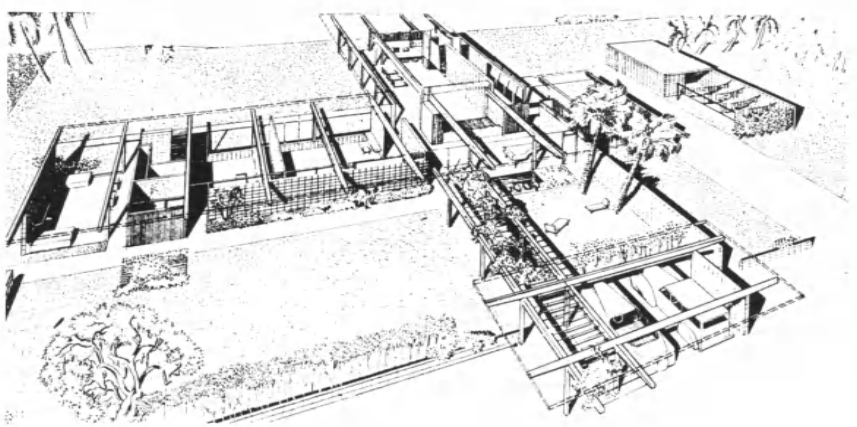


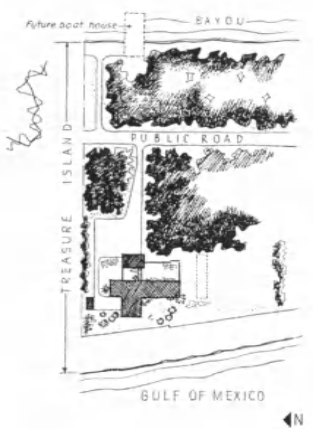


A large winter residence placed on a beachfront bluff on Casey Key, the Miller house combines a sense of warmth and intimacy derived from the materials used and an openness created by the T-shaped plan and open bay system.

Rudolph used bounding walls, an entry trellis, various ceiling planes, and expanses of glass to define and direct experience through the house. In the living room, the fireplace, with its massive burnished steel hood, and the large built-in couch provide an intimacy to the space. In contrast, the west end of the living room projects toward the sea on an already projecting site, opening up views to the Gulf and the beach extending far to the south.






Future boat house
BAYOU
PUBLIC ROAD
TREASURE ISLAND
GULF OF MEXICO
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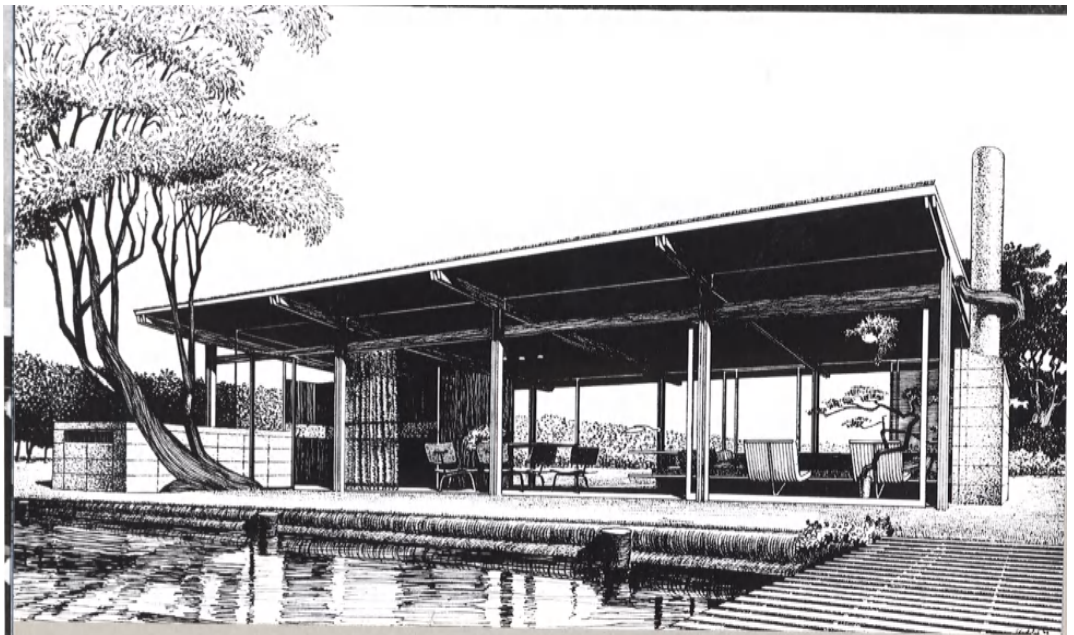
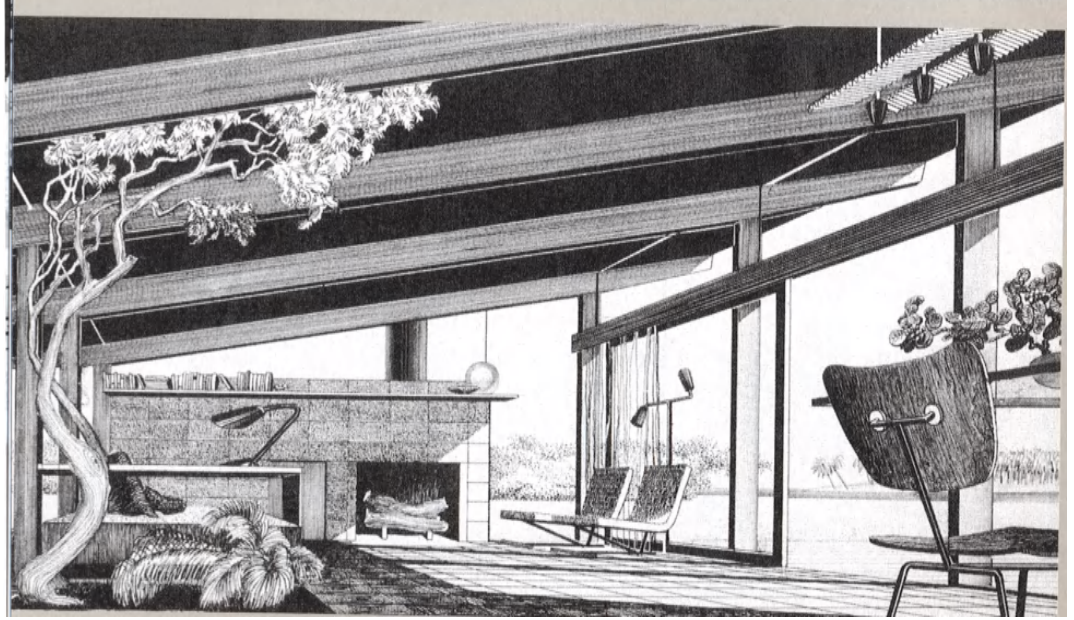




SHUTE RESIDENCE

SIESTA KEY

1947, PROJECT

George Shute worked for Associated Builders, and this tiny pavilion was to be a "starter-home" for him and his wife. They intended to build a larger, adjacent house on the same property in later years. The thin floating roof was supported by slender columns in-filled with glass, and the building perched on the edge of a lagoon. The structure was kept to an absolute minimum in the interest of economy and clarity of expression, and was designed as a kit of parts that Shute could build in the shop and then assemble on site. As Rudolph said, "the indulgence of many extravagances has been permitted by skilled labor, which is the key to the whole design."

The Shute Residence is an exercise in coordinating modules to create an intelligent discipline in the design and to maximize limited space and material. These include a sixteen-inch module for block, one-foot module for grass-cloth matting on the floor, and an eight-foot structural bay module allowing maximum spans for tongue and groove roof decking. This assembly produces a uniformly planar wood ceiling, while keeping the structure light and thin, a far simpler method than that used at the Miller and Steinmetz projects, where heavy timbers were spanned by joists decked on top and plastered below. Rudolph worked to integrate the various modules and their scales within the overall unifying element of the soaring cantilevered roof. The chimney is freestanding, to not compromise the roof plane, and is attached to the structure by a sculptural piece of driftwood.

RUSSELL RESIDENCE

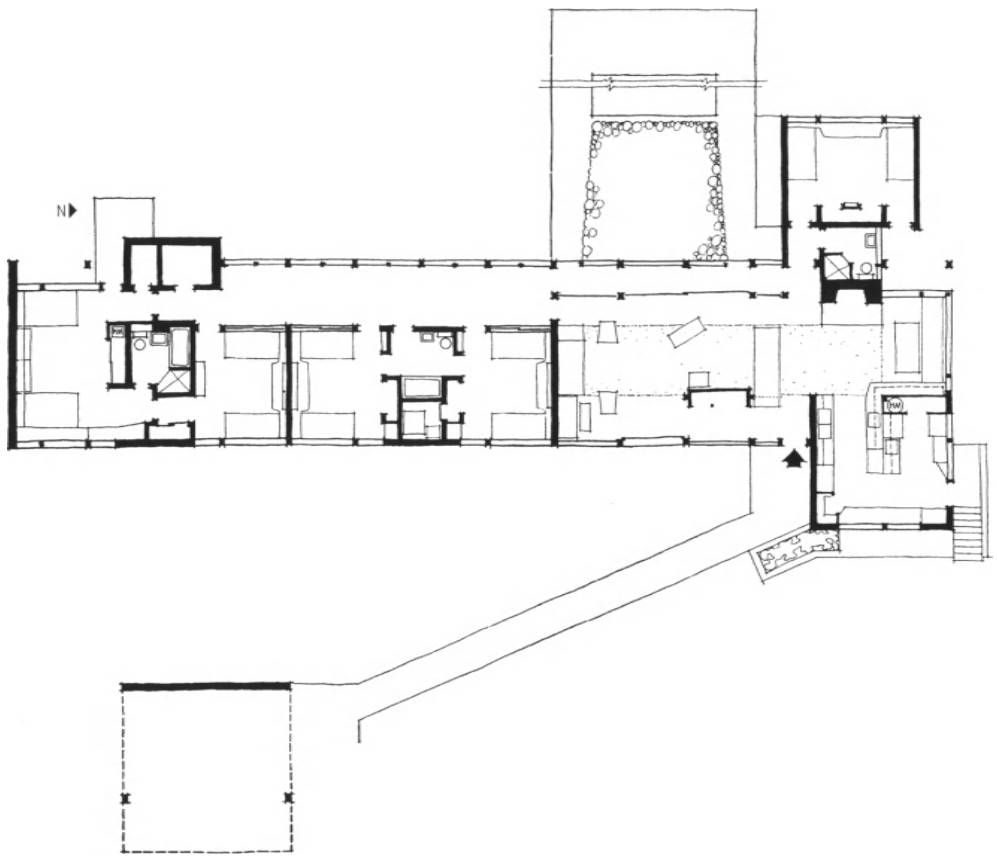
SARASOTA

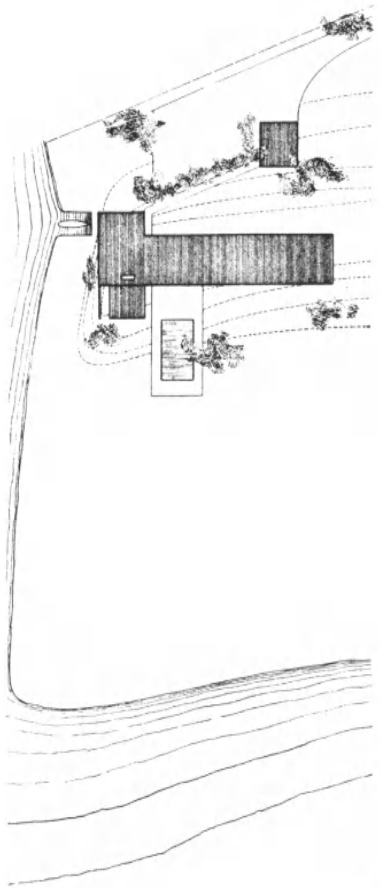
1947–1948

Built at the mouth of a bayou and on top of a linear Native American midden mound, the Russell Residence illustrates an acute awareness of climate and the special characteristics of the site. One room deep and opening to the bay, the house successfully captured the breezes. In conception, this linear construction was not unlike the wood pole structures with sheltering roofs that the Native Americans built on similar sites hundreds of years earlier.

The house was designed for active outdoor living, as the Russell family enjoyed swimming, sailing, fishing, and hosting parties and cookouts. The Russells were also inspired by vacations to Tahiti where they enjoyed the relaxed environment of the tropics.

Within the linear bay system a series of variations occurs, of both enclosure and openness. The kitchen and the gathering area with its fireplace are intimate and focused inward, while the living room is an open screened space, with interior sliding glass panels that can be closed during rare cold spells. Access to the bedrooms is entirely by a screened breezeway that doubles as a play area. This open circulation area, or gallery, can be found in traditional southern vernacular architecture and is similar to dogtrot passageways and the porches of Charleston single houses.

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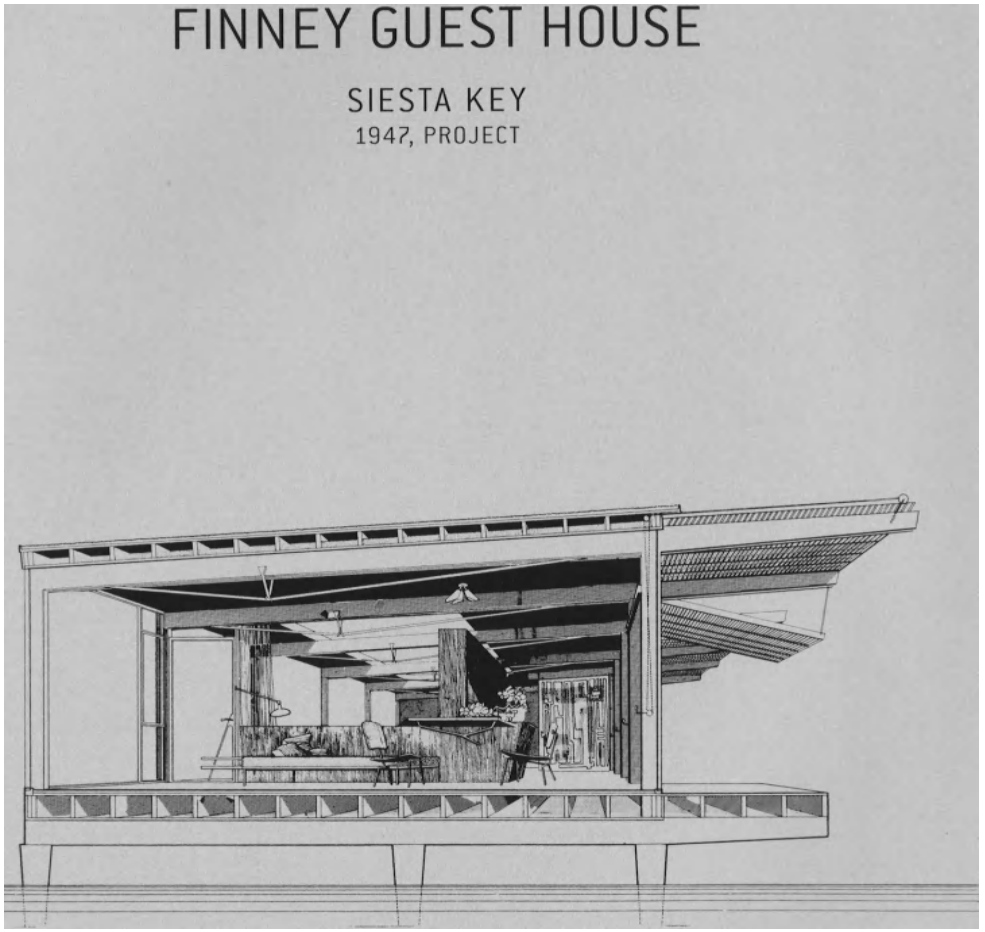
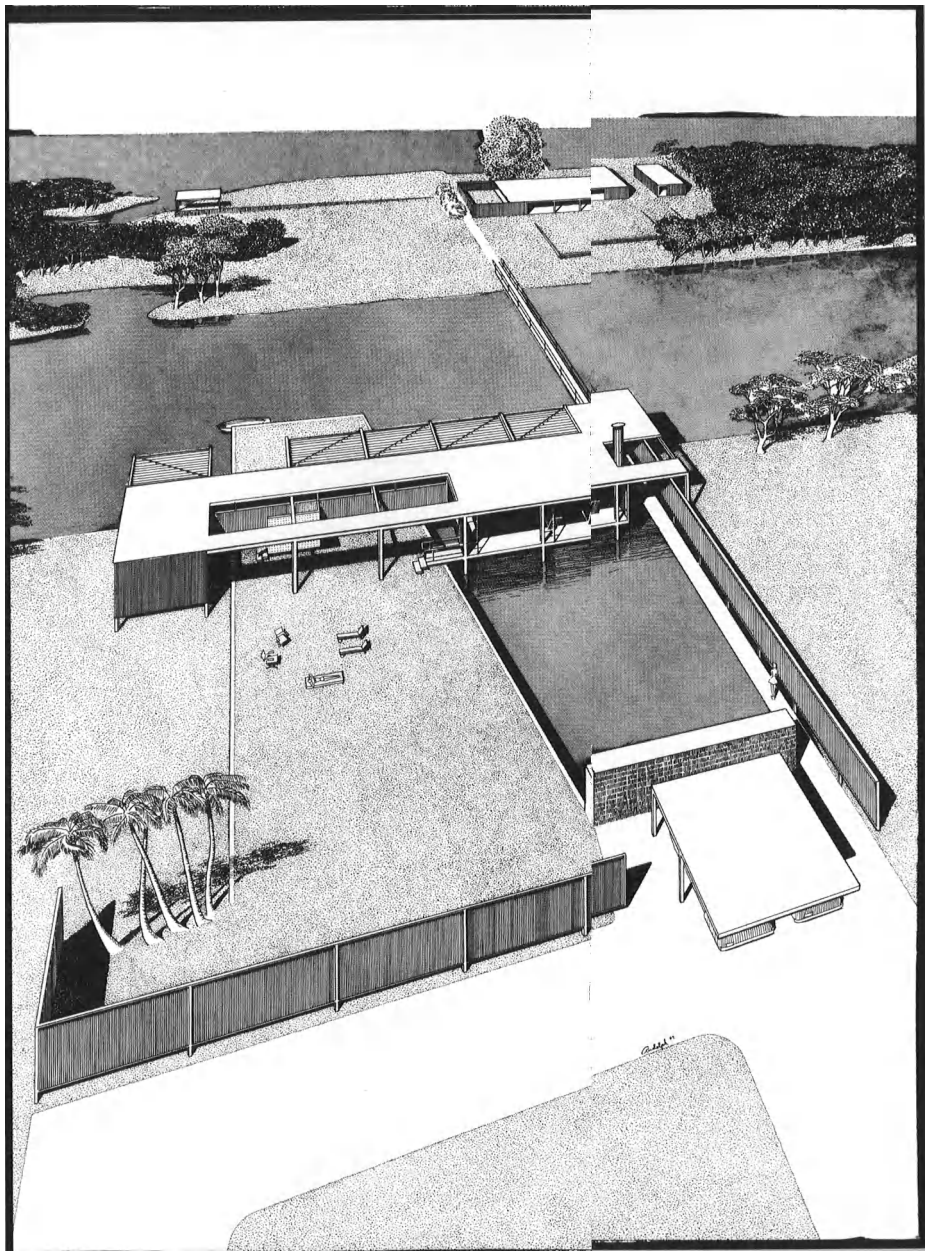
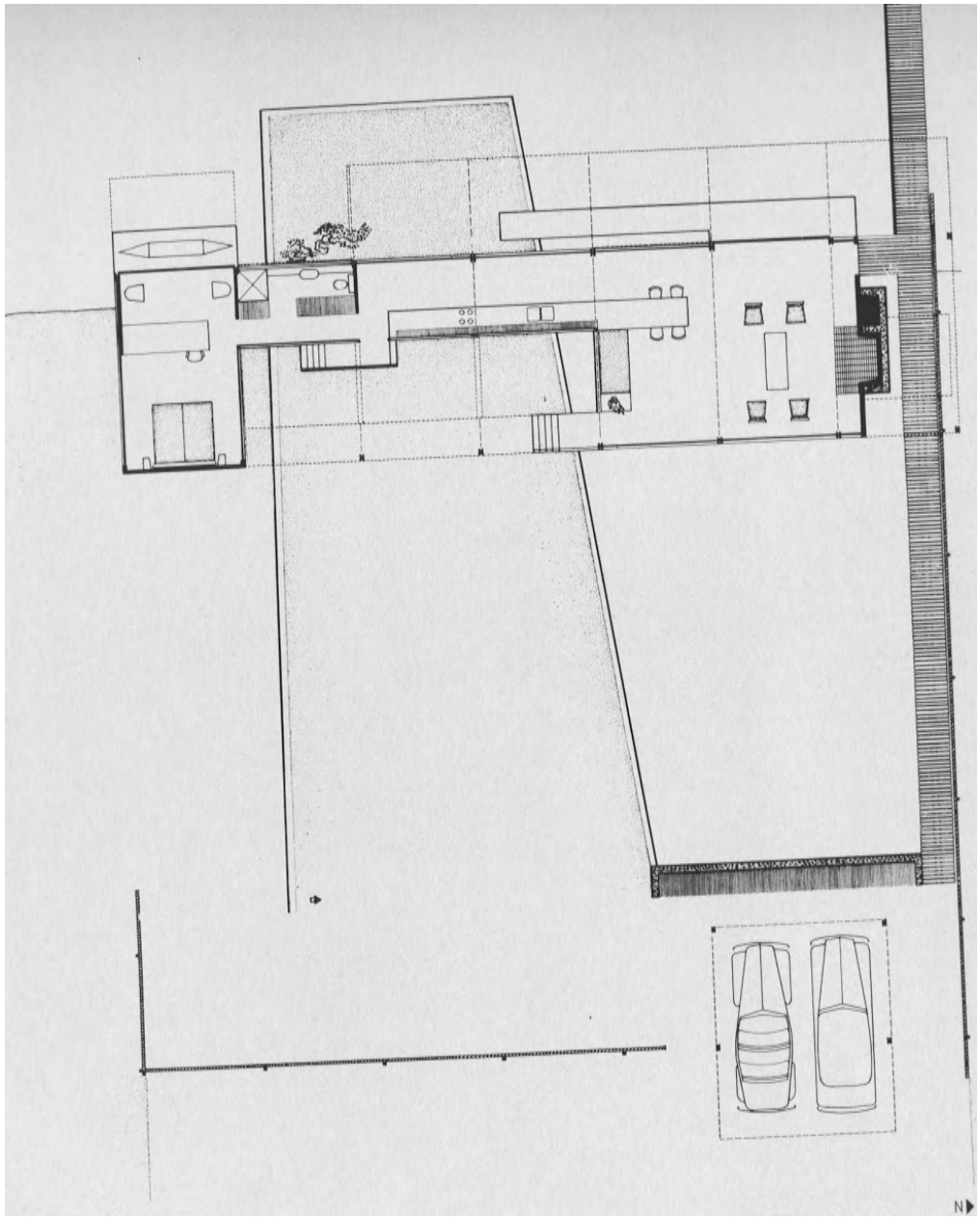


A cottage of great transparency lifted above its surroundings, the Finney Guest House spans a filled peninsula and dredged inlet, and opens onto the bayou. A footbridge, cantilevered from central supports appears suspended over the water, provides access to the main residence on the opposite side of the bayou, overlooking the Gulf of Mexico. This project is a departure from the houses that were designed to blend in with the natural setting. In the January, 1950 issue of *Interiors* magazine, Rudolph stated his new intentions for this project:

> The mainland at this point is low and will have to be filled. The usual method in this area is to dredge from the bayou. However, we wanted everything man-made to be clearly distinguished from the work of nature. We have therefore suggested that a small inlet be formed, regular in shape... [and a projecting area of filled land to be created]....Across this finger-like plateau and artificial inlet we have placed the guest house–almost never allowing it to come in contact with the ground.

This small house is one of Rudolph's Florida masterpieces, a dynamic composition set within the ordered regularity of the cypress structural bay system. The twelve-foot bays of cypress bents organize the structure and provide the armature to which the varying planes, spaces, and masses are attached. While the rationalism found in the work of Gropius and Mies van der Rohe provided the conceptual discipline for this design, a new freedom of expression emerges in Rudolph's intuitive and poetic architecture. Rooms, platforms, steps, a ramp, and a bridge are all linear in character, interacting in parallel and perpendicular directions. As Rudolph remarked in the *Interiors* article, even the kitchen is designed as a linear movement system, like "an assembly line, culminating in a built-in dining table." This house also includes Rudolph's first example of hinged overhanging panels, introducing the idea of the building itself in motion. The panels were to be used as a shading device, as well as protection from severe weather.

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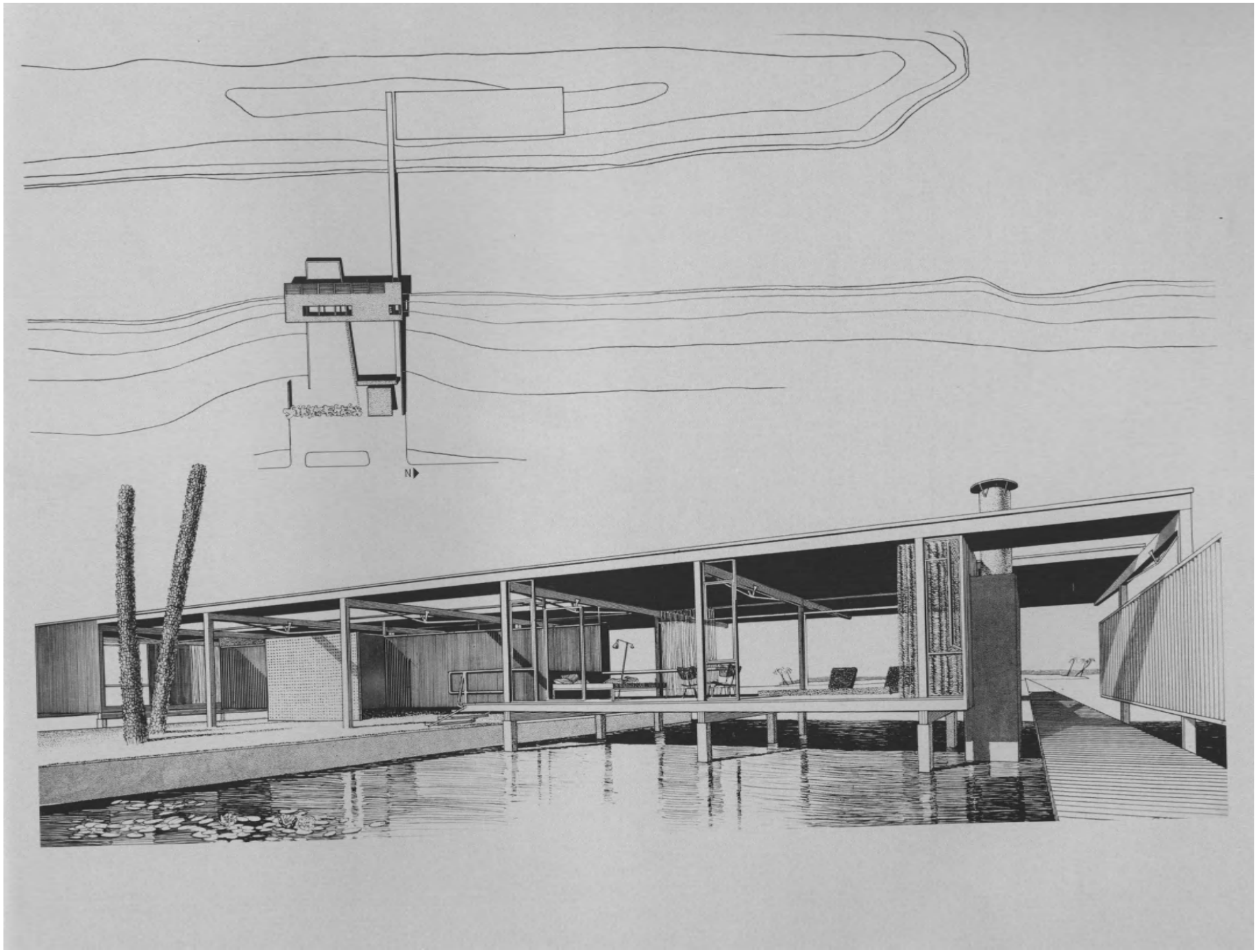
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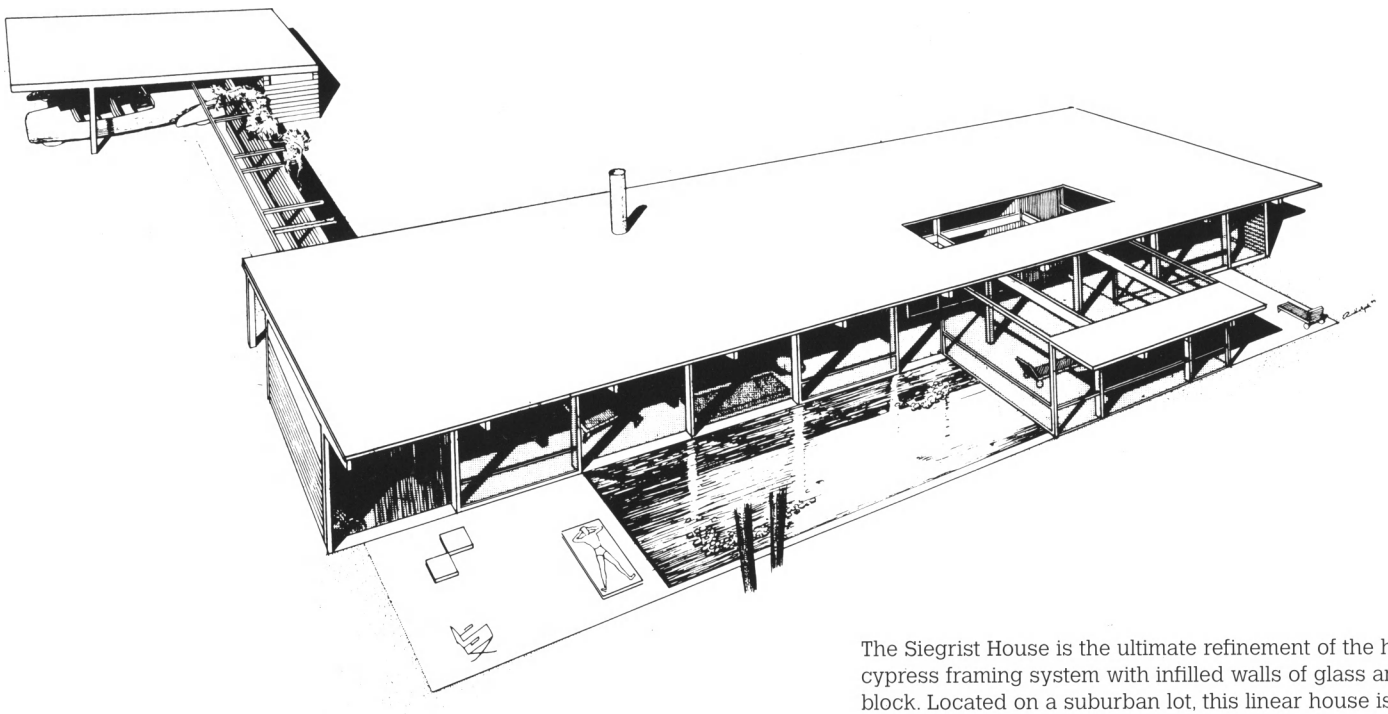
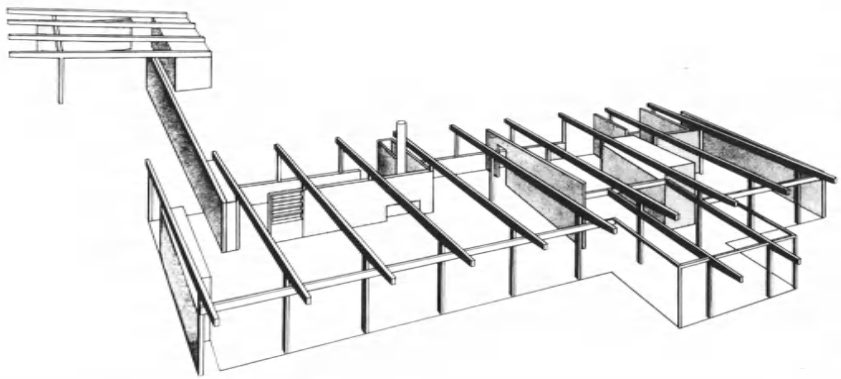
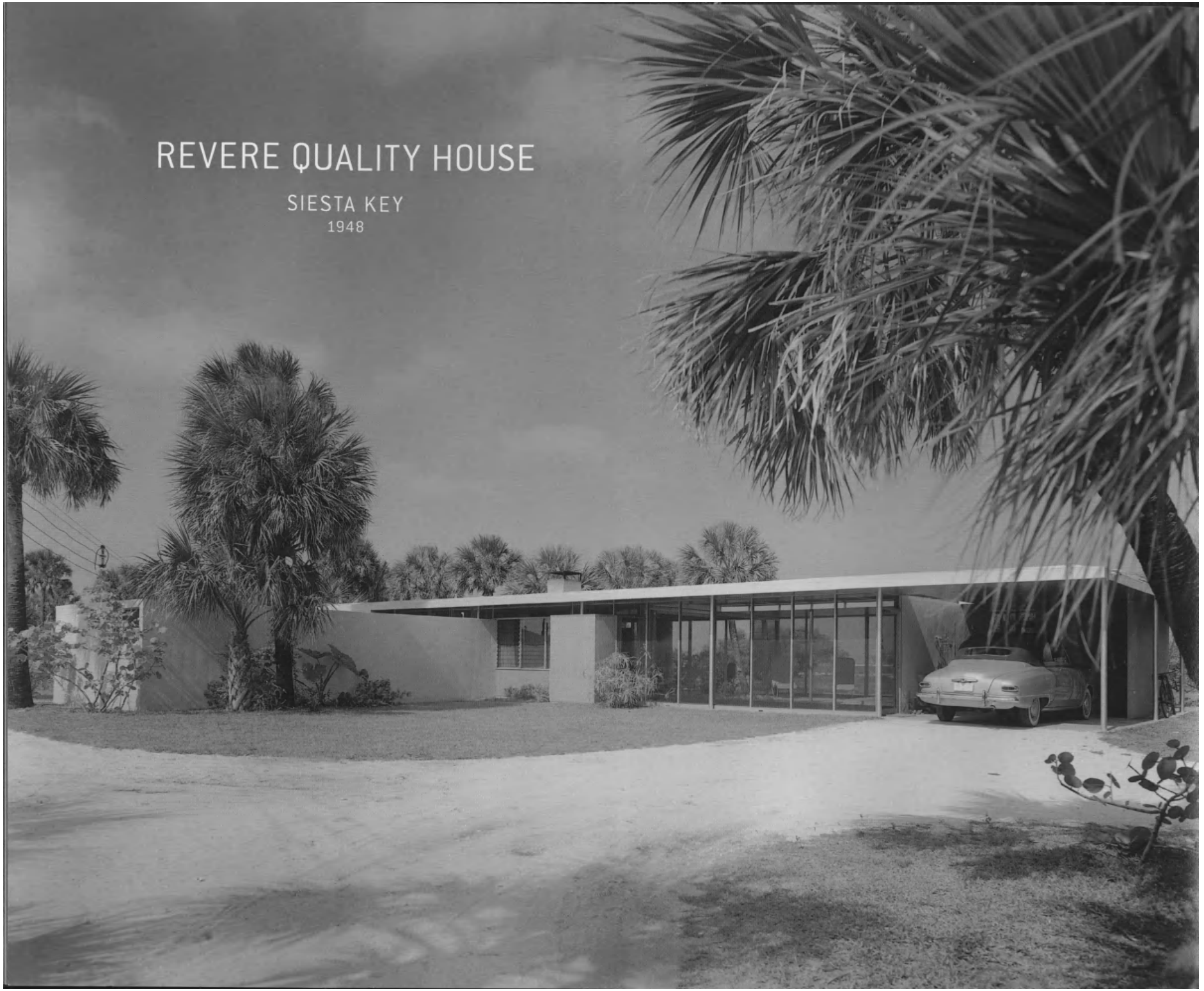
SIEGRIST RESIDENCE

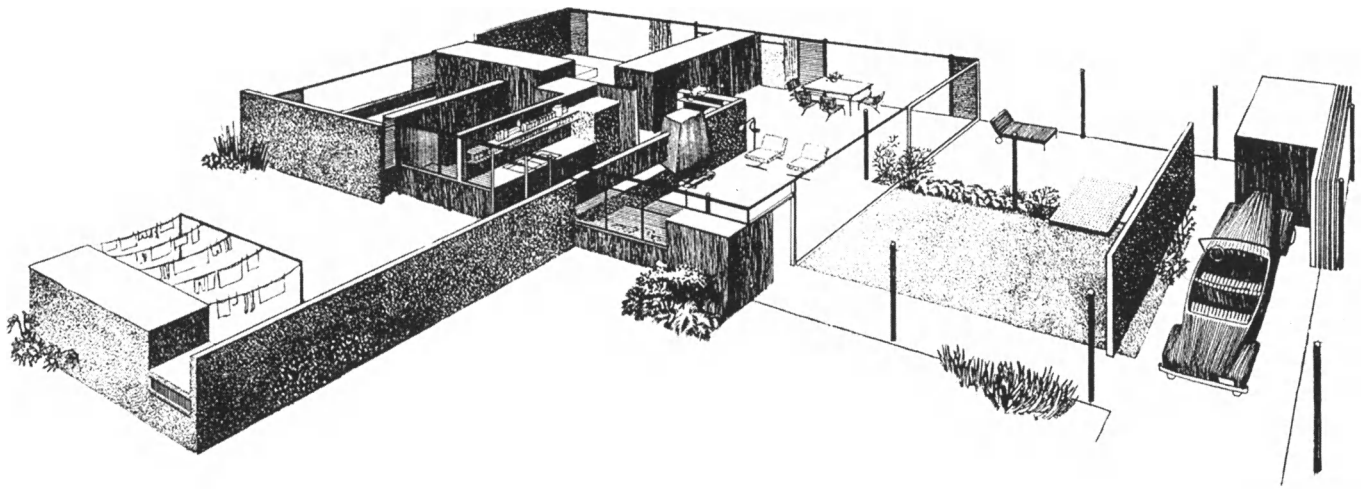
VENICE
1948



The Siegrist House is the ultimate refinement of the heavy cypress framing system with infilled walls of glass and lime block. Located on a suburban lot, this linear house is marked by its pronounced structure and openness and was something of a spectacle in the small town of Venice at the time. An article in *House and Home* acknowledged the role of the carefully detailed, exposed structure as the primary architectural expression, stating that, "This house rejoices in the art of carpentry." The architects continued, "We have tried to capture that beauty which almost all structures have in their half-finished state."

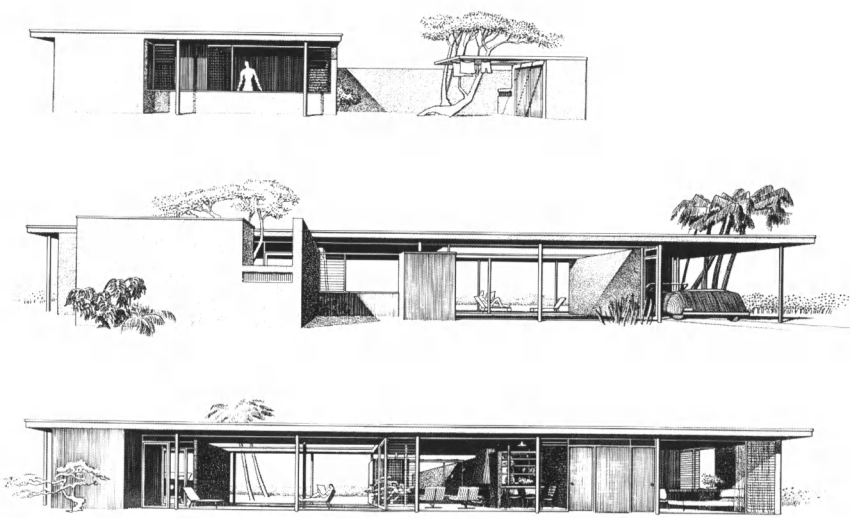


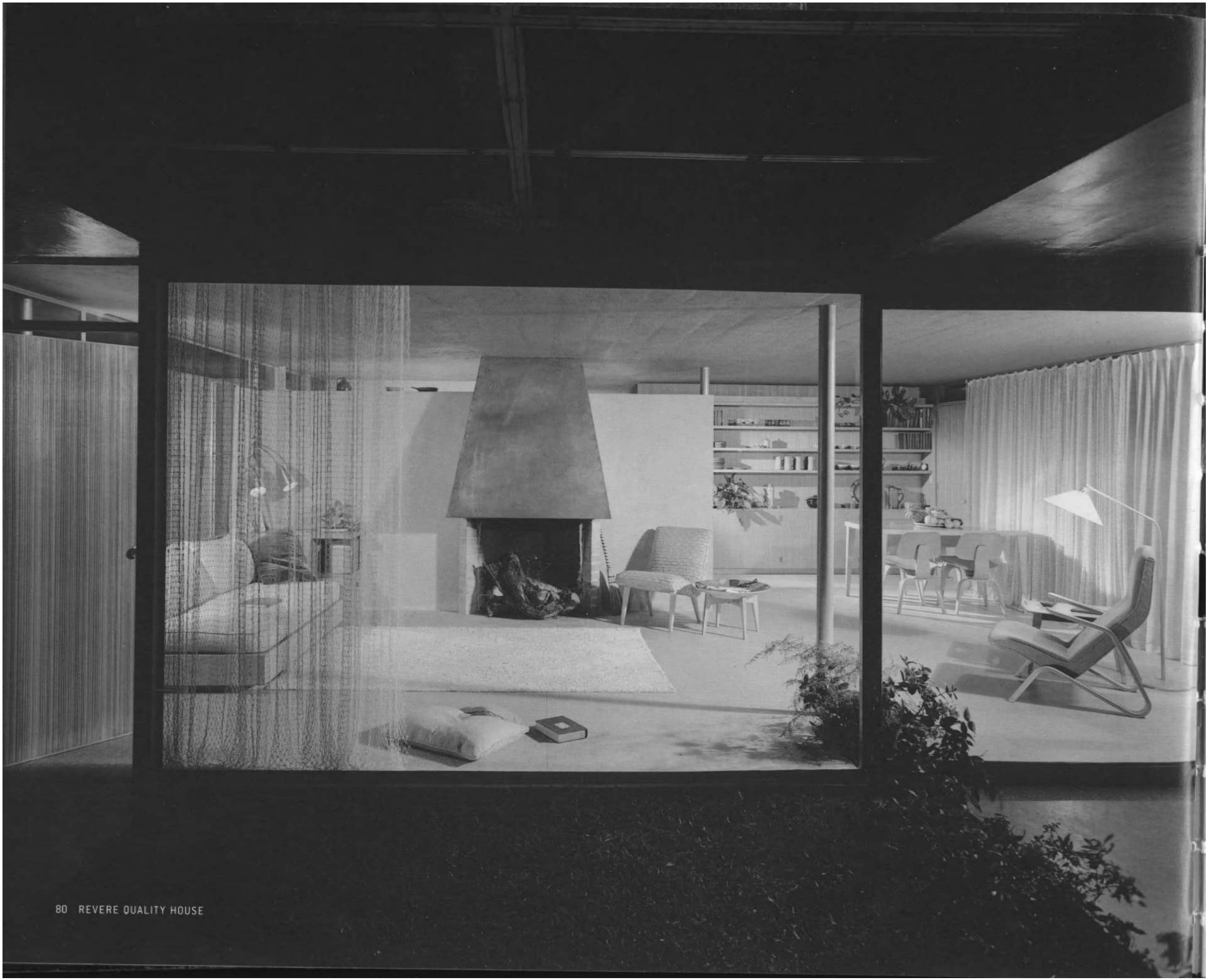

REVERE QUALITY HOUSE
SIESTA KEY
1948



Representing a new direction in the firm's work, the Revere House is constructed primarily of concrete and glass. The concrete flat-slab roof is supported by steel pipe columns on a regular grid, while walls and spaces are articulated independently below. A portion of the roof is omitted to create a grassed patio within the house, literally bringing the outdoors in. Endorsed by the Revere Quality House Institute, a cooperative venture of Revere Copper, *Architectural Forum* magazine, and selected architects, this house received wide publicity locally and nationally, and drew considerable attention to the firm of Twitchell and Rudolph.

The Revere House embodied a long-term interest among technologists in developing a viable, economical concrete technology for building houses in Florida that would resist moisture, termites, and hurricanes. It was constructed by Lamolithic Industries, a local company that developed reusable modular steel forms and a mobile concrete mixing apparatus, intended to become a widely used construction system.

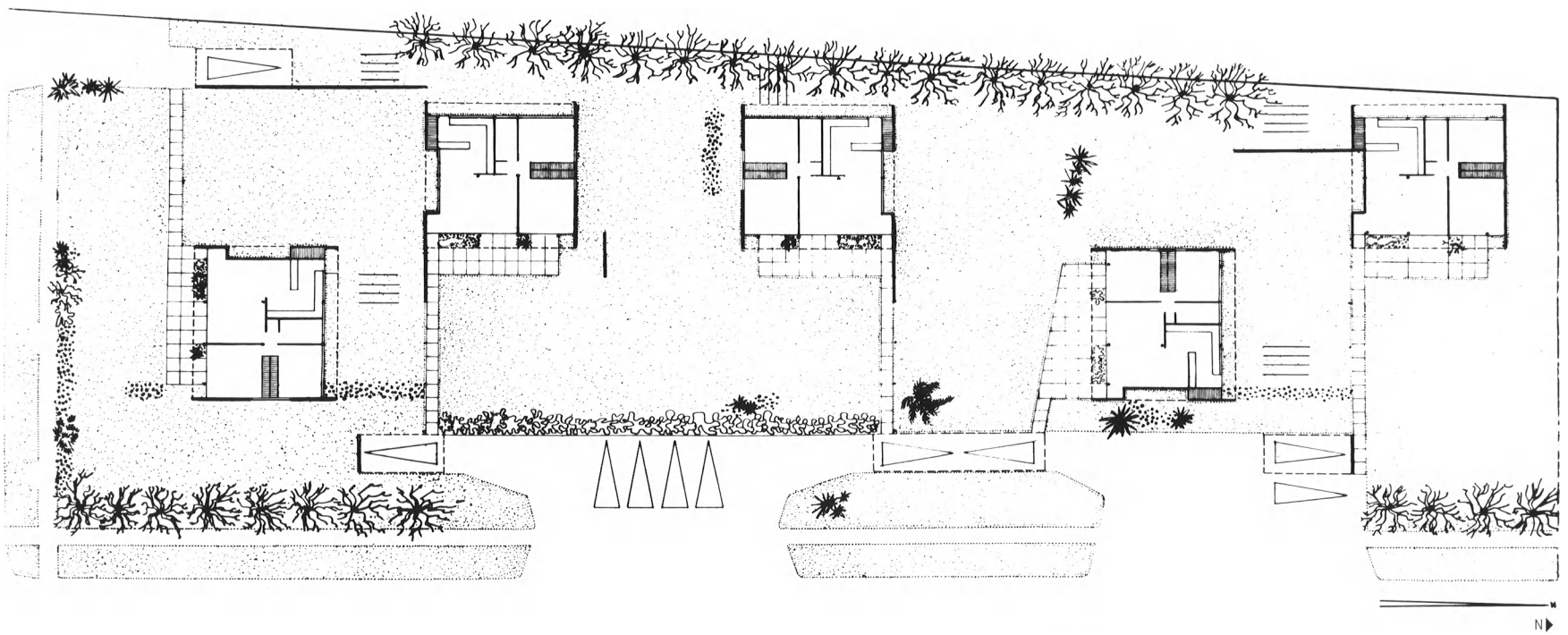


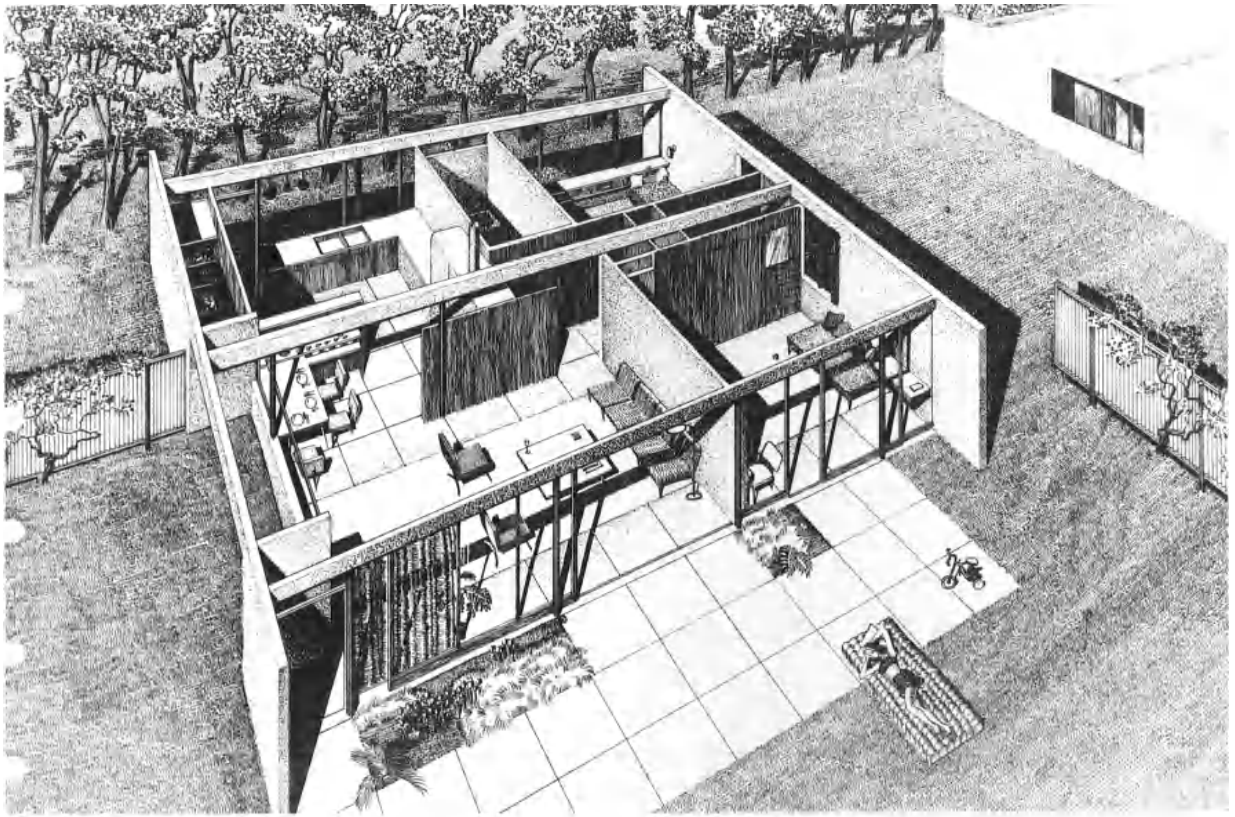


LAMOLITHIC HOUSES

SIESTA KEY

1948



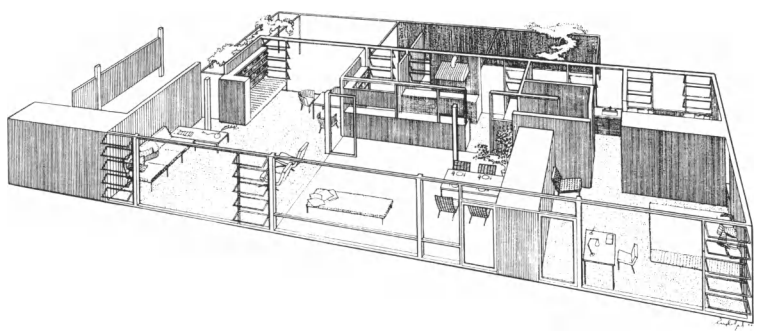


J. E. Lambie built five speculative houses using his Lamolithic concrete technology. Promoted as low-maintenance and fire- and hurricane-proof, the concrete structure provided increased freedom in spatial configuration and the opportunity for larger expanses of glass. This project was Rudolph's first opportunity to experiment with the site planning relationships of multiple, adjacent dwelling units, a subject that would continue to be of great interest to him throughout his career.


DEEDS RESIDENCE
SIESTA KEY
1948–1949

A small house built with shiplike precision and efficiency by Associated Builders, the Deeds Residence utilizes a screened patio space and freestanding bamboo wall to expand the sense of space, reaching out to the environment.

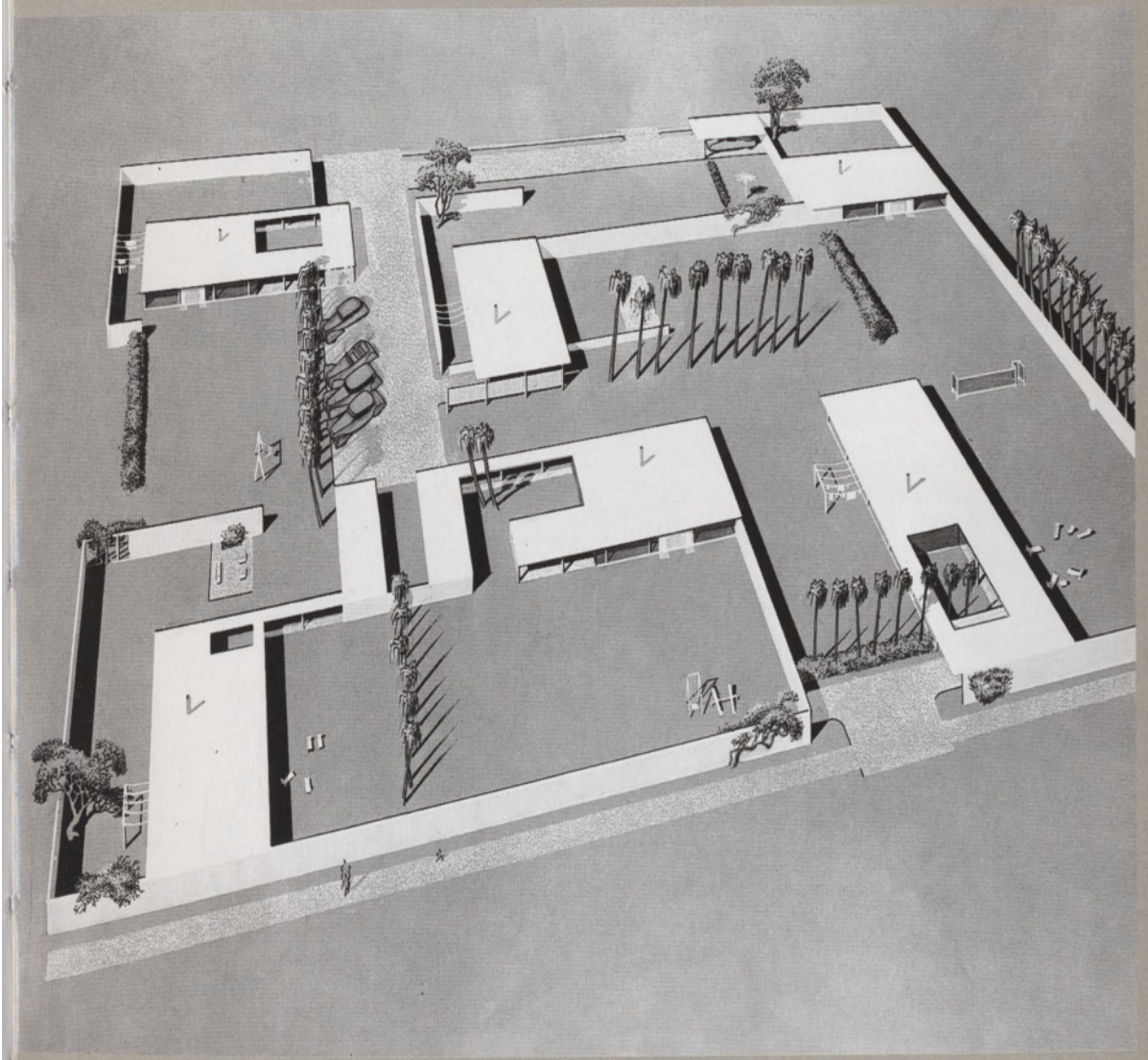
The concrete roofs of the Revere and Lamolithic houses were an expression of a flat roof plane without the spatial rigidity of expressed beams. However, the concrete roofs were apparently complicated and expensive to build, so most of the firm's subsequent flat-roofed houses utilized a conventional wood joist system, with built-up wood girders concealed inside the roof thickness. This is an important change in the work, as the preoccupation with technology becomes subservient to the desire to articulate a floating roof plane, regardless of its structure.



REVERE DEVELOPMENT

SIESTA KEY

1948, PROJECT



In 1948, while on his Harvard traveling fellowship in Europe, Rudolph was strongly affected by the traditional urban design of the cities he experienced. He began to think in terms of urban and landscape design as related to his own work and proposed a theoretical site design for six houses of the Revere type, writing from Paris for the December 1948 issue of *Architectural Forum*:

> Tiring of cathedrals, and even Le Corbusier, I tried some daydreaming and am sending the results...
>
> ...it seems to us that the detached house has for the most part simply been lined up on each side of the planners' or speculative builders' beautifully located cul-de-sac and that is the end of it.... Relationships between one house and its neighbor and devices to relieve the monotony of too much repetition and still keep within economic bounds is a real and urgent architectural problem and to us an exciting one...
>
> The one tool which is the architect's special weapon, the handling of inner and outer space, has seldom been applied to this problem.... Our proposals are fundamentally concerned here with the relationships between the house and its private outdoor living and work spaces....
>
> The extension of the walls seemingly enlarge the house and give an element which can easily have endless variations and forms, defining space, make new relationships between inner and outer space and assist in coordinating the houses themselves into one unit.

Responding to the seemingly infinite, flat Florida terrain, the horizontality of the typical pattern of tree canopy, and the linear movement explicit in automobile travel, Rudolph presents a vision of Florida architecture extending over the open expanse of the earth.

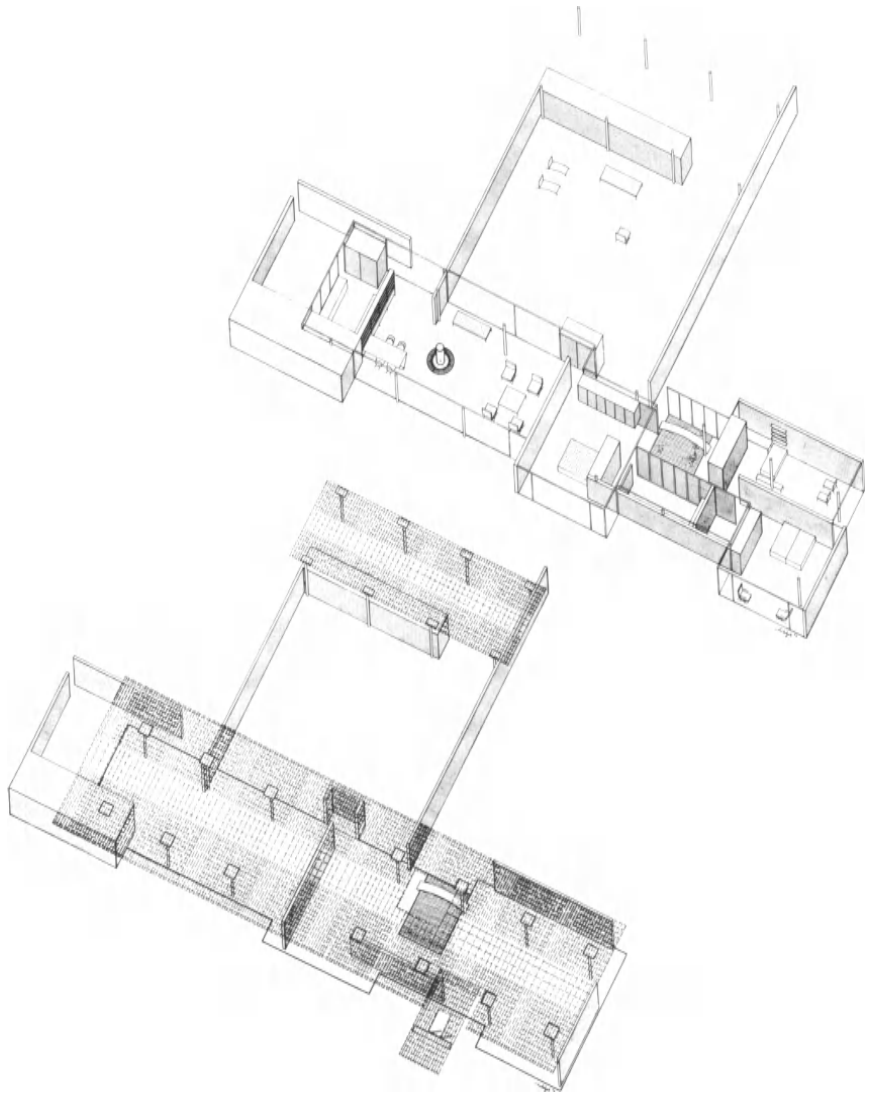
BURNETTE RESIDENCE

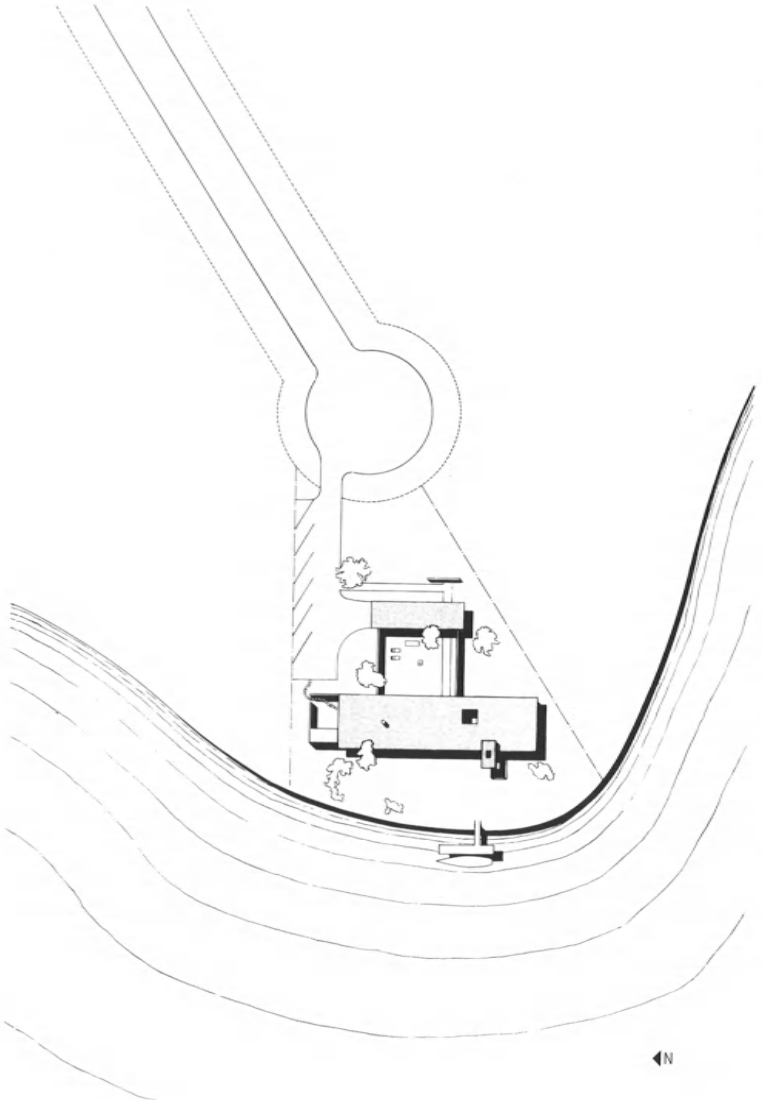
SARASOTA
1949–1950

The Burnette Residence introduced a new abstracted quality of space and form in the firm's work, probably derived from Rudolph's direct experience of early modern buildings during his trip to Europe and made possible by the sophisticated use of reinforced concrete flat-slab construction. Walls and roofs are expressed as planes of the same material, arranged in various dynamic configurations. While impressions made by the concrete formwork had been left exposed in the Revere and Lamolithic houses, in the Burnette House all concrete surfaces are plastered to emphasize their monolithic character. Concrete roofs and walls are constructed of equal thickness, as planes expressed independently of function, or even gravity, and all edges are treated in the same way—not even a metal drip edge differentiates the edge of the roof plane. The means of construction, however, remain important, as can be observed in Rudolph's axonometric drawing with roof reinforcing. Here, he clearly illustrates both the steel configuration arranged to carry the structural forces and the free manipulation of planes and space below.

Linear elements in the design, such as steel pipe columns and aluminum-framed glass panels, are expressed in metal rather than wood, becoming ever more attenuated and contributing to the effect of lightness and openness. The fireplace hood and flue hang from the ceiling, creating a new campfire-like hearth expression, in contrast to the massive earthbound fireplaces of previous houses.

Walls, glass, and space slip in and out of the building; exterior and interior spaces are perceived as overlapping and tenuously connected. Movement is made literal in such elements as the dining room table, a simple horizontal slab supported on wheels that can be rolled through an opening in the wall between the kitchen and dining area. The observation platform culminates the interest in movement as a portion of the roof is lifted on canted pipe columns above and beyond the house, looking out to the view of the waves and clouds.

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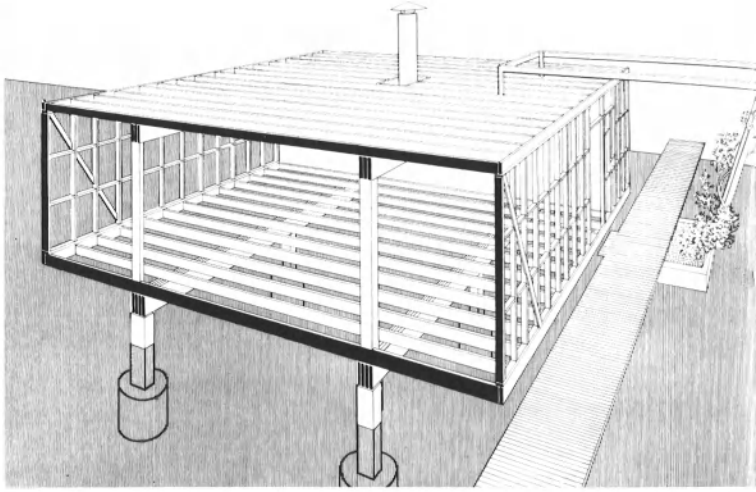
MILLER GUEST HOUSE

CASEY KEY

1949



The Miller Guest House continued Rudolph's fascination with the floating planes and spaces found in the Burnette Residence. Here, however, he floats the entire cubelike mass of the house. In the Finney Guest House, Rudolph had suspended spaces over the land and water, but the dominant structural system of cypress posts clearly anchors the house to the earth. Here, structure is subsumed within the mass of the building, to create the effect of a floating box.

A building of simple geometry, the Miller Guest House is inserted as an abstract object into the landscape. It hovers over both dry land and water and creates a solid shoreline mass, much like the dense mangrove trees that flank it on either side. The cantilevered boardwalk and suspended driftwood sculpture contribute to the effect of floating in and over the natural environment. The portion of the guest house that extends out over the water is open on three sides, so that, from the interior, there is a 180-degree view out across the water, creating a semi-protected perch from which to view the bay's panorama.

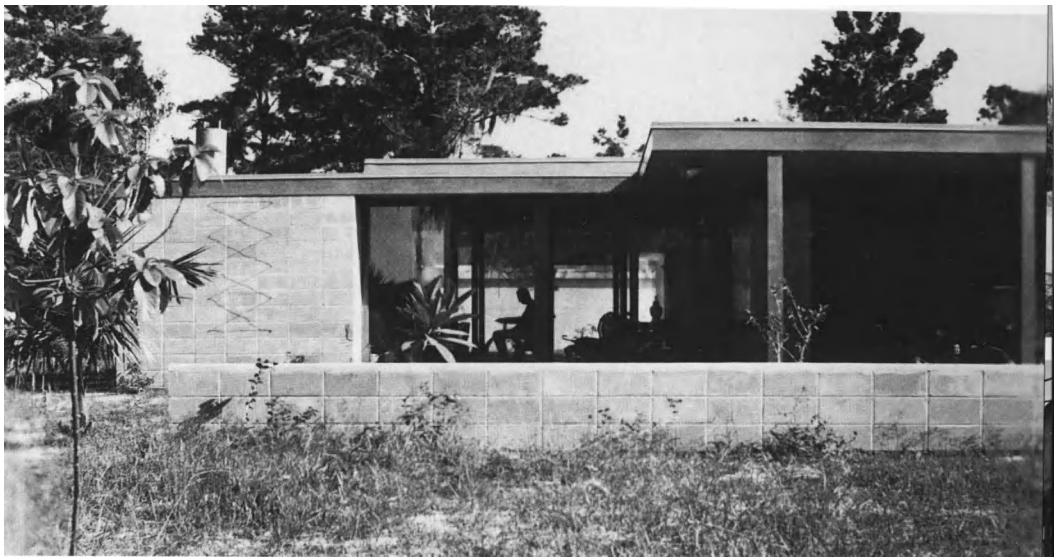
BENNETT RESIDENCE

BRADENTON

1949–1951

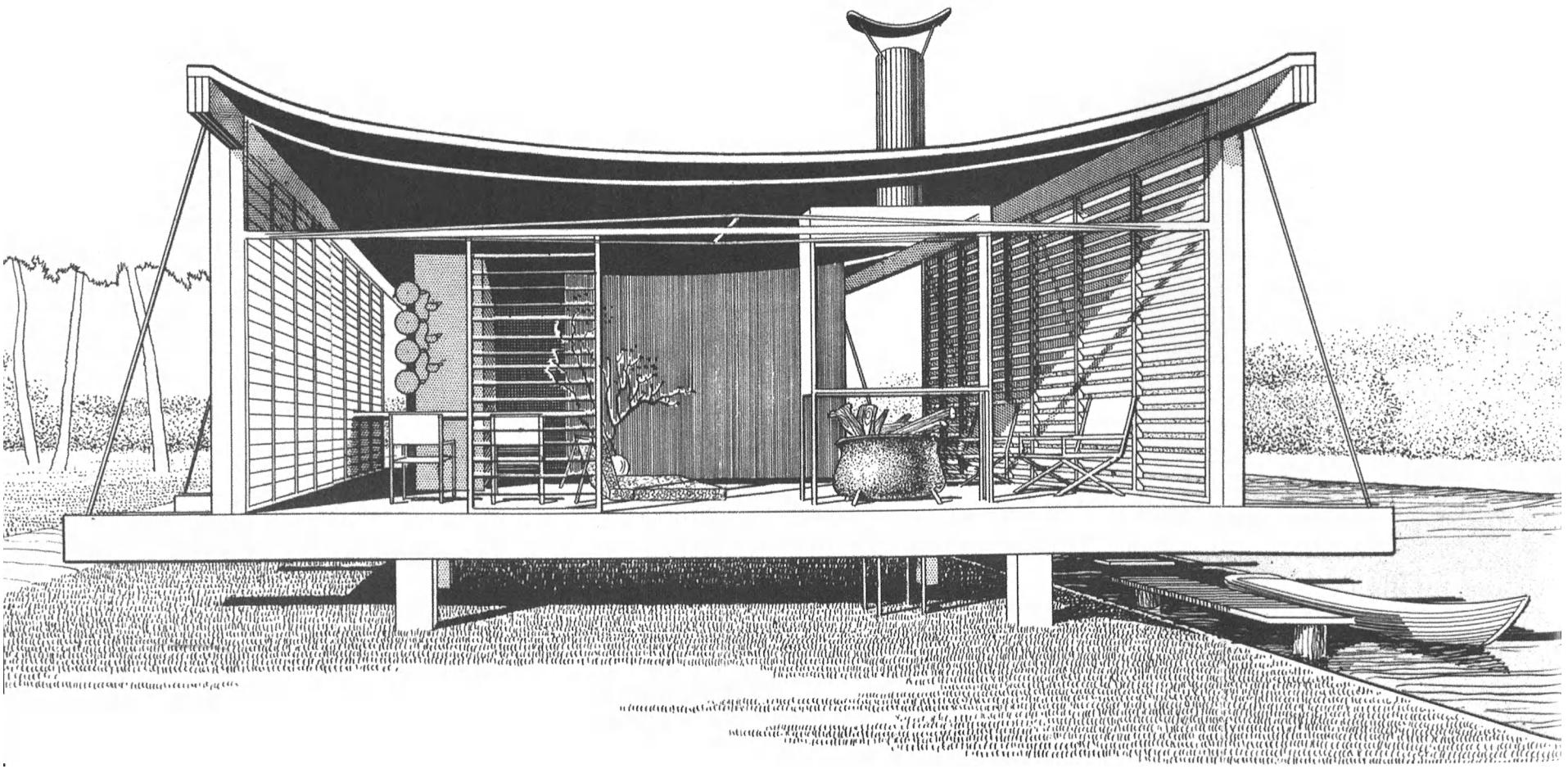
A family home designed to exacting programmatic requirements, the Bennett Residence follows the typical Twitchell and Rudolph house type, built at ground level and open to the landscape to create an open and inviting home while, in this case, accommodating the needs of wheelchair accessibility. Walls of glass in the living room open to the view of the street on one side and a private garden courtyard on the other, creating a pleasant vantage point for Allen Bennett, pictured here.

The Bennett House was one of the first projects that architectural graduate Jack West worked on upon his arrival at the Twitchell and Rudolph office, and all the drawings are in his hand. The system of Ocala block, exposed cypress, glass, and concealed wood joist roof structure had by this time become a highly refined design and construction system. Utilizing this familiar combination of materials and technology for this and subsequent houses such as Kerr, Leavengood, and Walker, Rudolph implemented distinct spatial innovations and subtle visual variations. He was also able for the first time to delegate some of the drafting work, as he concurrently developed entirely new structural and expressive systems, seen in the Healy Guest House and Knott Residence.



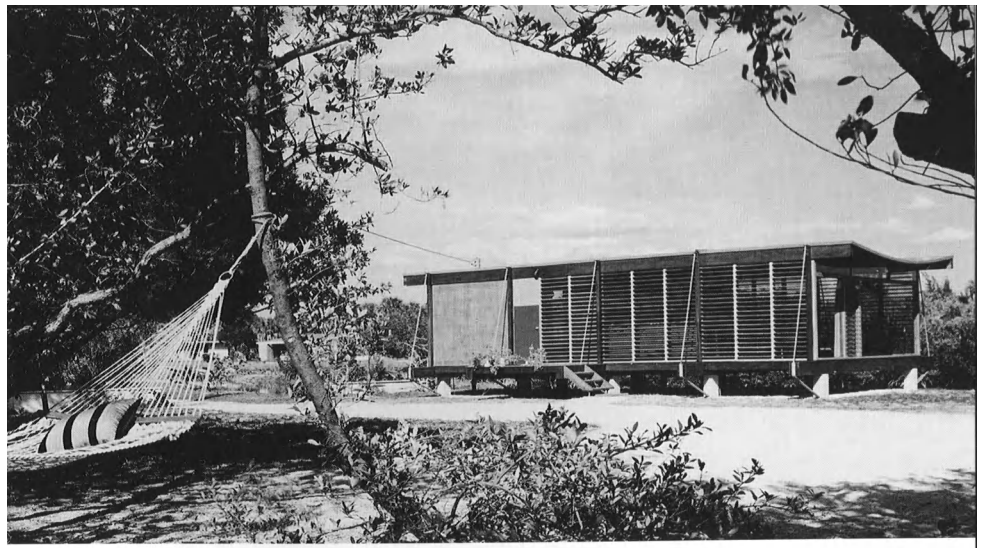
THE COCOON HOUSE

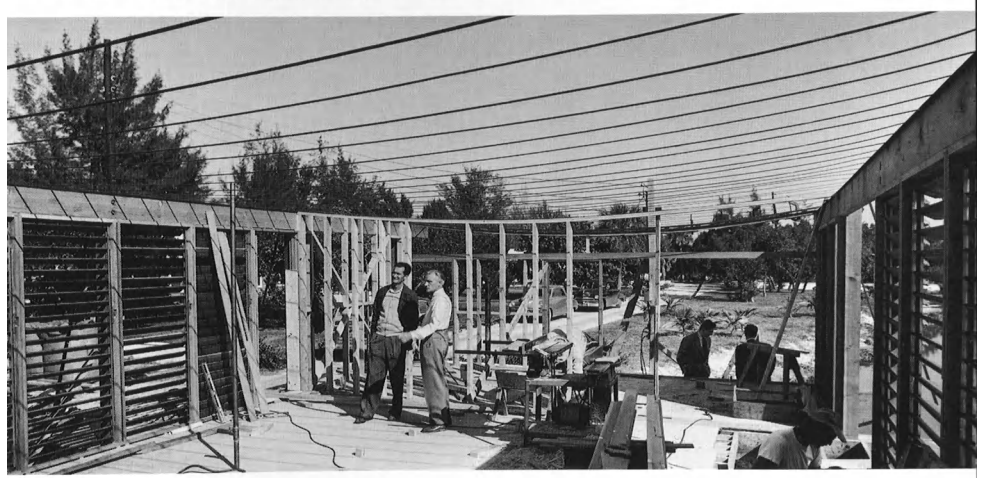
SIESTA KEY
1950

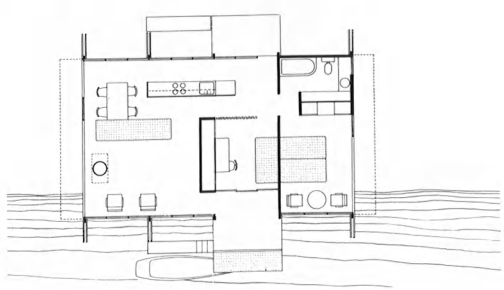


The Healy Guest House, or Cocoon House, is an experiment in structure and technology, using steel straps spanning between side walls to hold up the roof and to create its curved catenary shape. The roof structure is an original technological assembly: the steel straps are fastened to flexible insulation boards, and the roofing material, Cocoon, is sprayed on. This flexible vinyl compound had been developed by the U.S. military and was used to encase ship components after the war to protect them from the weather. The house is lifted above the land and cantilevered over the water. Despite its independent appearance, the house is very much a part of the site with its deep colors and intimate scale responding to both the surrounding bayou and mangroves.

The Cocoon House is also an experiment in transparency and enclosure through a new use of wood jalousies. Similar devices had been used commonly in southern vernacular architecture to make fine adjustments for climate control of interior space. Here however, jalousies are used as entire walls, introducing a radical conception of space—complete openness. While Philip Johnson's Glass House and Mies van der Rohe's Farnsworth House—both completed at about this time—allow complete observation of their surroundings, the experience remains primarily visual. The Cocoon house, in contrast, engages the full sensory experience of the site, including breezes, sounds, and smells. Additionally, unlike the glass houses, the experience of the surroundings can be modified from the interior by actually changing the walls. By adjusting the jalousies, the same wall that is completely open at one moment can be completely closed the next, excluding the exterior and creating a protective feeling of enclosure.







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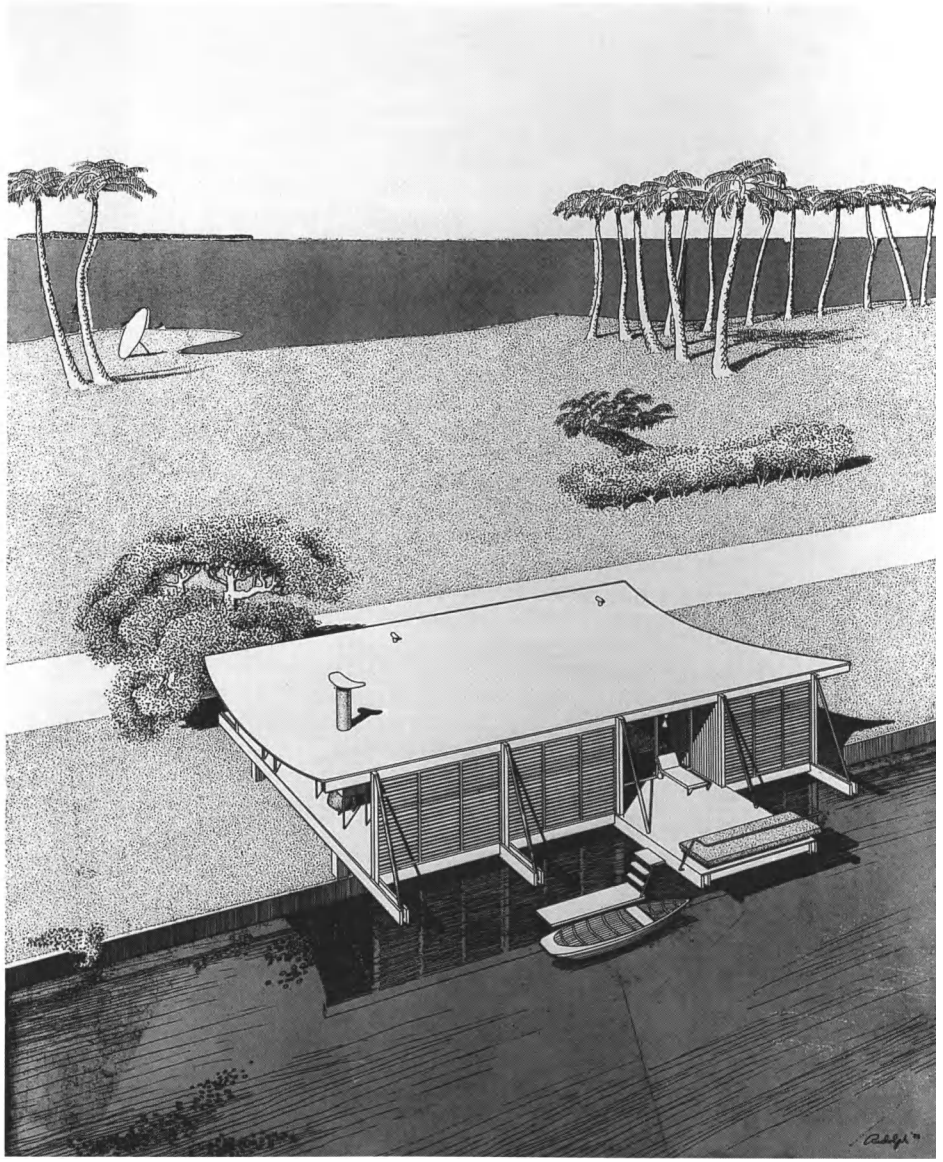
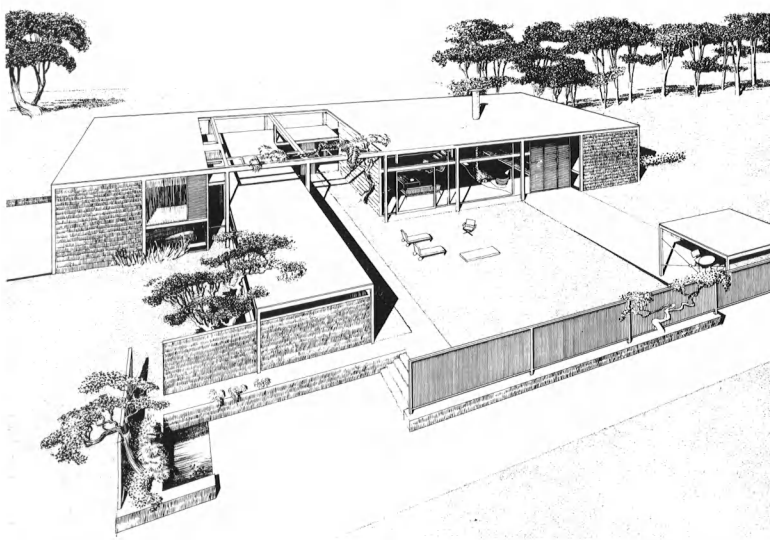




KERR RESIDENCE

MELBOURNE BEACH

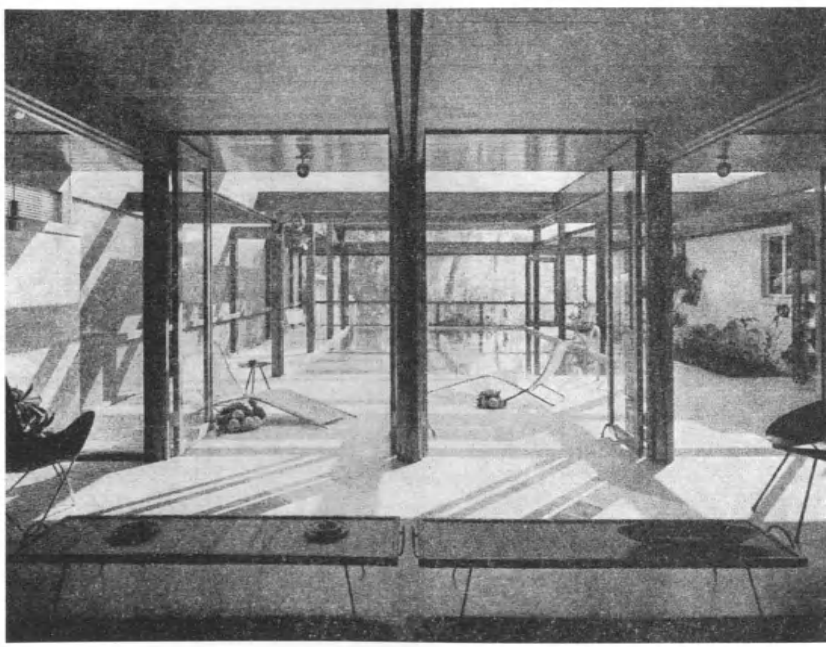
1950–1951

The residence for the W. W. Kerr family on the east coast of Florida, overlooking the Atlantic Ocean, is a composition in section set into the dune line. This multilevel house, with varying ceiling and floor heights and variations of transparency and enclosure, is unified by its attenuated-wood structural system and overriding symmetry as seen from the street.

Infill panels of glass, lime block, and jalousies are arranged to create a varied geometric composition in elevation and space. The photo of Mr. and Mrs. Kerr standing in their front courtyard, encompassed by their geometric house, illustrates their enthusiastic participation in Twitchell and Rudolph's experiments for living in the modern Florida environment. The architects' ambitious credo, as published in *Architectural Forum* in April 1950, was to "cut clean and clear through a transitional period to a completely new attitude toward living."

CHEATHAM SWIMMING POOL

LAKELAND
1950–1951

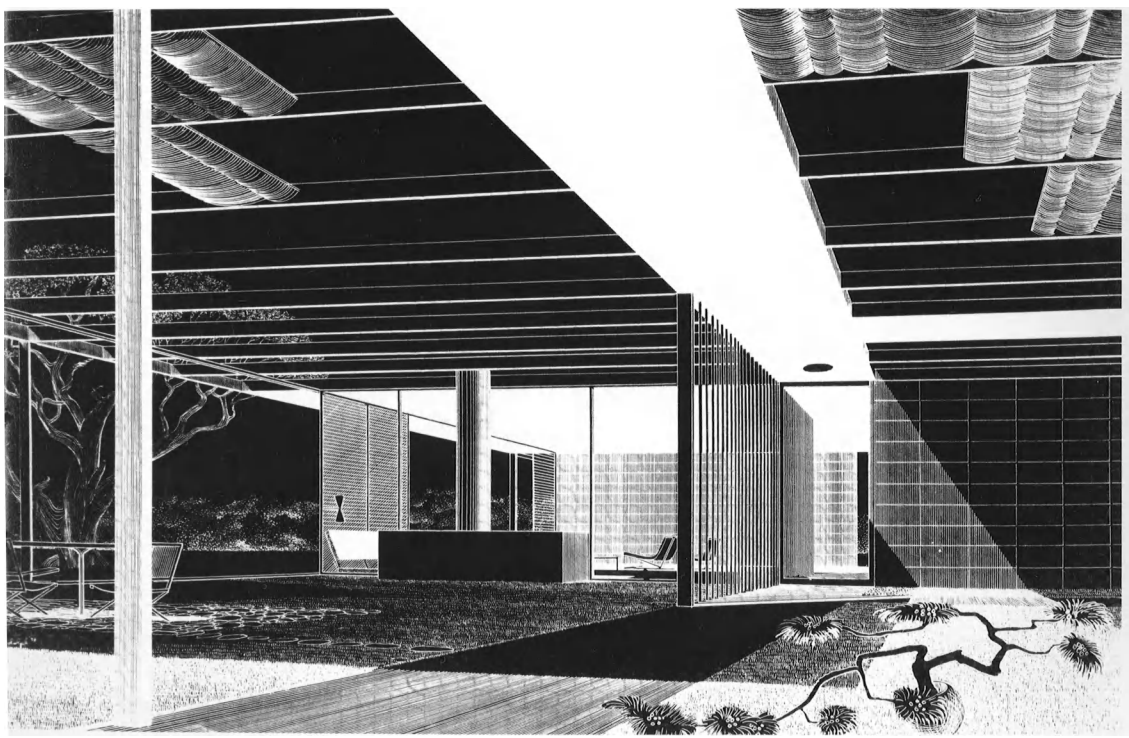


A swimming pool and recreation room addition to a conventional house in Lakeland, Florida, this project is an exercise in exposed wood framing used to support a screen enclosure and solid roof. The axial composition gives an architectural presence to this informal entertainment space.

WATSON RESIDENCE

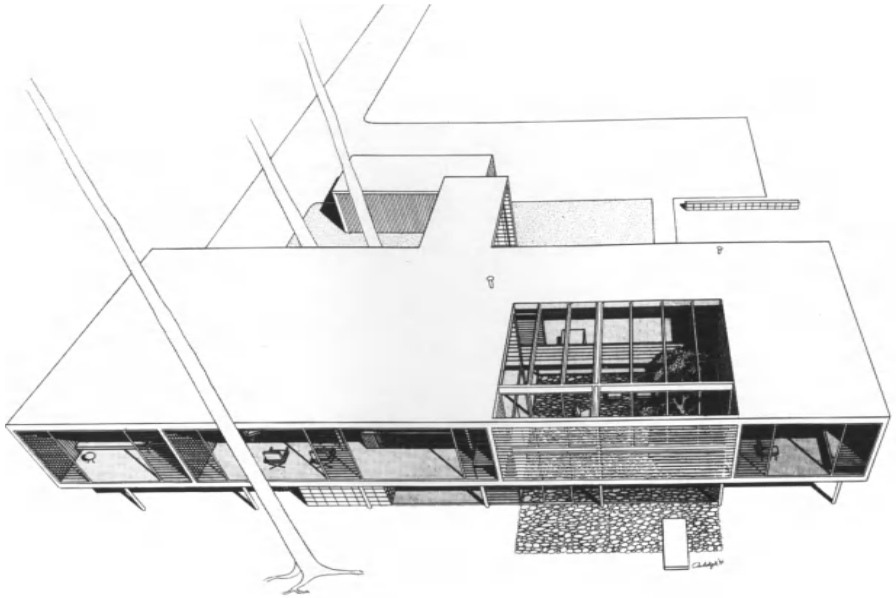
GAINESVILLE

1950–1951



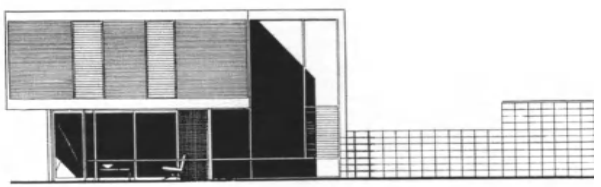
The Watson Residence is a long one-story house built on a terrace on a sloping, forested site in the center of the state. The enclosed living area of the house is separated from the bedrooms by a screened patio that also serves as an entry foyer. Canvas awnings are incorporated into the patio roof framing and provide varying degrees of shelter, depending on the season and the weather.

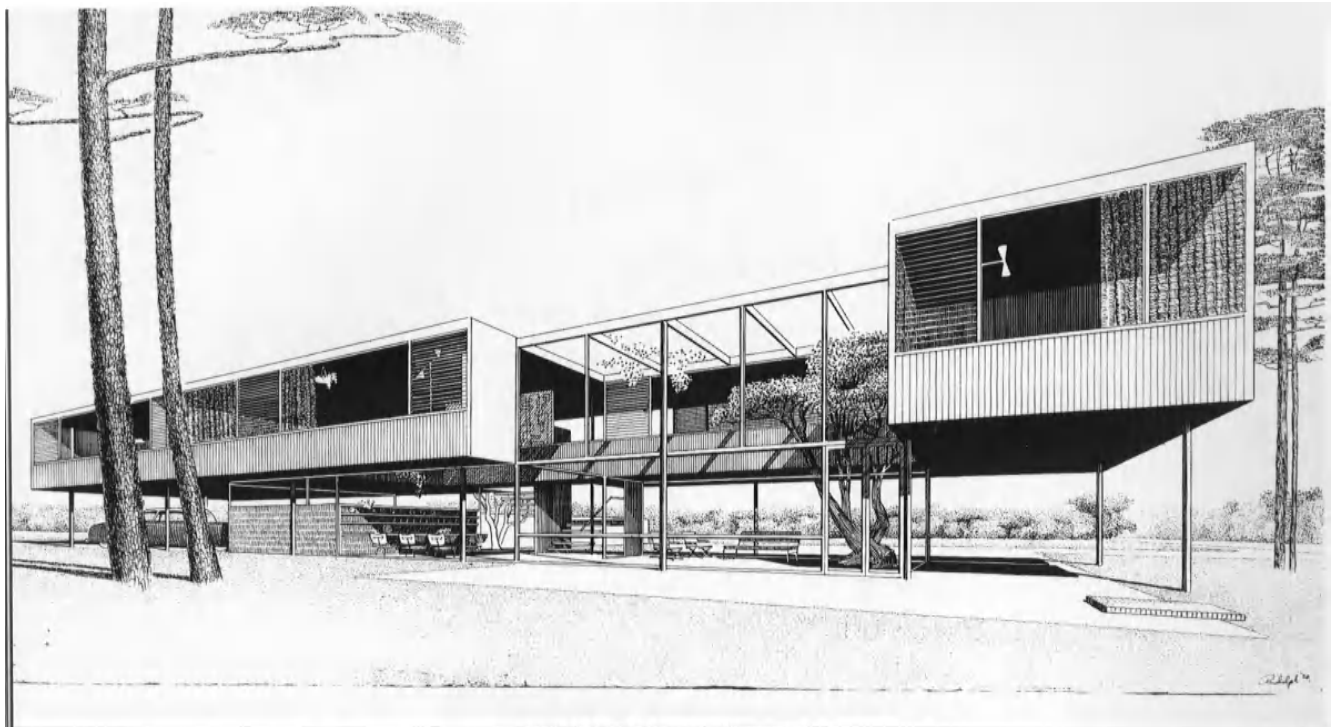

LEAVENGOOD RESIDENCE
ST. PETERSBURG
1950–1951

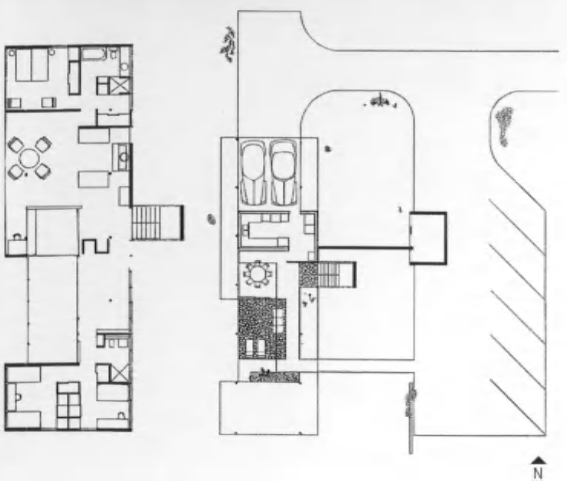


Here, for the first time, the simple rectangular mass characteristic of Twitchell and Rudolph's work is raised a full story above the ground. Rudolph takes this opportunity to exploit the third dimension, introducing a new, vibrant complexity into architectural space.

The house mass is supported by and cantilevered from thin pipe columns, as if suspended in air, and is located between two large sculptural pine trees—foils to the geometry. Block construction acts as a contrasting earthbound element. A screened patio area is carved out of the mass of the house and with the area below becomes a two-story volume with various spaces opening into it; low ceilings open to high ceilings, with a variety of layers of space and enclosure. Insect screening with only the slightest visual presence tenuously defines space, while rough-sawn cypress, painted wood, bamboo blinds, and glass of varying transparencies bound and expand space in their own ways. The Leavengood House is the culmination of the structural and formal system begun with the Deeds Residence—horizontal roof plane of concealed wood framing, interior screened patio, intense materiality, and precise craft. Familiar elements from previous projects are brought together here in a new rich synthesis.



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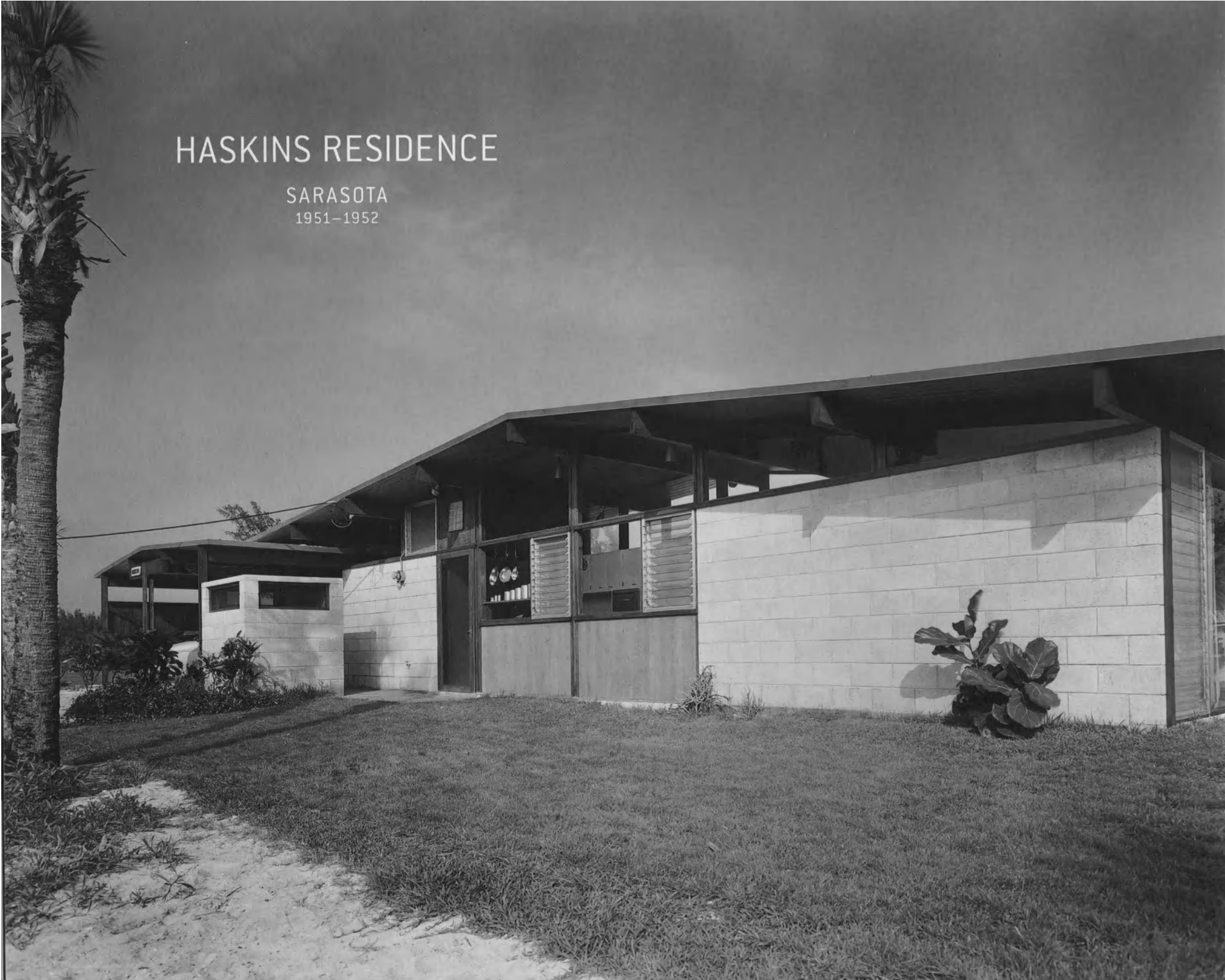
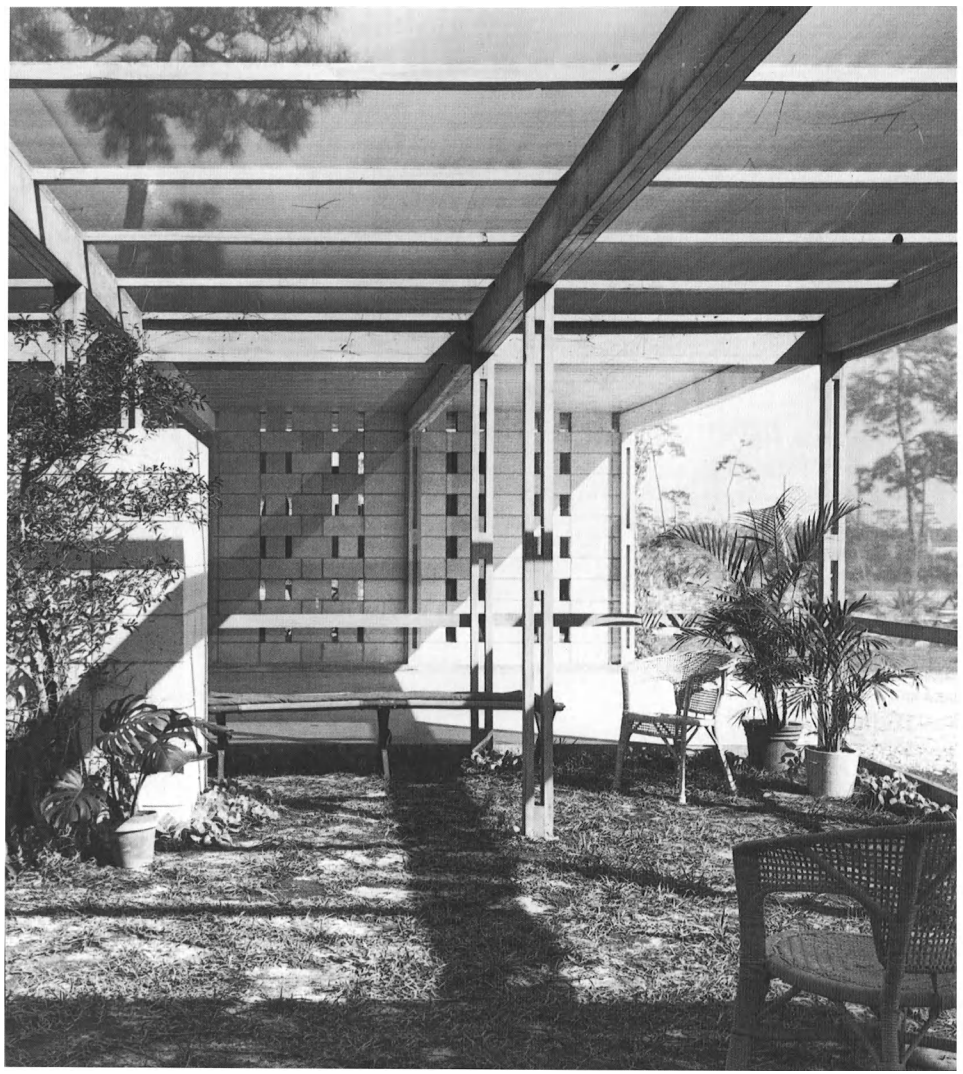

HASKINS RESIDENCE
SARASOTA
1951–1952

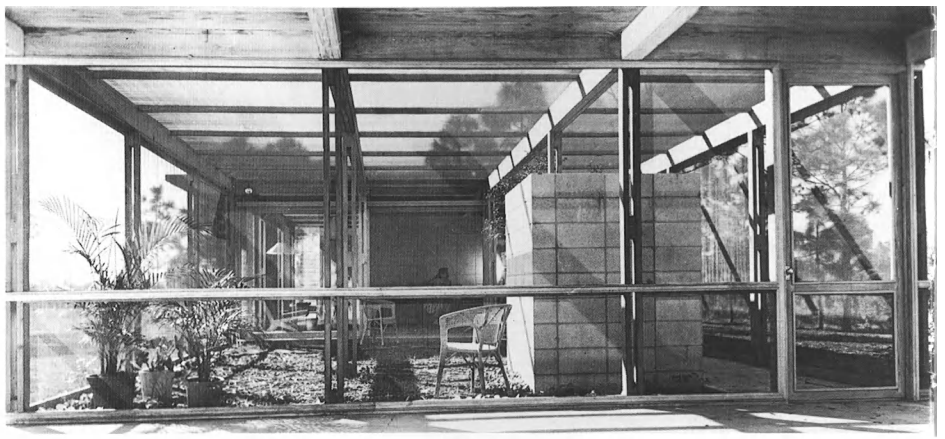
A more conventional domestic project than most by Twitchell and Rudolph, this low-gabled house nevertheless incorporates the characteristic attenuated structure and openness to the surroundings. When a pitched roof was called for, as here and in the later Bourne speculative house, Rudolph stretched and elongated it to create a hovering protective plane.

MAEHLMAN GUEST HOUSE

NAPLES

1951–1952



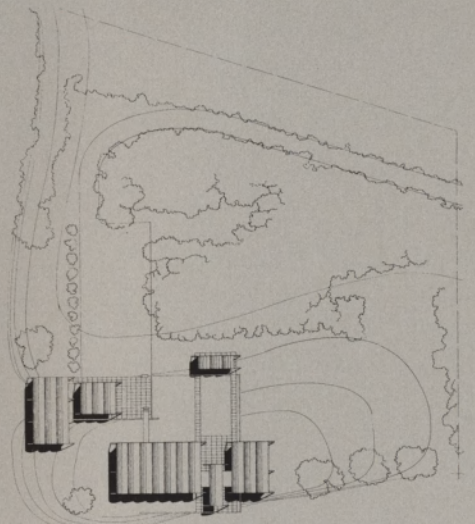


The Maehlman Guest House is a distillation of the internal patio house to its barest essentials. The screened patio space connects the carport and storage area at one end and the living area with kitchenette on the other. The internal block mass marks the entry and encloses an exterior shower. Column members are spaced slightly apart, and block is laid with narrow openings, emphasizing the lightness and transparency of the whole assembly.

KNOTT RESIDENCE

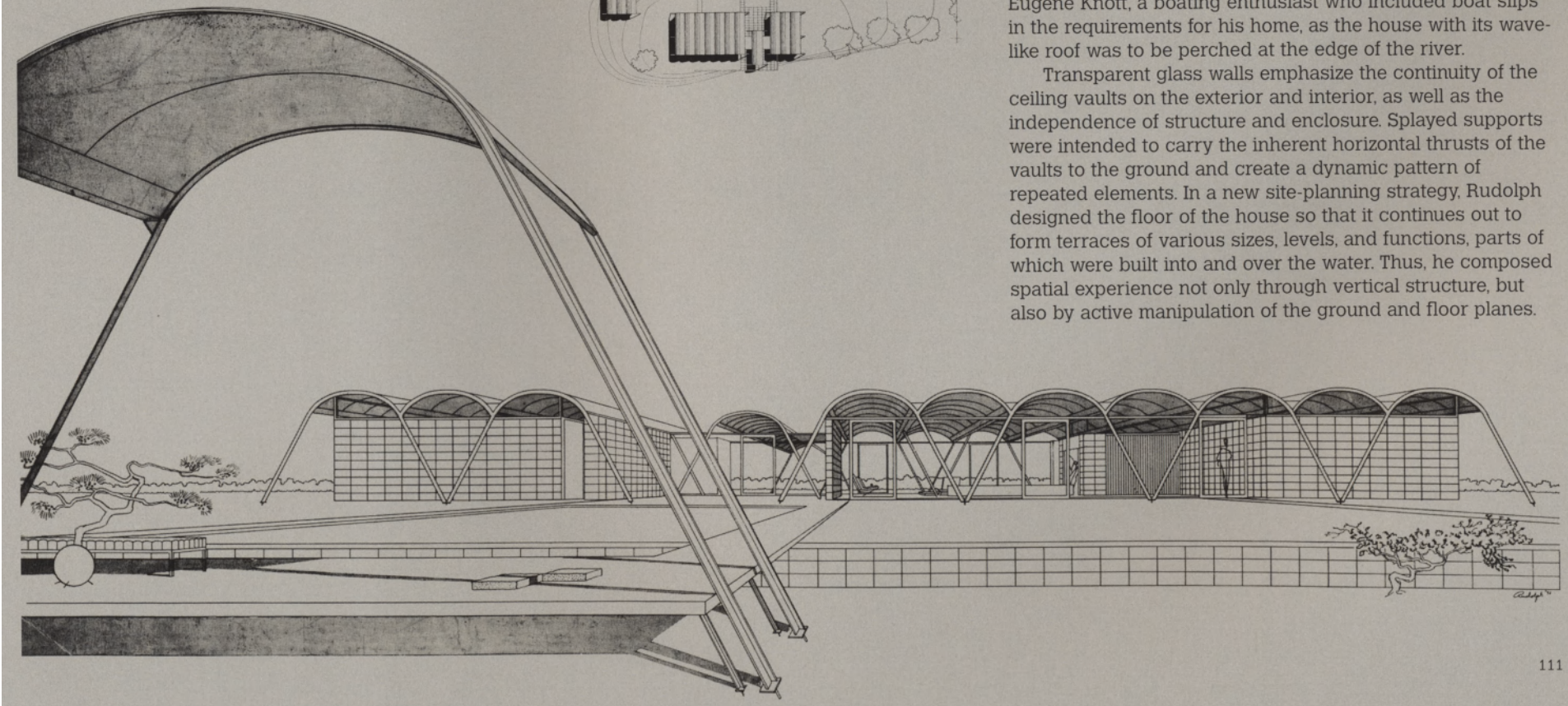
YANKEETOWN

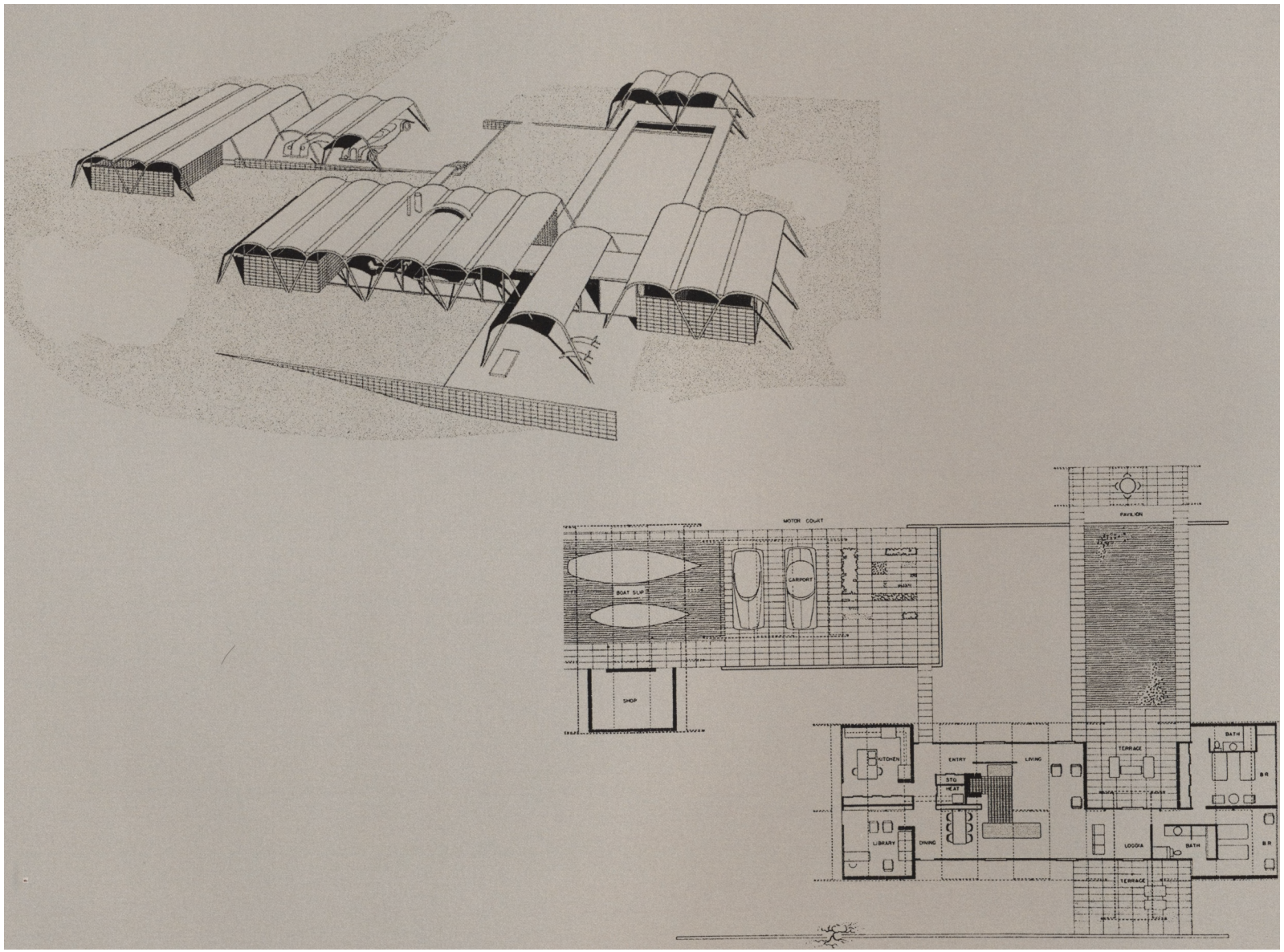
1951, PROJECT



According to Rudolph, the Knott Residence was the first architectural use of plywood to vault space. Like the Cocoon House roof, this was an entirely original architectural form derived from a new use of technology. Rudolph created a rhythmical series of pavilion roofs by exploring the strength and bending characteristics of modern plywood. There is a clear analogy to ship construction in the Knott Residence in the use of curved planar structure as a hull for the primary enclosure. Partitions, as in ships, are arranged independently of overall form. This shiplike feeling probably resonated with Eugene Knott, a boating enthusiast who included boat slips in the requirements for his home, as the house with its wave-like roof was to be perched at the edge of the river.

Transparent glass walls emphasize the continuity of the ceiling vaults on the exterior and interior, as well as the independence of structure and enclosure. Splayed supports were intended to carry the inherent horizontal thrusts of the vaults to the ground and create a dynamic pattern of repeated elements. In a new site-planning strategy, Rudolph designed the floor of the house so that it continues out to form terraces of various sizes, levels, and functions, parts of which were built into and over the water. Thus, he composed spatial experience not only through vertical structure, but also by active manipulation of the ground and floor planes.




MOTOR COURT
BOAT SLIP
CARPORT
SHOP
PAVILION
KITCHEN
ENTRY
LIVING
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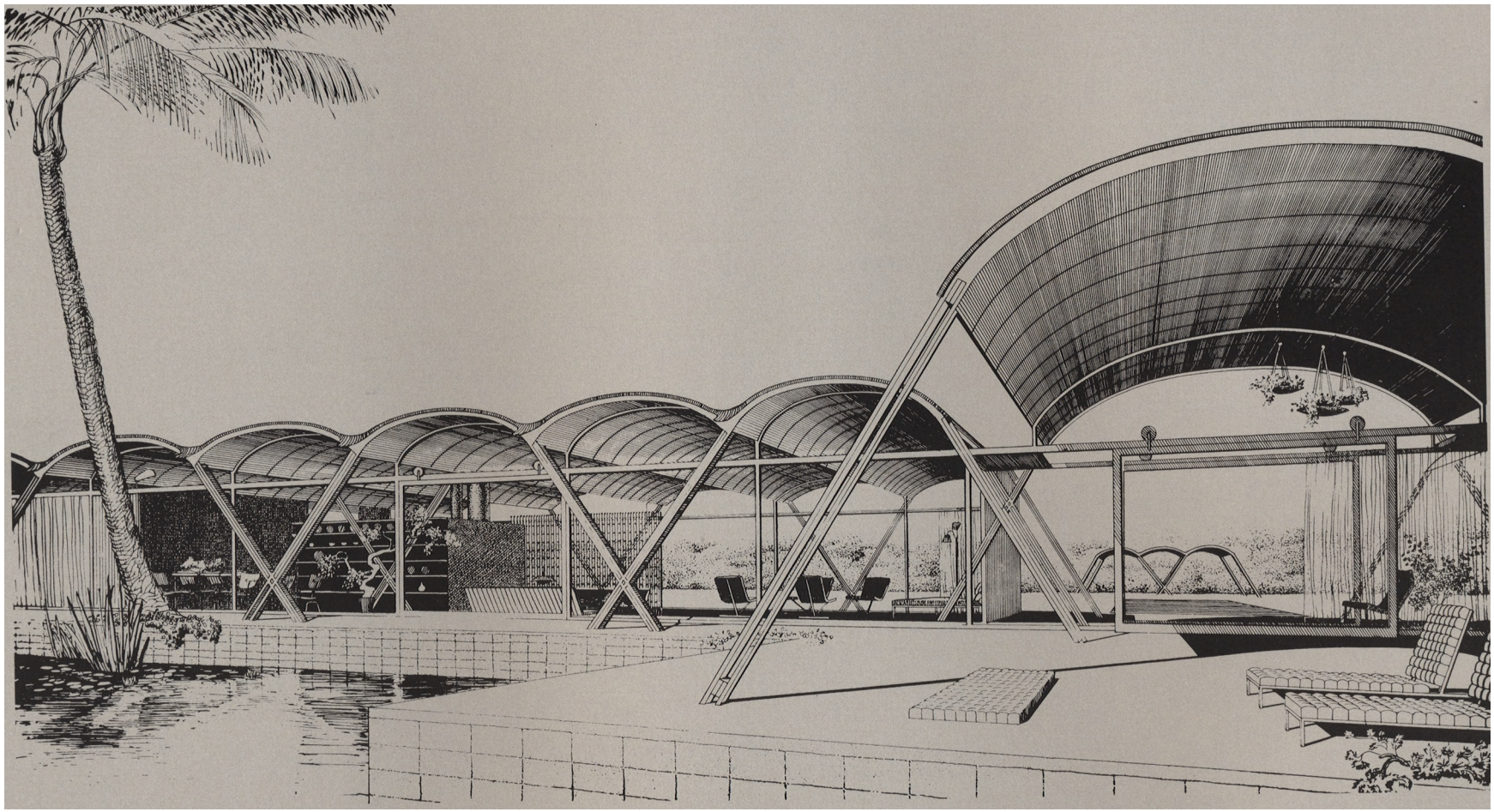
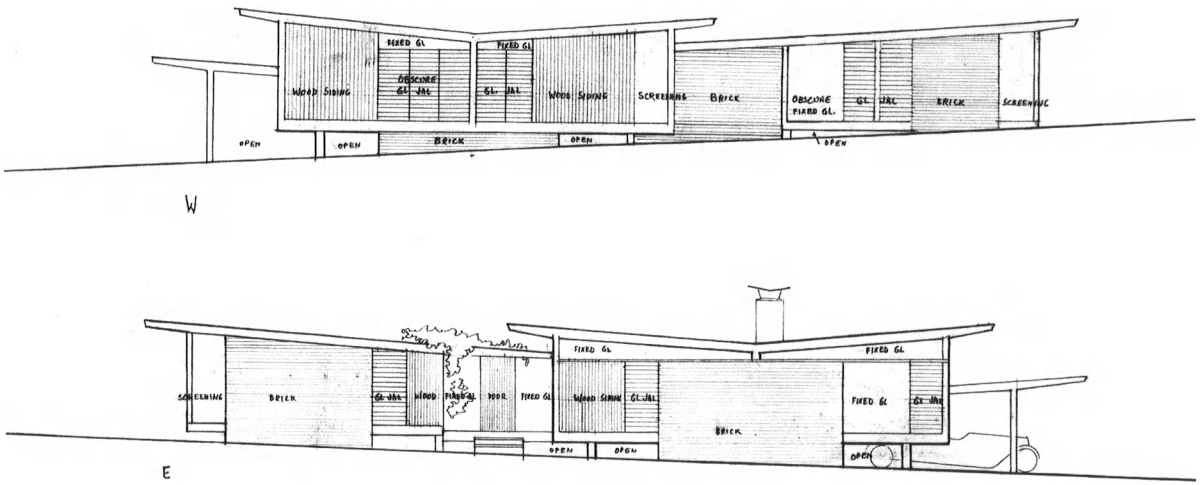


RUBIN RESIDENCE

PENSACOLA

1951–1953

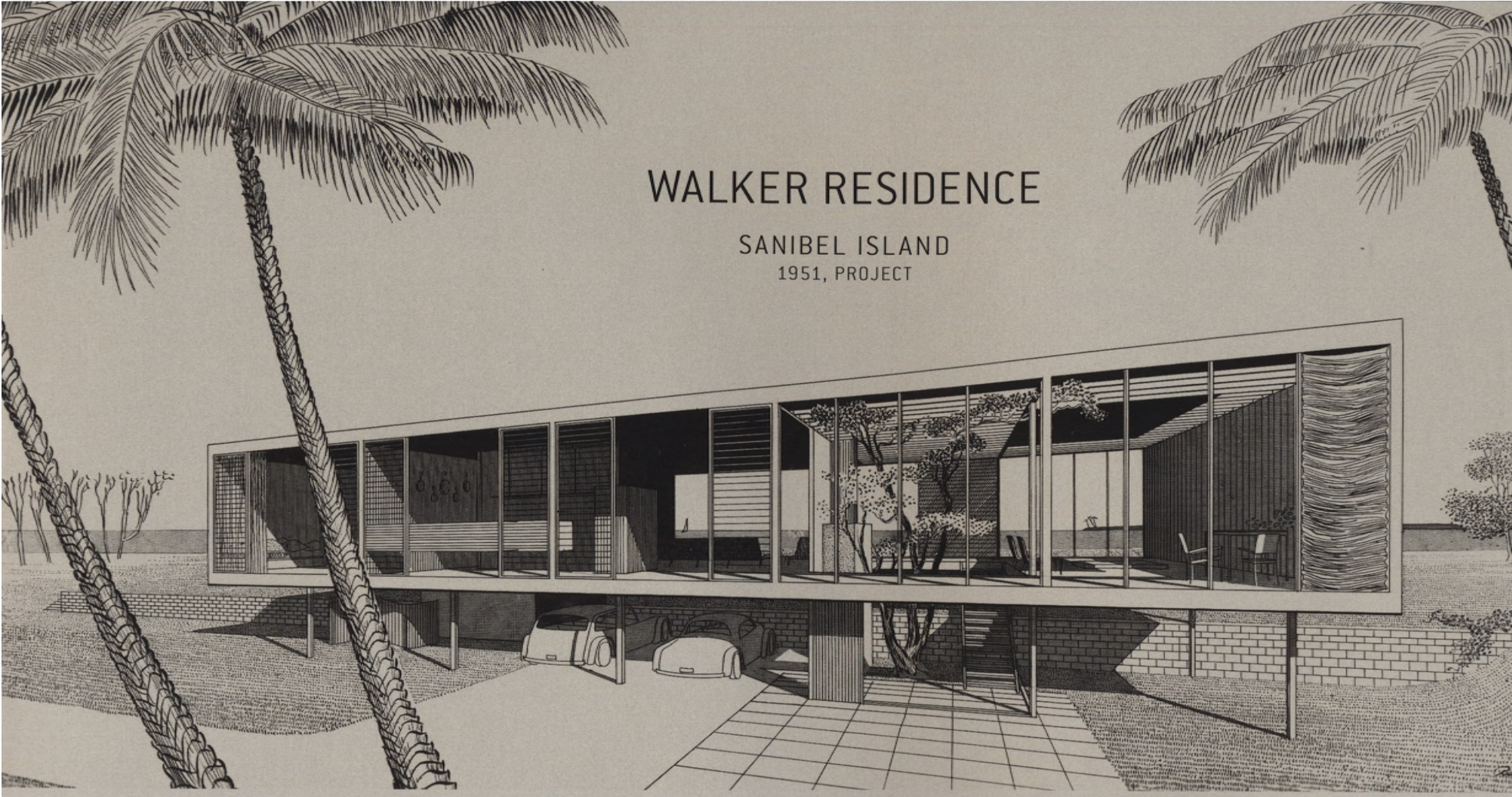


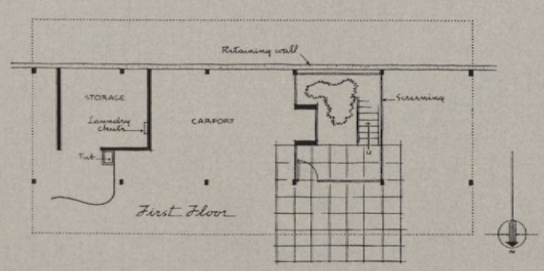
This house, built in north Florida, is a reinterpretation of the early heavy-timber framing system, here modified to form a "butterfly" roof. The very simple elevation drawings in Rudolph's hand are examples of the simple presentation style used early in the design process.

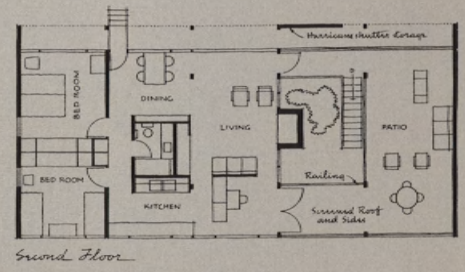
WALKER RESIDENCE

SANIBEL ISLAND

1951, PROJECT







An elongated box open on the long sides and elevated on pilotis, the Walker Residence is similar in design to the Leavengood Residence. Here, however, the screened patio space makes up nearly half of the living area, which is all on one level. From the entry side the house is lifted a full story off the ground to accommodate parking and entry underneath. It appears only slightly elevated at the water side due to the rise of the beach dune and retaining wall. A universal, modern design, this house floats above the landscape, providing a platform for viewing the gulf and the beach.


COWARD RESIDENCE
SIESTA KEY
1951

The Coward Residence, a seasonal home, expresses the idea of pitching a tent to provide a relaxed, temporary shelter for living in Florida. A series of tents is arranged in a U-shape to form the edge of an exterior space, like a campsite, with a cluster of oaks at the center. The main tent looks out through the scrub forest to Big Pass and the Gulf of Mexico beyond.

This residence and the Wheelan Cottages, both designed in 1951, are similar in character, using insulation board, Cocoon, and steel straps hung in tension to form the roofs. Diagonal bracing posts and guy rods carry the structural forces to the ground.

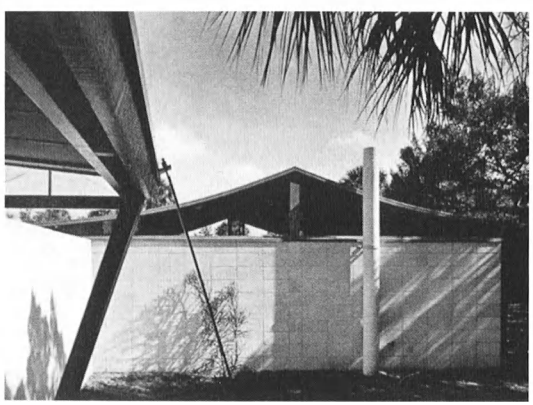
WHEELAN COTTAGES

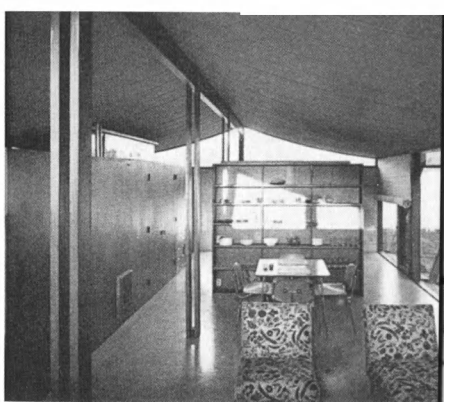
SIESTA KEY

1951

In comparison to the Coward Residence, the Kate Wheelan Cottages convey a more pronounced sense of abstraction in the disposition of form and material. Planar block walls of uniform height anchor the two cottages to the ground and to each other. Through the use of open side walls and glazed gable ends, the thin swooping roof reads as an independent form, seeming to float in air. The broad, sheltering quality of the roof is further emphasized in the interior. Freestanding partitions, except at the bathroom enclosure, continue at the same height as the block walls, independent of the hovering canopy above.

These cottages, designed as short-term rental units, achieve a sense of both lightness and protection. Neither elevated on pilotis nor terraces, they are constructed directly on the ground and continue the idea developed ten years earlier in the Twitchell Residence: a way of living in a minimal pavilion immersed in the benign, though seemingly wild, subtropics.





INDEPENDENT PRACTICE

INDEPENDENT PRACTICE
CHRISTOPHER DOMIN

With the beginning of his private practice in March of 1952, Paul Rudolph was eager to purge himself of the Twitchell legacy and move in another direction. His work during this period was expanding into the public realm alongside a steady stream of residential commissions. Guest lectureships and studio critic invitations from Harvard, Yale, Cornell, and the University of Pennsylvania became increasingly frequent. Rudolph was tenuously straddling the line between a local culture that nurtured his early development and a national architectural scene that offered him greater opportunity. The break with Twitchell offered Rudolph unbridled independence but also signaled a period of restless experimentation in his work. He started into the prosperous 1950s with a series of projects that attempted to redefine architecture for his generation.

This decade would soon develop into a time of perceived uncertainty within the design community and also the culture at large. Many young architects began to question the limits of functionalism as a unifying program and were searching for other points of reference.[1] This was also the era of Joseph McCarthy and the House Un-American Activities Committee that would, in time, begin to undermine many of the progressive policies that nurtured Sarasota's mid-century renaissance. Fortunately, for Rudolph this prosperity offered little time for introspection as his independent practice steadily developed.

A major indicator of change in the American architectural scene occurred in June of 1952 with Walter Gropius's resignation from Harvard University. This event undoubtedly signaled a changing of the guard. The messianic struggle was left to the generation of architects that were trained at Harvard during the 1940s. Before stepping down, Gropius offered some recommendations to his successor José Luis Sert concerning the future of the school, which included a series of appointments of those he saw as "most loyal to our cause." The ideal team was comprised of a selection of ideologically diverse practitioners, including Charles Eames, Serge Chermayeff, I. M. Pei, and Paul Rudolph.[2] Rudolph's rising notoriety along with his continued association with the New York avant-garde brought about two important events that, in retrospect, proved to be benchmarks in his early career development. The Museum of Modern Art and Yale University provided the stage for events that would further catapult Rudolph into the international spotlight.

"The Good Design Exhibition," prepared by Rudolph for the Museum of Modern Art, opened in January of 1952 at the Chicago Merchandise Mart and, later that year, in New York. The exhibit debut in Manhattan was described by the *New York Times* as "breathtakingly spectacular."[3] Space, mood, and materiality were defined and manipulated in a way that gained the approval of merchandisers, spectators, and curators alike. Rudolph was placed among the impressive company of previous individuals involved in the "Good Design" program, such as Charles and Ray Eames, who organized the premiere installation for the museum. Rudolph, just thirty-three years old, seemed an unlikely choice for the project, but he soon dispelled any questions concerning his ability to work in this new medium.[4] This experience placed Rudolph at the intersection of fine art and advertising, the world of the architect and that of the designer, the high culture of the museum and the retail culture of the department store.

The creation of architecture set within the realm of these dichotomies would form Rudolph's working methodology well into the next decade and beyond.[5]

Also in 1952 the inaugural edition of the Yale University architecture journal *Perspecta* highlighted Paul Rudolph, Philip Johnson, and Buckminster Fuller under the "New Directions" category, preceded by the daunting preface:

> We all intend to become recognized masters of our time. How does one become a master? In the light of Henry-Russell Hitchcock's discussion on the evolution of Frank Lloyd Wright, Mies van der Rohe and Le Corbusier we contrast the education and influences of three men of more recent and thus more typical education. Their work as illustrated here indicates three new and important directions in modern architecture, evolving more or less logically out of their past.

Rudolph was most certainly chosen to represent the Harvard program under Gropius's leadership and its profound impact on American architecture culture.[6] Yale University's School of Architecture at the time was interested in looking beyond the developing pragmatist response to European functionalism toward a new generation who was beginning to reinterpret the formulaic program outlined by Hitchcock and Johnson in their International Style exhibit of 1932. Under the direction of American architect George Howe (1950–55), Yale University entered a time of reassessment and reorganization that was often chronicled in their highly influential student journal. The restructuring of the school and the creation of new departments began to define a new set of issues and interconnections that would significantly impact both the theory and practice of architecture. A series of high-profile appointees set a new agenda for the school and encouraged an expanded interdisciplinary dialogue within the architectural community. Christopher Tunnard was brought in to create a degree program in city planning, and Josef Albers was hired to reconceptualize the Department of Fine Arts into the Department of Design.[7]

It is by now well known that Rudolph and others of his generation looked closely at the work of Wright, Mies, and Le Corbusier, but it was in the context of journals such as *Perspecta* that they laid out much of the framework used to critically assess this work. The article on Rudolph in *Perspecta 1* positioned him as one of the chosen heirs to the mantle of European modernism, but it also placed him in the difficult position to begin answering the question, where do we go from here? In the introduction to "New Directions," Rudolph was praised for his "integration of structure and form," but this simple resolution actually said very little about a defined position concerning the practice of architecture. The limited description of his career to date and the possibilities for future action were clarified in the body of the article where Rudolph began to outline the major points that would inform the resolution of his diverse set of concerns. The formal, material, and even phenomenological basis for regional expression were discussed along with a digression concerning the lessons of architectural history and the

	WRIGHT	MIES	LE CORBUSIER
BIRTH	*1867*	*1886*	*1888*
END OF FORMAL EDUCATION	**20**	**15**	**17**
END OF APPRENTICESHIP	**26**	**25**	**22**
INDEPENDENT PRACTISE	**26**	**25**	**34**
MATURITY BEGINS	**31-33**	**34-36**	**35**
FIRST MASTERPIECE	**35**	**43**	**39**

enduring legacy of the metropolis as a wellspring for the development of a distinctly American approach to design and construction. This last point would manifest itself in a full-blown theory of urbanism, which reached maturity during his official tenure at Yale beginning in 1958. Ulrich Franzen pointed out that Rudolph "started the first real dialogue about architecture in the context of the city."[8] An overstatement, perhaps, but it highlights the influence of an expanded frame of reference that was moving beyond the limitations of the single-family house as prescribed by the dominant forces in the American housing market.[9]

These diverse influences along with Rudolph's proud regional assertion that "I am a Southerner and practice architecture in Florida" set the stage for this important period in his career where he attempted to hold on to his iconoclastic outsider position while simultaneously being embraced by both the architectural and political establishment.[10] After the strained dissolution of the Twitchell partnership, Rudolph rented a small studio on Main Street (1644B) in downtown Sarasota. Wilder Green was brought down from Yale after graduation in June of 1952 to develop working drawings and look after the office in Rudolph's absence. William Rupp entered the scene a year later and described the office as follows:

> Small in personnel, small in size (12' x 24'). It was rather well appointed, if crowded. The show window was screened with framed translucent plastic, against the outside wall was a white painted steel framed sofa, with gray silk cover. This served as a bed for PMR's short stays. The longer stays he would find a place to rent.
>
> Facing the sofa were two 'British officer' chairs with canvas seat, back and arms; hardwood legs. This chair was made famous by being used in many PMR drawings and published work. Behind the chairs, partially screening the drawings tables, was suspended a large blowup of a photo of a PMR building. Behind, four drawing tables crowded together were supported by crosslegged white painted steel horses. Both sidewalls were lined with shelves filled with books and journals. These were supported by white painted slender steel rods that reached to the gold teachest-paper ceiling and apparently supported a perforated screen that had been fabricated for the Good Design Exhibition of 1952 at the MoMA, designed by PMR. This filtered the light from the skylight above. The steel columns supported showcase lamps for background light, but the working light was by adjustable desk lamps. In the rear was a small lavatory, a shower and storage racks concealed by sliding plastic sheets. The floor was covered by grey sisal squares.... All white and gray, with a gold ceiling peeping through.[11]

During this period Rudolph operated as an architect at large, fluctuating between visiting critic positions, lecturing, and his studio in Sarasota, which often acted as a bridge between his public persona and somewhat minimal domestic needs. Very little is known about his peripatetic life during this time, except that he was constantly traveling in and out of town as a way to sustain his developing practice. It is certainly possible that he had an undisclosed social life in each of the cities he visited, as well as in Sarasota, but his later position as an openly homosexual architect was not evident in the context of his Florida studio in the early 1950s. This itinerant lifestyle underscored the restlessness of operating within a local and national architecture culture, continually attempting to meet the needs of both. He brought both of these influences to bear on the conceptualization of his projects along with a theory of a situational architecture that responded to the specificity of the locale while simultaneously referencing other influences such as industrial production, popular culture, and developments within the New York and European avant-garde.[12]

Only a short time after Rudolph had started his private practice, Mary Rockwell Hook entered his studio with a proposal for a house design, but not one of those "Twitchell houses" that she knew from Siesta Key.[13] Hook's long-term goal was to create a case study development of architect-designed houses on her Siesta Key property, representing the newest thinking in domestic design.[14] This larger planning goal never quite materialized to the extent that she imagined, but the opportunity to get a project under construction offered Rudolph the space to reevaluate his relationship with Twitchell and begin the process of articulating his independent voice.

Starting where the Finney project left off, with its taut system of construction and intimate ties to the landscape, followed by the overly ambitious structural organization of the Knott Residence, Rudolph brought to fruition his first domestic use of the plywood vault. This triumph was based on modest materials and standard modular dimensions, but it also looked toward broadening the functionalist legacy of his Harvard education. Rudolph was a quick study, he internalized the bent plywood experiments of Charles and Ray Eames in Los Angeles and was also one of the first of his generation to reevaluate the early work of Le Corbusier. His "Monol" prototype, published in the widely disseminated *Vers une Architecture* of 1923, presented a system of asbestos sandwich panels that relied on the base material for not only the panelized wall construction, but also the rhythmic articulation of roof vaults. In this example, the unity of the constructional elements was the prime means toward achieving beauty in the project and a way of making the architecture accessible to a wider population.[15] During this period Le Corbusier was expanding upon the abstract purist vocabulary utilized in many of his villas from the early 1920s with overtly vernacular sources of inspiration.[16]

In the Hook Residence, Rudolph developed his plywood vault system by incorporating abstracted formal references set within the constraints of the specific structural qualities of plywood. A buttressed post-and-beam frame was used to raise the main living space above the landscape and accept the outward thrust produced by the vaults. This frame was infilled with panels consisting of board siding,

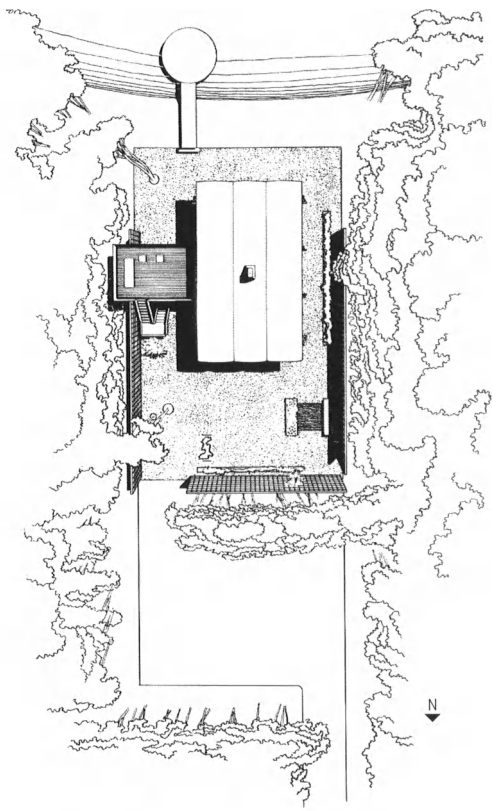
fixed glazing, or operable jalousie windows, which alternated in response to the interior program of the house. Rudolph's continued preoccupation with modularized construction systems vigorously expressed on the exterior of the building in combination with the structural and spatial articulation of the roof plane set this project apart from many of its predecessors.[17]

Like many of the early houses, a functional division was established between the public and private living areas. The tripartite division of the vaults is echoed in the transverse layering of space outward toward the expansive view. The interior transition from the private spaces facing the entry drive toward the center zone containing the kitchen, fireplace divider, and main entry, culminates in the main living space of the house with its expansive panorama of the bayou beyond. The articulation of the ceiling and roof structure thrusts the view outward, creating a completely different relationship between the architecture and the landscape than had been investigated with Twitchell. The sandy foreground that was such a common occurrence in the previous partnership is now removed from the vignette and replaced with the middle ground of the lagoon and mangrove beyond. This quote from Rudolph's 1967 traveling exhibition brochure begins to elucidate his personal design strategy:

> Architecture, at least for me, is to a degree an art, and I feel fundamentally that it's the business of art to always question, to always turn everything upside down so that one sees it anew. It seems to me that this is the real business of art, though it is very disconcerting to most people; it gives nothing to hold onto.

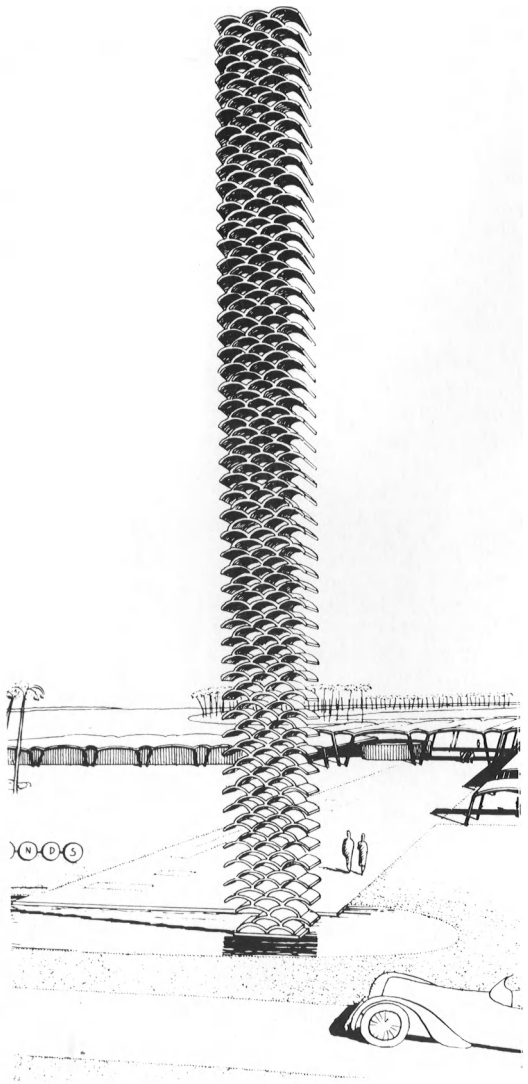
This questioning is evident in the multitude of references employed in the Hook Residence, including a layering of architectural precedent that further complicates the reading of this hybrid structure. The house is divided centrally along the transverse axis with a combined fireplace/skylight at the center of the entire composition. The surprising dual nature of this device refers to Wright's standard conception of the hearth and inglenook as the psychological ground zero for the home, but is transformed by the light construction materials and the dual flue that is suspended within an upward-projecting skylight. Heat, light, and views are simultaneously introduced to the center of the house through one composite system. This unusual juxtaposition of pragmatic functions is indicative of Rudolph's constant questioning of standard domestic references.

In this project the relationship to the landscape begins well outside the frame of the building. A large room is carved out of the dense subtropical landscape, alluding to an idealized conception of a primitive settlement.[18]. The imposition of order and a sense of measured rationality to the site places geometry in direct opposition to the fluctuations of nature, which are kept at bay by three masonry walls that define the edge of the enclosure. A subtle opening in the wall closest to the street forms an entry-way that formally proceeds along the eastern edge of the site, culminating in a cantilevered circular deck overlooking the lagoon. This direct route to the water is interrupted mid-way by an entry platform projecting off the upper level of the house. An exterior room is situated at the top of the stairs, creating an asymmetrical foil to the



ABOVE: HOOK GUEST HOUSE

OPPOSITE: HOOK GUEST HOUSE, VIEW FROM SOUTH SIDE OF THE LAGOON



ABOVE: FLOATING ISLANDS, PERSPECTIVE DETAIL

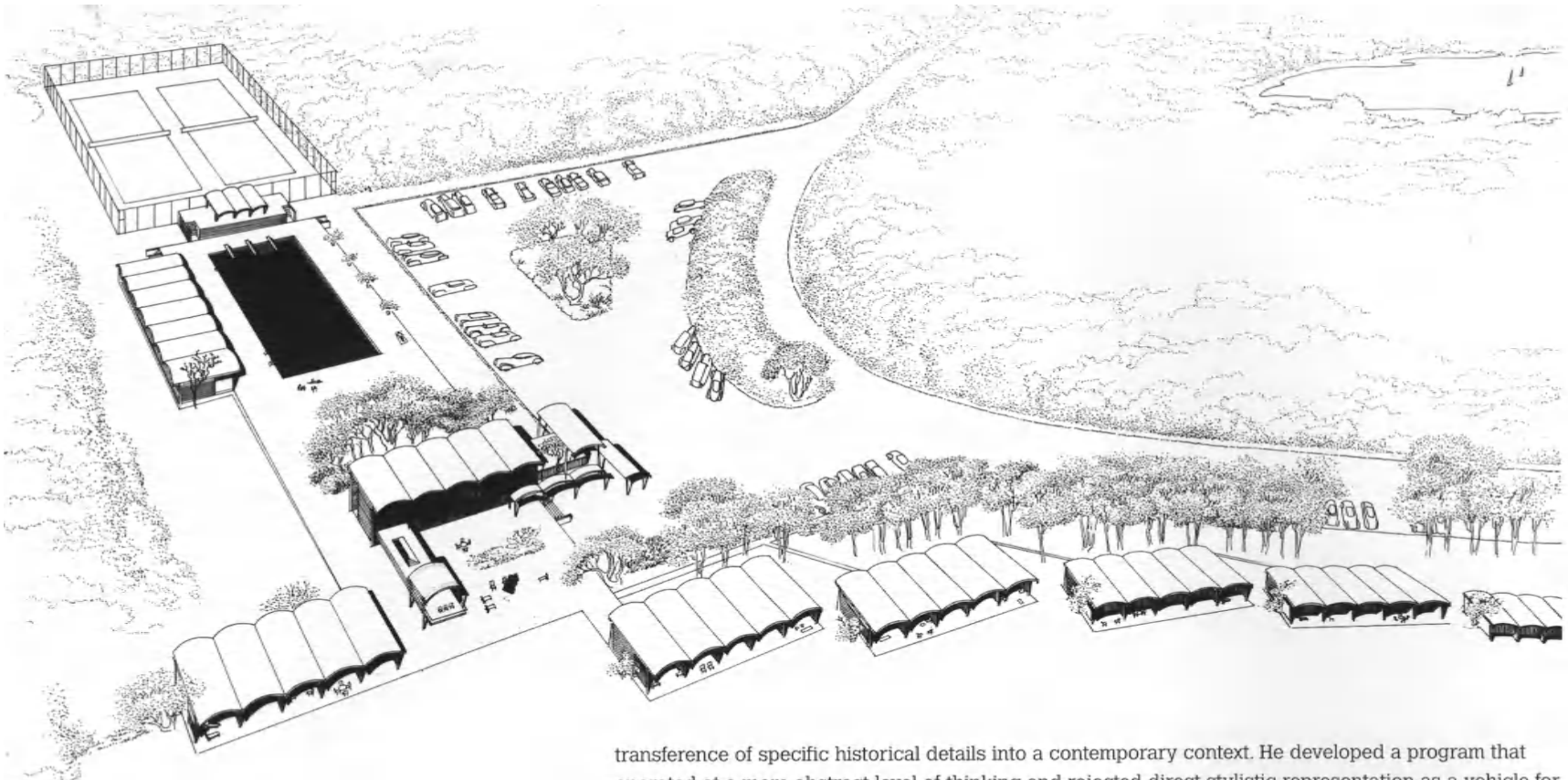
OPPOSITE: SAE FRATERNITY HOUSE, MODEL ENTRY VIEW

rigorously modular structure of the frame. Operating as an entry, a gateway, and a room, this hybrid space is typical of Rudolph's multi-dimensional planning strategies of the period. The definition of an architectural promenade is also a constant feature in the work to date, but takes on a distinctly sectional dimension in relation to movement through the site as the decade proceeds. Rudolph was laying the groundwork for a developing urbanistic model that could be equally applicable to major public projects as to small-scaled domestic programs. In this case architecture and nature are interwoven by the complex definition of a circuit through the site, the building, and into the landscape beyond.

URBANISM IN THE SCRUB

The elegant resolution of thin plywood vaults at the Hook residence certainly paved the way for the implementation of the prototype at a larger scale for the Sanderling Beach Club. This quasi-public project offered Rudolph the first real opportunity to test his developing ideas concerning the notion of urban fabric begun in the drawings for the Revere Development and completed during his travels in France at the end of 1948. In this context Rudolph further developed his understanding of Le Corbusier's influential later work and began to experiment with more overtly historical references to traditional urban planning to overcome the limits of functionalism. Like many of his contemporaries, Rudolph was wary of the encroaching dominance of repetitive suburban development in America and, in response, turned to urban theory as a potential way out of the dilemma. Rudolph seized the opportunity to reevaluate his direct experience with urbanism in Europe, which he had initially gleaned from his travel under the Wheelwright Fellowship and the later influence of the *Congrès Internationaux d'Architecture Moderne VIII* (CIAM VIII). In Rudolph's case the developing urbanist strategy would become equally relevant to large-scale public projects as to detached single-family houses. In metaphoric terms, urban design could be situated in a way that allowed conceptualization of the house as a city in miniature with all of its inherent vitality just as easily as it could be utilized to arrange a larger complex of buildings into a meaningful composition of parts.

The fight against suburbia in the context of larger urban planning initiatives was brought to the fore at the CIAM VIII held at Hoddesdon, England in 1951. José Luis Sert posited a redirected focus toward the "Core" as a critique of the increasingly decentralized American landscape. Sert argued that in order "to put an end to this unplanned decentralization process we must reverse the trend, establishing what we may call a process of recentralization. The re-centralization process demands the creation of new urban cores that will replace the old ones that unplanned growth had destroyed."[19] For Rudolph this call to order can be witnessed directly in the planning strategy for the Sanderling Beach Club, Floating Islands, SAE Fraternity House, and even domestic projects such as the Knott Residence. In many respects Rudolph conceptualized a model of urbanism that mirrored his architectural design methodology. His strategy was developed in an attempt to tackle problems at the level of organization as opposed to



SANDERLING BEACH CLUB, AERIAL PERSPECTIVE

transference of specific historical details into a contemporary context. He developed a program that operated at a more abstract level of thinking and rejected direct stylistic representation as a vehicle for conveying information.

Even though Rudolph did not actually attend the CIAM VIII, he was in close contact with two of its active members, Walter Gropius and Philip Johnson. Gropius had even suggested Rudolph's name to Sert in 1950 as one of the new generation of American architects that should be recruited for membership in an attempt to widen the base of the organization.[20] As a general theme for CIAM VIII, "The Heart of the City" was developed by Sert, with the American suburb and European postwar reconstruction in mind, as a continuation of ideas begun in the coauthored 1943 manifesto "Nine Points on Monumentality." In this text Sert, along with Sigfried Gideon and Fernand Léger, stressed the need to rectify modern architecture with a civic representation of monumentality, which the authors envisioned as "an expression of man's highest cultural needs." At the CIAM VIII Sert went on to highlight the fact that "if we want to do something with our cities we have again to talk in civic and urban terms." In a sense he was looking back to a classically defined urban ideal, while attempting to posit a future-oriented model for tackling current problems—in the case of America, the decentralized suburban pattern of development.

Out of the CIAM and other influences, Rudolph fashioned a personal definition of urbanism that could refer to the past in the service of contemporary design programs:

> It is the mother art of civilization, for it allows and, indeed, demands ideas, thinking, reactions to opportunities of the moment, executed in the spirit of its time, but demands respect for its earlier efforts. The new depends on the old and is responsible for the future. If the old is ignored, misunderstood, the future will mock the seemingly new and reveal for all to plainly see the false thinking expressed. All the other arts are handmaidens to urban design.[21]

At the Sanderling Beach Club this urban strategy was utilized as a starting point to engage the untamed landscape. A layered series of interconnected elements are woven together with the modular rhythm of plywood vaults established throughout the composition. It is no coincidence that a copy of Jefferson's plan for the University of Virginia, along with a projected space frame design by Conrad Wachsmann, was found among Rudolph's papers at the Library of Congress. This comparison illustrates the dichotomy between historical precedent and modular structure that Rudolph would incorporate into many of his later projects. The infinite organizational capabilities of modern industrial production along with a developing conception of urban space define the program at Sanderling. The resolution of historical models and experimental structural systems became a primary theme for Rudolph that could be developed at a variety of scales—starting at the micro level of the single-family house and expanding outward to the development of complex programs set within the context of the city.

Rudolph's use of aerial perspective to represent this and other projects should be considered in relation to the traditional use of this technique in the nineteenth century for large-scale urban plans. An imagined view from above was also utilized by Le Corbusier to present his ideas of postwar European reconstruction to a large audience including an eager generation of architecture students. Taking the airplane seat as the point of reference, Rudolph was able to project his conceptions onto the landscape, creating a twentieth-century imposition over this primal setting. From this point of view connections can be drawn between the edge of the untamed landscape of south Siesta Key, the axial organization of the public spaces, and the staggered organization of the cabanas set along the shoreline.

THE PRIMITIVE HUT AND THE LURE OF ETHNOGRAPHY

Rudolph often employed multiple strategies in response to the various needs of the client, program, site, or some specific outside stimulus. Considering the pristine coastal sites and very minimal programmatic needs of his clients, the metaphor of an archetypal primitive hut comes to mind, combined with explicit references to nomadic Arab tents. An interest in the foundations of early neo-classical theory as well as in the archaic foundation of architecture found in the primal hut was further developed in Rudolph's research into the architecture of the Pacific Islands. This anthropological base of reference was certainly encouraged by a series of exhibitions staged at the Museum of Modern Art, beginning in 1946 with

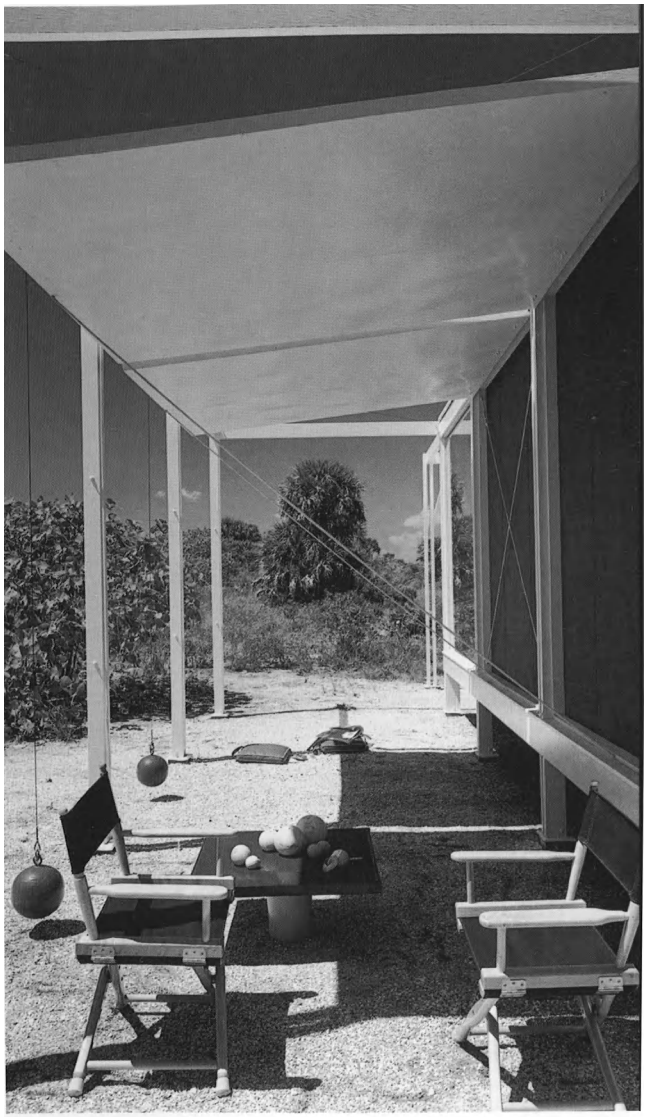
Arts of the South Seas by the curator René d'Harnoncourt during Rudolph's Naval service at the Brooklyn shipyards.[22] Situated in a broader context, this predilection can be seen as a continuation of the formal interest in primitive art displayed in the work of early cubist painters and, later, in the work of the surrealists, who were well represented in the New York art scene at the time.

The classically inspired primitive hut was never more evident in Rudolph's work than in his Walker Guest House of 1952–53. This was his most clearly conceptualized and rigorously geometric project to be constructed in Florida. The structural purity of the frame set this project off against the irregular sandy dune in which it is located, similar to an abstracted "spider in the sand." A series of operable "stressed skin" panels set within the module established by the frame, provide an ever-evolving spatial and climatically diverse dimension to the project.[23] Two out of three panels on each elevation are hinged and made operable by marine hardware, ropes, and a counterweight. A series of exterior crossbracing is installed to stiffen the minimal wood framing members, allowing ultimate transparency when the panels are fully raised.

Rudolph was certainly aware of Sigfried Gideon's concept of spatial simultaneity as outlined in *Space Time and Architecture*, for this was a primary text during his tenure at Harvard.[24] The fluid quality of interior and exterior space, blurring distinctions between inside and out, was a constant theme in Rudolph's work. In the Walker Guest House, an exoskeleton was created to expand the realm of the modest house beyond the confines of the enclosed space, while at the same time providing a framework to support the operable flaps and entry platform. The exterior frame was infilled with either floor-to-ceiling plate glass or a micro-screen that was selected to keep out insects. For this project Rudoph defined a complex spatial experience within the context of a relatively simple cage-like framework.

The rigorous four-square ordering of the interior is contrasted against the three-bay organization of the exterior elevation. Each of the interior quadrants is functionally zoned as living, dining, service, or bedroom, offering another of Rudolph's ship-like interior arrangements. Yet, the living area was not relegated to the interior space of the house: the flap system and exoskeleton double as a traditional wrap-around porch. Much of the adjacent landscape is gathered into the realm of the house, significantly increasing the usable square footage of the project.

Constructed entirely of typical lumber profiles, this project became an experiment in off-the-shelf technology utilized to produce a poetic response to dwelling, the region, and historical precedents. This prosaic material is employed to produce both a monumental and pragmatic expression of American ingenuity. Comparisons to the white steel frame of Mies van der Rohe's Farnsworth House are useful, for each structure represents an iteration of the classical trabeated frame redefined by American technology. But in this case, Mies's transcendental expression of the I-beam was replaced by readily available lumber connected with off-the-shelf fasteners, providing a more accessible alternative to labor-intensive steel construction. In opposition to the ill-fated design for the main house produced by Twitchell and Rudolph in 1951, this small project produced very little friction between the owner and architect. Two weeks after receiving word from Walt Walker concerning the commission, Rudolph



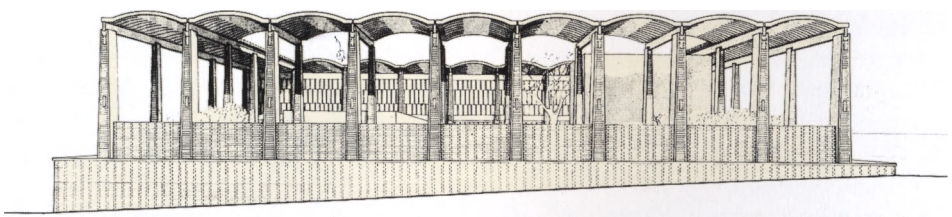
ABOVE: WALKER GUEST HOUSE, SIDE VIEW

OPPOSITE: WALKER GUEST HOUSE, MAIN ENTRANCE FROM THE NORTH

dropped off a set of construction documents on his way out of town for a teaching engagement. Four hastily organized pages of drawings rendered in Rudolph's hand outline the planning and construction of this project. Considering the rapid turnaround time for these documents, one is hard pressed not to assume that Rudolph had this concept developed in his head well before the actual commission. All that was missing was an open site surrounded by scrub, fit for a diminutive temple in the sand.

Rudolph's increasingly frequent references to historical precedents translated into modern materials and available technology placed him squarely within concurrent debates concerning the need or even the possibility of monumental expression in the postwar era. Along with Rudolph's feature in the first issue of *Perspecta*, Henry Hope Reed provided an essay entitled "Monumental Architecture." In the middle of his argument he presented this dilemma to the reader:

> What is the monumental? The word, by the way, in the architectural sense, is quite new. Ruskin a hundred years ago spoke only of power. . . . GRANDEUR, MAJESTY, MAGNIFICENCE! Where can they be found today? Even if we should wish to build monumentally, we would fail miserably. The tools to create the monumental have been lost.[25]



US EMBASSY IN AMMAN, JORDAN, PERSPECTIVE

Rudolph would certainly have been sympathetic to the need for a monumental expression in architecture, but creating this effect by traditional means would have turned him away from Reed's argument. José Luis Sert, Fernand Léger, and Sigfried Gideon presented a more compelling alternative in their "Nine Points on Monumentality" by attempting to regain a "collective force" through non-representational means. In their scheme, "architecture and city planning could attain a new freedom and develop new creative possibilities, such as those that have begun to be felt in the last decades in the fields of painting, sculpture, music, and poetry."

Even though Rudolph was often hemmed in by the scale of his residential commissions during the early 1950s, his work was quickly expanding into the public realm where these issues could be developed and expanded to meet larger programmatic requirements for projects such as the new U.S. Embassy in Jordan.

LIDO SHORES

During this period Rudolph's most influential patron was the developer, journalist, amateur anthropologist, and photographer Philip Hanson Hiss. A native of New Canaan, Connecticut, Philip Hiss attended Choate Academy and later received an informal education by purchasing the largest Harley Davidson motorcycle that he could find and heading to South America with a friend. This excursion took him across the Andes, down the Amazon, and after a year back to Miami aboard the first Pan Am flight from South America.[26] Before arriving in Sarasota, Hiss expanded his explorations to Hawaii, Japan, China, Southeast Asia, Australia, and Haiti. Endowed with a comfortable income, Hiss indulged his passion for photography, exploration, and ethnography and before long he completed two travel books, one on the Dutch West Indies and the other on Bali. The second book was based on an expedition he undertook in 1939, which coincided with the beginning of the war in Europe. Chapter headings in this book included traditional anthropological topics such as religion, festivals, music, dance and government but ended with art and architecture along with the Balinese art of living. Both subjects would significantly impact Hiss's tenure in Sarasota.[27] This analysis set in place many of his early ideas concerning what he would later refer to generally as "the built environment." His fascination with the subject would soon manifest itself in articles that explored culturally-adapted building forms, progressive construction materials, and climate control devices appropriate to specific locales.

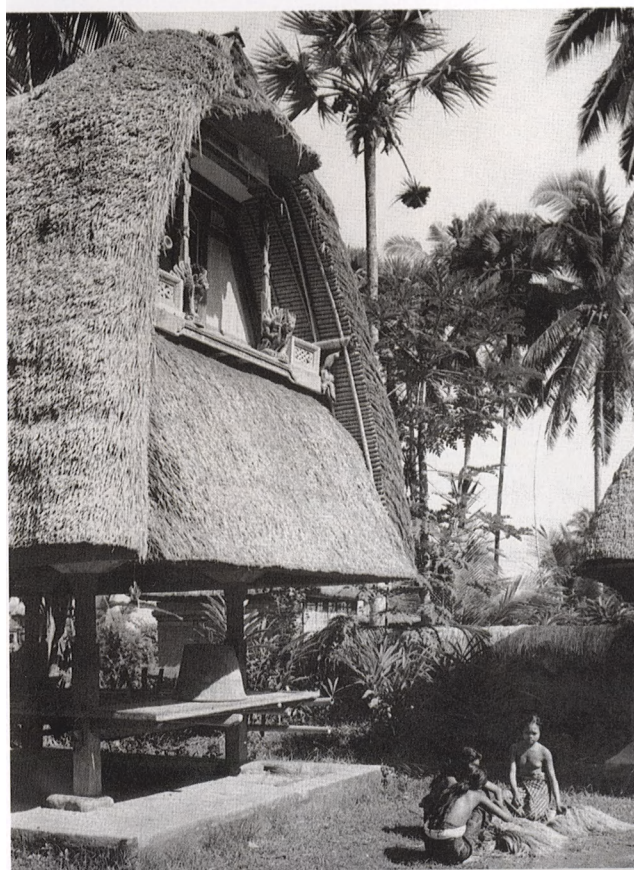
Continuing his obsession with warm climates, Hiss moved to Sarasota full-time in 1948, armed with a well-seasoned and decidedly cross-cultural knowledge of tropical living. He relocated to Florida after service with the OSS and time spent in Holland as the assistant ambassador at the United States Embassy. In Sarasota, he streamlined several of his diverse interests into a development corporation that attempted to establish a new benchmark in the American housing market. Like many people who relocated to Sarasota in the 1940s, Hiss was poised to start a new life with unbridled optimism.

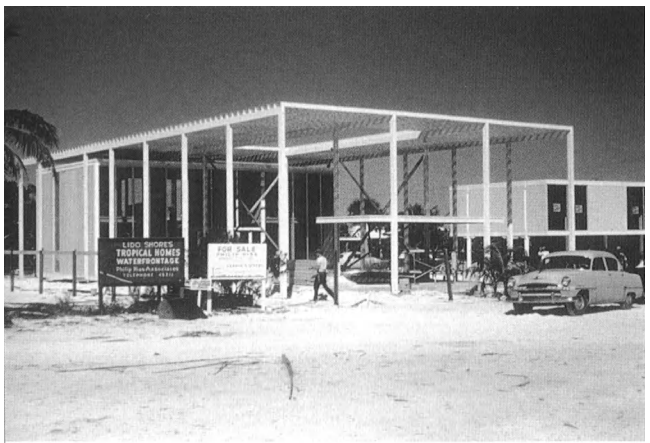
With the assistance of local architect Bill Zimmerman, Hiss purchased a piece of property that would later become the Lido Shores neighborhood. In a previous incarnation the area was to be developed as an entry for large naval vessels into Sarasota Bay to provide an influx of commerce in the form of a deep-water port. The adjacent New Pass was dredged in 1926 to allow access but the sand edged back before the job could be completed. This failed attempt to reshape the coastline opened the door for Hiss and his subsequent experiments in housing along this fragile shifting ecosystem.

The Lido Shores property is a thin, sand-covered key running north-south, bounded by the Gulf of Mexico to the west and the coastal road to the east, with Sarasota Bay beyond. This sliver of property resides on a high point in the landscape and thus is not prone to flooding, as is much of the adjacent area. With its dramatic proximity to both the gulf and the bay, the site provided the perfect opportunity to put Hiss's ideas into action. First, Hiss Associates designed and built a house for his family along the gulf. Later, he designed one of the first air-conditioned residential buildings in Sarasota on the eastern edge of the property to house his collection of books as well as a studio. The library/studio was the first

ABOVE: *BALI* BY PHILIP HANSON HISS, DETAIL OF BOOK COVER

BELOW: RICE BARN PHOTOGRAPH FROM *BALI*





UMBRELLA HOUSE, WITH THE HISS LIBRARY/STUDIO BEYOND

building constructed along the roadside edge of the development and was in many ways an anomaly at Lido Shores. Hiss described it as a technologically determined structure requiring minimal interaction with the surrounding landscape:

> Of welded steel frame construction, it has Solex heat-absorbing plate glass in all windows and aluminum-faced draperies to reflect heat. This building is completely air conditioned. All glass is fixed, sealing the building against dirt, salt air, wind, rain and outside noise.[28]

Air-conditioning was still cost-prohibitive for standard speculative housing in the area but the program, in this case, warranted its inclusion. The protection of both Hiss's book collection and his privacy were paramount to the conception of this project. Raising the house off the ground offered a distinct separation from the adjacent road and also offered views of both the gulf to the west and Sarasota Bay to the east. Hiss was quick to realize the formal implications of this new technology on the single-family housing market.

> Houses which here to fore have been spread out to make maximum use of through-ventilation will become more compact, and larger houses probably will continue their present trend toward two stories or split levels rather than be strung-out ranch style. The more compact two-story house lends itself to air conditioning.... There are other advantages to the two-story house which are often overlooked: better views from the second floor, better air circulation, and more privacy.[29]

Hiss's technological determinism was only part of the picture and needs to be considered in relation to his long-term interest in anthropology. The book on Bali contained many references to architecture developed in response to a specific physical and cultural landscape. To continue this line of thinking, Hiss also became interested in the essential characteristics of Southern architecture as a basis for regional expression. The hermetically sealed library/studio offered a response to a specific programmatic need that would, in time, be fully integrated into the culture of building in Florida. But a more important structure was simultaneously being developed that would attempt a complex, site-specific resolution more in line with his ethnographic research. On the lot adjacent to the library/studio, Rudolph and Hiss were laying plans for a three-bedroom single-family house that would catapult Lido Shores into the international spotlight.

The Umbrella House, designed for speculation in 1953, was named after a sheltering parasol that spanned the main body of the house and beyond to encompass a ceremonial entry to the west and pool deck to the east with an enclosed volume in between. The thin structural framework of the "sun roof"

was built with standard lumber placed side by side, separated by spacers and bolted together with typical hardware. This system was lightly connected to the main body of the house and externally braced by a series of diagonal steel tension members. An elegant system of slats built out of inexpensive tomato stakes spanned between the members to create the intricate fabric of the canopy. This simple device provided filtered light into the main living space below, created a lively play of light and shadow, and also introduced a sense of order to the entire composition. With this project Rudolph responded to many of Hiss's vernacular references with an abstracted vocabulary of forms modulated to fit the specific site conditions.[30] In relation to architecture in the South, Hiss wrote:

> In the typical Southern home, the first floor was raised several feet above the ground to keep out dampness and to catch the breezes, and wide verandas shaded the interior of the house from the sun and protected it from the driving rains. In this refined form, this house was aesthetically pleasing and extremely functional. It made expert use of the materials and techniques available.[31]

Toward the end of the Bali book, Hiss summarized what would come to be his personal philosophy of living: "The degree to which people are adjusted to their environment is the true measure of their happiness."[32] In response to Hiss's analysis of architectural precedent, Rudolph raised the main body of the Umbrella House two feet above grade to provide air circulation and to emphasize the separation of "natural and man-made elements." The stark geometry of the main rectangular living volume was opened up to the breeze with walls of operable jalousie windows spanning the full height of the space on the east and west facades. Vertical cypress siding stained a neutral gray provided a sense of enclosure to the north and south, while a large panel of plate glass emphasized the visual extension of the interior out toward the pool area.

The two-story design allowed for better views and access to the breeze, but the seventeen-foot high volume also offered Rudolph the opportunity to manipulate the interior quality of the space in section for the first time since the Leavengood House. Two steps provide access to the main entry and primary level of the house; a small recessed area under the stair allows for reading and conversation adjacent to the fireplace. A bridge at the top of the stairs functions as a floating room within the main volume, facing views to the east and west. Two more steps lead to each of the flanking bedrooms, and a sliding series of panels and projecting drawers in the south bedroom initiates the connection back to the living room below. The north bedroom is supported by columns and creates an intimate alcove for dining below. This circuitous movement through space with constant internal and external reference points defines the complex spatial nature of the house in opposition to the staid exterior composition.

The road to the east is also visible from the control point on the bridge—an important aspect for Rudolph. Advertising has always been an integral aspect of modern architecture and this project

UMBRELLA HOUSE, VIEW FROM THE EAST

PAUL RUDOLPH, PORTRAIT

continues the relationship, overtly beckoning for public acknowledgment. The house is sited at a crucial bend in the road heading north to Longboat Key, offering a dramatic three-quarter view of the umbrella structure projecting forward from the main body of the house. In a sense, it functioned as a billboard for the progressive building program that came to define the architecture of Lido Shores. Rudolph's interest in the car at rest and in motion can be seen in many of his drawings and is a key factor in the design of many of these early projects. As cars round the bend, the transitory canopy over the pool signals that something out of the ordinary awaits visitors along the quiet neighborhood streets.

Promotion of new building materials and methodologies became intertwined with many of Rudolph's projects, starting with the Lamolithic, Cocoon, and Revere projects, but it is in the Umbrella House that the promotional strategy is defined with purely formal characteristics. The technological aspects of the design are downplayed in deference to a larger set of issues. History, urbanism, and regionalism are now the primary referents, leaving behind structural determinism for the atectonic expression of the main living volume. In this context, Rudolph continued to adapt his architecture to the inherent qualities of the region based on a layering of influences. Specific regional characteristics are implemented within the context of a larger set of more universalized design strategies, creating an experimental domestic program set within the frame of a classically inspired urbanistic composition.

REGIONALISM AND BEYOND

During the design phase for the Umbrella House, Rudolph took a trip to Biloxi, Mississippi to present his first public statement on regionalism to the Gulf States Conference organized by the American Institute of Architects. Rudolph, along with Richard Neutra and Christopher Tunnard among others, began to examine the social, cultural, economic, tectonic, and environmental underpinnings of regional modernism in the South. In his essay Christopher Tunnard warned against "monumental anonymity" associated with indiscriminate globalization. Neutra attempted to chart the historical importance of subtropical climates in the development of Western architecture, attempting global cross-cultural connections between regions.

> The splendidly integrated cultures and the great architecture of antiquity were originally subtropical, and man himself, was a Southerner.... Philosophical man and common man, when they are Southerners at heart, have always, all over the world, found northerners over-constructive.[33]

In relation to his own developing design methodology Rudolph quietly inserted the idea that: "Regional characteristics are a part of all good architecture and should be accepted without either resistance or overemphasis."[34] Regionalism played an integral role in Rudolph's developing thesis, but this strategy was

one of many that would simultaneously impact the final design of any given project. The initial concern for regional adaptation and the appropriate expression in architecture that is intricately related to its culture, climate, and landscape can be traced directly to his early interest in Frank Lloyd Wright's intimate weaving of building and site, which he began to explore during his undergraduate studies at Alabama Polytechnic.[35] Many of the projects with Twitchell tended to integrate this influence by hugging the ground and emphasizing subtle relationships with the surrounding landscape, including garden courtyards that expanded the interior space of the house. Specific local building technologies and materials were combined with a set of imported ideas from his travels and experience at Harvard, which moved the work beyond provincial responses to local conditions and cultural trends.

The following year, Harwell Hamilton Harris would clarify these issues at the Northwest Regional Council into a defined set of oppositions. He would set up a distinction between a "Regionalism of Restriction" and one of "Liberation," using an example from the American South.[36] Discussing the architecture of the French Quarter in New Orleans, Harris concludes that:

> This regionalism is the result of standing still while the rest of the world changes.... It cares more for preserving an obscure dialect than for expressing a new idea. It is anti-cosmopolitan and anti-progressive. Such regionalism becomes a cloak for the misplaced pride of the region and serves to build-in ignorance and inferiority. Happily, such regionalism is disappearing as we become more nearly one world. Let's call this type of regionalism the Regionalism of Restriction.
>
> Opposed to the regionalism of Restriction is another type of regionalism; the Regionalism of Liberation. This is the manifestation of a region that is especially in tune with the emerging thought of the time. We call such a manifestation "regional" only because it has not yet emerged elsewhere. It is the genius of this region to be more than ordinarily aware and more than ordinarily free. Its virtue is that its manifestation has significance for the world outside itself.[37]

Rudolph tended toward a similarly expansive notion of regionalism that was encouraged by influences outside of Sarasota. During the completion of the Umbrella House, Rudolph traveled to Brazil to accept the Outstanding Young Architect Award in São Paulo. This major international recognition placed him in the enviable but somewhat uncomfortable position of being the most promising architect of his generation. The trip would have certainly heightened his awareness of Le Corbusier's collaboration with Lucio Costa, Oscar Niemeyer, and the rest of the team involved with the Ministry of Education and Culture Building in Rio de Janeiro along with Niemeyer's expressive locally inspired work in Pampulia. Also in 1954, Rudolph traveled to Jordan to complete work on his first international public project, in

fact, his first public project outside the state of Florida. In this context he experienced the regional and cultural responses of Arab architecture firsthand and continued his search for a more open-ended regional design strategy.

Rudolph gleaned a new set of ideas through his frequent travels, but his preoccupation with regionalism extends back to his time at Harvard under Gropius. This quote from the issue of *L'Architecture d'aujourd'hui* that Rudolph edited in 1949 on the subject of Gropius in America gives an indication of his mentor's position on the subject.

> We have today sufficiently clarified our minds to know that respect for tradition does not mean complacent toleration of elements which have been a matter of fortuitous chance or simple imitation of bygone esthetic forms. We have become aware that tradition in design has always meant the preservation of essential characteristics which have resulted from eternal habits of the people.[38]

Rudolph continued developing this position with "Regionalism in Architecture" for *Perspecta 4* in 1957, confirming the profound influence of vernacular buildings on his generation.

> I would suggest that you pay close attention to what we regard as untutored people and how they approach their problems, how they approached them in the past, and how they still approach them. Of course, I mean vernacular architecture. I think quite often people naturally do things when left to their devices, do things very well, and solve an awful lot of problems that architects tend to forget.[39]

For Rudolph, and many others of his generation, defining and utilizing the essential characteristics of a region became an inherently important ingredient in problematizing the inherited framework of modern domesticity as it was understood in the 1950s. Regionalism became the vehicle for inserting specific notions of place and cultural context into the vocabulary of contemporary architecture. It also allowed this generation to look deeply into its own history beyond the now iconic textbook examples of European modernism. Rudolph, in particular, began to look into the later work of Le Corbusier and even some of his more idiosyncratic early houses as a model for dealing with the complexity of the current situation. In relation to his work in Sarasota, this concern can be witnessed at the organizational level in early projects such as the Finney Guest House, and was developed substantially in the completed Hook and Umbrella houses.

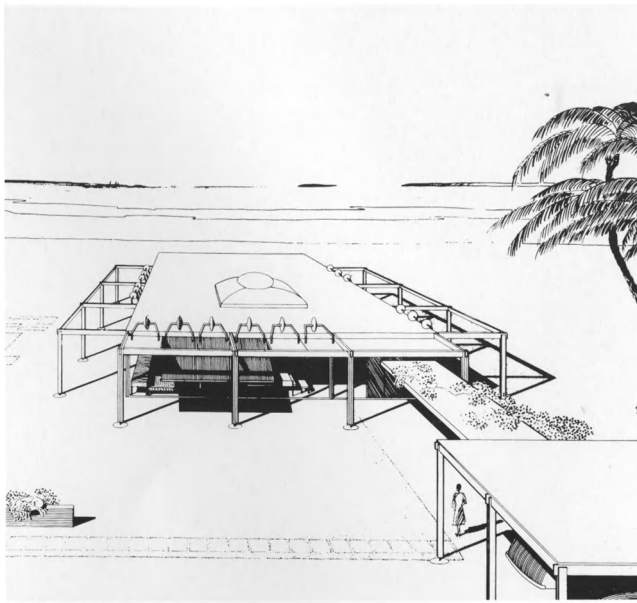
RESTLESS EXPERIMENTATION

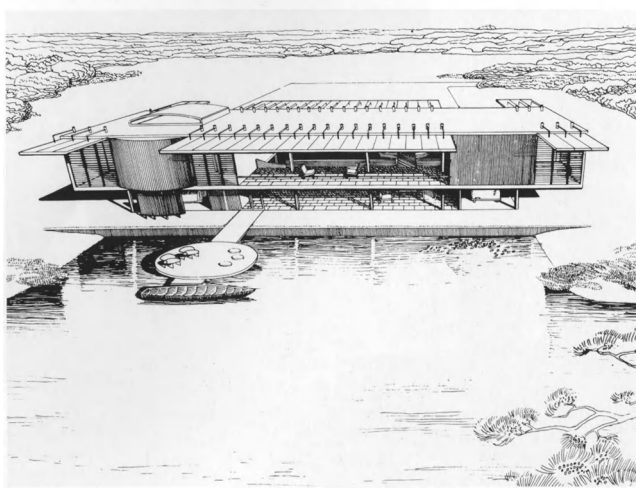
The mid-1950s presented Rudolph and many of his contemporaries with the troubling dilemma of how to bring together such diverse reference points as urbanism, monumentality, regionalism, and ethnography into a cohesive methodology. This uneasy situation manifested itself most distinctly in Rudolph's multiple design solutions presented for the Cohen House between 1953 and its construction in 1955.[40]

The first design for David and Eleene Cohen was to reflect their musical lifestyle and public presence in the community. This initial scheme expanded the scale of the basic foursquare module of the Walker Guest House prototype by adding a detached carport and suspended covered walkway, creating a dynamic composition of parts. The aerial perspective depicts two distinct objects in space, the main body of the house and the carport linked by a defined exterior walkway. A system of operable flaps, also inherited from the Walker project, are included here but modified and expanded upon in response to a more complex interior program. The conceptual purity of the original prototype is less evident in this scheme due to the asymmetrical placement of parts and the large scale of the main living space that was to be anchored by a seating area for eighty-eight people. Three sides of the house were equipped with the operable flaps and exposed framework, while the west facade was detailed with a cantilevered eave of the same dimension.

This unresolved collection of parts was never published and quickly put aside for a more forceful conceptualization of the client's needs. The new scheme was developed at the same time that Rudolph was chosen to receive the Young Architect's Award in São Paulo. Whether this version was developed in response to Oscar Niemeyer's overtly expressive work or his new position as the most promising architect of his generation is unknown, but it is certain from the change in direction that Rudolph felt the need to develop a project that articulated his current position with unfettered determination. Combining the precedent set in the infinitely adaptable Finney Guest House and the two-story Leavengood House, Rudolph created a project that went beyond the expressed will of the client to represent the cutting edge of domestic design. The updated scheme swept the *Progressive Architecture* Awards in 1954, taking first design award in both the residential and overall categories.[41] Of the five hundred entries, Rudolph's updated Cohen House was deemed the most original and "the best piece of progressive architecture" submitted that year.

Expanding upon the intricate articulation of space in the Umbrella House, this version attempts an approximation of urban design within the interior volume of the house.[42] The seemingly a-contextual double-height space was deemed appropriate in Rudolph's mind for remote sites such as that of the previous Leavengood and Walker houses designed with Ralph Twitchell. After several failed attempts to convince his clients of the merits of the two-story design and the expanded budget, a final arrangement was agreed upon that combined ideas from the initial scheme along with some of the lessons gleaned from the highly publicized version. The main body of the house continued to be oriented along a north-south axis, with ample overhangs on the east and west. A sun porch facing Bayou Louise and the





ABOVE: COHEN RESIDENCE, PRELIMINARY VERSION, DETAIL
BELOW: COHEN RESIDENCE, AWARD VERSION, DETAIL

Cocoon House beyond runs along the majority of the western face of the house. The flap system was completely removed from the final design, while the exterior framework was retained to define exterior living spaces and form sheltering overhangs. This version was completely air-conditioned in line with middle-class tastes of the time, rendering the complex apparatus designed to mediate the climate obsolete.[43] Many of the low-tech experimental devices that Rudolph utilized to connect the building to the climate and regional culture were abandoned for a mediated, controlled interior environment and an outwardly stable, classically-inspired composition.

During the extended design phase of the Cohen House, air-conditioning became a standard feature in middle-class housing across the country.[44] In Florida this technology had a profound impact on the seasonal habitation patterns of many of its residents. With climate control now common in the residential housing market, yearlong habitation became an attractive possibility for the previously itinerant population. During this period the single-family housing market was developing and expanding. *House + Home* magazine forecasted that 1956 would see the largest dollar volume ever dedicated to the private house. The total number was expected to reach $14 billion, which was $3 billion higher than the height of the postwar boom in 1950.[45] Private house starts were said to be down, but higher prices paid for each unit would more than offset the volume reduction. Rising incomes and increased family size became significant factors in the changing conception of residential design.

FROM LIGHT CONSTRUCTION TO MASS

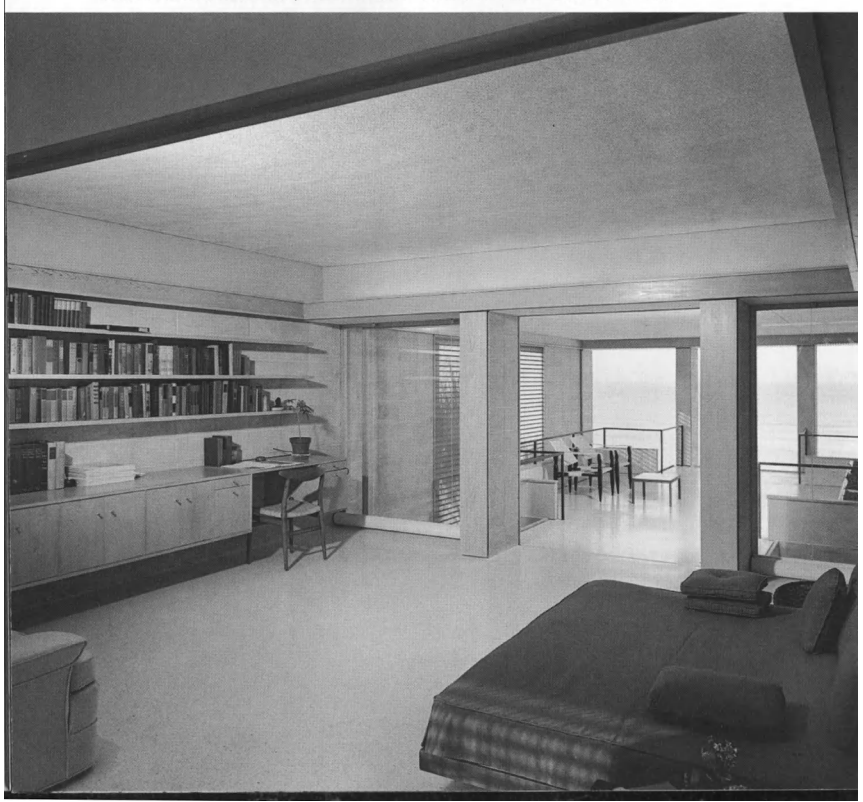
The Mr. and Mrs. Frederick Deering House on Casey Key, designed in 1956 and completed two years later, represented a new direction in Rudolph's work. A formal monumentality is evident in the audacious frontality of this project.[46] Where the Umbrella and Walker Guest House referred to classical form and proportions built of light construction materials, the Deering House moved toward a monumental expression based solely on mass. This solidly constructed edifice could, in time, leave profound ruins in the sand, creating a sublime relic of a lost age.

Composed of typical stacked lime block, reinforced concrete lintels, and exposed cypress as a facing material, this project achieves a highly refined, yet rugged, quality that transforms the two-bedroom beach house into a structure of transcendental strength. Both the east and west facades are dominated by the rhythmic alignment of nine pillars formed out of stacked lime block with mortar joints of similar tone, creating a monolithic column from a distance and an intricately constructed mosaic at close inspection. Seven full-height lattice screens are located between the vertical structure on the entry facade to provide an even finer level of detail to the composition and further conceal the actual scale of the building. This restrained color palette continues into the interior space as well, blurring all distinctions with its surroundings. White terrazzo flooring, cream-colored block, and lightly stained cypress mimic the surrounding color and texture of the beach, providing an analogous relationship with the site.

OPPOSITE: COHEN RESIDENCE, BUILT VERSION, VIEW OF ENTRY DRIVE FROM THE SOUTHEAST

ABOVE: DEERING RESIDENCE, VIEW FROM THE NORTHEAST

BELOW: DEERING RESIDENCE, MAIN BEDROOM LOOKING TOWARD THE GULF OF MEXICO

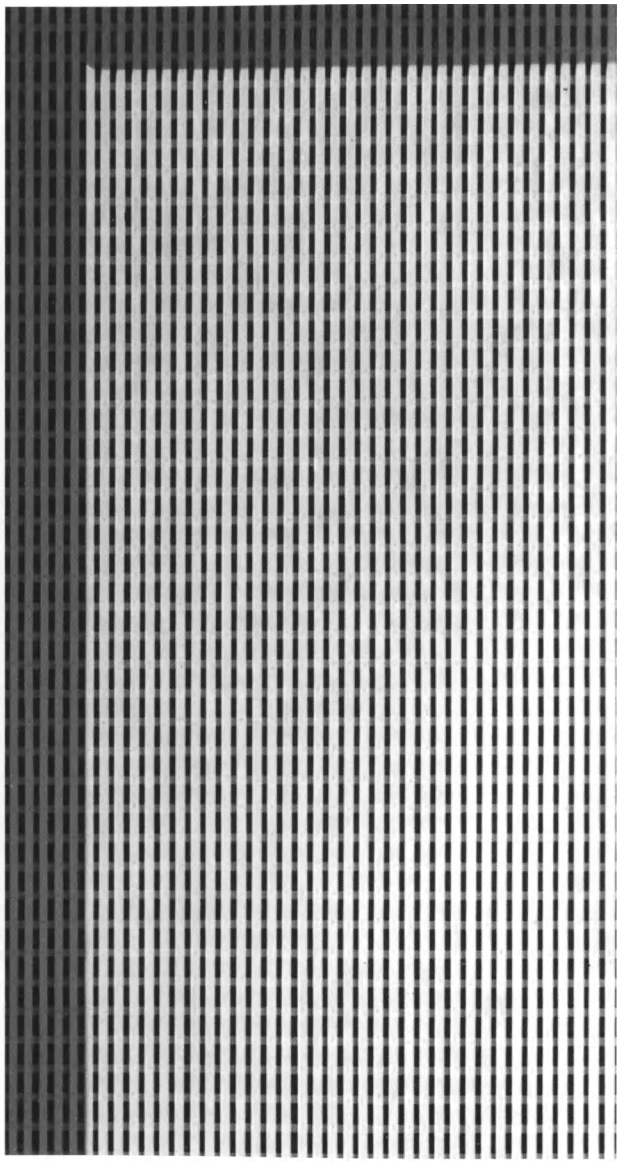


Spatial complexities are emphasized within the confines of the box or, in this case, the rectangular masonry cage. Rudolph spoke of creating in his design the feeling of one thing built within another, and he achieved this by wrapping a soaring two-story exterior room with an L-shaped volume that contained the major interior spaces of the house arranged on platforms. The play between solidity and transparency becomes evident as the sun moves around the volume, tracing shadow lines from the columns across the interior surfaces. Because of Rudolph's decision to use concrete masonry units rather than light building materials, this structure gives the feeling that it could resist the potentially devastating seasonal hurricanes that threaten all coastal Florida communities.

Both the public and private rooms are organized in relation to the west-facing interior/exterior screened living area (forty-four feet long by sixteen and a half feet high), defined on the east and west by nine exposed columns. This screened loggia is the central space of the house, taking up half of the total square footage and allowing a grand open room for the owners to entertain their guests. Walls of sliding glass link the living spaces to the double-height space of the "Florida Room." Shades roll up from the floor to protect the bedroom and study from the intense western sun while retaining an unobstructed line of sight from the ceiling outward to the horizon. To create a sense of privacy on the eastern facade, wooden lattice screens placed between the piers reduce the view and light penetration to a minimum.

As a foil to the massive structure of the building, Rudolph and his project architect, Bert Brosmith, devised a system of detailing in which each material is distinctly defined with a shadow joint, achieving a refined delicacy and lightness on the interior. Objects appear to float alongside the rigorous block frame. The kitchen cabinets and built-in furniture are constructed of lightly stained cypress with similar detailing that emphasizes lightness and a distinct separation from the concrete masonry units. The house is modestly furnished to Rudolph's specifications with items that hug the ground plane, deftly placed in response to the soaring spatial vistas within and beyond the structure of the house.

DEERING RESIDENCE, EXTERIOR FACADE DETAIL



DEERING RESIDENCE, DETAIL OF CYPRESS SCREEN

MILAM RESIDENCE, VIEW FROM THE SOUTHEAST

NORTHERN MIGRATION

In 1958 Paul Rudolph accepted the chairmanship of the School of Architecture at Yale University and opened another office in New Haven, leaving Bert Brosmith in charge of the studio in Sarasota. The commission for the Milam House came a year later from a couple in St. John's County, on the east coast of Florida near Jacksonville. The Milams were already familiar with Rudolph's work after visiting Sarasota to see some of his projects firsthand, including the new Sarasota High School, which was under construction.[47] The high school, along with the Deering House, paved the way and marked a key transition point in Rudolph's career.[48] The Sarasota office finally closed in April 1960, leaving the supervising architect Robert Ernest in charge of daily operations on the site. All design and construction drawings for this project were completed in New Haven, in effect severing Rudolph's physical connection with the place that nurtured the first two decades of his career.

The Milam House signaled a revised design methodology, as this was the first project that was conceptualized without an overtly expressed modular organizing system (see project description on page 146). In addition, the asymmetrical composition of light- and view-control devices continues Rudolph's fascination with the later work of Le Corbusier, in particular the climatically adapted Maison Shodhan in Ahmedabad, India, which had been completed several years earlier.[49] This three-dimensional psychological definition of the space is reminiscent of the protomodernist Viennese architect Adolph Loos's use of the *Raumplan*, or "space plan," to choreograph the interior, utilizing the sectional drawing in response to the rituals of daily life.

In contrast to the majority of Rudolph's previous projects, the Milam House is fully air-conditioned, severing the intimate cyclical connection to the adjacent landscape and decisively bringing to an end the environmentally responsive building program begun with Ralph Twitchell in the 1940s. Fixed glazing on all the major fenestration tends to favor visual connections to the landscape; the view is now primarily framed and directed by the exterior treatment of the facade. This project also represents a significant iteration in the development of concrete as a construction material in Rudolph's work as his practice enters into the 1960s. Original sketches for this project suggest an even more visually complex structure to be entirely constructed of cast-in-place concrete. In the end this project became a significant refinement of the Deering House in terms of its organizational strategy and its construction method, setting in place the necessary groundwork for his later public projects. The elegant resolution of the component parts of this project is echoed in the early design drawings for the Art and Architecture Building at Yale University, which were concurrently under development in Rudolph's New Haven office.

PRACTICE ELSEWHERE

As Rudolph's practice began to lean significantly toward large-scale projects in the northeast, which encouraged his expanded discourse, public opinion in Sarasota was becoming suspicious of the progressive tendencies that made the Florida work possible. Philip Hiss was under constant scrutiny for his attempt to insert a liberal agenda into the Sarasota School Board's building and curriculum program. The debates surrounding his internationally famous cousin Alger Hiss added fuel to the fire for the growth of conservatism in the area. Hiss finally stepped down from the board in 1960 to focus on development plans for New College, a local, privately funded liberal arts college that quickly became an equally contentious issue.[50] That same year Rudolph's Sarasota High School expansion opened to conflicted public opinion, bringing Hiss's tumultuous tenure as Chair of the School Board to a dramatic conclusion.[51] Sarasota would soon fall out of the national spotlight as a center of contemporary architecture and dynamic public policy to instead focus primarily on its lucrative tourist economy.

With offices established in Cambridge, New Haven, and New York City, Rudolph would increasingly focus his attention on the major academic and public projects that would dominate his career for the next twenty years. In 1962, at age forty-four, Rudolph was again in a state of crisis as indicated in the architectural press by articles such as, "Rudolph at the Cross-roads" and "Whither Paul Rudolph?" His tenure at Yale was in full swing and several high-profile public commissions were now completed, including the Mary Cooper Jewett Arts Center in Wellesley, Greeley Memorial Laboratory in New Haven, the Blue Cross/Blue Shield Building in Boston, as well as the two high schools in Florida. Considering the diversity of influences in this group of public projects, the critics were looking to the now middle-aged Rudolph for an indication of his new direction. The question arose whether he would be able to make the transition from a regionally inspired domestic practice in Florida to one dominated by major public projects in the Northeast.

In search for an answer to this question, many of his critics and colleagues began looking to the new Art and Architecture Building at Yale University, which was then under construction. In this new project, Rudolph achieved many of the goals that he set for himself in the "Changing Philosophy of Architecture" speech delivered in 1954 to the national convention of the American Institute of Architects.

SARASOTA HIGH SCHOOL, 1958–60

> We desperately need to relearn the art of disposing building to create different kinds of space; the quiet, enclosed isolated shaded space; the hustling bustling space pungent with vitality; the paved, dignified, vast, sumptuous, even awe inspiring space; the mysterious space; the transition space which defines, separates and yet joins juxtaposed spaces of contrasting character.[52]

The intensely personal and even psychological character of space found its ultimate expression in these projects as Rudolph entered the new decade. Both the Milam House and the early versions of the Art and Architecture Building reject the overt structural expression and regional emphasis of Rudolph's early work in favor of complex spatial interplay and a heightened concern for the visual impact of the exterior composition. Attempts at generalizing Rudolph's position are inevitably problematic, for he was always working on multiple levels, but this intense exploration of spatial and visual attributes speaks to the visceral appeal of much of his later work. The thin folded planes of the Milam House set against the bright Florida sky would soon give way to the brooding rusticated surfaces of the Art and Architecture Building, the Temple Street Parking Garage, and the Boston Government Center. In each of these projects, Rudolph presented a built-in critique of the functionalism inherent in many of his earliest projects in favor of what came to be known as the "brutalist" aesthetic of the 1960s. For Rudolph the end of the Florida work marks a transition to a new way of operating. Similar in nature to the break with Twitchell ten years earlier, he had learned what he could from his time in Florida and was prepared to venture into new territory.

As Rudolph practiced architecture for thirty-five more years, he continued to use domestic space as a testing ground for his ideas. The best example is certainly his own apartment in Manhattan on Beekman Place, which he continually modulated for a twenty-year period from 1977 until his death in 1997. Domestic space as a locale of experimentation was also utilized in other significant residential projects, such as the Bass House in Fort Worth and even later work in Southeast Asia, but never again would the house dominate Rudolph's attention as in the Florida period.[53] It became clear that modestly scaled programs could no longer sustain the weight of his increasingly multi-faceted design solutions. The spatial complexity and contradictory notions of materiality tended to overpower all but the most ambitious domestic commissions.

NOTES

[1] See concurrent developments in the career of Louis I. Kahn including his University Art Gallery at Yale University.

[2] Reginald Isaacs, *Gropius: An Illustrated Biography of the Creator of the Bauhaus* (Boston, Bulfinch Press, 1991): 271.

[3] "Good Design 1952: Paul Rudolph's installation gets raves," *Architecture Record* (March 1952): 26.

[4] Rudolph redesigned the exhibition for the installation in New York to respond to site specific conditions of not only the gallery and the differing light conditions but also his perceived conception of the city and region at large. See *The Power of Display: A History of Exhibition Installation* at the Museum of Modern Art by Mary Anne Staniszewski, and also the "Good Design" program at the museum, for further information on Rudolph's design strategy.

[5] Rudolph was well on his way to meeting his stated goal during this period—to have a drawer dedicated to his work at the Museum of Modern Art.

[6] Philip Johnson also falls into the Harvard camp, but his lineage can be more directly traced to Mies van der Rohe and his publication in 1947 of the first monograph on Mies' work.

[7] For more information on the Yale Architecture program see Robert Stern's "Yale 1950–1965" in *Oppositions 4 (*October 1974).

[8] Sibyl Moholy-Nagy, *The Architecture of Paul Rudolph* (New York: Praeger Publishers, 1970): 15.

[9] For further information on the increasing interest in urbanism within American architectural scene see Eric Mumford, *The CIAM Discourse on Urbanism, 1928–60* (Cambridge, MA: MIT Press, 2000).

[10] See Rudolph's *Voice of America Lectures, Architecture Series 9* (1960).

[11] William Rupp, "Paul Rudolph: The Florida Years" (unpublished paper, Spring 1978): 6–7.

[12] The term "situational" is not meant to reference the Situationist International, but a contextual design strategy that attempts to ameliorate notions of place and region in relation to the production of architecture. The term as referenced is similar to that used by Juhani Pallasmaa in "Tradition & Modernity," *Architecture Review* (May 1988): 27–34.

[13] J. King, interview with Gene Leedy, June 6, 2000.

[14] Mary Rockwell Hook, *This and That*, a privately published memoir (May 1970): 62. Copy in the collection of Sarasota County Historical Resources.

[15] Le Corbusier, *Towards a New Architecture* (London: John Rocker, 1931): 242–243.

[16] See also Le Corbusier's vaulted weekend house of 1935.

[17] The plywood vaults were perfected with a method of trial and error using the heaviest workman on the crew as the maximum force to be resisted. C. Domin and J. King, interview with Tim Seibert, Dec. 28, 1998.

[18] Le Corbusier, *Towards a New Architecture* (London: John Rocker, 1931): 71.

[19] Quoted in Timothy Rohan, "*Urbanism in a Decentralized Landscape*" (unpublished paper delivered at Society of Architectural Historians annual Meeting, June 2000): 4–5.

[20] Mumford, 204.

[21] *Definition of Urbanism*, undated, unpaginated, hand typed single sheet located in Rudolph Archives at the Library of Congress.

[22] For more information concerning the ethnographic exhibitions developed at the Museum of Modern Art see Mary Anne Staniszewski, *The Power of Display: A History of Exhibition Installations* at the Museum of Modern Art (Cambridge, MA: MIT Press, 1998).

[23] In relation to the Walker Guest House, Rudolph often used the term "stressed skin" when organizing his projects in reference to a system of construction. This term was used to describe the construction of the operable panels which were originally to be built-up out of standard 7'–0" high exterior grade masonite doors aligned side-by-side and braced together to form the total dimension of each flap. The exterior face was to be protected by spray applied "cocoon" material. See the Healy Guest House for another application of this waterproofing technology.

[24] *Space Time and Architecture* was a standard reference during his time at Harvard and provided a clear connection between modern building and the idea of indeterminate space.

[25] Emphasis in original.

[26] C. Domin, interview with Shirley Hiss, June 18, 2000.

[27] Philip Hanson Hiss, *Bali* (New York: Duell, Sloan and Pearce, 1941).

[28] "Trends in Florida house Design," *Florida Builder: The Magazine of Florida Construction* (October 1954): unpaginated.

[29] "Trends in Florida house Design," *Florida Builder: The Magazine of Florida Construction* (October 1954): unpaginated.

[30] See "Regionalism in Architecture" by Paul Rudolph for more on vernacular references for this project.

[31] "Trends in Florida house Design," *Florida Builder: The Magazine of Florida Construction* (October 1954): unpaginated.

[32] Hiss, 101.

[33] "Regionalism and the South. Excerpts from the (1953) Gulf States Regional Conference," *Journal of the A.I.A.* (April 1955): 179.

[34] "Focus on Regionalism at the Gulf States Conference," *Architectural Record* (November 1953).

[35] See Joseph T. King's essay concerning the influence of Wright and Rudolph's education at Alabama Polytechnic.

[36] Talk before the Northwest Regional Council, American Institute of Architects, Eugene, Oregon, 1954.

[37] Harwell Hamilton Harris, "Regionalism and Nationalism," Student Publication of the School of Design at North Carolina State College 14:5 (1964–1965), 27. Emphasis in original.

[38] Walter Gropius, "Chinese Art Museum in Shanghai," *L'Architecture d'aujourd'hui* #28 (February 1950): 77. This text, by Gropius, is related to a series of drawings for I. M. Pei's thesis project completed at Harvard.

[39] Plym Distinguished Professorship in Architecture Publication, School of Architecture University of Illinois at Urbana-Champaign, 1983.

[40] For a longer discussion on this topic see Walter McQuade, "The Exploded Landscape," *Perspecta 7: The Yale Architectural Journal* (1961): 83–90.

[41] "First Design Award: House Siesta Key," *Progressive Architecture* (January 1955): 65–67.

[42] In the "Changing Philosophy of Architecture " article, also from 1954, Rudolph continued to express his interest in urbanism at the scale the city and that of the single-family house. Grand Central Station in midtown Manhattan is highlighted as a building complex "that is perhaps unsurpassed in this country." Its importance can be read on a variety of levels from that of a gateway to the city with infrastructure system that mimics the complexity of the metropolis to that of a series of facades relating to its immediate context. Urbanism can be seen as a model used to create defined exterior spaces and also as a model for the design of houses and the complex interconnection of interior spaces.

[43] This technological feature is by no means the only determining factor for Rudolph's change in design methodology, but the imposition of air-conditioning certainly impacted the conception of his work.

[44] For more information on the increased demand for air-conditioning in the residential market, see "What happened last summer in Air Conditioning," *House + Home*, Vol. II, No. 4 (October 1952):134–137 and also Raymond Arsenault, "The End of the Long Hot Summer: The Air Conditioner and the Southern Culture," *Journal of Southern History*, 50:4 (November 1984).

[45] *House + Home*, Vol. VIII, No. 3 (September 1955) 136–139.

[46] The 88 foot lot width dictated that the end walls be windowless for privacy, except for a lattice–covered opening off the loggia.

[47] Arthur Milam, interview by C. Domin and J. King, August 2000. Arthur Milam was also familiar with the Kerr Residence in Melbourne that was designed for the parents of a friend from his college days at Yale University.

[48] The Milam House was designed and coordinated out of Rudolph's New Haven, Connecticut office with Robert Ernest, a former student of Rudolph's from Yale, as the local representative.

[49] The lessons of Le Corbusier's Villa Savoye remained an important benchmark throughout Rudolph's career especially the endless spatial possibilities that resided behind the box-like exterior façade.

[50] The fact that I. M. Pei was selected to undertake the master planning and the initial building design program for New College signaled the end of Rudolph's influence on Sarasota's architectural scene.

[51] Hiss was elected to the School Board in 1952, the same year that Rudolph began his independent practice, and became chairman in 1956.

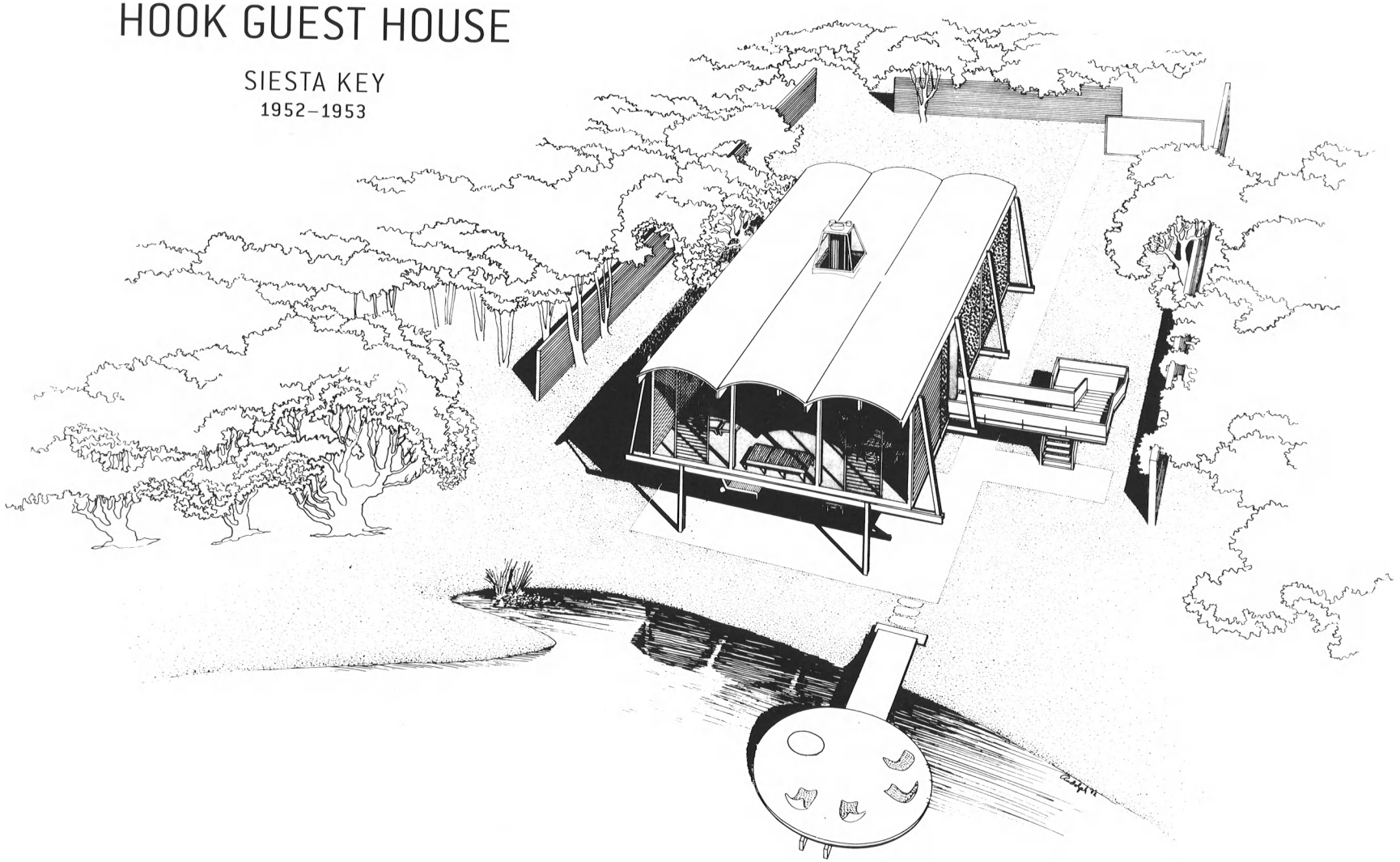
[52] Paul Rudolph's "Changing Philosophy of Architecture" (typed manuscript dated June 16, 1954 located in the Paul Rudolph Archives at the Library of Congress): 2. The transcript for this speech was published in *Architectural Record* (August 1954).

[53] The current status of houses built during Rudolph's independent practice in 2001 is as follows: The buildings in which the design is essentially intact, whether in original condition, or with minor changes, or after restoration are Hook, Sanderling Beach Club, Walker Guest House, Umbrella, Cohen, Taylor, Biggs, Fletcher, Burkhardt, Liggett, Deering, Sarasota High School, Milam, Daisley. Those that have been significantly altered are Davidson, Wilson, Tastee Freez, Stinnett, M. Harkavy, Riverview High School, Lake Region Yacht and Country Club. The condition of the Davis residence is unknown. Other Florida projects that were not carried forward, or that are not known in enough detail to be included in this book are Protas Store/Office Building (1953), Kendrick Residence (1953), Cerrito Residence Addition (1953), Sam Rosen Residence (1953), Knox Cove Model Homes (1954), Miller Shopping Center (1954), Strickland Residence (1954), Maehlman Residence II (1954), Rubin Office Addition (1955), Kip Residence (1955), Commercial Building for Art Clark (1955), Maggard Residence Lake Wales (1956), Steadman Residence (1956), Mallory Residence (1957), Pi Kappa Phi Fraternity in Gainesville (1960).

HOOK GUEST HOUSE

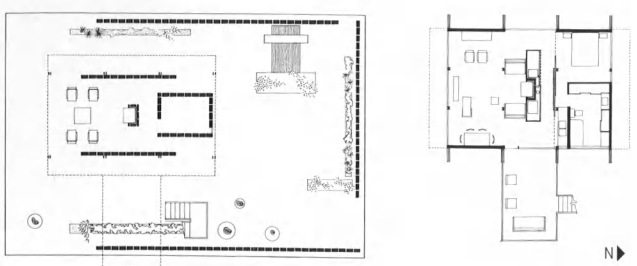
HOOK GUEST HOUSE

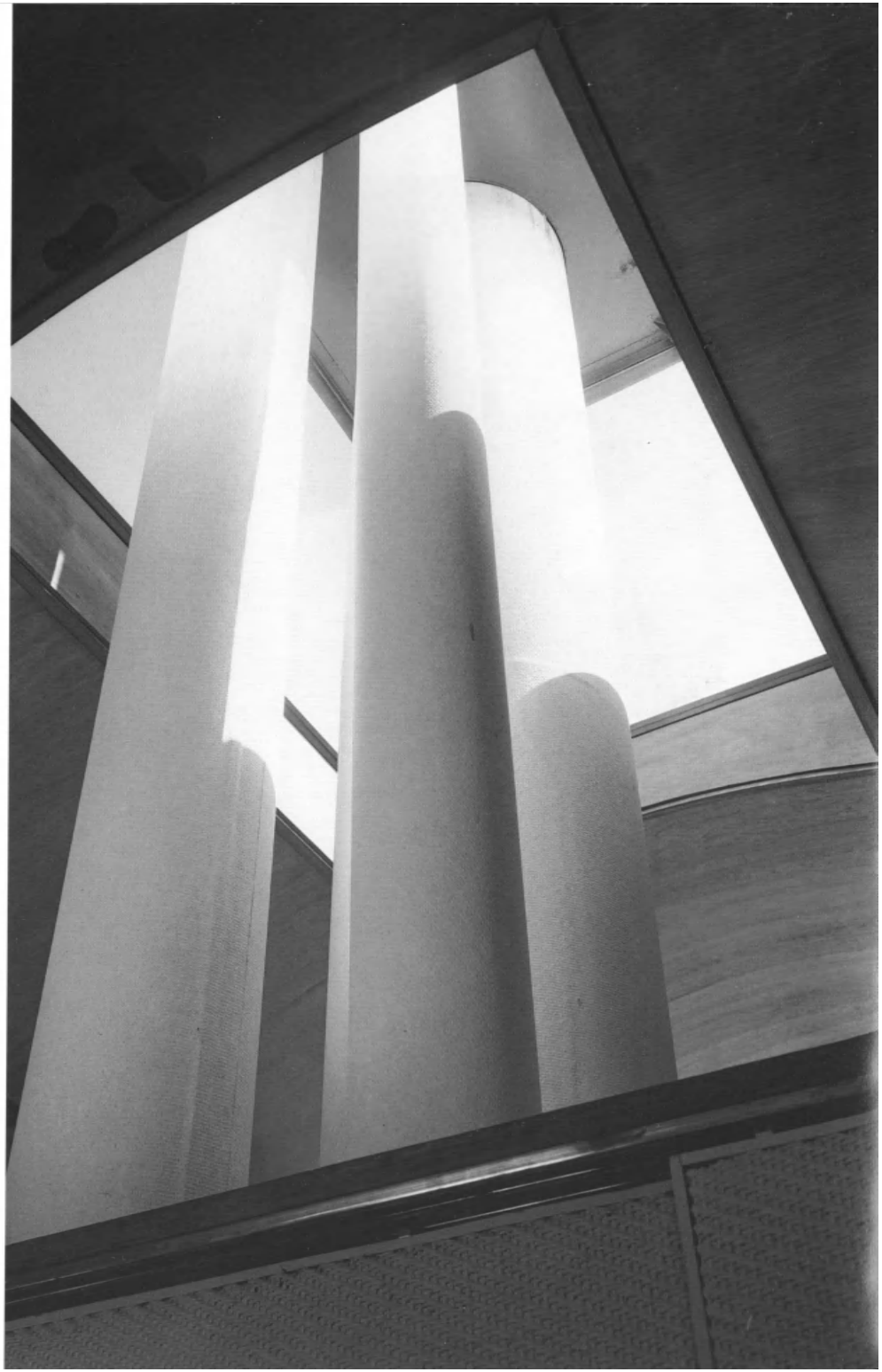
SIESTA KEY
1952–1953



The first domestic use of the plywood vault is found at the Hook Guest House. This triumph is multi-dimensional, for it continued Rudolph's preoccupation with rationalist modular construction techniques based on standard material dimensions, but also looked toward a broadening of the functionalist legacy of his Harvard education. Rudolph used the integrated formal and structural qualities of the vault to expand the vocabulary inherited from Gropius and Breuer. A buttressed post-and-beam frame is employed to raise the main living space above the landscape and accept the outward thrust produced by the plywood sandwich vaults. The modified trabeated frame is infilled with panels consisting of board siding, fixed glazing, or operable jalousie windows, alternating in response to the interior program of the house.

A subtle opening in the wall closest to the street creates an entryway, which begins a formal procession along the eastern edge of the site, culminating in a circular deck cantilevered over the lagoon. This direct route to the water is interrupted midway by an entry platform projecting off the upper level and leading to the front door of the house. An exterior room is inserted at the top of the stairs, creating a transition to the shore and an asymmetrical foil to the rigorously modular structure of the house.





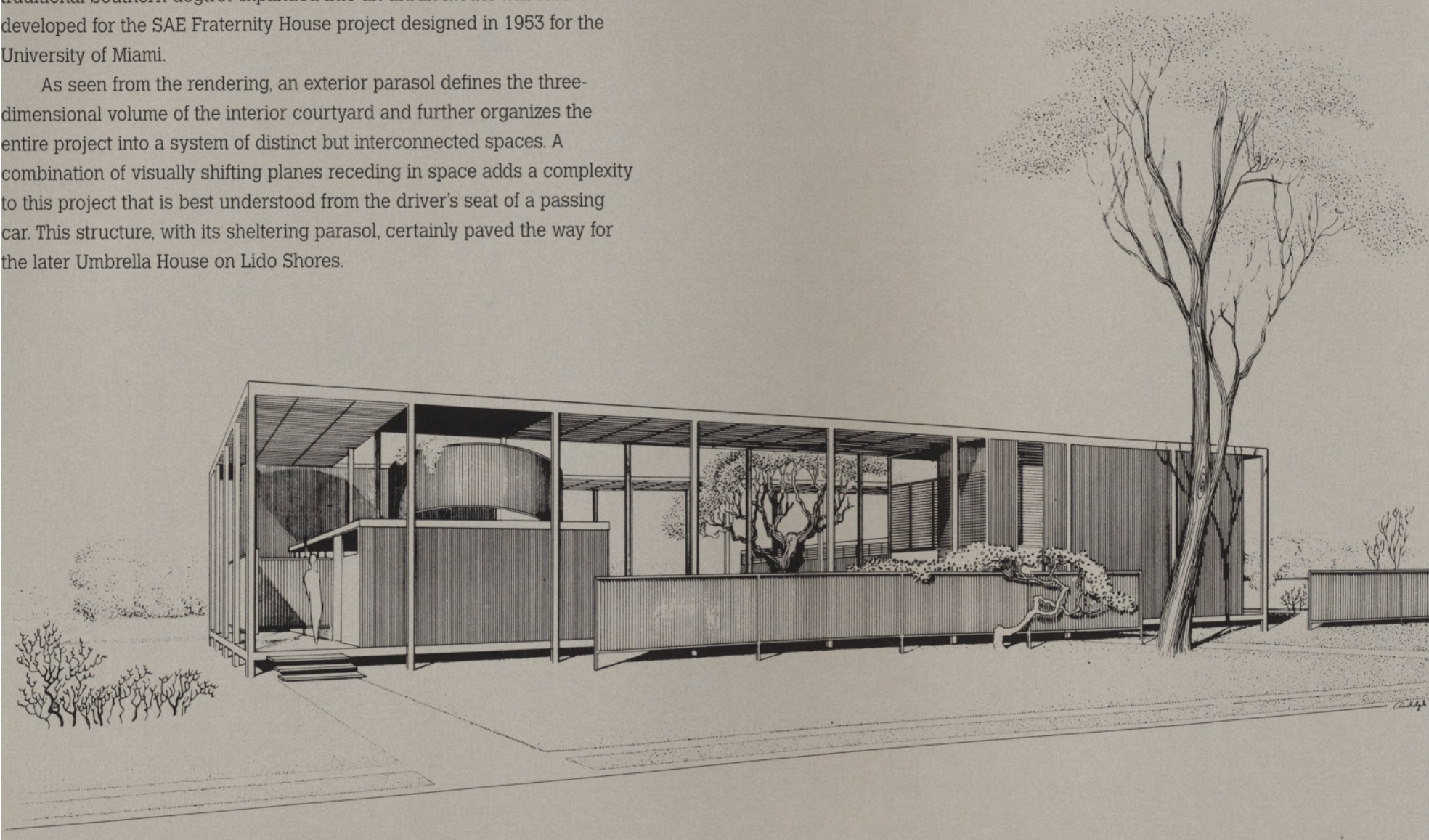
HAYWOOD APARTMENTS

SIESTA KEY

1952–1953, PROJECT

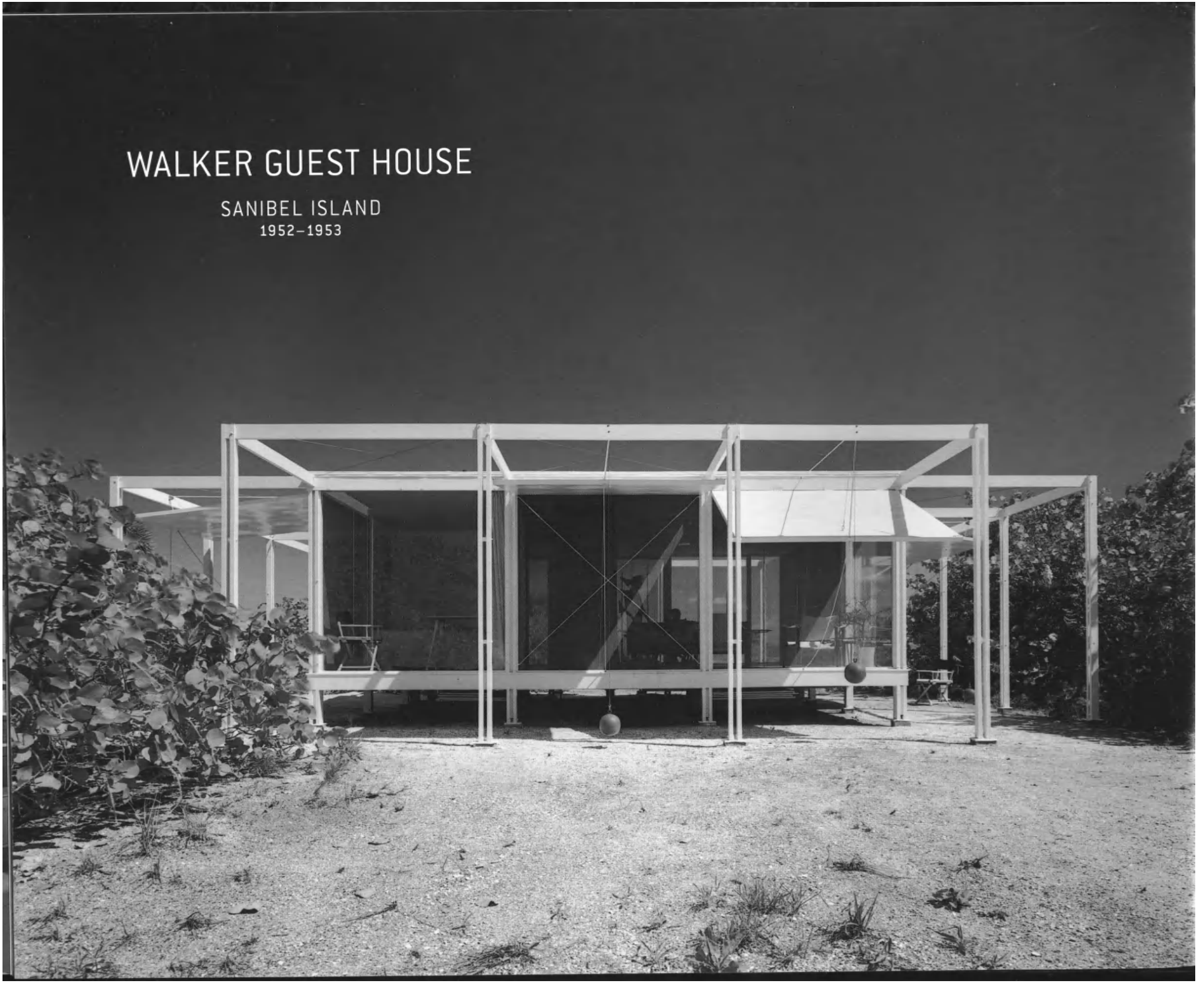
A complex series of four intertwined one- and two-bedroom apartments are organized around a central shared courtyard. This evolution of the traditional Southern dogtrot expanded into an urban model was further developed for the SAE Fraternity House project designed in 1953 for the University of Miami.

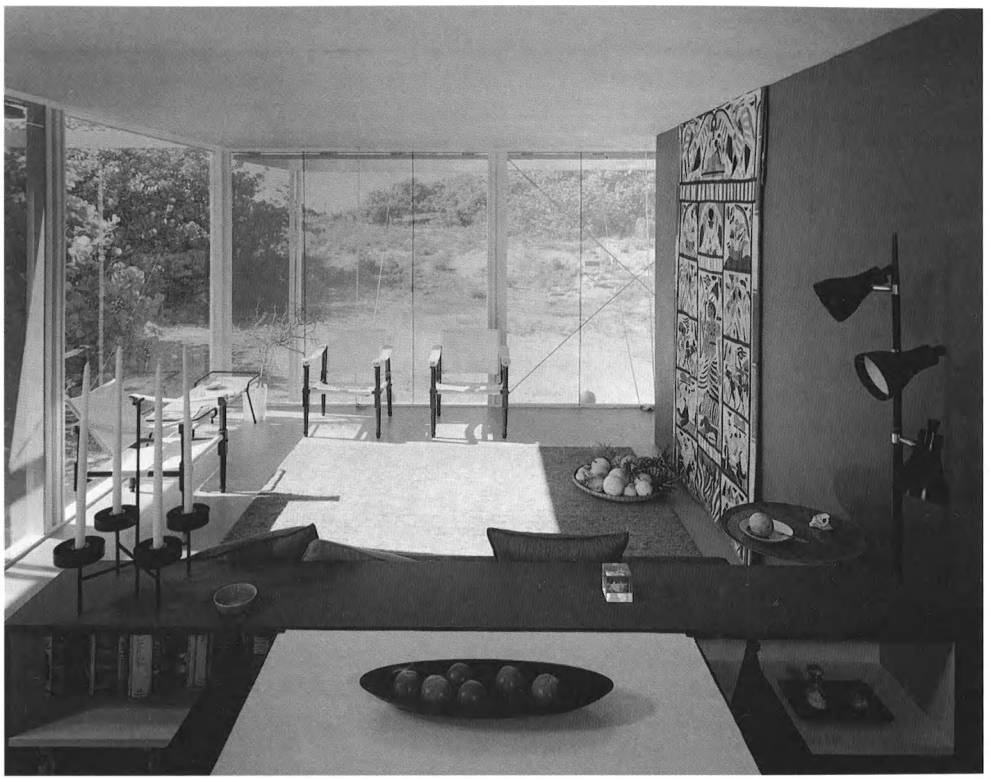
As seen from the rendering, an exterior parasol defines the three-dimensional volume of the interior courtyard and further organizes the entire project into a system of distinct but interconnected spaces. A combination of visually shifting planes receding in space adds a complexity to this project that is best understood from the driver's seat of a passing car. This structure, with its sheltering parasol, certainly paved the way for the later Umbrella House on Lido Shores.



WALKER GUEST HOUSE

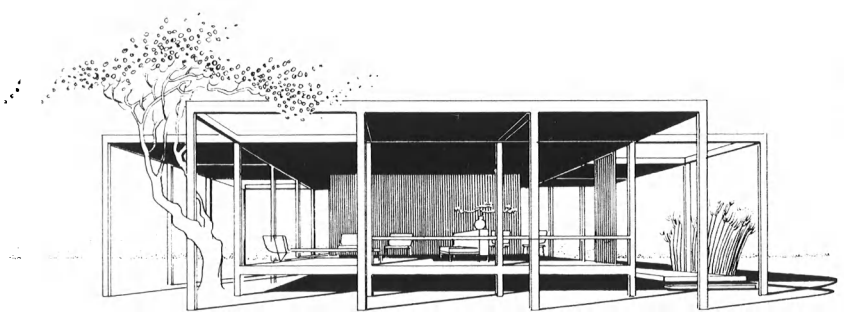
SANIBEL ISLAND
1952–1953

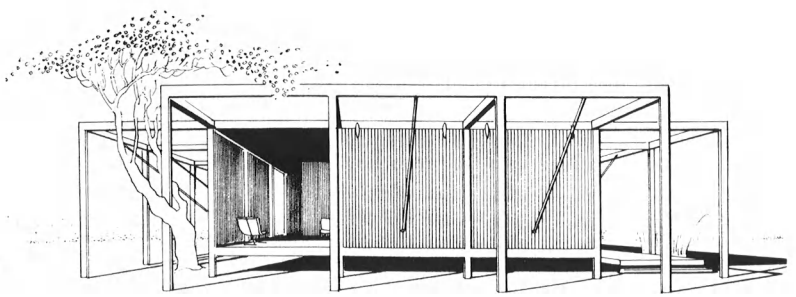




In this project the prosaic material of the lumberyard is utilized to produce a refined expression of American ingenuity. Constructed of typical lumber profiles in combination with locally constructed operable panels, the Walker Guest House became an experiment in off-the-shelf technology. Rudolph emphasized structural purity in combination with the operable panels to provide an ever-evolving spatial dimension to the project (a complex spatial experience is defined within the context of a relatively simple cagelike framework). Two out of three panels on each elevation were hinged and made operable by marine hardware, ropes, and a counterweight. The exterior frame was infilled with either floor-to-ceiling plate glass or a micro-screen to keep out insects.

The rigorous four-square ordering of the interior creates a counterpoint to the three-bay organization of the exterior elevation. Each of the interior quadrants is functionally zoned as living, dining, service, and bedroom, offering another of Rudolph's shiplike interior arrangements. However, the living area is not relegated to the interior space of the house: the flap system and framework double as a traditional wrap-around porch. A portion of the surrounding landscape space is gathered into the realm of the house, more than doubling the interior square footage.

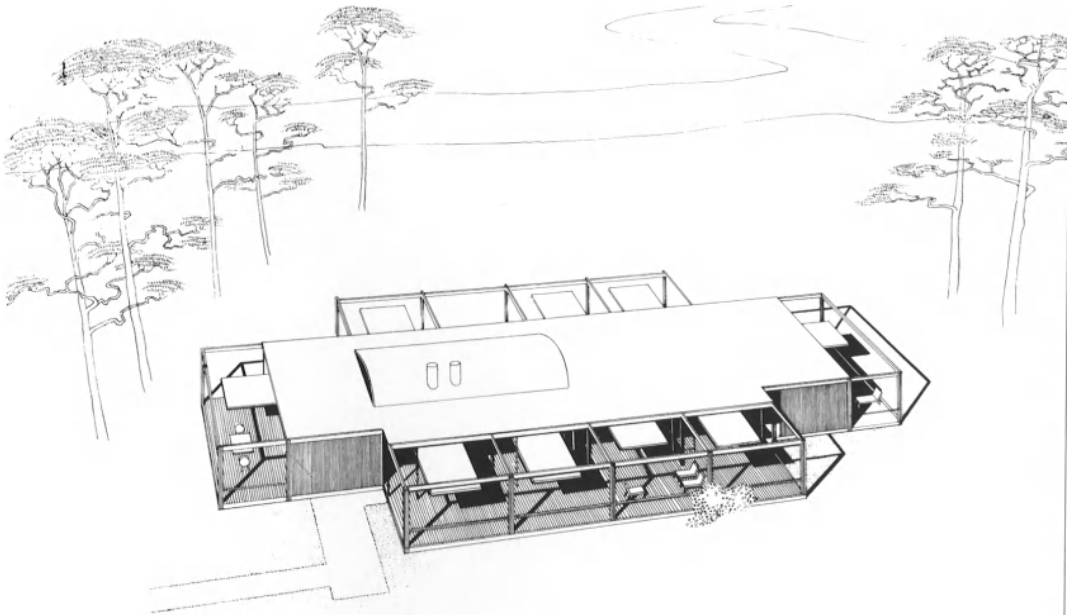


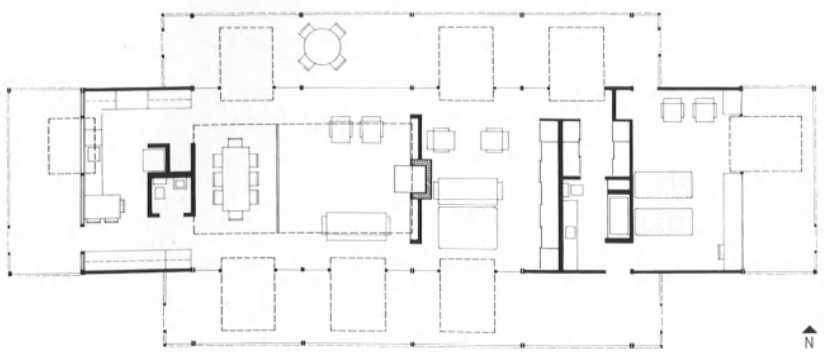



DAVIDSON RESIDENCE
BRADENTON
1953

Rudolph originally designed this two-bedroom house with a series of operable flaps to modulate the climate and provide a continuous spatial flow from the interior to the screened living areas. This simple rectangle with four attached porches attempts to reestablish ties to the historical architecture of the region. Rudolph linked the overall form to that of traditional Greek Revival houses in the South.

In the final version, the horizontally-pivoting flaps were replaced with a series of floor-to-ceiling flush panel doors that opened out to four functionally-defined porches protected from above with a translucent vinyl plastic sheathing. The main living space of the house is organized around a low vault with clerestory windows at each end, enlivening the space with light. The roofing material is fiberglass, creating essentially a hull against the sky, made by David Davidson, the owner and builder, who was also a local boat manufacturer. Rudolph was becoming more interested in the formal qualities of the vault and its psychological impact on the conception of the space below and less concerned, in this case, with highlighting the method of construction.

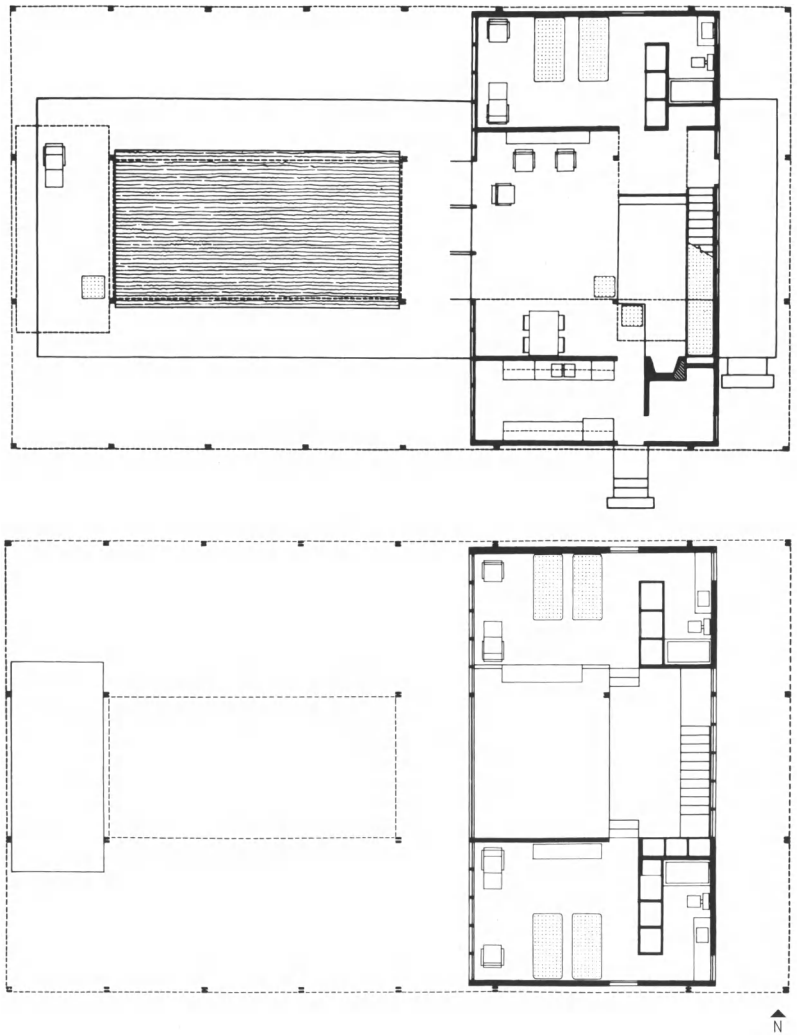





UMBRELLA HOUSE
LIDO SHORES
1953–1954

The Umbrella House, designed for speculation in 1953 for Philip Hiss, was so named because a sheltering parasol spanned the main body of the house to encompass the ceremonial entry to the west and the pool deck to the east. The thin structural framework and light-dappling lattice of the "sun roof" was built out of two-by-six lumber placed side by side, separated by spacers, and bolted together with typical hardware. This system was lightly connected to the main body of the house and externally braced by a series of diagonal tension members. An elegant system of slats created from inexpensive tomato stakes was spanned between the supporting members to form the intricate fabric of the canopy.

The two-story design provides extensive views and accessibility to breezes, but the seventeen-foot high interior volume also offered Rudolph the opportunity to manipulate the interior quality of space in section for the first time since the Leavengood House. Two steps provide access to the main entry and primary level of the house: a small recessed area under the stair allows for reading and conversation adjacent to the fireplace. A bridge at the top of the stairs functions as a floating room within the main volume. With views facing west, this perch provided ample space for an easel as indicated on the construction drawings. Two more steps lead to each of the flanking bedrooms, and a sliding series of panels and projecting drawers in the south bedroom initiates the connection back to the living room below (this room is pulled off the column grid). This circuitous movement through space with constant internal and external reference points defines the complex spatial nature of the house in opposition to the staid exterior composition.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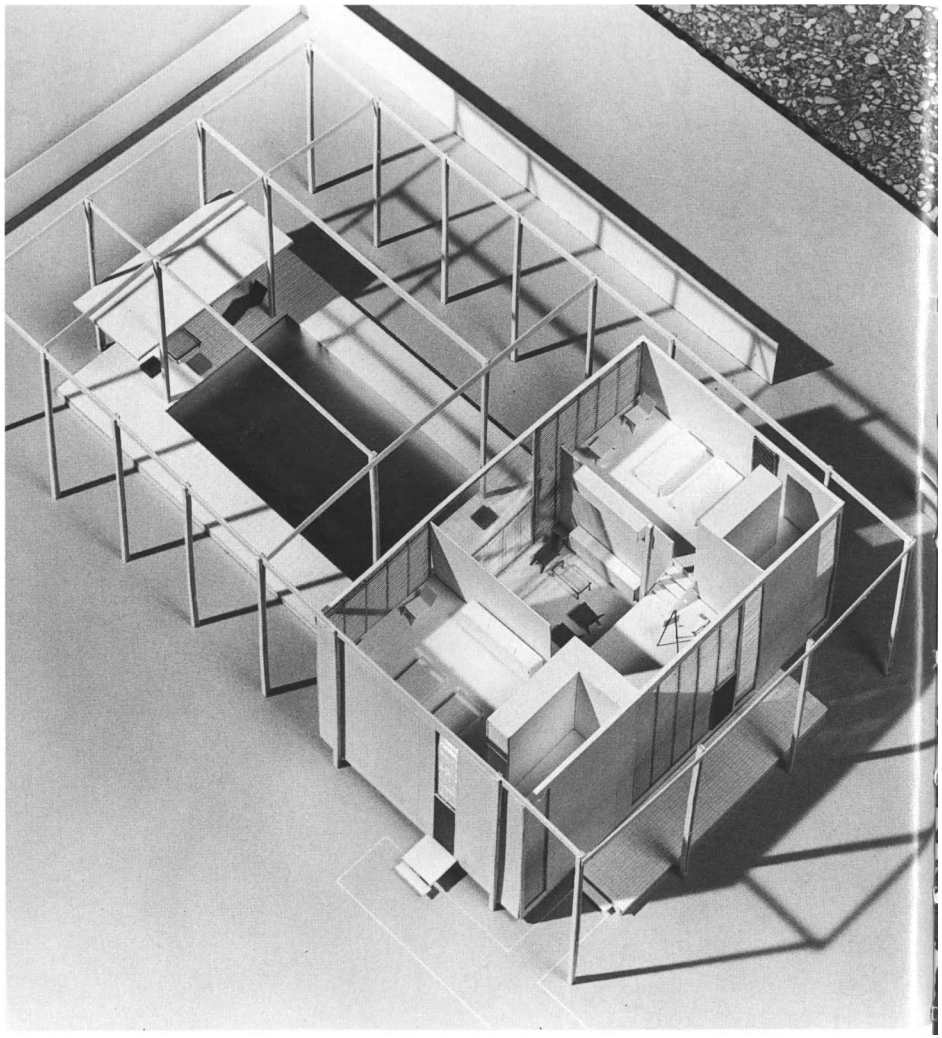
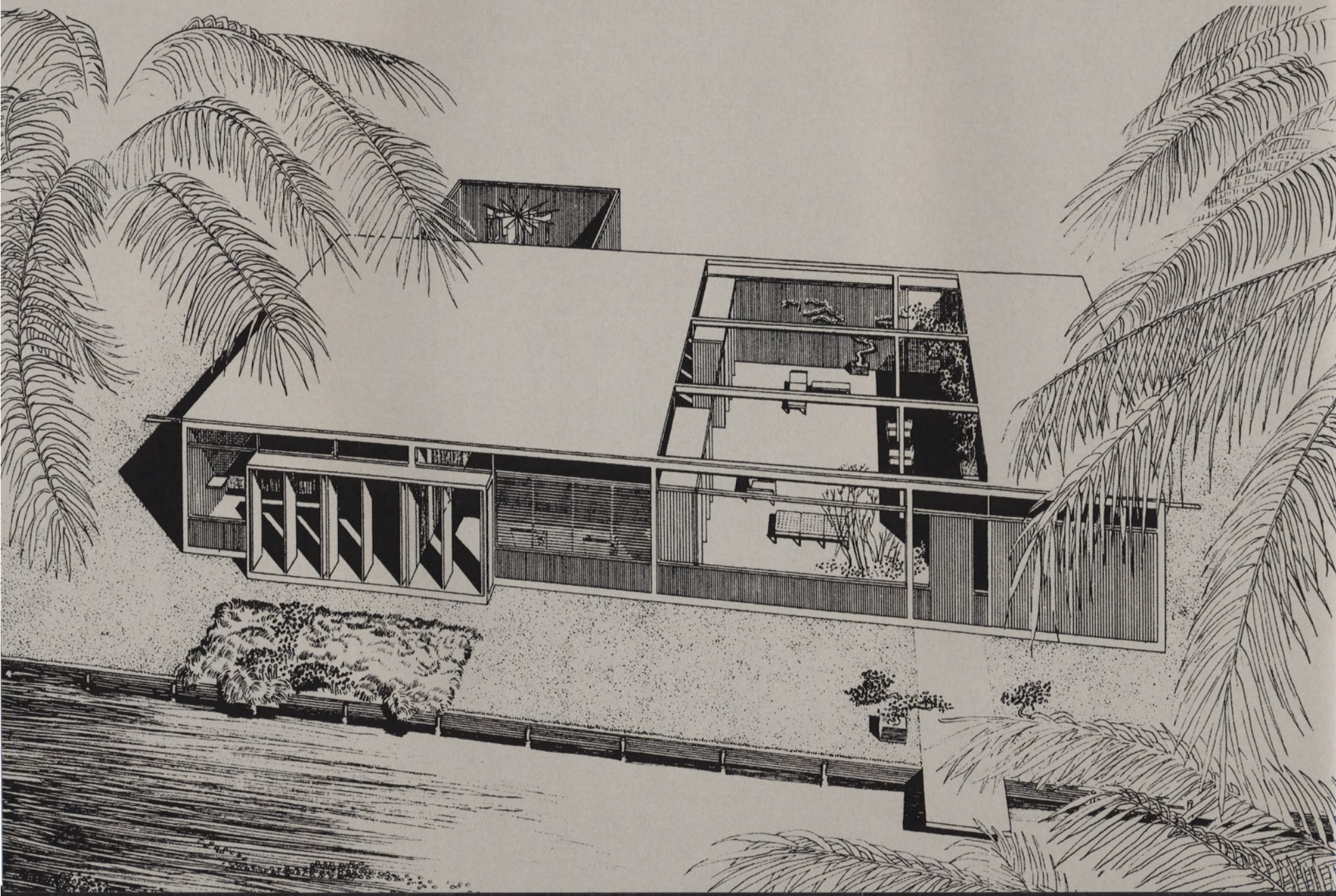
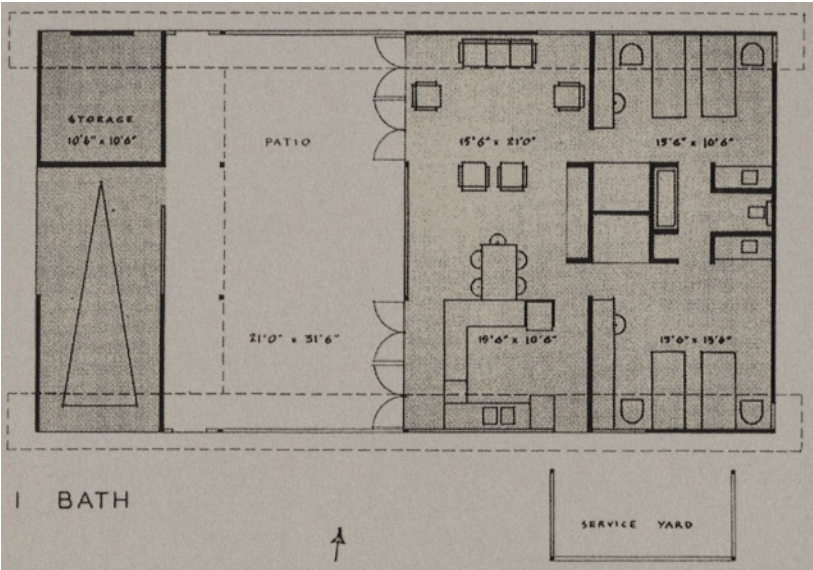


STROUD AND BOYD DEVELOPMENT

SARASOTA

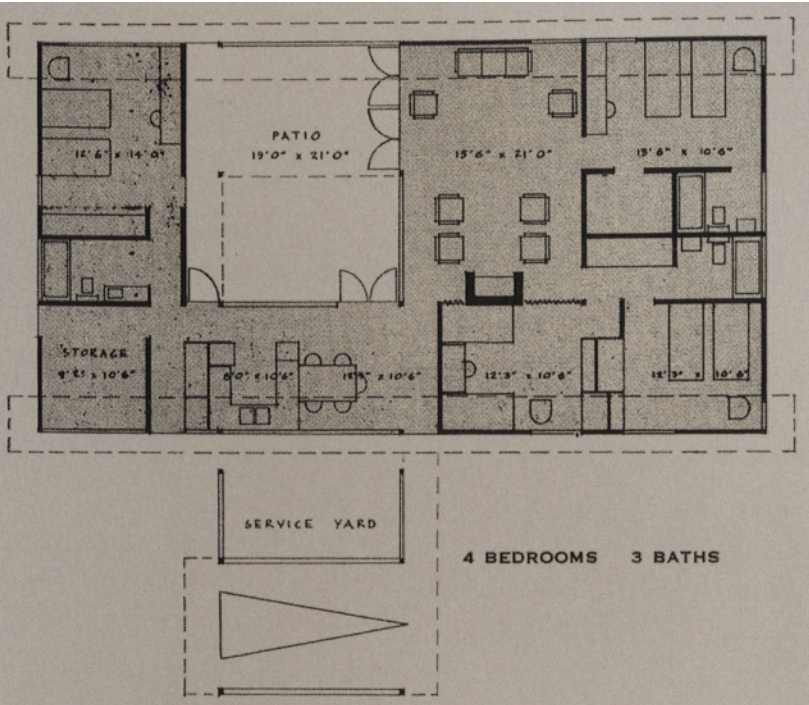
1953, PROJECT



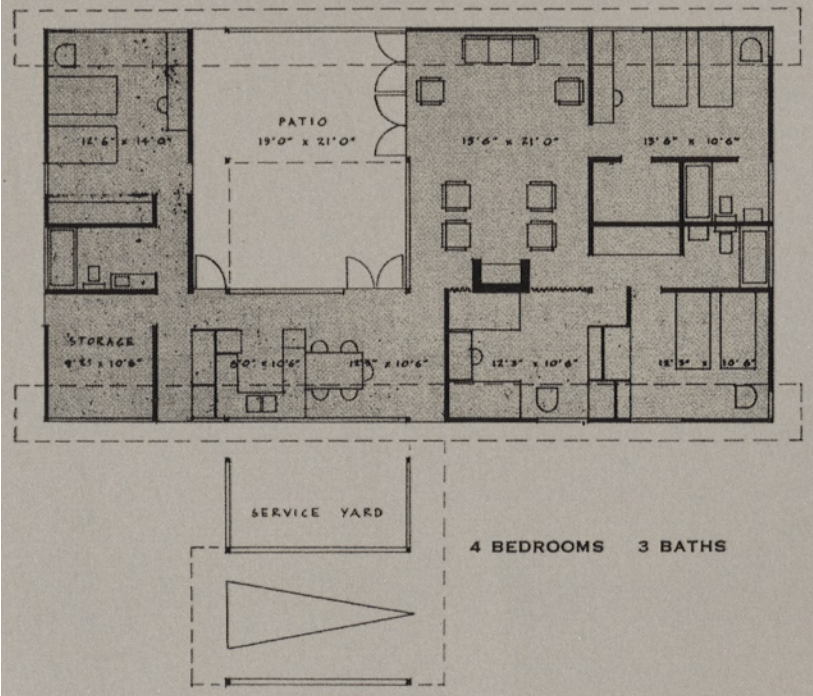


1 BATH

2 BEDROOMS 1 BATH



4 BEDROOMS 3 BATHS



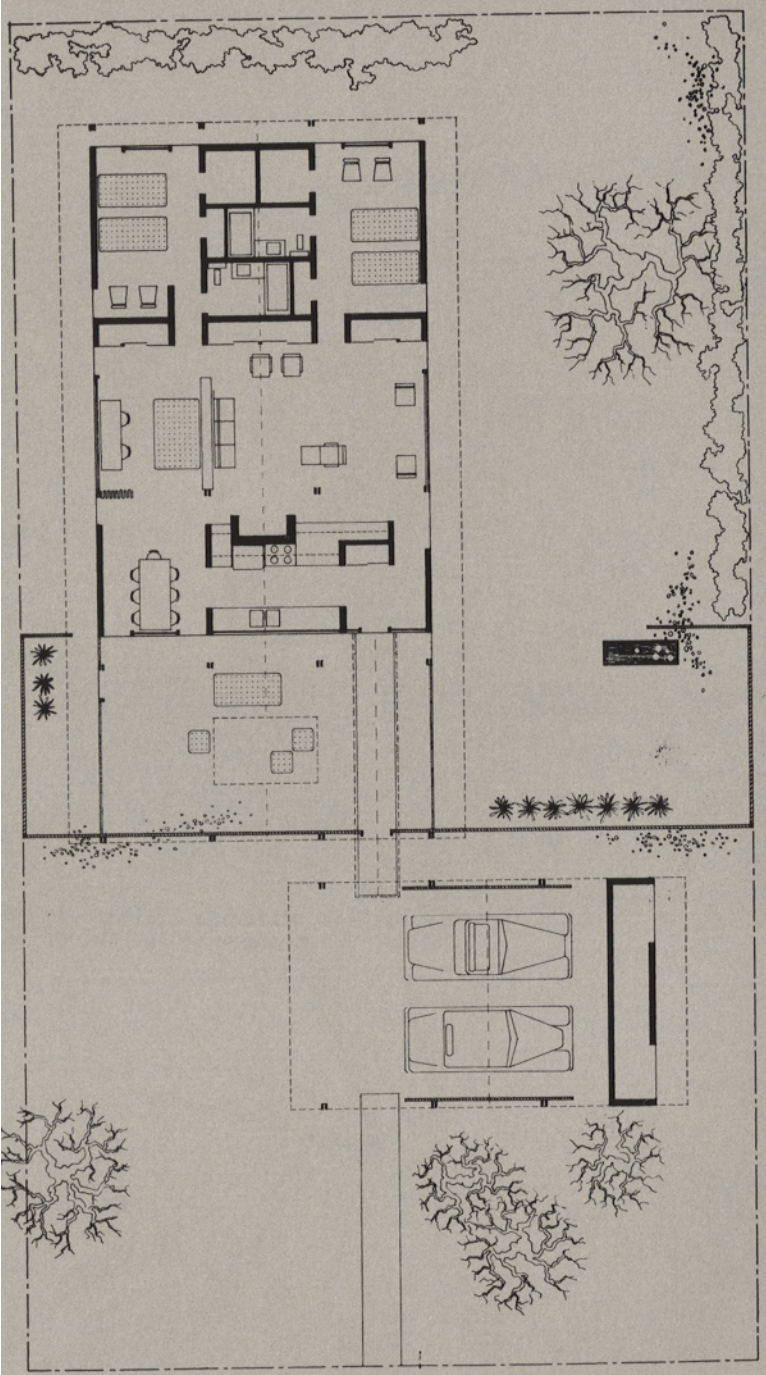
4 BEDROOMS 3 BATHS

This group of fourteen economical houses developed for James Stroud and Jessie Boyd was based on a variation of the Lamolithic development site plan. A series of patio house options were created based on a similar modular construction system for the middle-class housing market. Rudolph attempted to create a variety of unit types that were differentiated by subtle spatial manipulation rather than arbitrary pictorial devices such as exterior sheathing options or varied roof pitches.

BOURNE RESIDENCE

ST. PETERSBURG

1953, PROJECT

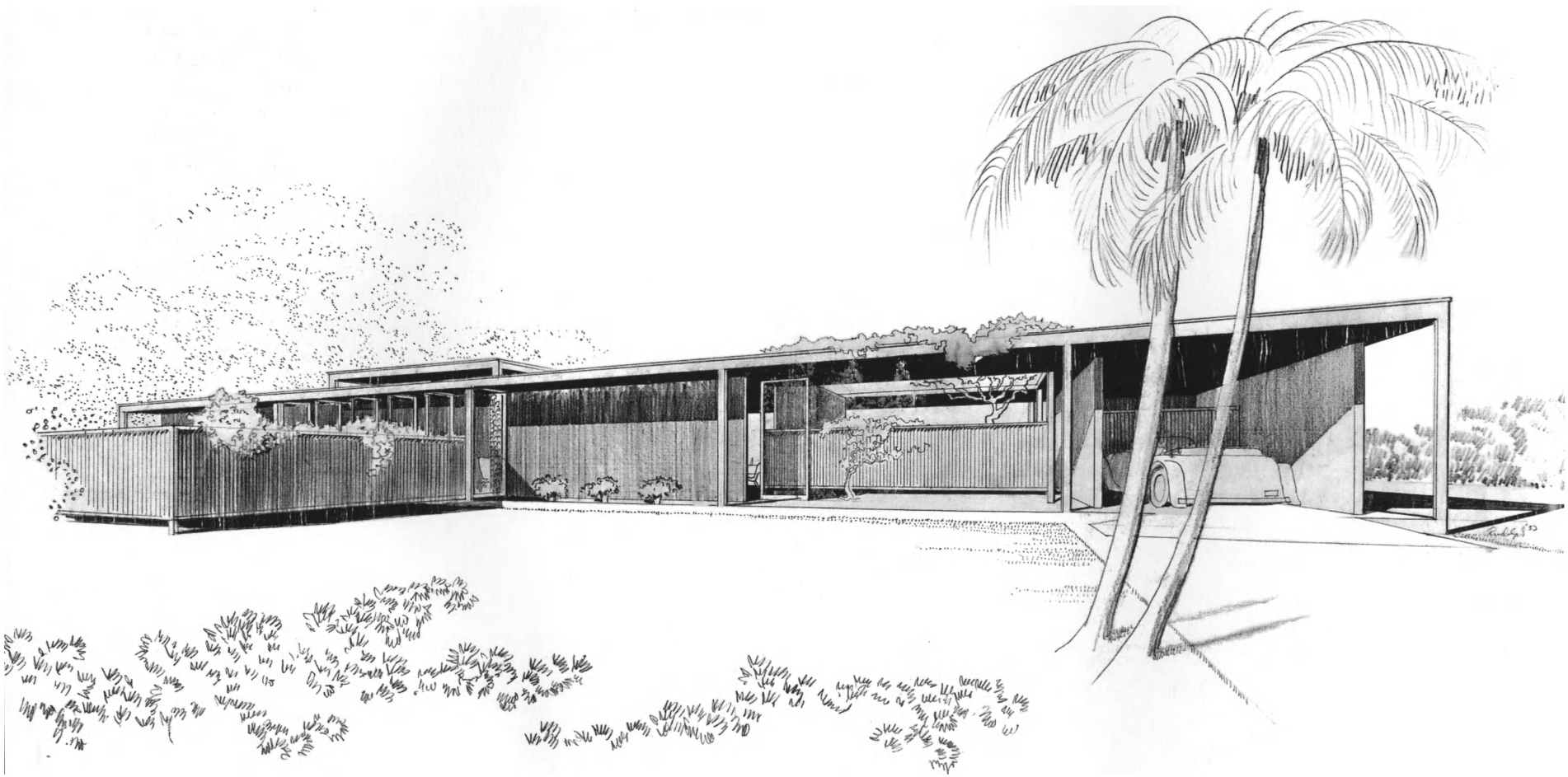


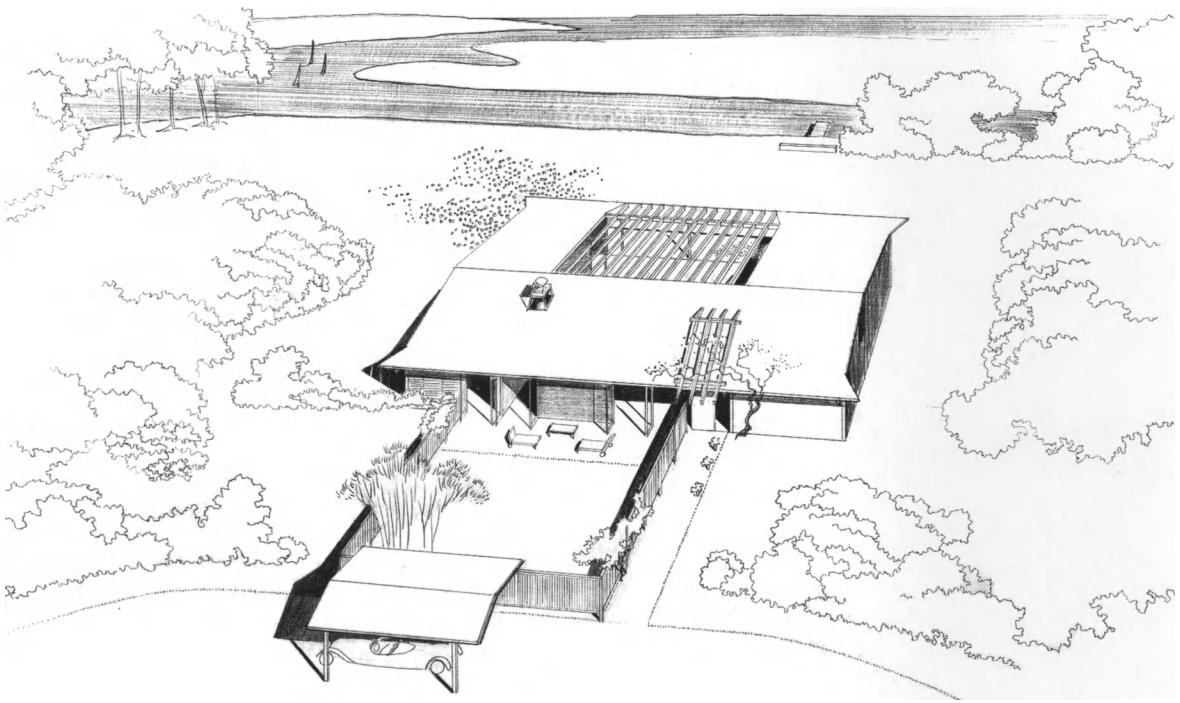
This house, commissioned by Bourne and Company, was designed for the speculative housing market in St. Petersburg, which is located north of Sarasota along the intracoastal waterway. The house, which was never built, was designed with a pitched roof and post-and-beam wood construction for a typical suburban lot. The primary attribute visible from the street is a series of lightly constructed sheltering parasols that create an enclosure for both the carport and the exterior living area below. As opposed to the typical monolithic stucco builder house in Florida, this prototype projects two pitched skeletal structures toward the curb, which encompass an equal amount of space as the enclosed area of the house located at the rear of the lot. The Burgess house designed during the same year is a more complex and formally monumental expression of the same concept.

DAVIS RESIDENCE

SARASOTA

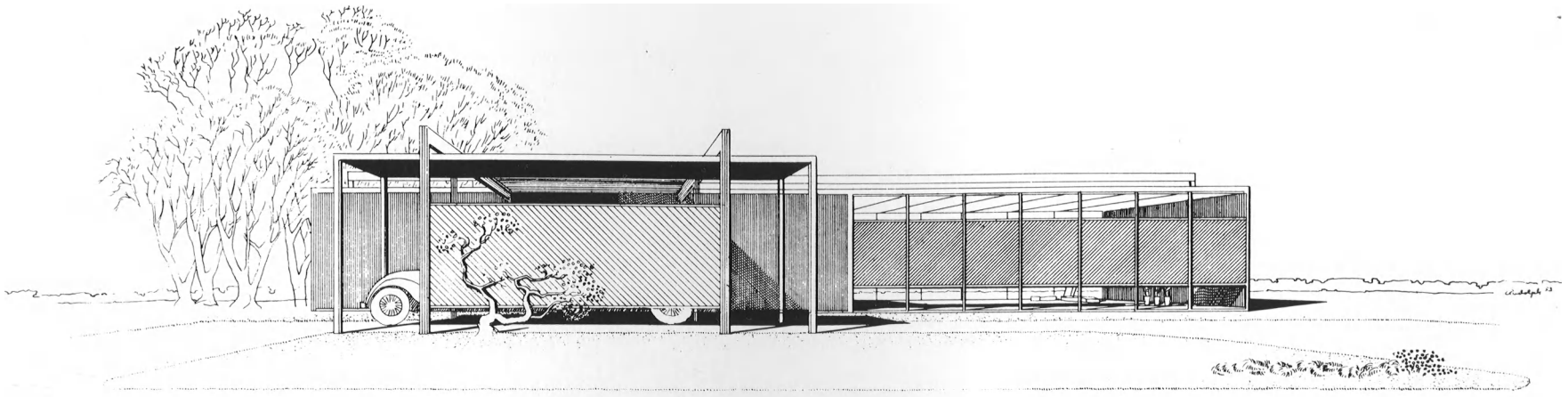
1953–1954





Rudolph proposed two versions of this small two-bedroom house to the client. The option with pitched roof was selected and built in the Coral Cove subdivision. Situated on the banks of Sarasota Bay, this neighborhood was considered to be far out of town and thus relatively inexpensive in comparison to the city proper. The typical wooden stud framing and stucco exterior hides a very unusual roof-framing system, detailed by William Rupp. It utilizes double steel angles with frugal construction-grade lumber as decking members placed vertically, creating a total roof depth of three and a half inches. This house was built for $16,000 which was considered quite competitive compared to other residential construction in the area. Rudolph understood that he needed to compete economically with conventional building systems, and for this commission he arranged cost-effective materials in innovative combinations to meet the budget requirements.


WILSON RESIDENCE
SARASOTA
1953–1954



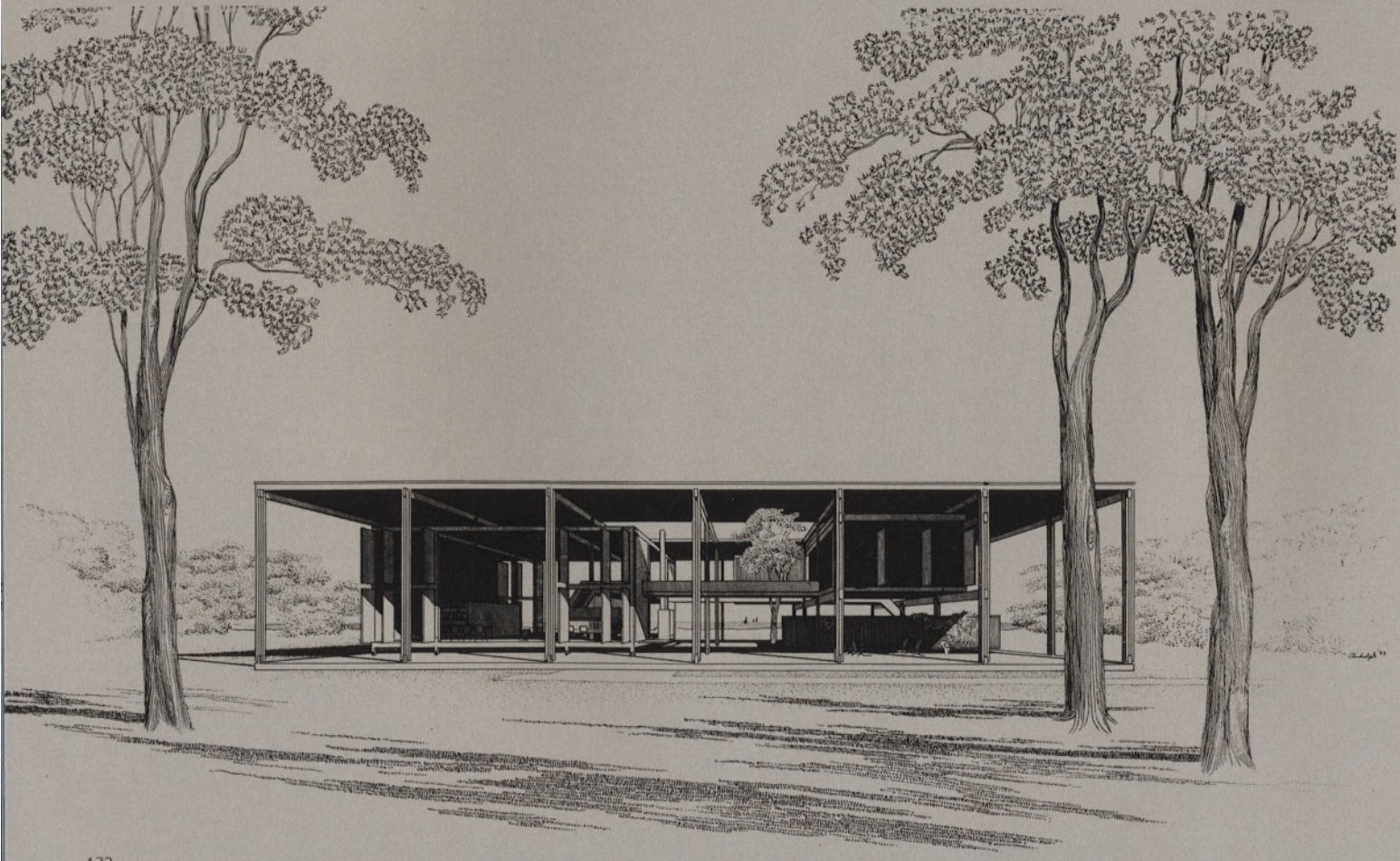
This project was designed as an economical alternative to conventional construction techniques for a client in Coral Cove. The Wilson Residence was built entirely of prefabricated paper honeycomb panels that were originally developed by the airline industry for use as lightweight bulkheads. The wall and roof panels, similar to flush panel door fabrication, were delivered to the site and erected in one day by Harold Pickett, a local inventor, and his crew. A module of four feet was used to organize the composition in relation to the panel dimension that Rudolph further developed into a tripartite interior layout. Three twelve-foot zones are delineated in the plan, corresponding to living, utility, and sleeping areas. For the adjacent screened porch, Rose Wilson, a weaver by avocation, designed a "sky curtain" of woven sticks and colored glass to soften the light coming in from above, creating a luminous exterior space for outdoor living.

BURGESS RESIDENCE

BURGESS ISLAND

1953–1954, PROJECT

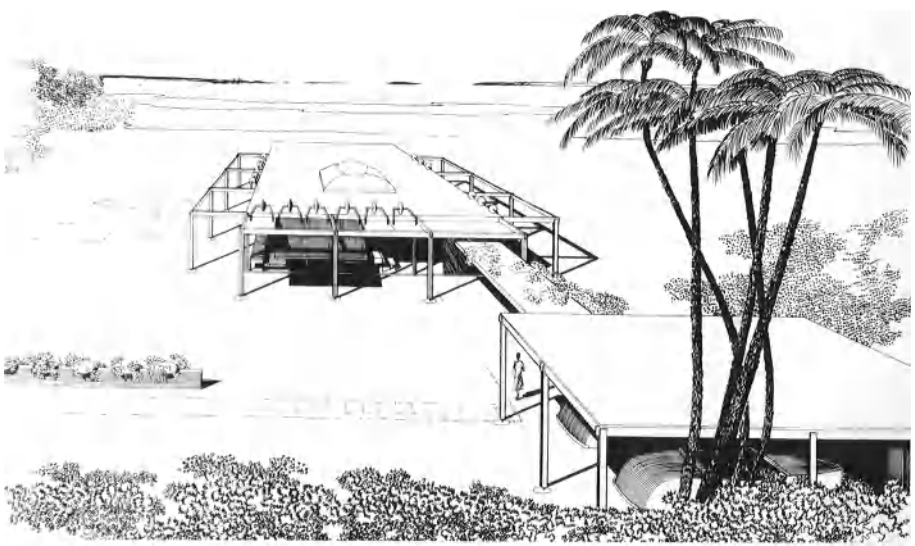
The Burgess Residence was designed as a cluster of floating pavilions organized under a sheltering parasol for a wealthy battery magnate who had purchased a small island south of Sarasota. The structure is fabricated of typical flush panel doors set within a post-and-beam framework, which was transported to the site by boat. A low plinth forms the base of the entire composition with a discrete entry path leading to the central courtyard. This project is unusual in that it was designed for a remote site without any relationship to the ever-present automobile.



COHEN RESIDENCE

SIESTA KEY

1953–1955

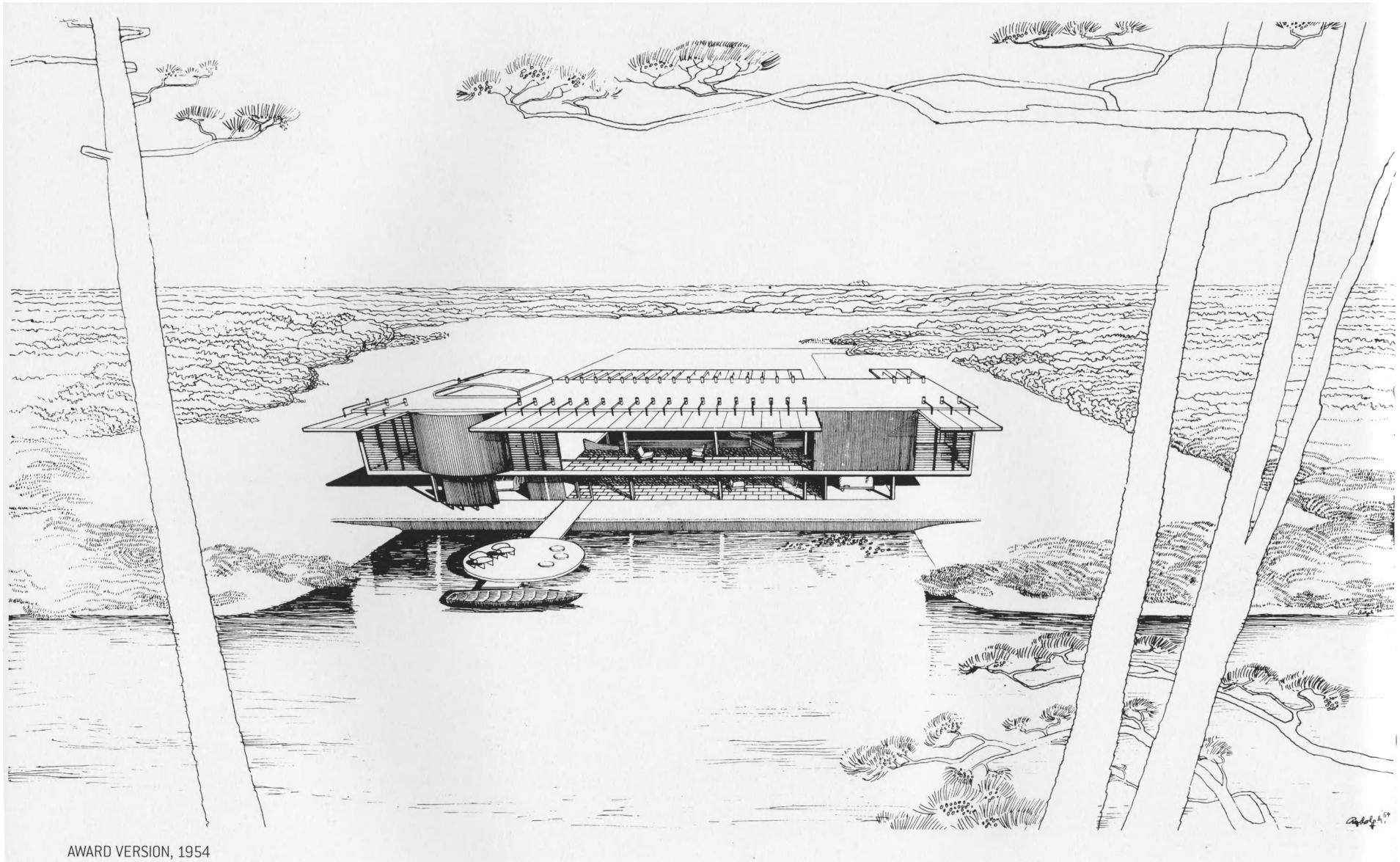


PRELIMINARY VERSION, 1953

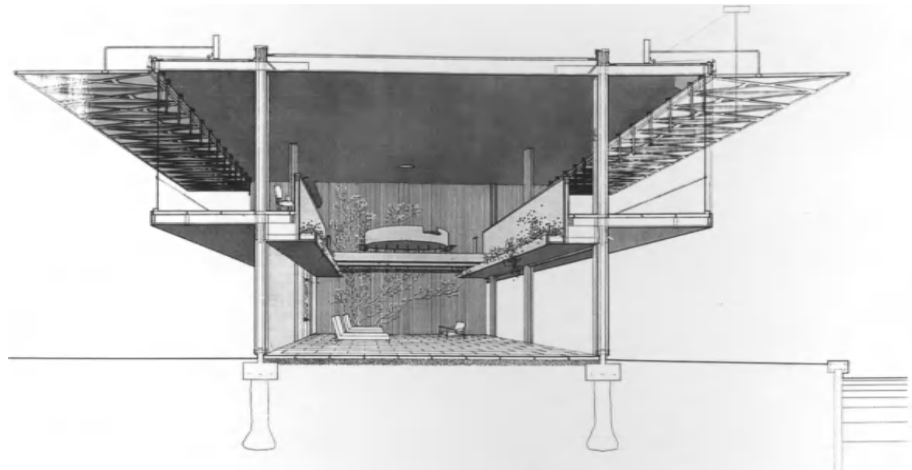
Design for the Cohen Residence began in 1953 for local music patrons, one the concert master for the Florida West Coast Symphony and the other a concert pianist. The house was designed to reflect their musical lifestyle and Rudolph, a classically trained musician, was able to interpret the needs of this specific program. The project is an interesting case study, representing as it does the diversity of conceptual strategies that Rudolph employed during the mid-1950s. At least three distinct solutions for this house are evident among remaining drawings.

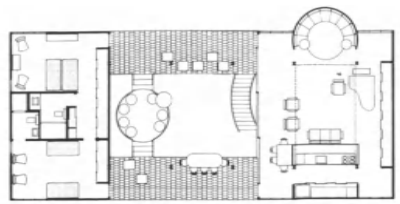
The 1953 design expands the scale of the basic four-square module of the Walker Guest House prototype and adds a detached carport and suspended covered walkway, creating a dynamic composition of related elements. This unresolved collection of parts was never published and quickly put aside for a more forceful conceptualization of the clients' needs. The updated scheme swept the *Progressive Architecture* Awards in 1954.

After attempts to convince the clients of the merits of the two-story design failed, a final version was agreed upon that referenced the initial version as well as the highly publicized one. The main body of the house is oriented along a north-south axis with ample overhangs on the east and west. A sun porch, facing Bayou Louise and the Cocoon House beyond, runs along most of the western face of the house—the seawall along the bayou is indented to reflect the imposition of the house along the canal. The system of operable flaps was removed from the final design, while the exterior framework was retained to form the exterior living spaces and to function as overhangs for protection from the sun and rain. This version was completely air-conditioned, in line with middle-class taste and budgets of the time, rendering the complex apparatus to mediate the climate obsolete.

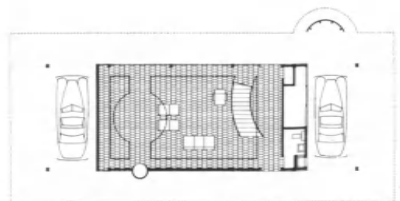


AWARD VERSION, 1954



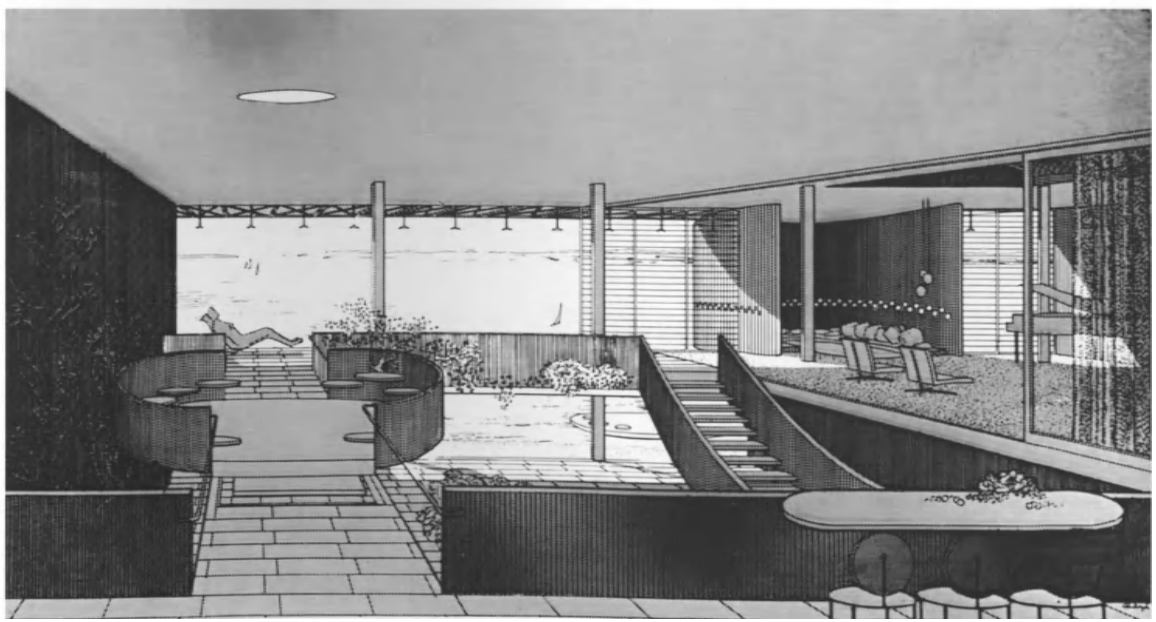


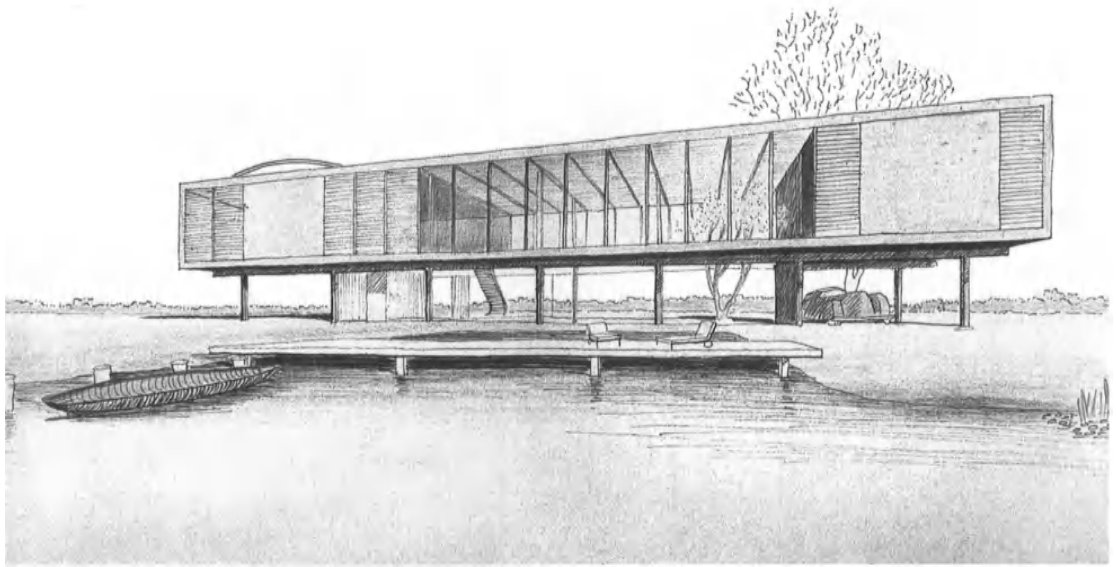
SECOND FLOOR

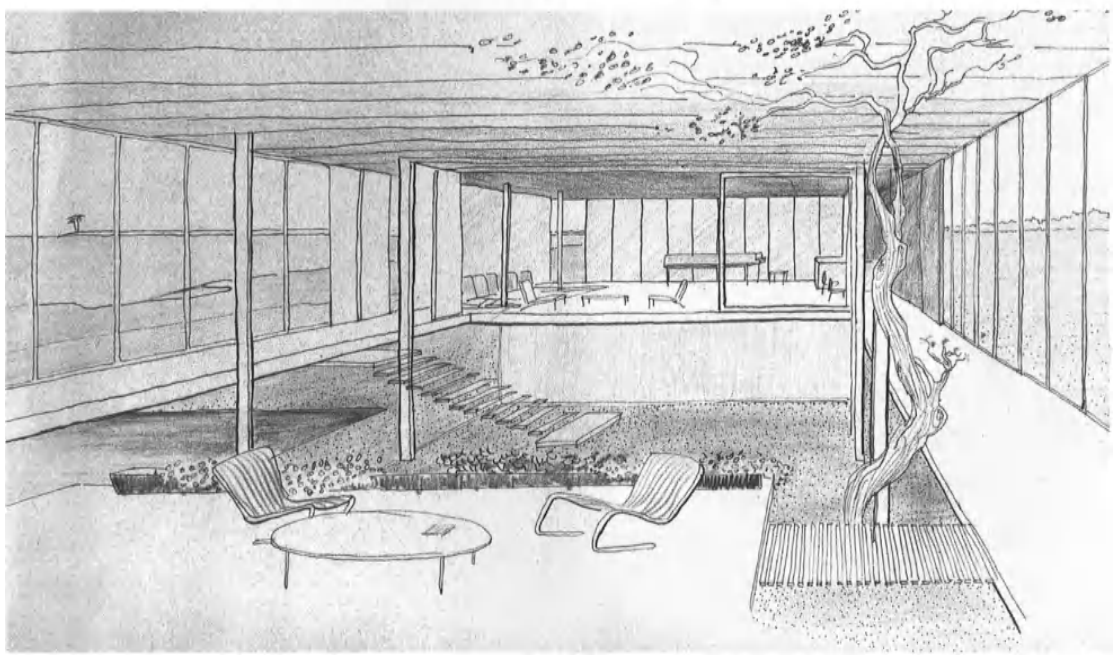


FIRST FLOOR

N







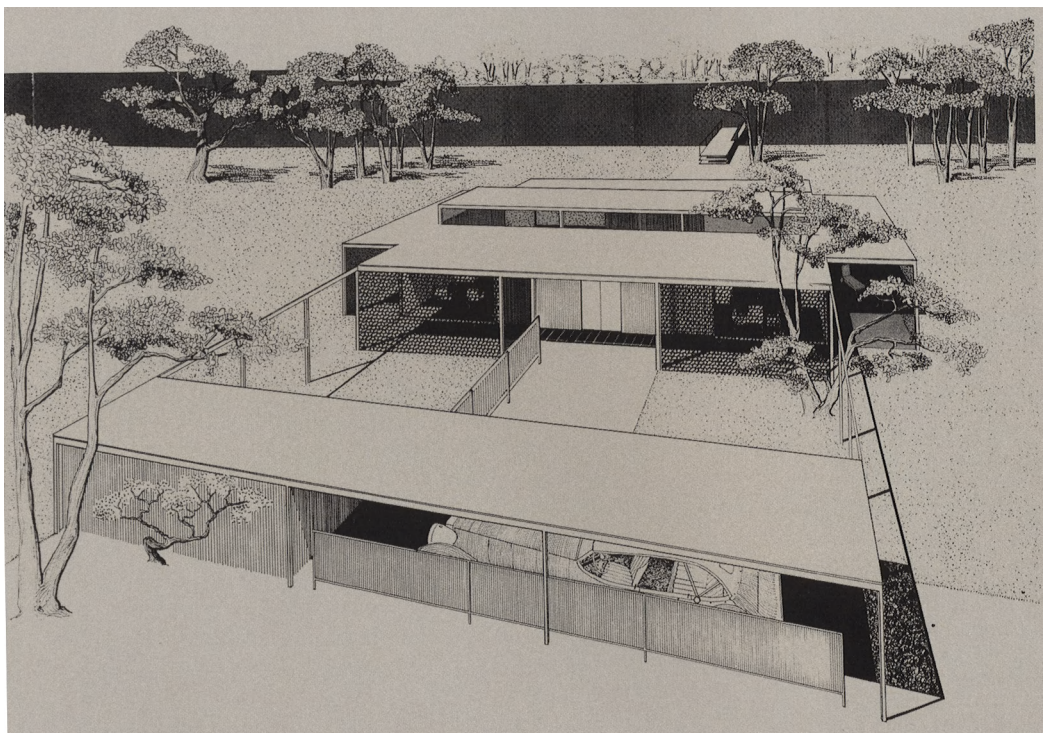
DEVELOPMENT SKETCHES

BUILT VERSION, 1955

ALEX MILLER RESIDENCE

SARASOTA

1954, PROJECT

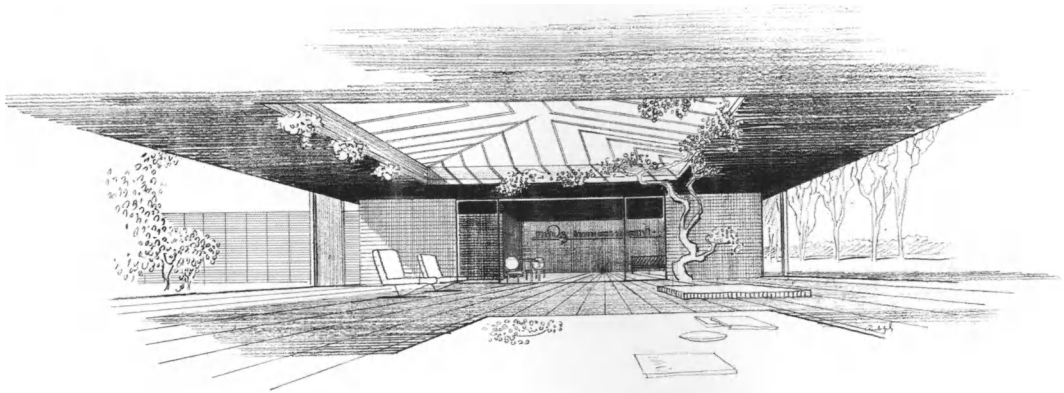


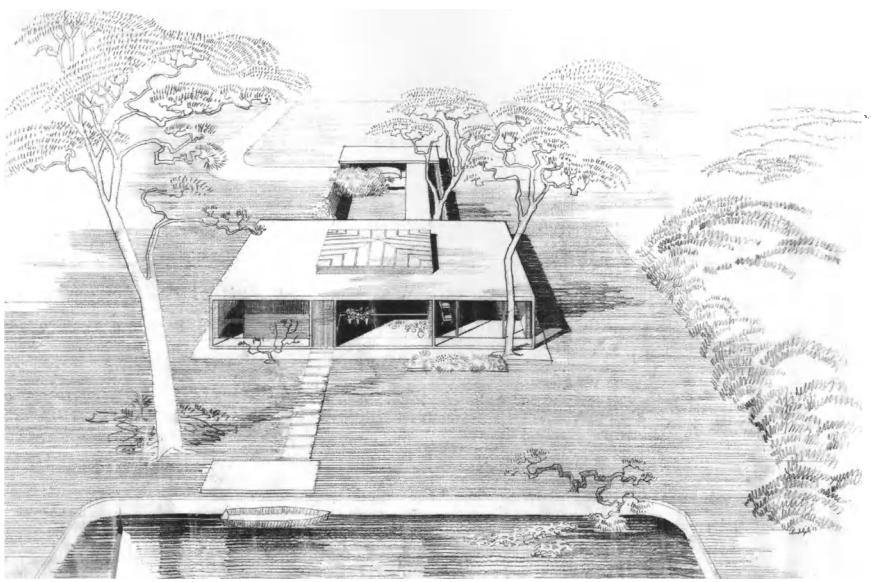
This project is situated around a loosely-defined courtyard bounded by a carport, the main house, and a thin wooden framework connecting the two major programmatic volumes. This single unified composition extends outward toward the dock and the perspectival vanishing point placed along the horizon. Rudolph attempts to link the object-like Greek Revival plan of the main house to the surrounding landscape by defining a procession from the carport, through the courtyard and house, out toward the water beyond.

TAYLOR RESIDENCE

VENICE

1955–1956





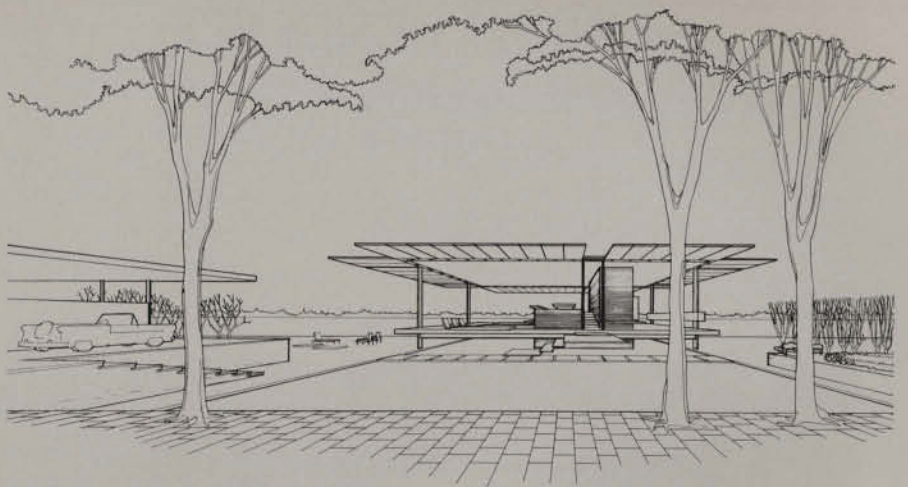
Designed for a retired gold prospector in his seventies, this project was conceived as a modified dog trot in plan, with a series of screen walls added for privacy. A large central patio, protected from above by a vault infilled with plastic glazing, became the distinguishing feature of the house. This centralized space was minimally enclosed with insect screening which allowed interior sliding doors to remain open at all times. The adjacent bedroom glazing was faced with tomato stake fencing employed as privacy screens. The prominence of the interstitial open space is highlighted in both the aerial and interior perspective drawings, completed for Rudolph by Bert Brosmith in the Sarasota office.

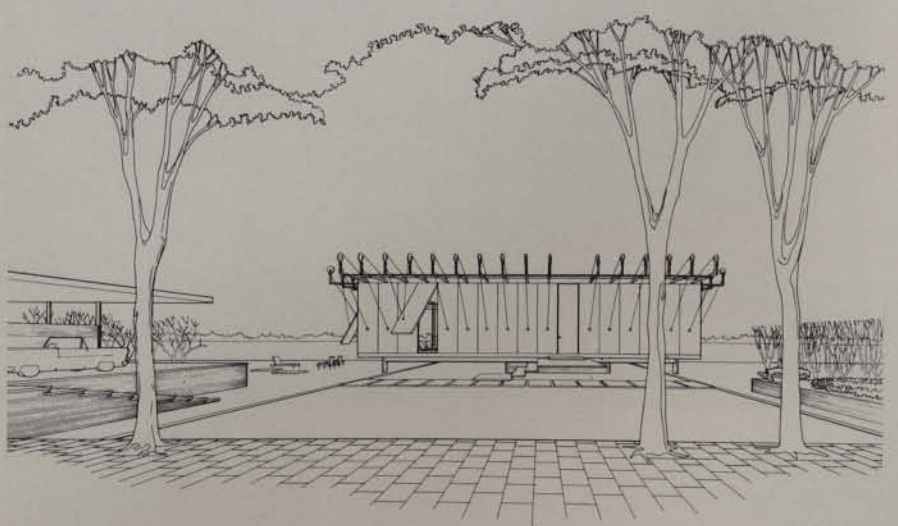
GRAND RAPIDS HOMESTYLE CENTER RESIDENCE

GRAND RAPIDS, MICHIGAN

1955, PROJECT

Developed as a model house that represented the southeast for the Homestyle Center in Grand Rapids Michigan, this speculative project was conceptualized with Miesian clarity and very little concern for standard market-driven conceptions of middle-class living. The renderings depict a variable machine that could operate as either an expansive open pavilion, or, a fortress that could be closed down for the winter. This project was further developed in the Cambridge office with the flaps sheathed in translucent fiberglass panels that would presumably glow against the night sky. Other participants in the Homestyle Center program included Harwell Hamilton Harris, George Nelson, and Ralph Rapson.

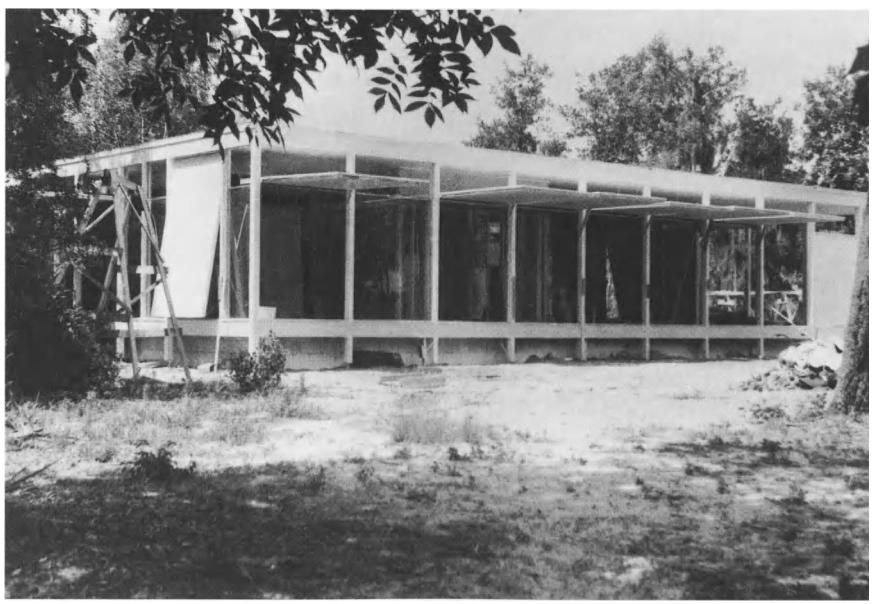




STINNETT RESIDENCE

SARASOTA

1955–1956

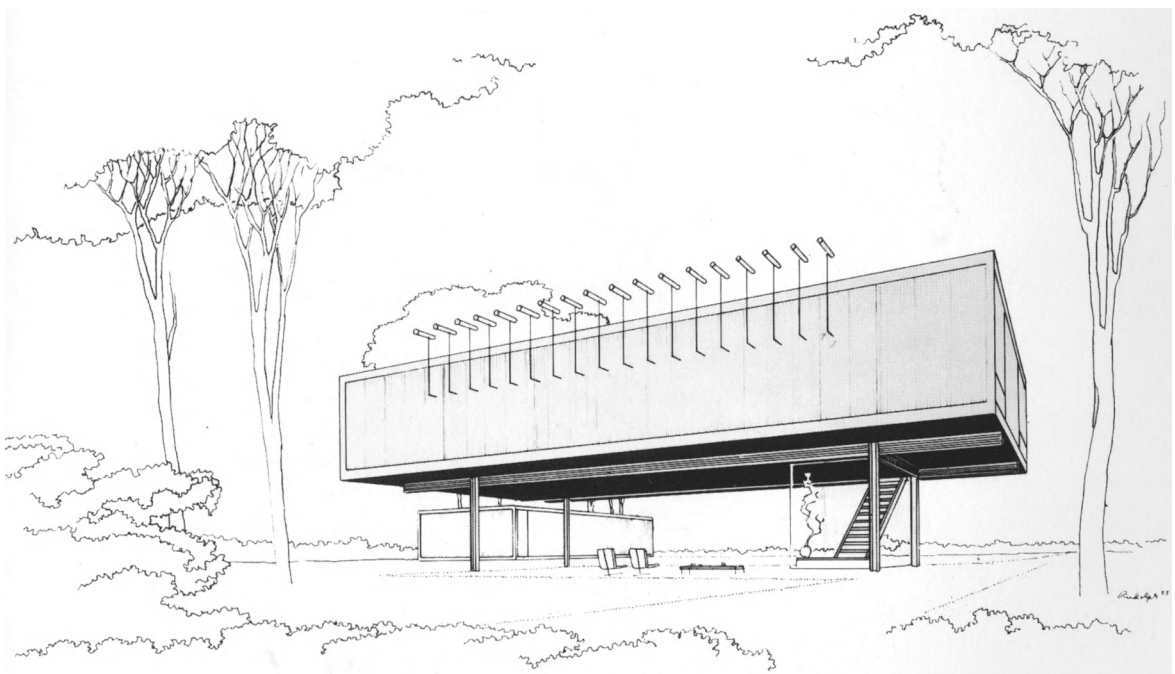


The Stinnett Residence is a modular wood-frame house suspended off the ground with a series of posts anchored to the foundation with steel pin connectors. This modest project was designed with a series of repetitive operable flaps that functioned as hurricane protection when closed and doubled as a protective overhang and light shelf when fully open. The house could be transformed from an enclosed fortress to an open-air pavilion with little effort. Air-conditioning was added to the program during the construction phase, significantly altering the final outcome. Unfortunately, the operable panels allowed massive air infiltration, rendering artificial climate control impossible. To solve the problem, both the panels and pivot hardware were removed before retrofitting the exterior skin with fixed glazing. This project brought to light many of the changing attitudes toward building and the landscape, as air-conditioning was becoming a standard amenity in middle-class housing. Many of the devices that Rudolph incorporated into previous projects in an attempt to engage the adjacent landscape and local climate were rendered obsolete. This technological change had a major effect in ending a line of development in Rudolph's work, but also opened up several others.

BIGGS RESIDENCE

DELRAY BEACH

1955–1956



This two-bedroom house with its shiplike galley kitchen was arranged around a large, open living area. Operable jalousie windows along the north and south elevations were installed to catch the southeasterly tradewinds rolling off the Atlantic Ocean. The monumental street presence of this project is only slightly offset by the irregular placement of the entry to one side of the composition.

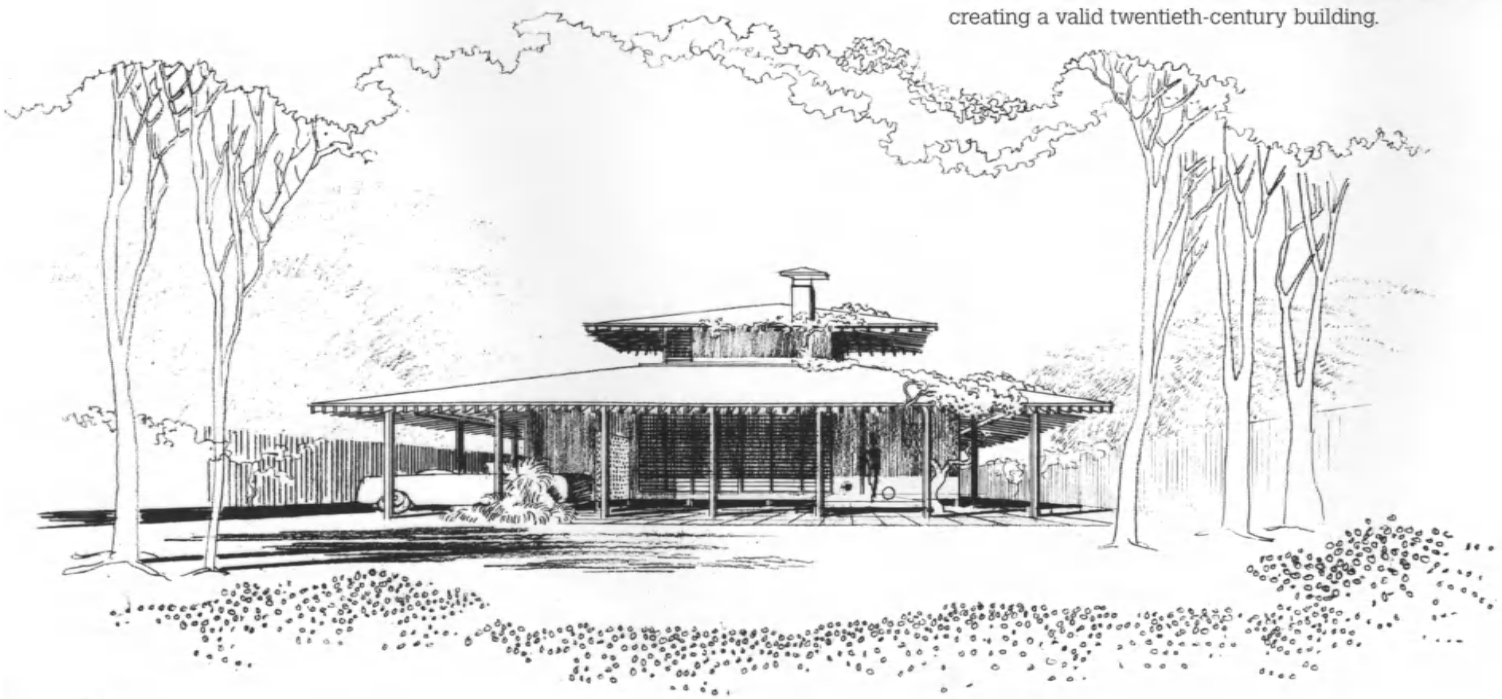
The Sewell Biggs House is raised above the ground to create space for a carport and an exterior living room at ground level separated by an enclosed entry vestibule. This laconic battleship-gray steel structure offers an austere symmetrical facade to the street, creating an aggressive, acontextual relationship with the site. Similarities to the award-winning Cohen House scheme are quite apparent in early versions of the project which depict a simple rectilinear box raised above the landscape and fitted with a series of operable flaps. A small set of design development drawings also exists that more closely resembles the dynamic arrangement of programmatic elements found in the award-version of the Cohen project.

FLETCHER RESIDENCE

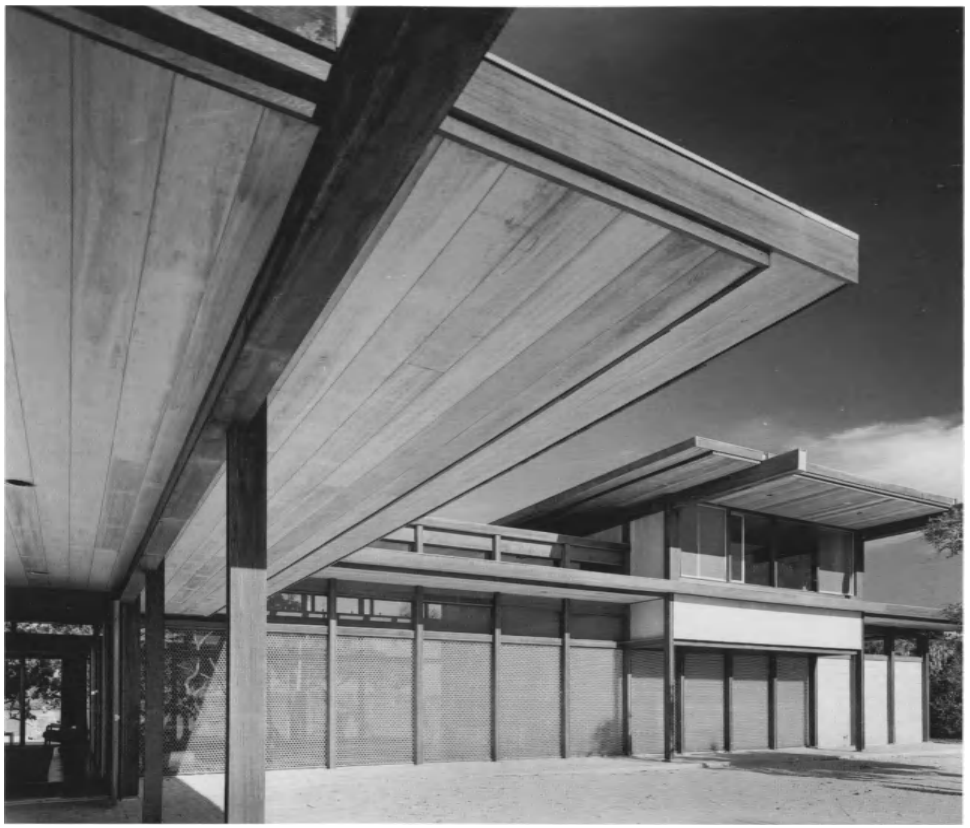
VENICE

1956

This house is sited in a residential area of Venice, not far from the Siegrist project that Rudolph completed with Twitchell in 1948. The Fletchers were presented a house design that contained several direct formal and visual references to traditional Southern architecture, which was certainly an anomaly in Rudolph's work to date. With its low-pitched roof, sheltering eaves and quatrefoil columns, this house seemed from the exterior to be nothing more than a derivative visual nod to the vernacular. But, when considered in section, this project became a radical play in opposites. The interior was arranged around a central living area with the master bedroom suspended loftlike above the space. Skylights placed at the perimeter of the second story allowed light to wash into the house from all sides. This house was designed concurrently with the Mary Cooper Jewett Arts Center at Wellesley College, obviously with a similar goal in mind: to enhance and build upon the existing context while still creating a valid twentieth-century building.



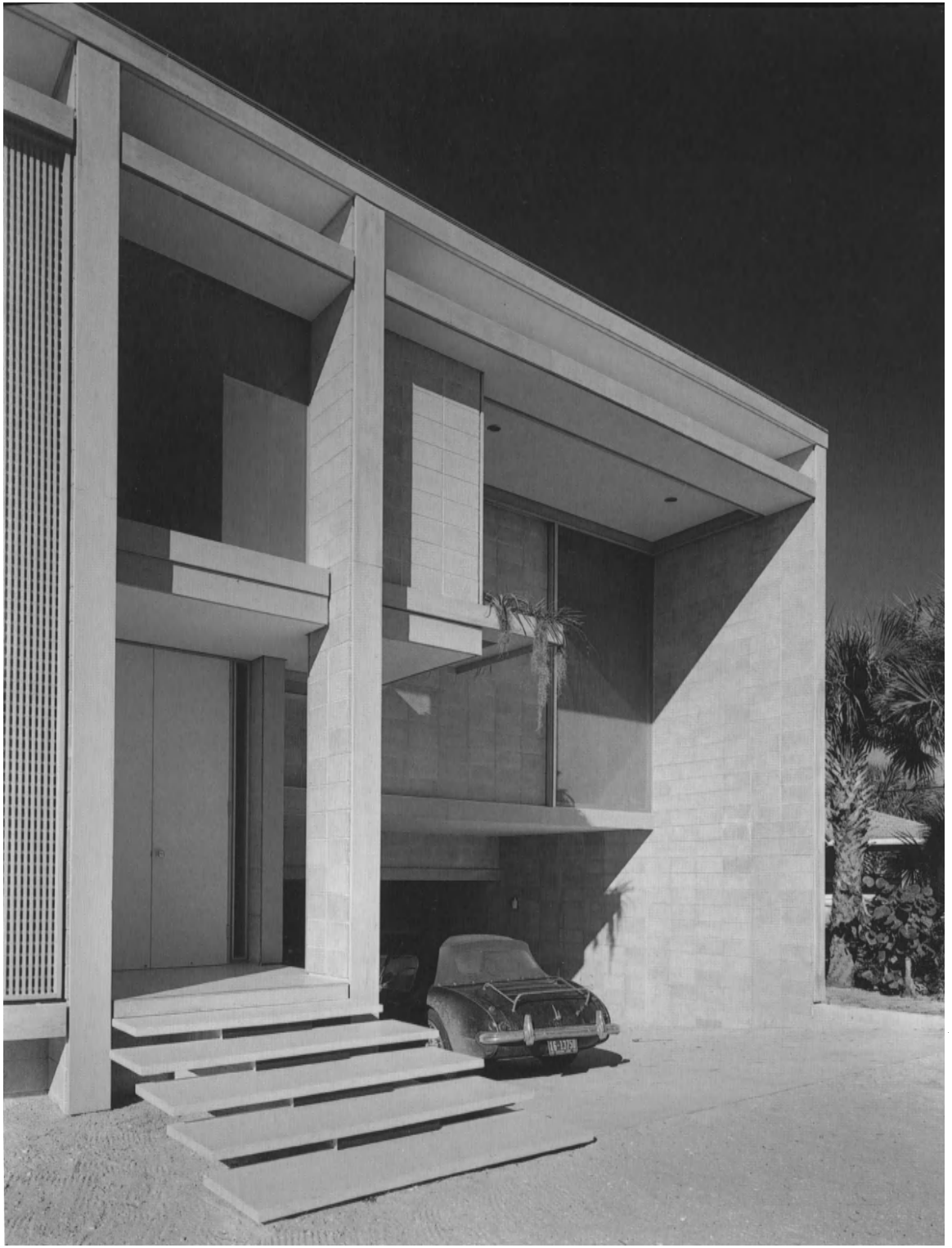

BURKHARDT RESIDENCE
CASEY KEY
1956–1957



The site for the Burkhardt Residence signaled a change in locale for Rudolph's independent practice out of typically middle-class suburbs and back to the exclusive community of Casey Key. This remote area, located south of Sarasota, provided a secluded location for exclusive winter residences. The Miller Residence, also located on Casey Key, no doubt provided Rudolph with the inspiration to reevaluate the post-and-beam construction methodology developed in partnership with Twitchell. With its projecting low-slung carport and horizontality, the Burkhardt house subtly alludes to the earlier residence, while assertively stating its independence with a series of upwardly staggered horizontal planes and counter-thrusting eaves.

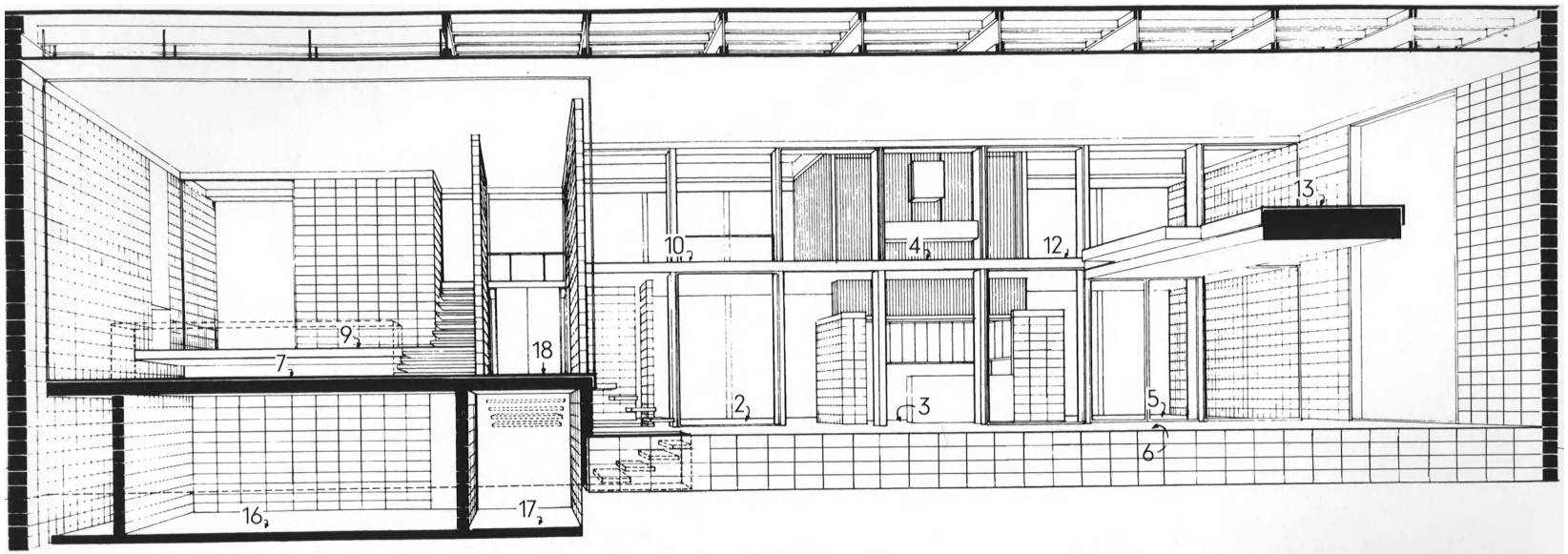
At the heart of this dynamic composition is a generous open-air living area (approximately twenty-two by forty by twelve feet high) that separates the public and private zones of the house. This screened space with its upward-projecting clerestory skylight and corresponding sunken seating area is differentiated from the enclosed public section of the house with a large expanse of plate glass effectively blurring the distinction between inside and out. Access to the private bedroom wing is achieved by navigating around a block wall laid up in modified Flemish bond. A quiet minimalist garden extends the house out into the landscape toward the bay and expansive view beyond. This house was constructed and detailed by Jack Twitchell, with a sense of precision closely associated with the traditional architecture of Japan.


DEERING RESIDENCE
CASEY KEY
1956–1958

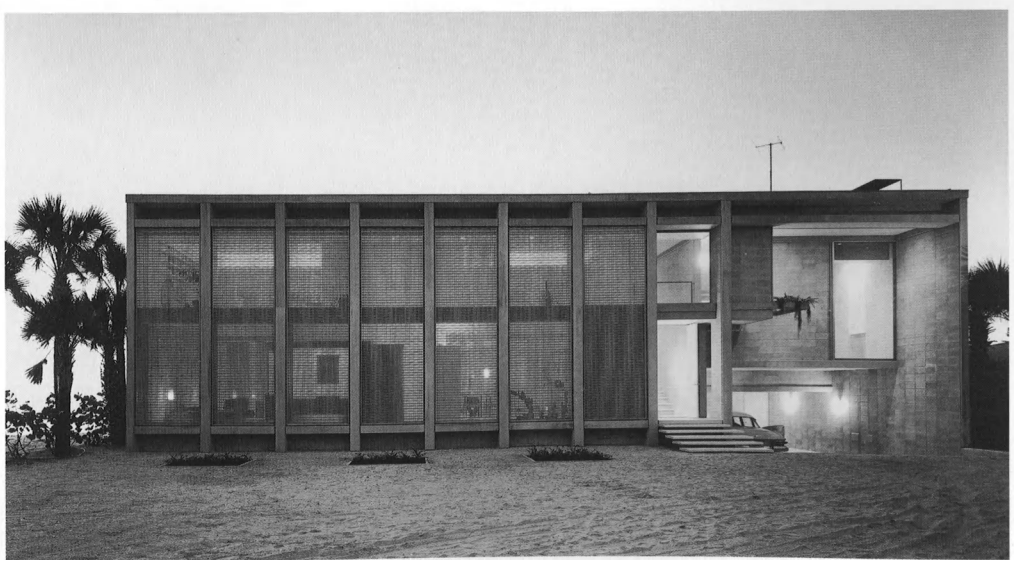


The Deering Residence on Casey Key represented a new direction in Rudolph's work. Constructed primarily of typical lime block and exposed cypress as a facing material, this project achieves a highly refined yet rugged quality that transforms the two-bedroom beach house into a structure of transcendental strength. Both the east and west facades are dominated by the rhythmic alignment of nine pillars formed out of stacked lime block with mortar joints of similar tone, creating a monolithic column from a distance and an intricately constructed mosaic of materials at close inspection. The restrained color palette is continued into the interior blurring all distinctions with their surroundings. White terrazzo flooring, cream-colored block, and lightly stained cypress mimic the surrounding color and texture of the beach, providing an analogous relationship with the site.

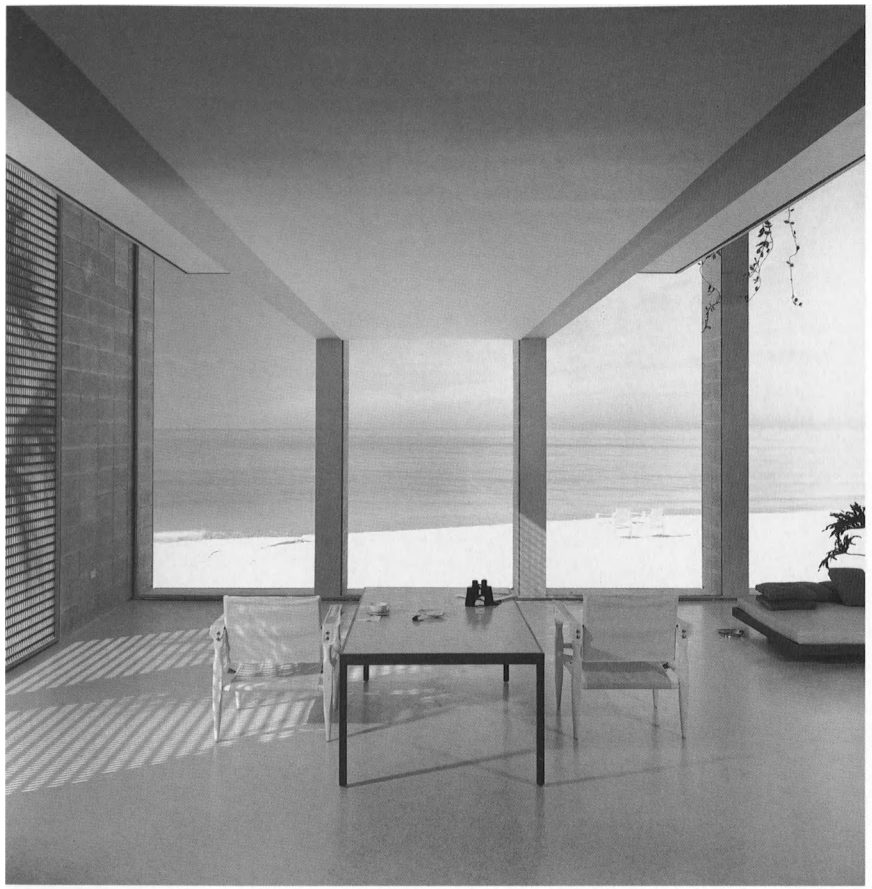
Spatial complexities are emphasized within the confines of the box or, in this case, the rectangular cage defined by the exposed exterior columns. Rudolph spoke of designing with the idea of having one thing built within another and he achieved this by wrapping the soaring two-story semi-exterior porch with the major interior spaces of the house. The play between mass and transparency becomes evident as the sun moves around the volume, tracing the shadow lines of the columns across the floor and walls. This structure appears strong enough to resist the destructive force of the seasonal hurricanes.

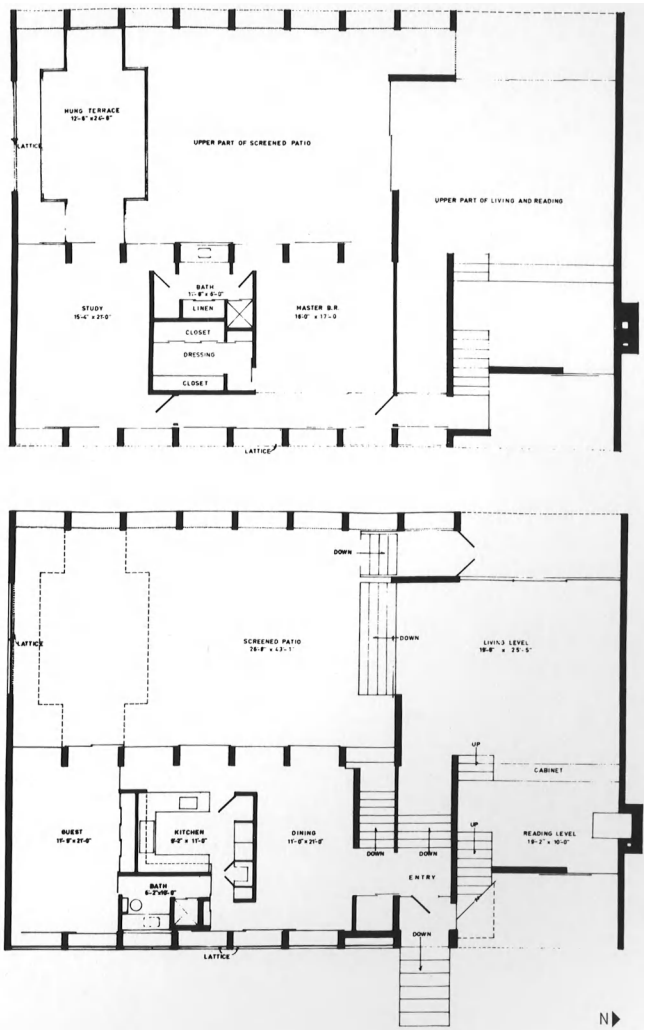


1 NOT SHOWN
2 DINING AREA
3 KITCHEN
4 BATHROOM
5 GUEST ROOM
6 PORCH
7 LIVING ROOM
9 LIBRARY
10 BEDROOM
11 STUDY
13 GALLERY
16 STORAGE WITH GARAGE BEYOND
17 UTILITY ROOM
18 STAIRS



DEERING RESIDENCE




HUNG TERRACE
12'-8" x 24'-8"
LATTICE
UPPER PART OF SCREENED PATIO
UPPER PART OF LIVING AND READING
STUDY
15'-4" x 21'-0"
BATH
11'-8" x 8'-0"
LINEN
CLOSET
DRESSING
CLOSET
MASTER B.R.
16'-0" x 17'-0
LATTICE
DOWN
LATTICE
SCREENED PATIO
26'-8" x 43'-1"
DOWN
LIVING LEVEL
18'-8" x 25'-5"
UP
CABINET
GUEST
11'-8" x 21'-8"
KITCHEN
8'-8" x 11'-8"
DINING
11'-8" x 21'-8"
DOWN
DOWN
UP
READING LEVEL
ENTRY
BATH
DOWN
LATTICE
N

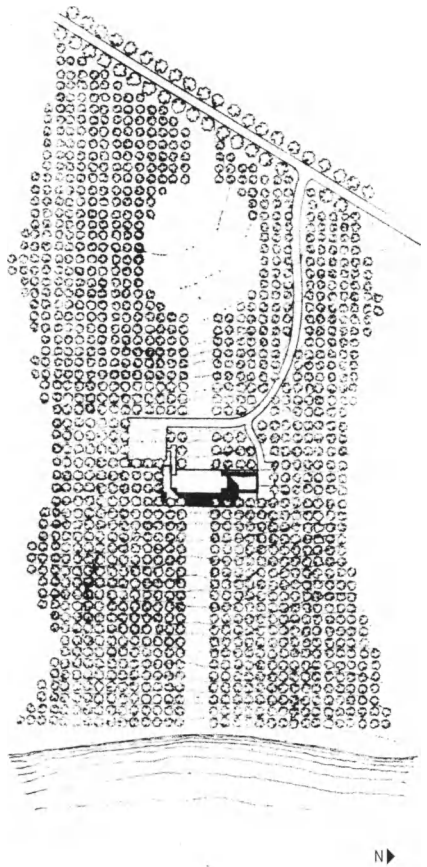

MARTIN HARKAVY RESIDENCE
LIDO SHORES
1957–1958

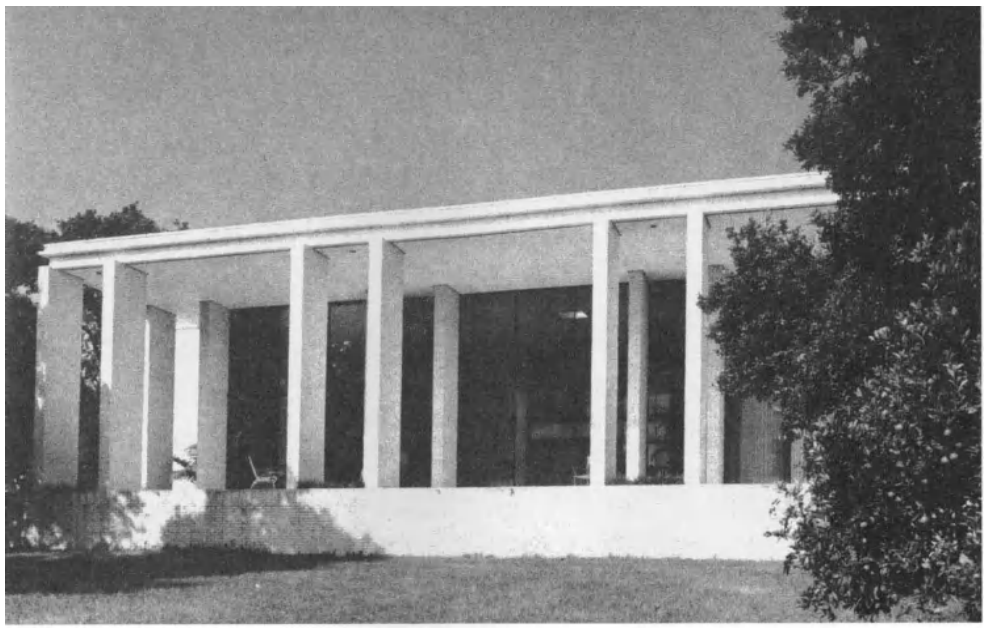
During the summer of 1957, Rudolph was busy presenting a series of lectures in South America that were underwritten by the U.S. State Department. This represented both mainstream acceptance of his work in Florida and Rudolph's move from radical innovator to public statesman. In the same year the small Main Street studio in Sarasota was relocated to larger quarters in the Warren Building just down the street. Room for more tables was required to facilitate work on the Sarasota High School project, the studio's most prestigious commission to date in Sarasota. To complicate matters, Rudolph had recently announced his three-year agreement with Yale University to take over as Chairman of the Architecture Department.

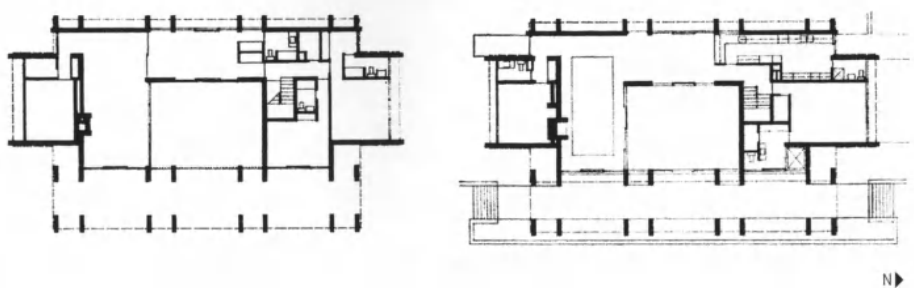
During this flurry of activity, a local lawyer commissioned a house for an inland lot on Lido Shores. The Harkavy parcel is bound on three sides by adjacent property, lending to the strong frontal nature of this project. The bedroom wing is projected toward the street with the corresponding void below given over to the carport and entry procession. Subdividing the street face into balanced solid/void components, left open the rear of the house to be developed into a two-story loft-like living space that responded to the private backyard garden area. This planning strategy was very much a structural inversion of traditional Southern porch culture, where informal public interaction took place along the street front. In this project, along with several others, a new precedent was set that overtly privatized the domestic life of the inhabitants by placing the main living areas toward the rear of the house. In this scenario, the entry sequence was modestly tucked under the projecting bedrooms, sending the message that this house is protected from public view. A privacy screen is literally the most prominent physical feature of the house. This planning strategy was probably initiated in response to Frank Lloyd Wright's Usonian Houses, which turned their backs to the street in favor of the paradise garden in the rear of the composition.

LIGGETT RESIDENCE

TAMPA
1958



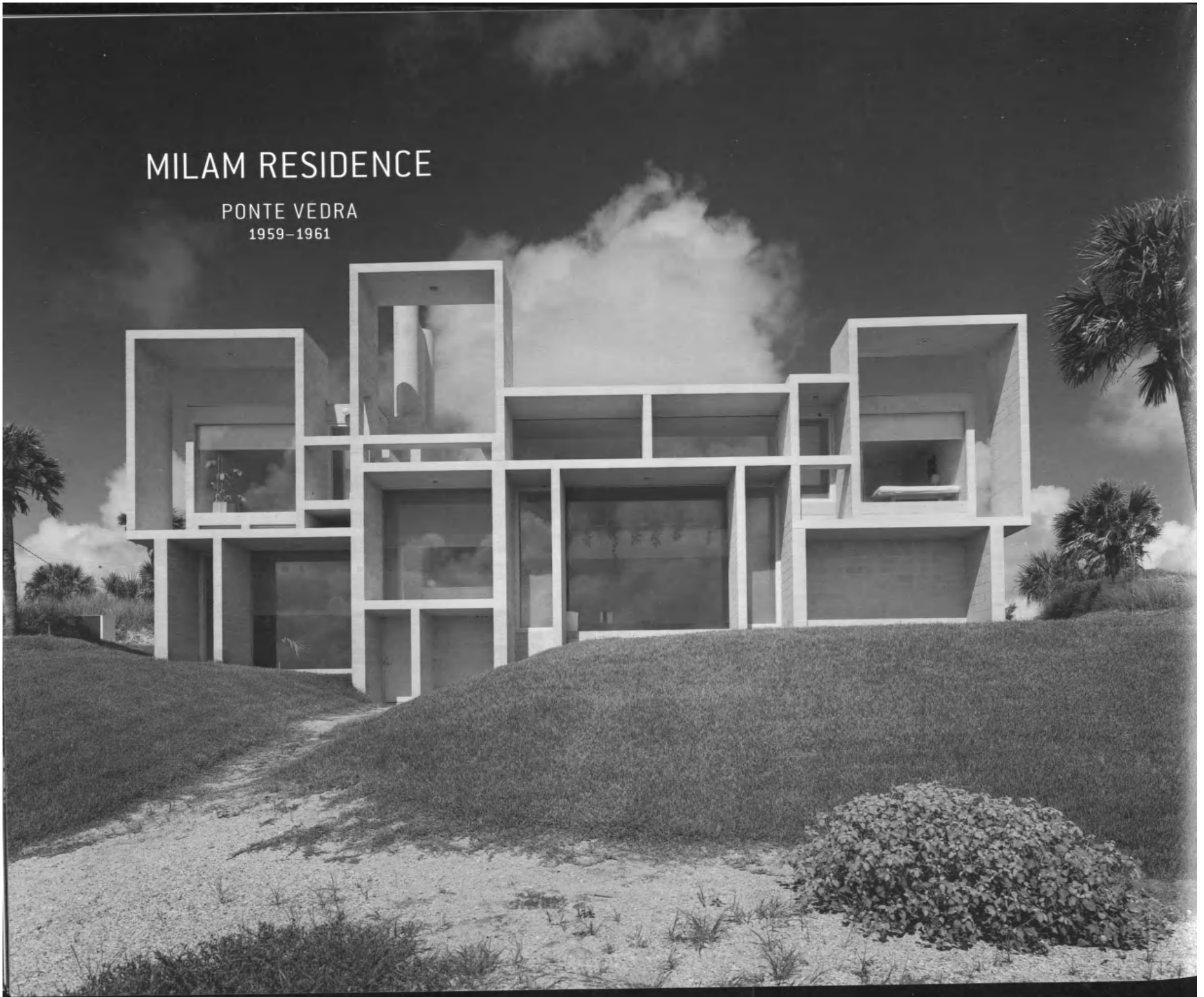


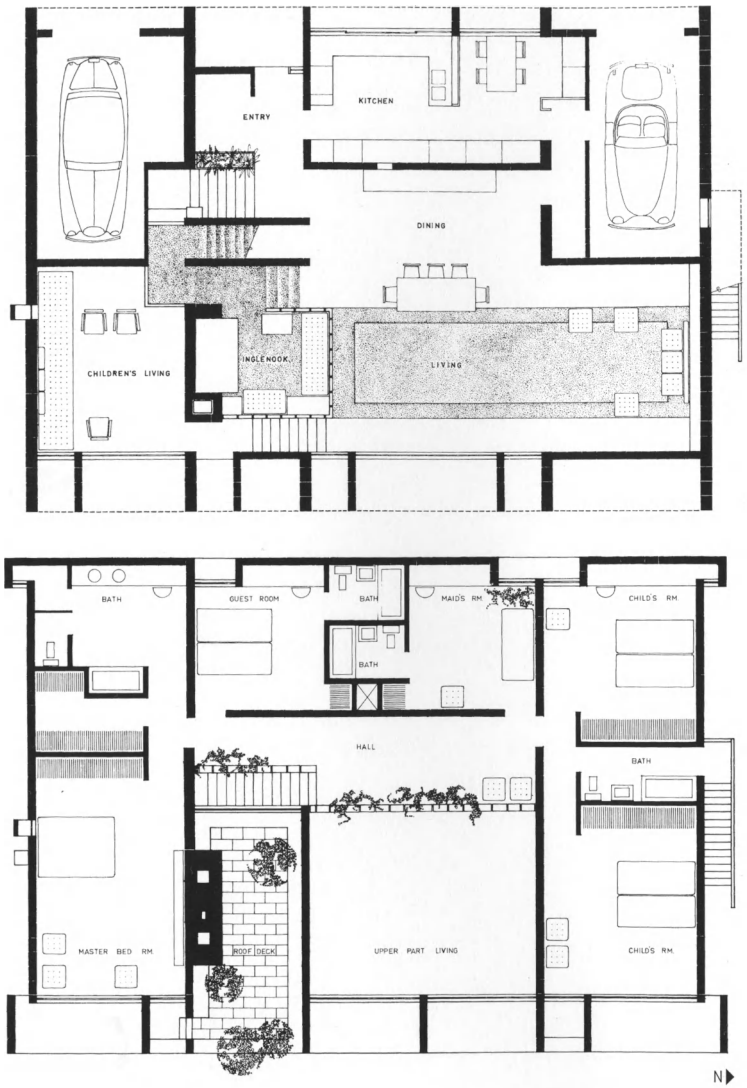


Like its antecedents the Walker Guest House and Davidson Residence, this project directly references traditional Greek revival architecture found in the South. This important influence on Rudolph would have several manifestations throughout his career, varying by degrees of interpretation of the essential characteristics of the genre. At the Liggett house, set in the midst of an orange grove outside of Tampa and at the end of an *allée* carved from the trees, this influence is evident in a series of overtly expressed structural piers and two-story projecting wings. As with the Harkavy Residence in Sarasota, this composition emphasizes the private rear zone of the house, leaving the public face reserved and relatively scaleless due to the abstract use of fenestration. A generous ceremonial porch is raised on a plinth at the rear on axis with a ten thousand-foot long *allée* which terminates at the shore of a lake.

Unlike the abstracted classical vocabulary of the Deering project, the traditional references remain on the surface of this house, leaving little doubt concerning its historical lineage. The buff-colored brick, the tripartite division of the facade with unifying cornice, and the elongated porch set high on a plinth at the rear of the house all link this project to the traditional architecture of the South.

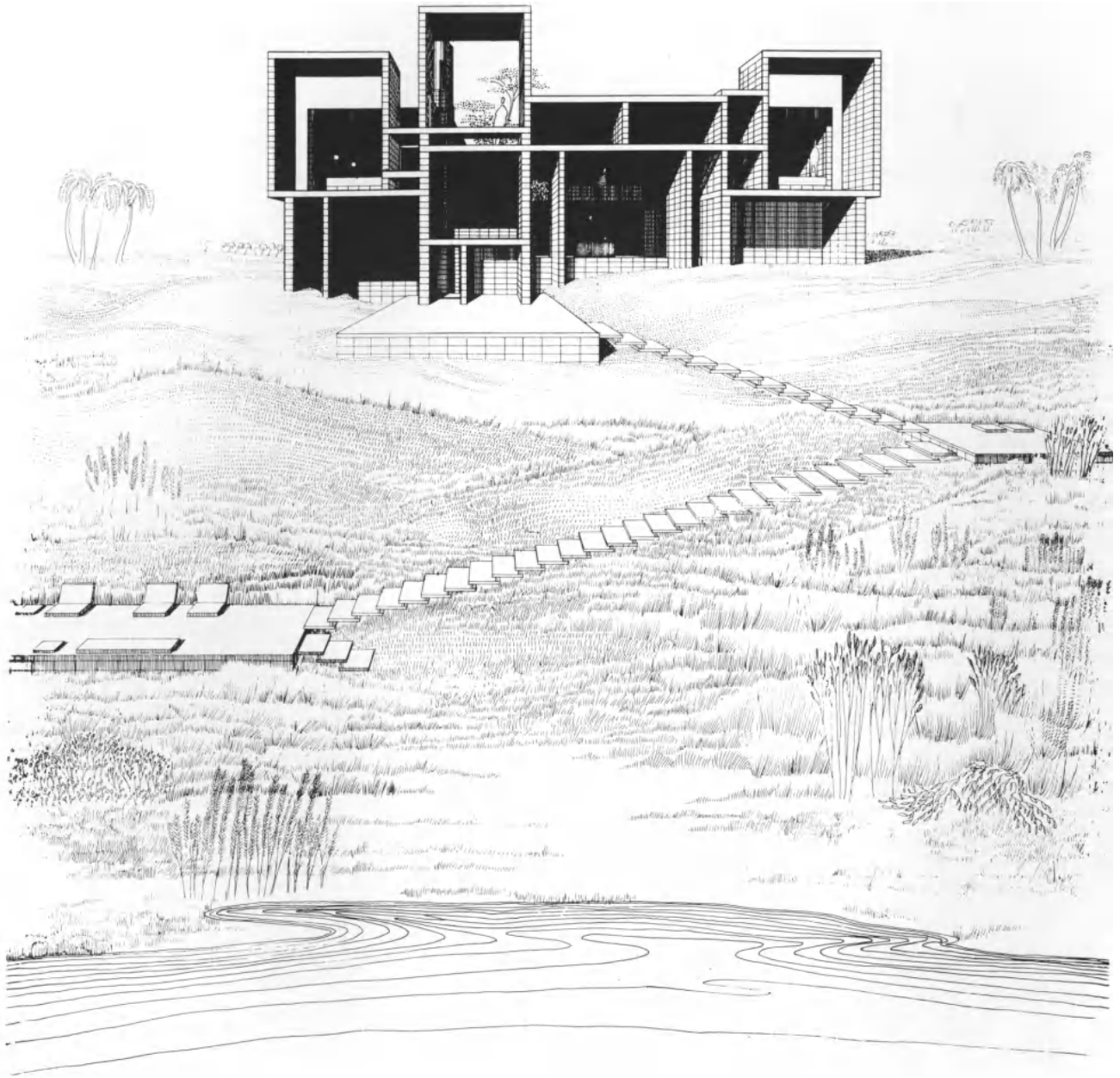
It is only on entering that the complex sectional qualities of the design become apparent. The main interior spaces rotate around an enclosed two-story central courtyard that opens the entire composition up to the vista toward the lake. Spaces around the courtyard are fully air-conditioned with an integrated system of ceiling diffusers with floor and sidewall return vents. This was the last project completed by Bert Brosmith before closing the Sarasota office.


MILAM RESIDENCE
PONTE VEDRA
1959–1961

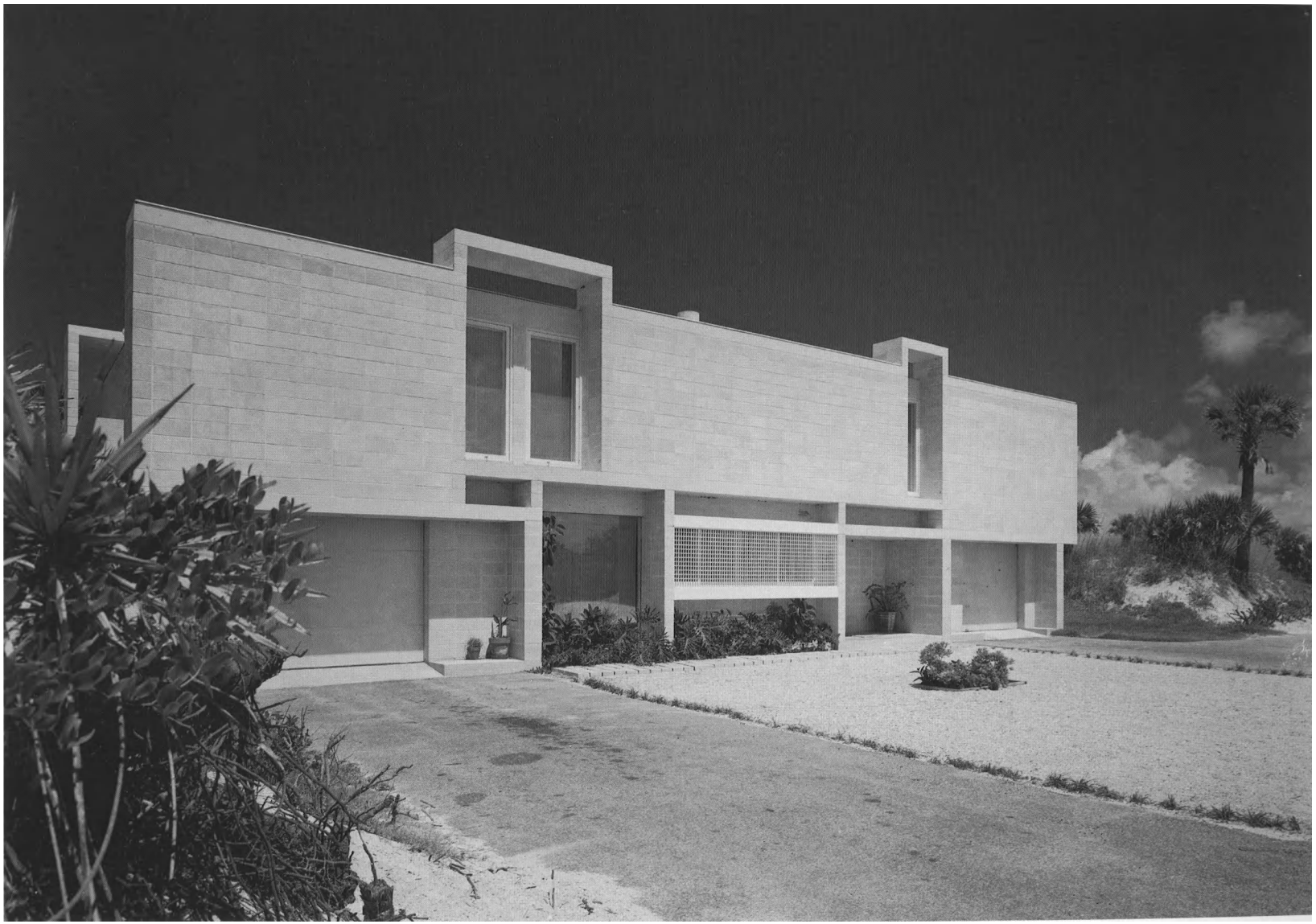


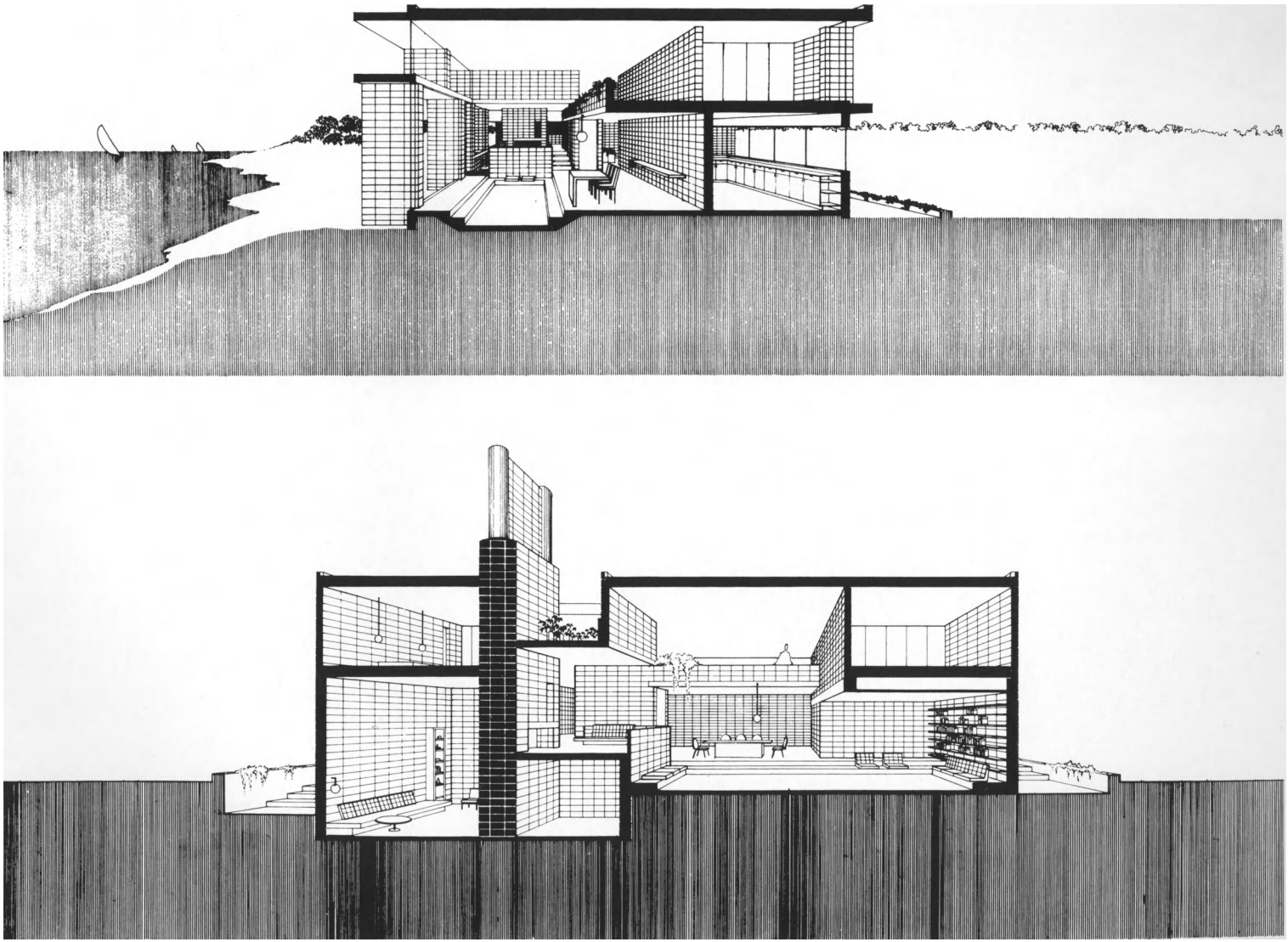
The Milam house signaled a revised design methodology, being the first project that was conceptualized without a rigid modular organizing system. The only constant dimensional element was the standard block dimension (8 x 8 x 16). Rudolph was increasingly focused on "a renewed concern for visual delight. This is indeed the architect's prime responsibility, for other specialists can do everything else that he does and, quite often, much better." This craving for visual stimulation in the environment, which is certainly evident in Rudolph's treatment of the exterior facade, seems a decidedly American response to the European severity that he was reared on at Harvard. However, this new concern should not be viewed as capricious abandonment of all of his architectural principles, for even though this project lacks the rigorous 9+3 bay articulation of the Deering house, a certain mathematical precision is evident in the organization of the facade. The dramatic sculptural extrusions on the east and the less expressive counterpart on the west distinctly reinforce the sectional design strategy that is the defining characteristic of this scheme.

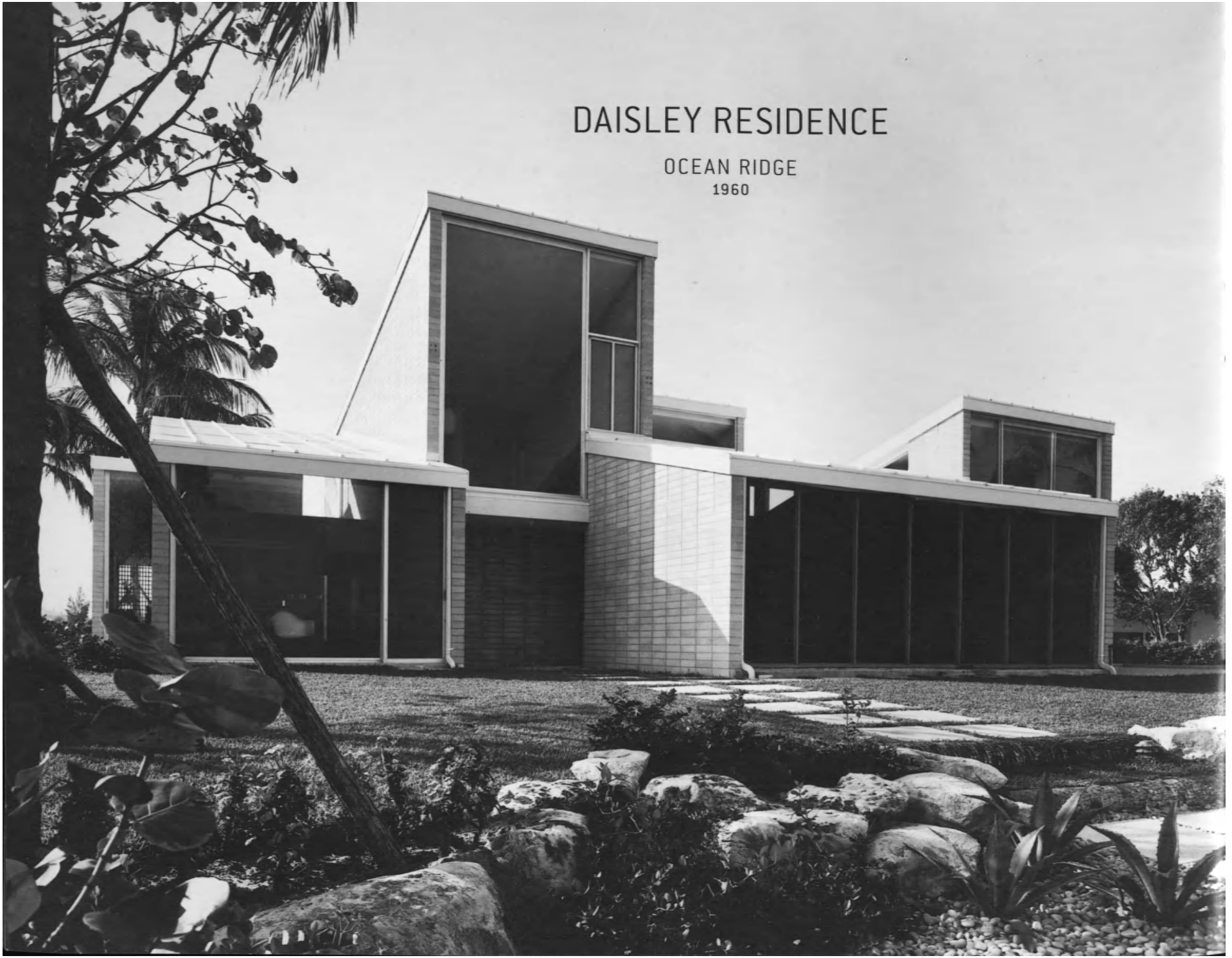
Utilizing the same construction materials and color palette as at the Deering house, Rudolph rearranged the previous classically inspired system of piers into the now famous three-dimensional relief that dominates the eastern face of the house. This project can also be viewed as further experimentation with the complex spatial resolution of the box begun at both the Umbrella and Deering houses. A multi-level series of platforms is disposed around an asymmetrically-situated fireplace with each change in elevation conforming to a specific spatial characteristic. Rudolph wanted to create a variety of moods honed to the various programmatic needs of the occupants: the reading area with its low ceiling and corresponding wall of books, the high ceiling of the main living area with its recessed seating, or the nestlike inglenook set on a level between the living room and the overlook. In contrast to the majority of Rudolph's early projects in Florida, the Milam house is fully air-conditioned, rendering the connection to the exterior entirely visual.



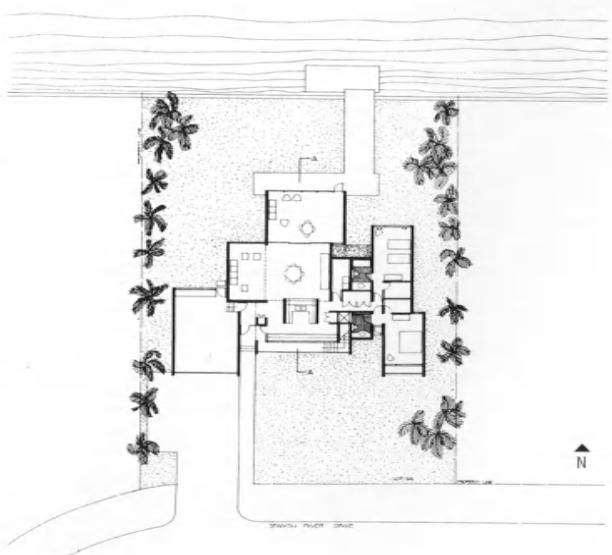
MILAM RESIDENCE






DAISLEY RESIDENCE
OCEAN RIDGE
1960

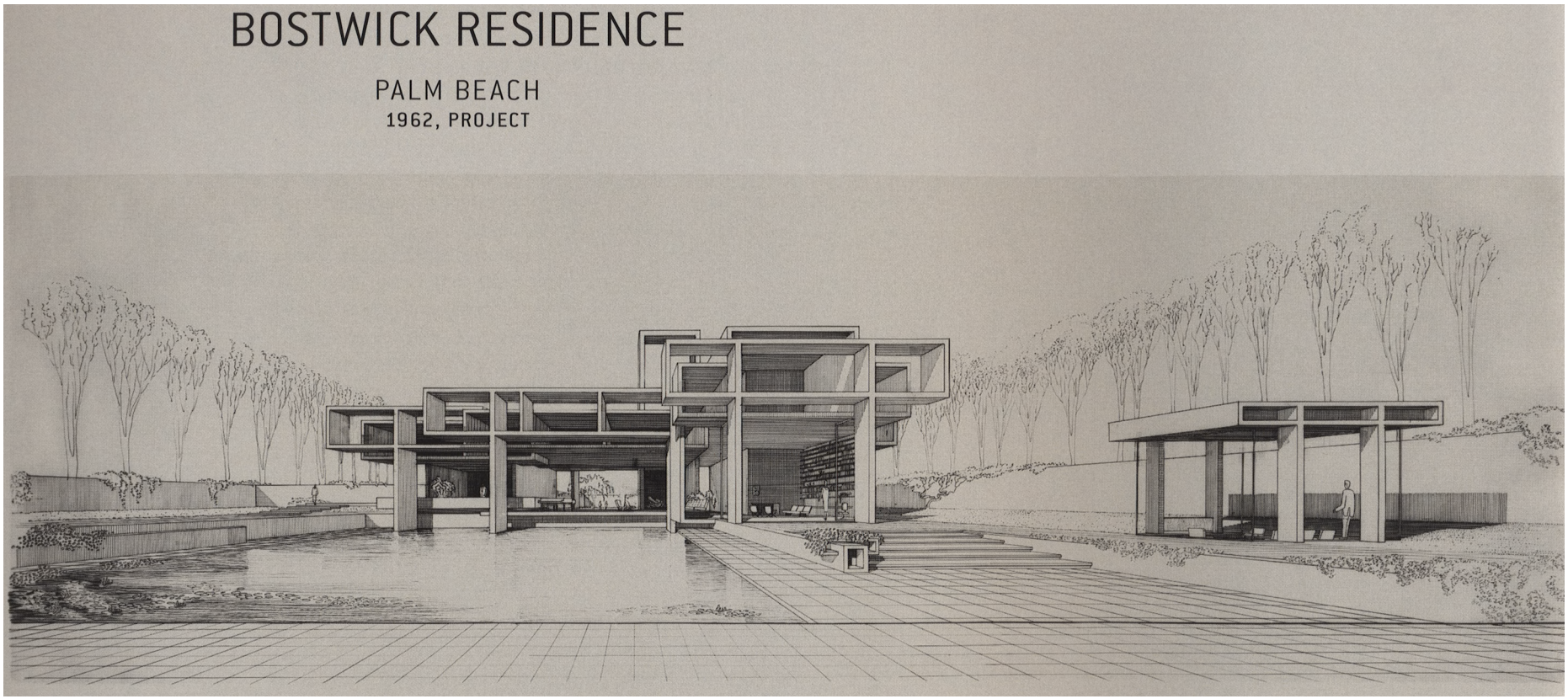
This project is set within a small residential neighborhood at the end of a canal not far from Palm Beach. The community of Ocean Ridge was laid out with restrictive covenants that required pitched roofs on all construction. As with the Liggett House, the public face was underemphasized in comparison to the rear elevation, which is left completely open to the view down the canal. A series of interconnected shed roofs is arranged in response to the development restrictions, but is resolved with an abstracted vocabulary of forms. No regular structural bay is apparent in this house, only a series of view-directing devices that relate to the scale of the programmatic volumes. All of the major walls are organized along the view axis. This irregular cluster arrangement of triangulated sheds has very little precedent in Rudolph's work to date and signals a distinct departure from the familiar articulated rectangular volume with regularized structural systems implemented in the majority of Rudolph's previous projects.

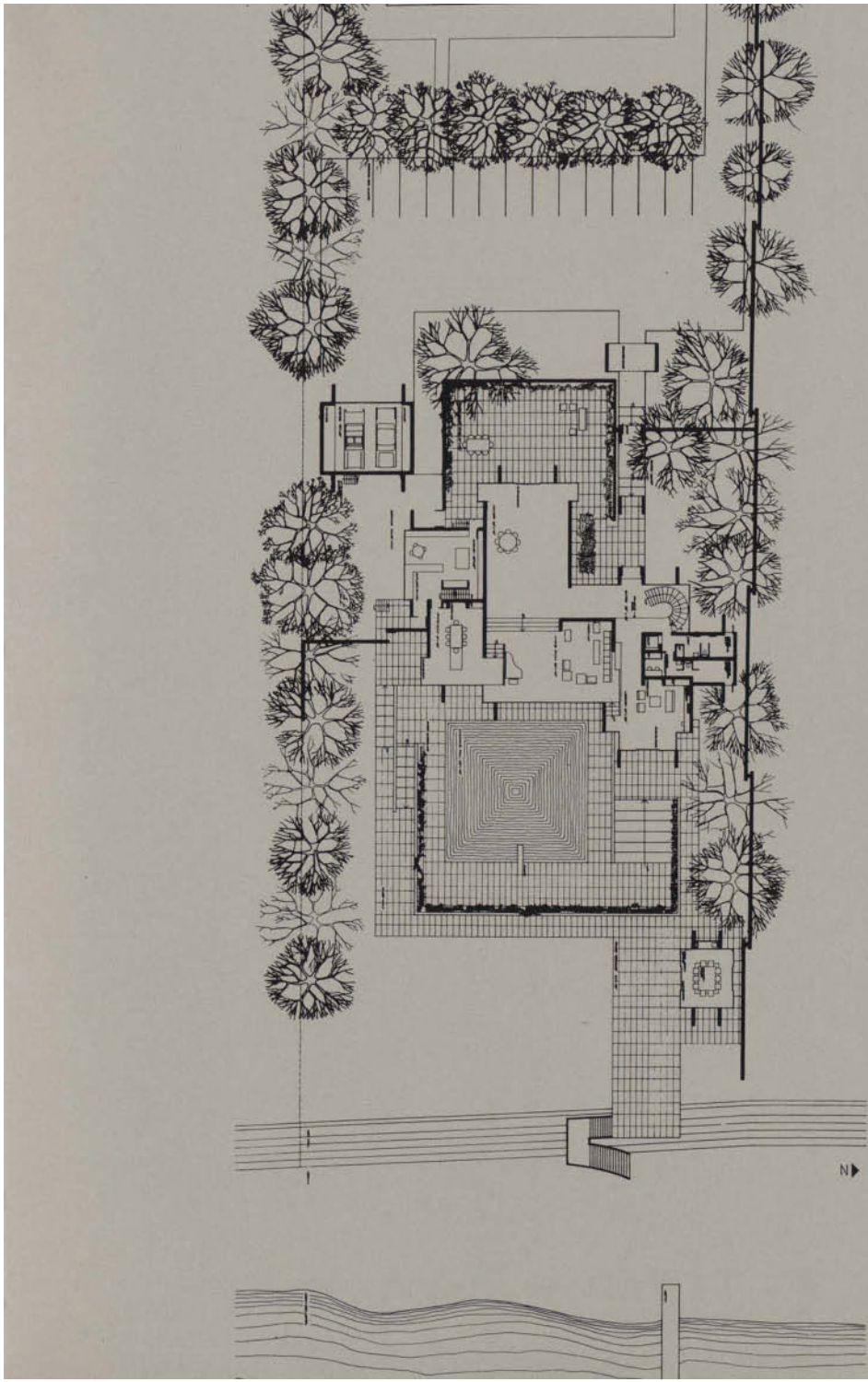


BOSTWICK RESIDENCE

PALM BEACH

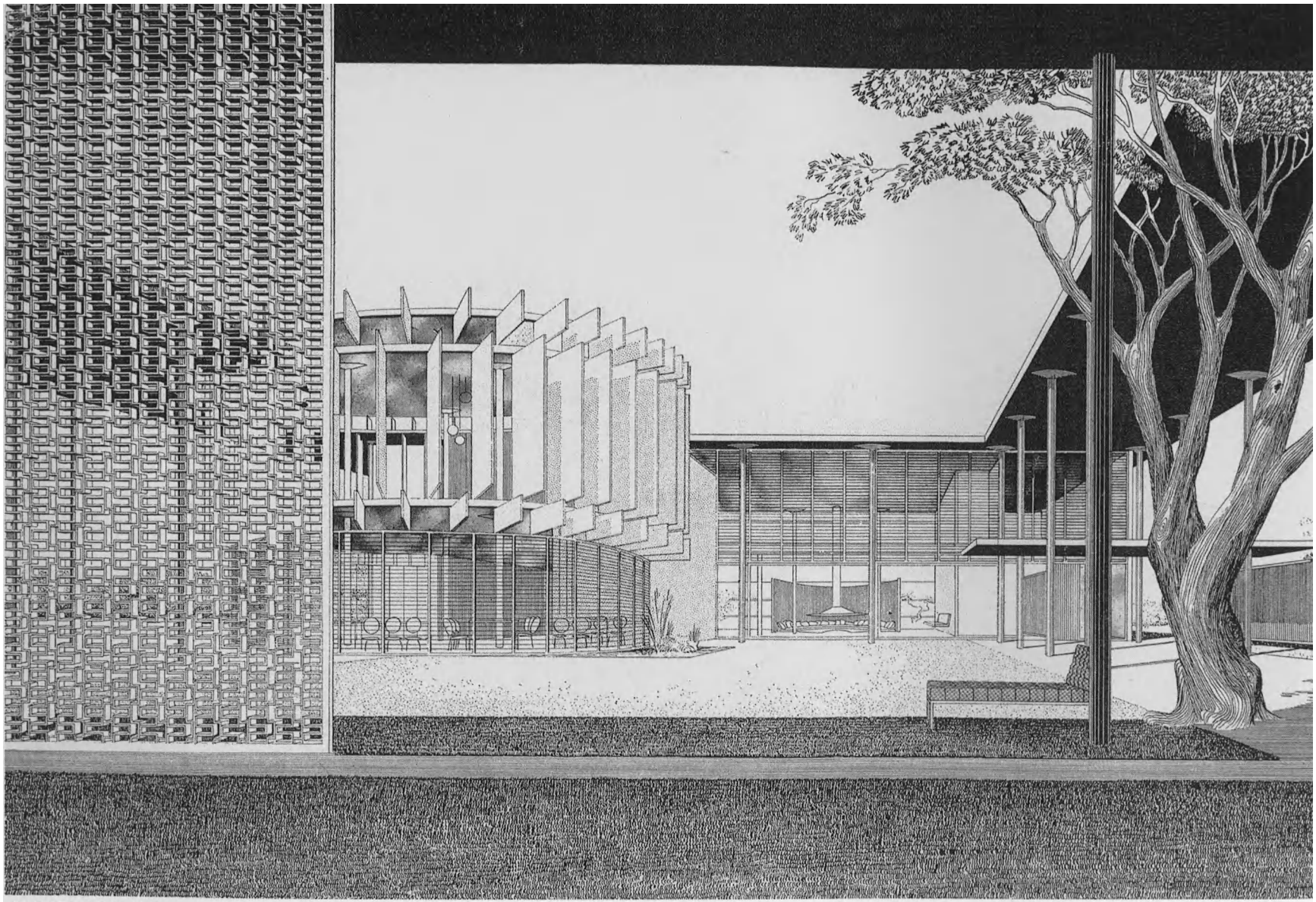
1962, PROJECT





In this project, rendered by his former student Der Scutt, a series of overlapping box-like concrete volumes create the major defining feature of the composition. The primary interior spaces of the house extend diagonally across the site in plan and step out toward the view of the Atlantic in perspective. A sense of thrusting and counter trusting volumes is achieved through the effective use of one point perspective drawing technique. From the vantage point of the observer at the station point along the edge of the plinth, one is hard pressed to differentiate interior from exterior space, and as in the Liggett, Deering, and Milam houses, the scale is deceptively obscured due to the untraditional use of fenestration. The actual size of this residence is only knowable when viewed in relation to the scale figures rendered in various locations throughout the drawing. The projecting concrete extrusions are framed to the east and west by vast enclosed patios that create exterior rooms on either side of the house. In this design, nothing is left untouched by the hand of the architect, between the access road and tennis court to the west and the projecting jetty along the shoreline to the east, each aspect of the program is related back to the overarching theme of the Rudolph's design agenda

PUBLIC BUILDINGS: FLORIDA



SAE FRATERNTY HOUSE, 1952

PUBLIC BUILDINGS: FLORIDA

CHRISTOPHER DOMIN
JOSEPH KING

A vision of public architecture began to form in Rudolph's Sarasota studio in the early 1950s, developing logically out of the residential design commissions that dominated his early practice. These forays into the public realm were large-scale implementations of the spatial, structural, urbanistic, and even psychological issues that were being explored in the domestic work. Rudolph's contact with Walter Gropius, and later, with José Luis Sert at Harvard set into motion a program of thinking that would profoundly influence his conception of the public American landscape. From these sources, he became interested in the implications of low-density sprawl, the responsibility of the architect to engage the public domain, and even the large-scale reconstruction of European cities. Rudolph's notion of public architecture was further expanded by an interest in popular culture that was encouraged in the work of Frank Lloyd Wright and Mies van der Rohe. Their embrace of prosaic aspects of American life such as gas stations, bowling alleys, and roadside attractions paved the way for this younger generation. Rudolph's populist leanings began to take form in many of these early public projects in Florida.

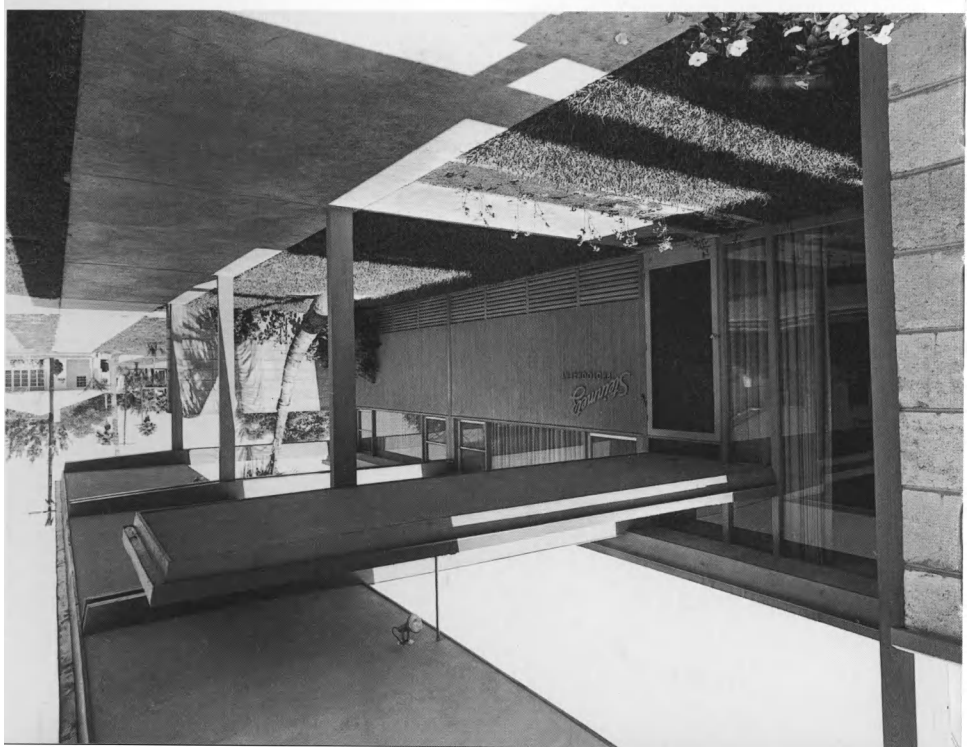
At first, access to public work was sporadic, but soon developed into a steady stream of projects that, when viewed together, offer a full picture of Rudolph's diverse range of interests. He crafted highly developed schemes for familiar building types such as the airport, church, school, office building, and a variety of structures devoted to leisure. It is this last category that makes this body of work distinct from other regions and offers insight into Rudolph's inclusive design philosophy. Many of these projects were designed to not only provide interaction and a place for public gathering, but often the structure was designed as spectacle in its own right calling attention to the functions that resided within.

Designing houses, Rudolph had the opportunity to indulge in architectural experiments that entailed only a limited amount of responsibility: to the client, and to the ideas that he was exploring. However, over time, he became concerned about what he felt was the limited scope of the houses, and often worked to transform them into micro-examples of ideas suited to larger public projects. The steel-tension roof of the Healy Guest House, for example, was a technological idea that would have been well-suited to the roof of a sports arena spanning hundreds of feet, instead of a cottage with a roof span of twenty-two feet. The Umbrella house can be read as essentially a billboard for the Lido Shores development. The urbanistic, modular Biggs residence offered a first step toward his mega-structures of the 1960s, while the Deering house invoked a profoundly monumental and serene temple form.

In contrast to the houses, it was somewhat more difficult to implement his experiments in the public realm, as there were certain normative expectations among clients and in the community that Rudolph seemed constantly working to subvert or transform. Attention-grabbing monumentalism like the inverted precast T-sections at St. Boniface Church, or Sarasota High School on an elevated plinth-like site with its insistently rhythmical exterior, tended not to give much comfort to the person on the street, or those sitting on building committees. Of course, Rudolph's primary interest was in the larger architectural discourse, as he anticipated that projects coming out of his office would be published and discussed in the larger context of modern design in America. In this sense, the public projects, built or not, were essentially larger armatures to which Rudolph could attach and integrate more and more layers of intention.

STEINMETZ STUDIO
WITH RALPH TWITCHELL

SARASOTA
1947–1948



The photography studio for Joseph Steinmetz, built along a residential street near downtown Sarasota, is an example of Twitchell and Rudolph's construction and design methods used in a conventional suburban context. Low and compact, it is innovative though not fully resolved, lacking the expansive character of the beach houses. Here, space is focused inward and natural light tightly controlled as befits a photography studio and darkroom. The side walls extend to the front property line, interrupting the typical pattern of suburban grassed front yards while creating a protected semicourt area at the front of the building. The cantilevered cypress beams and wooden joist roof structure create a protective cover over the sidewalk as a gesture to the public realm, while extending the building's horizontality.

RECREATION CENTER
WITH RALPH TWITCHELL

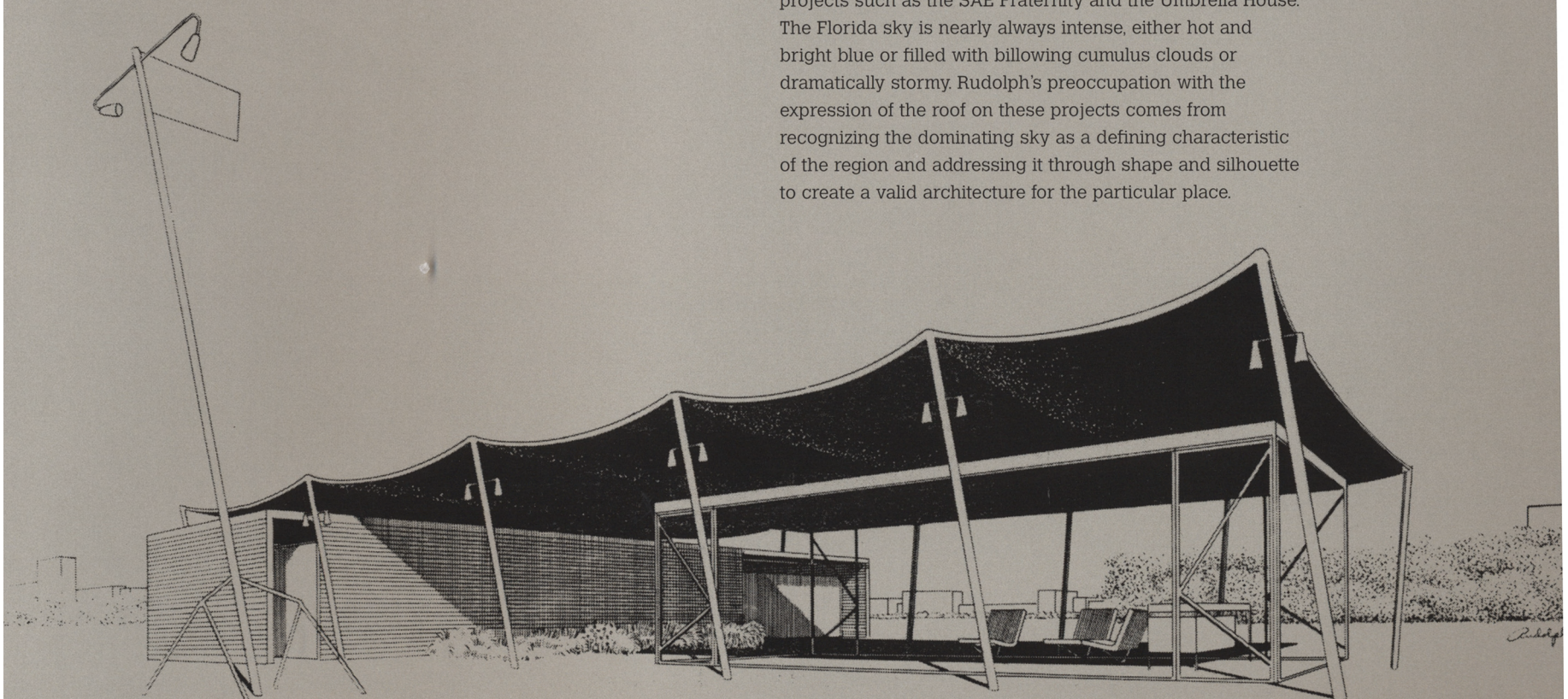
ST. PETERSBURG
1947–1948, PROJECT

In this expressionistic rendering, attenuated beams and columns support an extraordinarily thin, upturned entry canopy. An ambitiously cantilevered steel-guyed concrete bleacher roof emphasizes the precedence of the visual effect over any structural pragmatism. Though the project seems to have an element of fantasy, it was intended to be built, and Twitchell and Rudolph executed the construction drawings. In time, Rudolph's visual ability became enriched by a more rigorous discipline as his knowledge of structural capabilities increased and as he refined his compositions of architectural space.

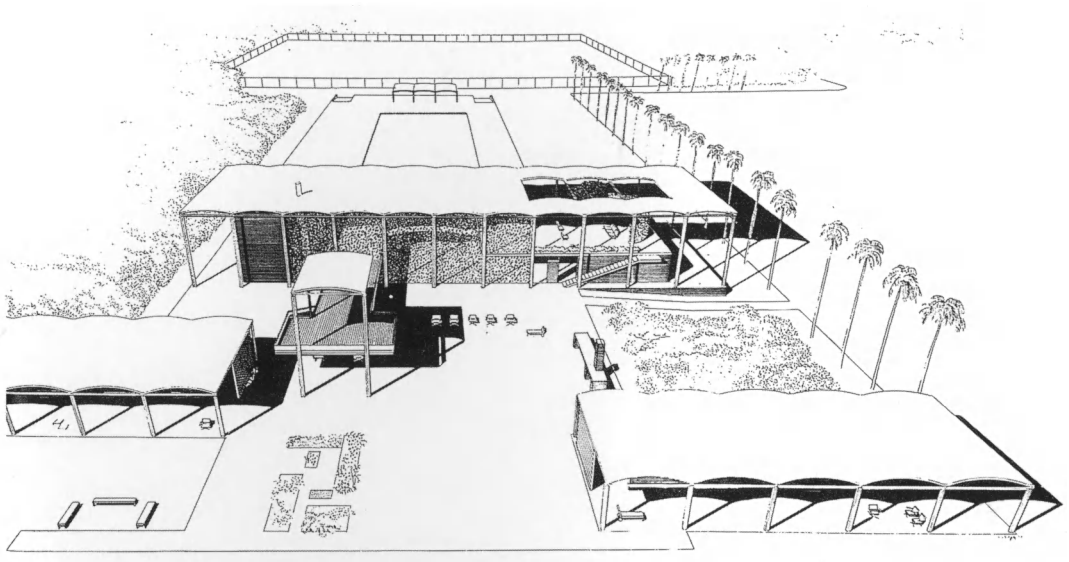
PAVILION
WITH RALPH TWITCHELL

1950, PROJECT

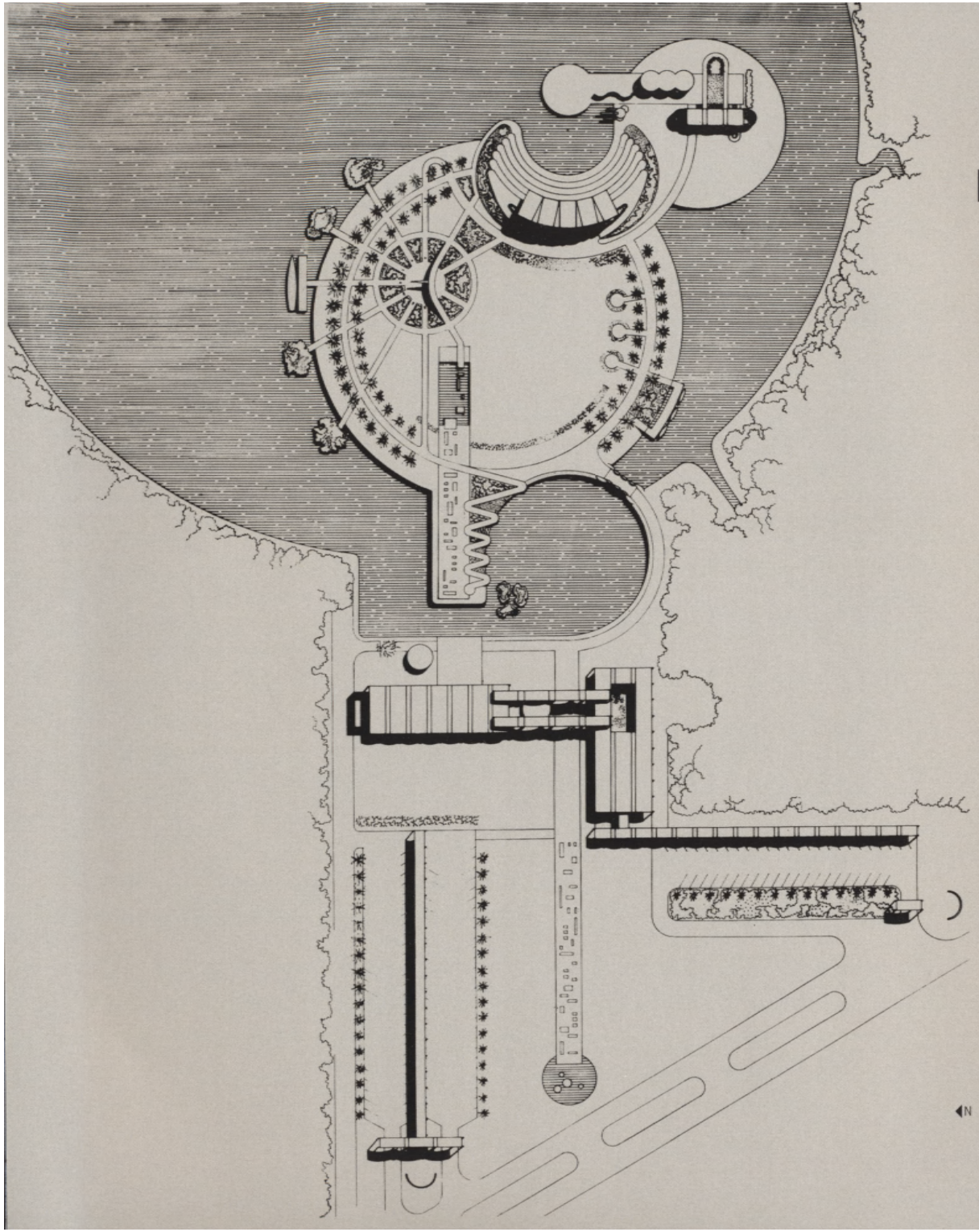
This pavilion, of unknown function, juxtaposes two developments found in Rudolph's work prior to this design: planar boxes of pure geometry and the hovering protective roof, whose shape is derived from an interpretive, visual idea of structure—here the forces of steel in tension. The disposition of the two related boxes, one entirely transparent, the other opaque, is an interpretation of Philip Johnson's glass house and brick guest house of the previous year. The detached upper roof, shading the structures below from the Florida sun, looks forward to Rudolph's lattice-roofed projects such as the SAE Fraternity and the Umbrella House. The Florida sky is nearly always intense, either hot and bright blue or filled with billowing cumulus clouds or dramatically stormy. Rudolph's preoccupation with the expression of the roof on these projects comes from recognizing the dominating sky as a defining characteristic of the region and addressing it through shape and silhouette to create a valid architecture for the particular place.




SANDERLING BEACH CLUB
SIESTA KEY
1952–1953



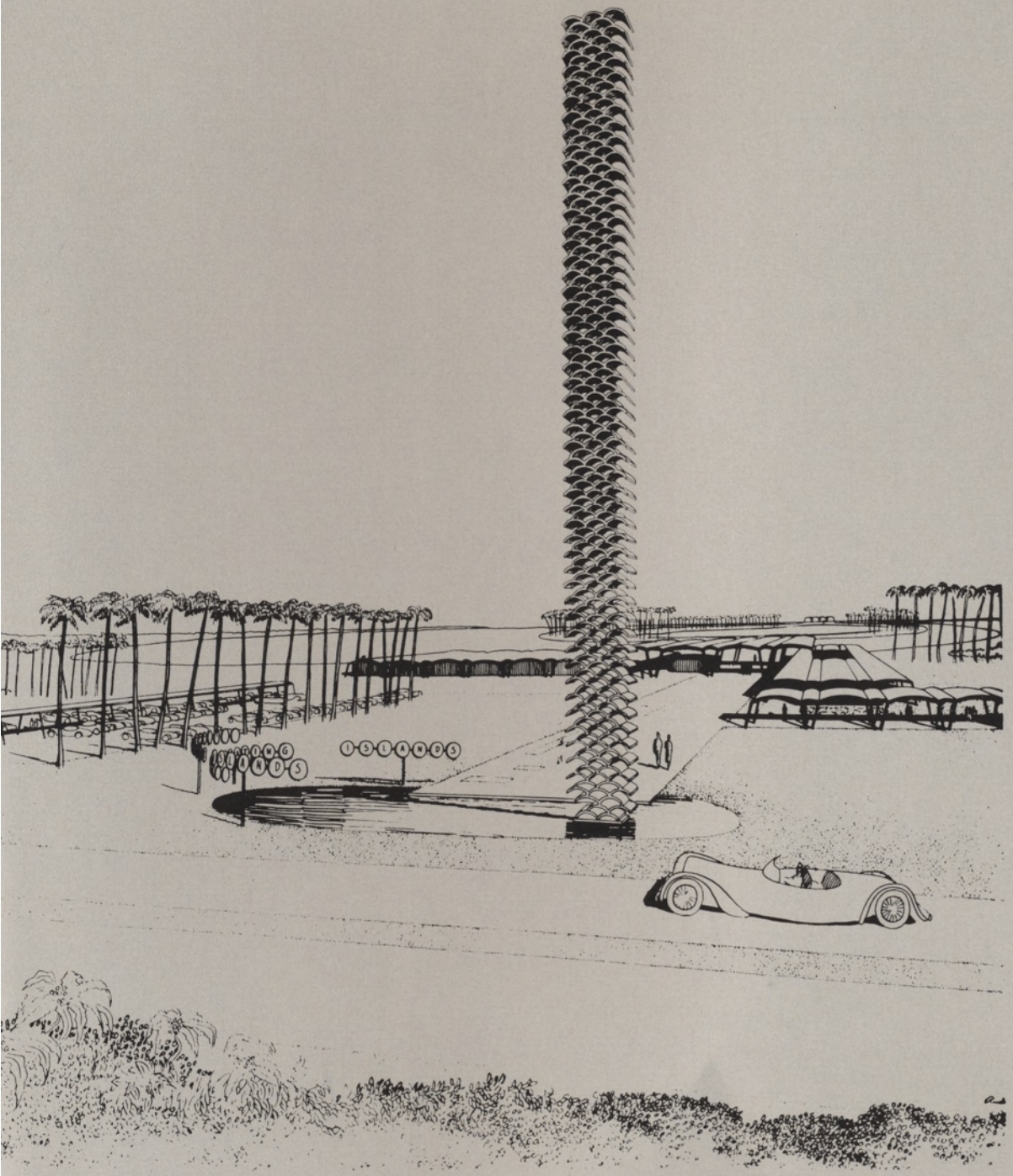
The Sanderling Beach Club is the first of Rudolph's major non-residential projects to be constructed. Along a private stretch of the Gulf Coast, the beach cabanas and lookout tower were completed in 1953 as indicated on the master plan. A rendering for the two-story Cabana Club was commissioned in 1956, but the actual building and remainder of the complex never came to fruition. The aerial drawing shows a linear axis set perpendicular to the shoreline along which the public recreational functions of the program are organized, including tennis courts, an open pool area, and the Cabana Club. A transverse axis, aligned with the undulating edge of the water, creates a more informal arrangement for the personal beach cabanas. With economy in mind, these structures are built of typical wood framing left partially exposed on the interior and finished with horizontal cypress siding on the exterior. The system of interconnected vaults relates the various programmatic elements into a single composition. The vaults are constructed of two layers of plywood sheathing with built-up roofing and braced below by standard two-by-four members in tension. Unlike at the vaulted Hook Guest House, the individual units at Sanderling are painted for protection from the salt air and to differentiate distinct construction materials. Ceilings are rendered dark blue while the framing and roof edge are painted white. The horizontal cypress siding is stained a neutral gray. In a similar fashion, the tower is constructed of wood framing painted white. Eight wood ribs form the shallow arc of the vault with a thin wood lattice attached along the top as a minimal covering that allows for glimpses of the sky.



FLOATING ISLANDS

LEESBURG

1952–1953, PROJECT



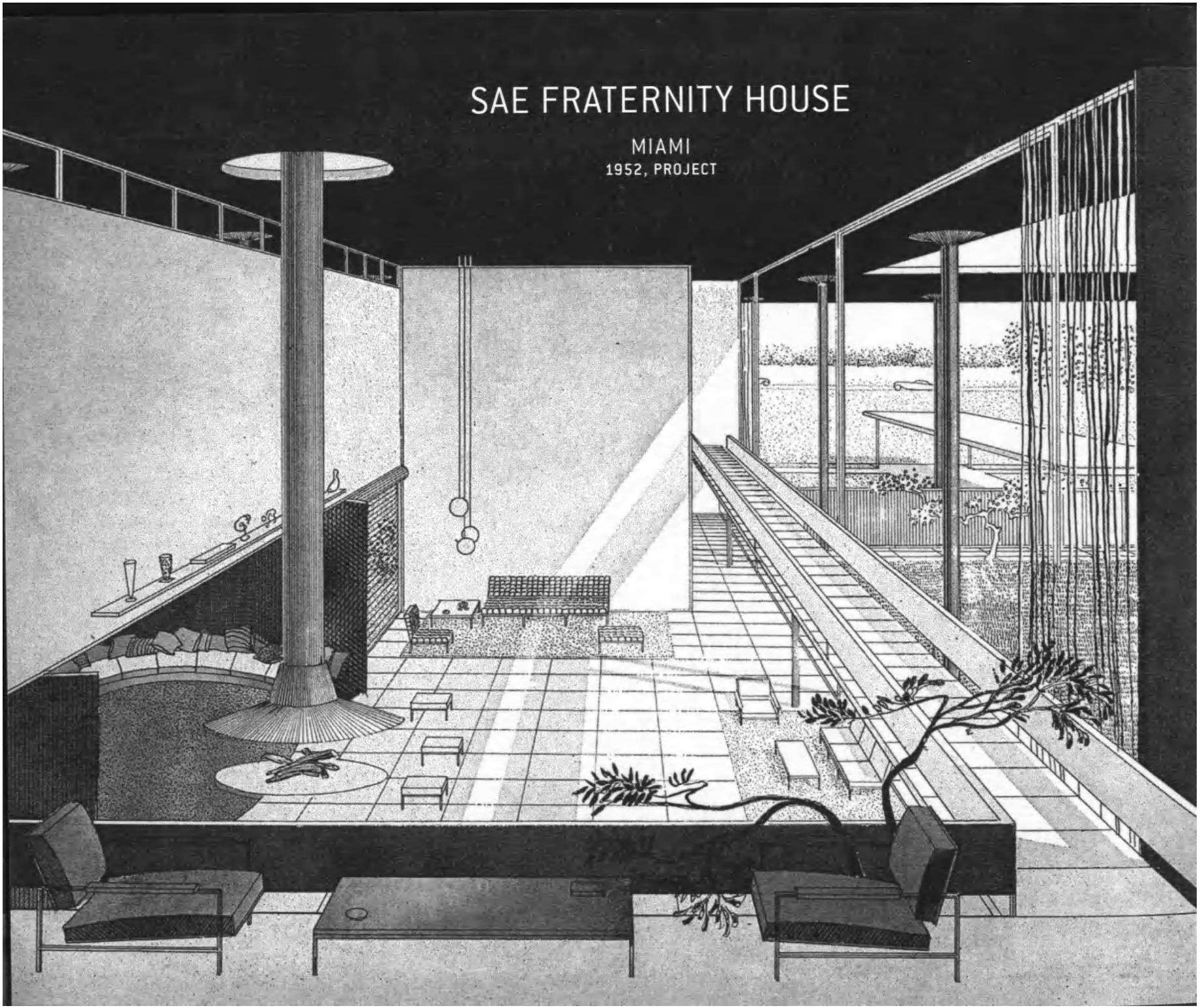
Frank Lloyd Wright designed a sprawling scheme for this project in early 1952, which contained a central pavilion with a distinctive triagulated plywood tower, a series of cottages, and two pier-like motels with boat access from each room. After this project came in substantially over budget, Rudolph was brought in to reconceptualize the program and master plan for this combination highway, rest stop, and tourist attraction, near Leesburg, in central Florida. Adjacent to the highway is a ninety-foot-high bent plywood tower intended to lure tourists off the road and into the entertainment complex of restaurants, garden displays, and water shows. The site is arranged around a series of shifting axis and intersecting circular landforms, pools, and lagoons creating a dynamic composition for this relatively flat area. Aside from boating and water shows, the main attraction for this park is an unusual local manifestation of roots and water plants known as "floating islands."

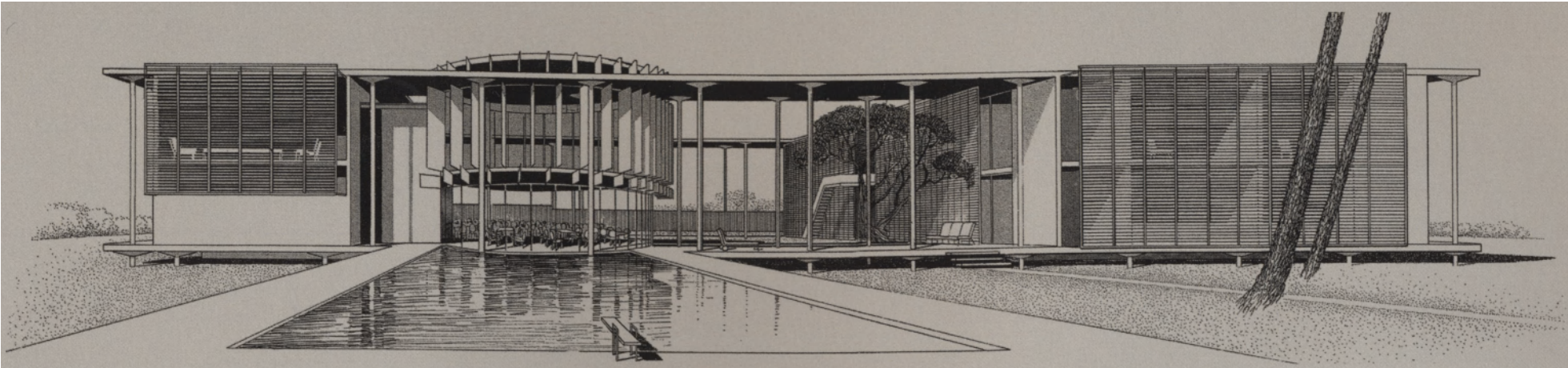
Rudolph implemented a circular geometry here for the first time, possibly in reference to either Wright's proposed water dome at Florida Southern College or his George Lewis House in Tallahassee completed during the same period. In particular, Wright's Lewis House, with its semicircular pool fed by a natural spring, seems a possible small-scale source for this new planning strategy. To get beyond this initial inspiration, Rudolph quickly began to layer the composition with familiar vaulted forms and axial connections between the programmatic groupings of elements, creating an original, if not quixotic, conception of a regionally-inspired theme park. To heighten anticipation, Rudolph creates a transition sequence from the highway into the rigorously axial arrangement of parking, dining, and concession structures on the landside of the composition. This area leads into the lagoon, which is organized around the radial form of a large sundial. In this part of the composition, access is provided to a series of moored "floating islands" and there are docks for boat trips to Silver Springs, another local natural attraction. An amphitheater wraps around a small performing pool, in which skiing, swimming, and diving events can take place on a regular basis.

SAE FRATERNITY HOUSE

MIAMI

1952, PROJECT





This fraternity house for the University of Miami is divided into two distinct wings separated by a patio court. The rectilinear living and sleeping volumes are organized around a square courtyard, while the dining room and chapter room fit into a cylindrical element set to one corner of the open space. Rudolph envisioned the chapter room as a modified "druid circle" that could be closed off from view by way of operable vertical shutters to hide the secret rites that would take place inside. A series of fixed louvered sunscreens is positioned over the large expanses of glass to protect the interior from both glare and heat. Three fairly typically constructed volumes are gathered together by a steel colonnade and fitted with a system of light-deflecting devices that creates a dense composition of interrelated parts.

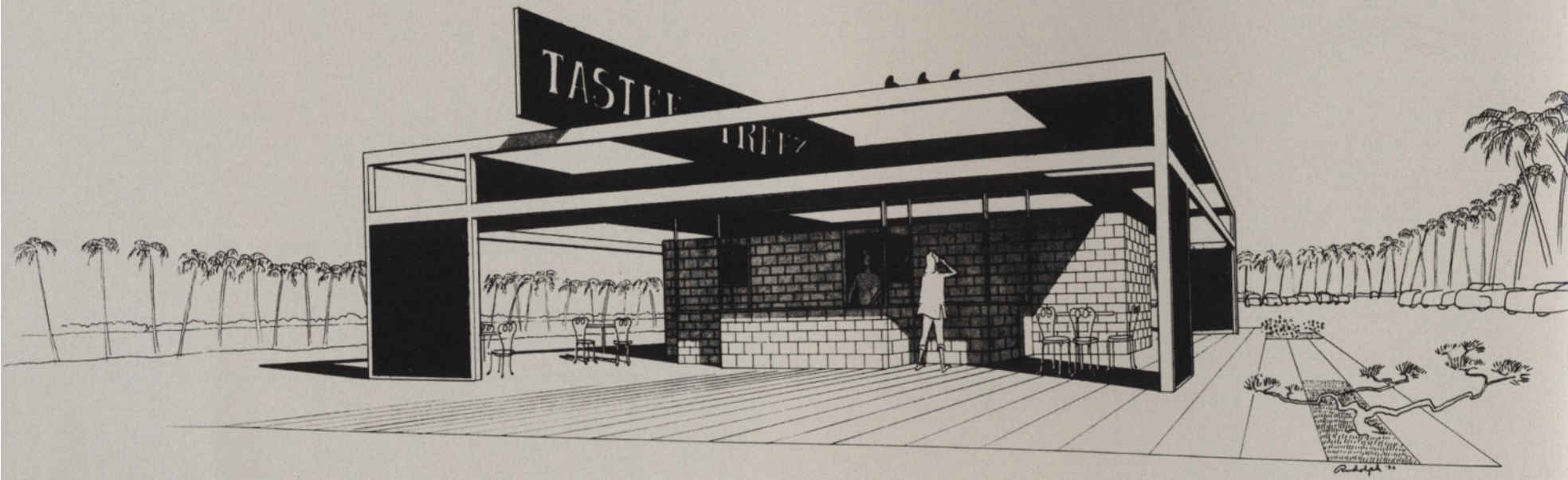
An eighteen-foot-high living room acts as the main public gathering space for the students with easy access to the main entry, library, dining area, and housemother's room. A one-story semicircular seating area projects from the main rectangular volume to provide an intimate alcove with a view of the soaring, open pit fireplace and circulation bridge. One of the more dramatic aspects of the composition is a swimming pool that is set along the entry axis and appears to extend under the dining room and into the courtyard, in effect acting as both recreational pool and monumental reflecting pond.

TASTEE FREEZ

SARASOTA

1954–1955, PROJECT

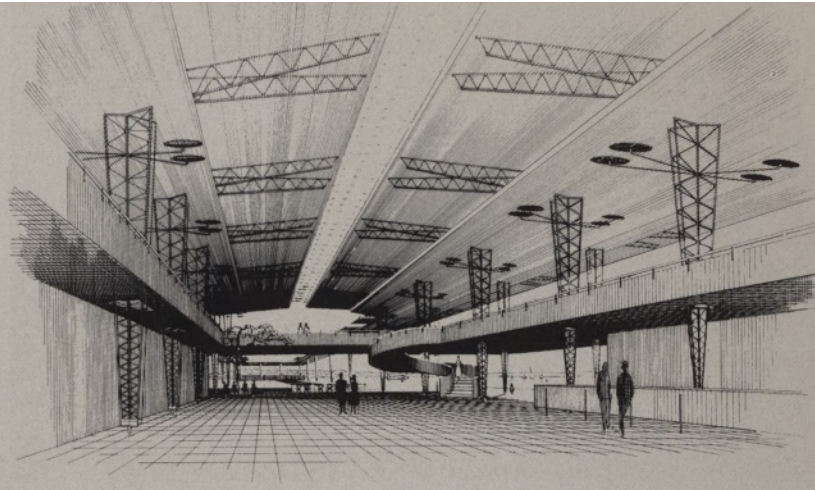
In this investment property for James Stroud, Rudolph elevates the ice cream stand into the realm of serious architecture. The composition is organized around a modified pin wheel plan with a thin structural frame constructed out of Harold Pickett's plywood girders. The white structural wooden frame with infill panels surrounds a masonry and glass retail volume and a partially enclosed seating area. William Rupp, the associate in charge of the project, remembers that the infill walls and elements set within the frame were colored red, yellow, and blue, possibly in response to De Stijl architecture and color philosophy developed in Europe during the early part of the century. The final rendering for this project depicts a large planar sign cantilevered out from the building toward the street and the passing cars on Highway 41.

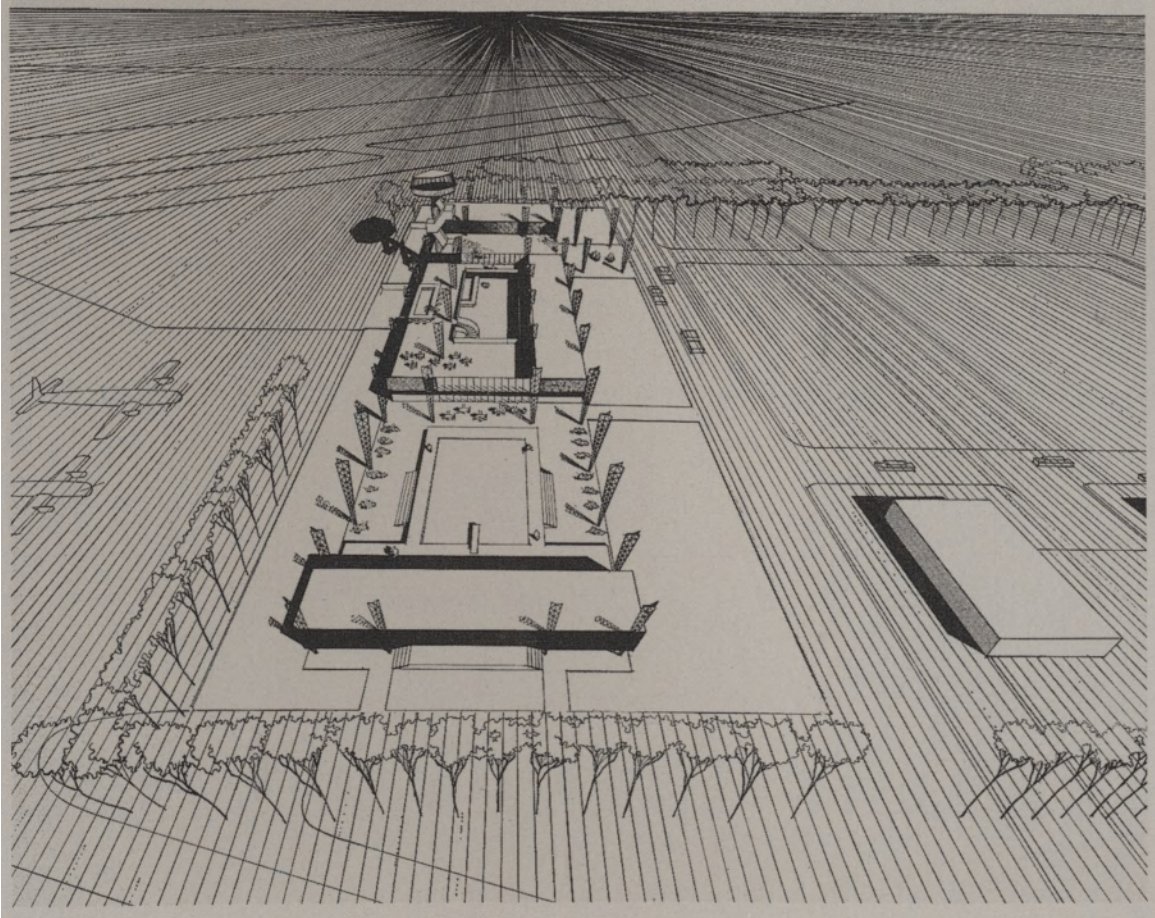


SARASOTA-BRADENTON AIRPORT

SARASOTA

1955–1956, PROJECT





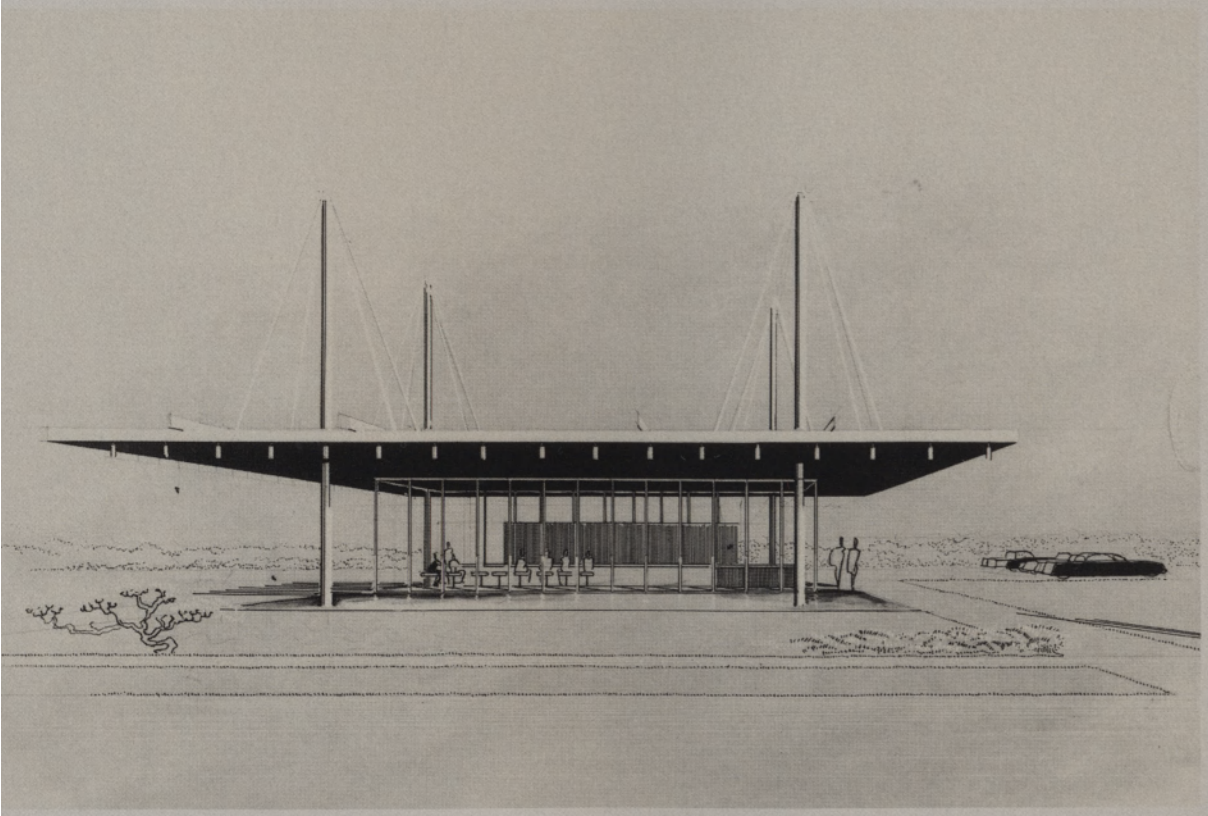
This large commission was overseen by a joint venture between the Sarasota and Bradenton Chamber of Commerce offices with the regional Airport Authority, in support of the local tourist economy. Rudolph designed this project with an air traffic control tower, overnight accommodations, eating facilities, and a large swimming pool to accommodate the weary traveler. The entire composition is conceptualized as a long, open pavilion, sheltering the main programmatic elements below. An overarching roof structure is supported by a series of exposed, open-web structural steel members, resting on pin connections to create a flexible system for hanging, not only the double-height roof system of the terminal area, but also the projecting steel light fixtures. From Rudolph's point of view, the structural system invoked a reflection on the lightness of flight and the precise construction of aircraft parts. In the main public gathering space, a curvilinear grand stair leads from the main level to a viewing platform above, offering panoramic views of approaching airplanes, fellow passengers, and the pool deck. This project was designed to replace what appeared to be a primitive out-post building that served as the previous airport terminal, but even considering the incremental construction schedule, the project was overly ambitious for its client's budget and was significantly redesigned and built without Rudolph's participation.

Associated architects: Eliot C. Fletcher, John M. Crowell

DONUT STAND

TAMPA

1956, PROJECT



Rudolph, along with Frank Lloyd Wright and Mies van der Rohe, believed that even the most banal aspects of the American popular landscape such as fast-food restaurants and gas stations were worthy of an architect's services. The Donut Stand, designed for a group of investors in Tampa, was commissioned as a prototype building to act as the marketing symbol for this roadside business. Rudolph hung a thin planar structure from four vertical steel supports, creating a veritable floating roof with a minimal, glass-enclosed interior space below. This project was designed in the Cambridge office at the same time as the Grand Rapids Homestyle Residence, with a similarly conceptualized open plan and restrained use of materials. A hastily rendered design drawing was presented to some of the investors, but was soon shelved after a payment dispute. By this time Rudolph opened his Cambridge, Massachusetts office to develop drawings for the Jewett Arts Center in Wellesley and later the Blue Cross Blue Shield Building in Boston, but many Florida projects from this period were also coordinated from this satellite studio.

PUBLIC BEACH DEVELOPMENT

SIESTA KEY

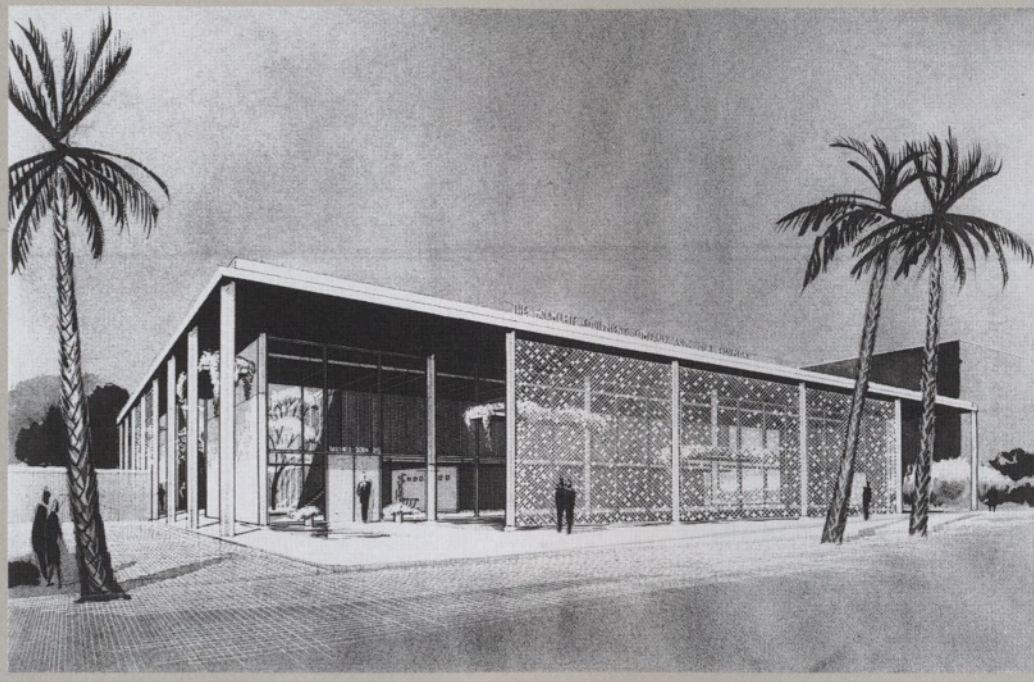
1956, PROJECT

Siesta Key started redeveloping its public beach area in the mid-1950s along with several other communities in the area. To attract visitors to this stretch of sand, Rudolph envisioned four soaring concrete-supported parasols arranged around a circular reflecting pool. The design is conceptualized as a minimal amount of structure, one vertical support, with maximum potential for shade. A group of service buildings is situated along the southern edge of the pool with a lookout platform to the north facing the Gulf of Mexico. The project is depicted in the rendering from the standpoint of an automobile entering from the road, with the composition framed by a pair of arching palms. Considering the dramatic visual effect of the parasols and the sizable pond in the foreground, the privileged position of the automobile in the conception of this project is undeniable. Like Floating Islands, with their commanding ninety-foot-high bent plywood tower, the parasols of the public beach beckon passing motorists with the lure of recreation-filled days along the shore.

BRAMLETT COMPANY BUILDING

MIAMI

1956, PROJECT



Unlike Rudolph's earlier lightly-framed projects in Florida, this building for a kitchen equipment corporation highlights the sculptural quality of cast-in-place concrete. Here, his bold use of massive materials offers an indication of his affinity for the plastic qualities of concrete, which would dominate the later part of his career. Adjacent to a shaded, recessed corner entry vestibule, a monumental stair leads visitors to an exterior, light-filled mezzanine level and exhibition room overlooking Biscayne Boulevard. This curved circulation motif is evident in earlier projects such as Floating Islands, Sarasota-Bradenton Airport, and the Public Beach but now the overtly sculptural stair is rendered as a solid mass that winds around a freestanding, cylindrical concrete elevator enclosure. The stair leads to a long viewing platform, above which an office block is cantilevered out toward the street. A series of eight striated concrete columns dominates the front facade of the building, creating a sense of order out of the complexity of elements that lies behind. An earlier rendering for this project depicts a series of thin structural members defining a protected arcade with full-height diaphanous sunscreens, prior to the massive final version that was taken through construction documents. This project, along with many of the commissions for the east coast of Florida, was developed almost entirely in the Cambridge office.

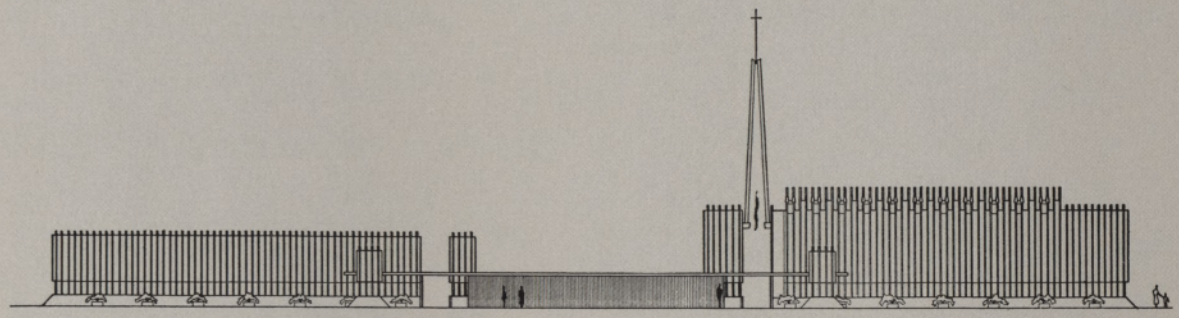
ST. BONIFACE EPISCOPAL CHURCH

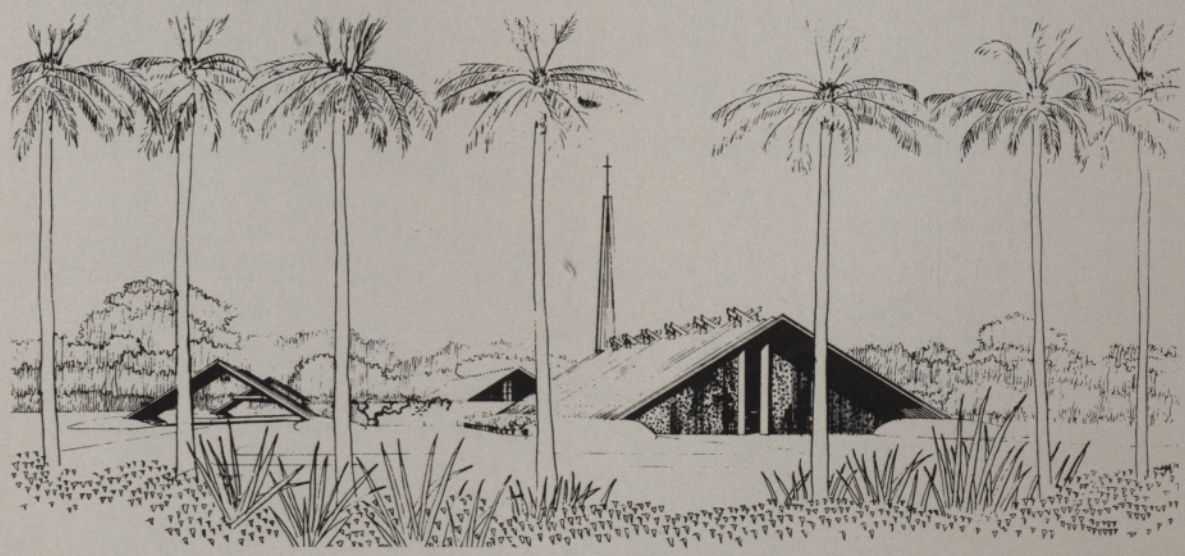
SIESTA KEY

1956, PROJECT

In the St. Boniface project Rudolph transforms the use of a utilitarian construction material to create a notable place of worship. Exposed precast concrete double-T members are utilized to create a complex of A-frame structures including the main worship space, parish hall, steeple, and entry drive canopies. An exterior open area is situated between the two main buildings for informal gatherings, exercise regimes, and outdoor worship services. This physical connection to nature and the use of exterior space was a common interest for the residents of Siesta Key and could be related to Rudolph's knowledge of the exterior altar at Le Corbusier's pilgrimage chapel, Ronchamp.

The rhythmic triangulation of the exposed structure becomes the defining exterior feature of this composition. To add an element of scale, the projecting concrete flanges are turned upward and left exposed on the exterior. In the worship space the flat ceiling below was to be faced with two feet by eight feet sheets of rigid insulation and painted in alternating bands of red and purple. A series of light cupolas built between the structural members at the ridgeline above the central aisle would allow colored light to flow into the interior. Enclosure panels at the front and rear are faced with shell-encrusted concrete tiles with a series of full-height doors signaling the entry. The construction for this project was to be phased over a period of time, including the addition of air-conditioning at a later date.



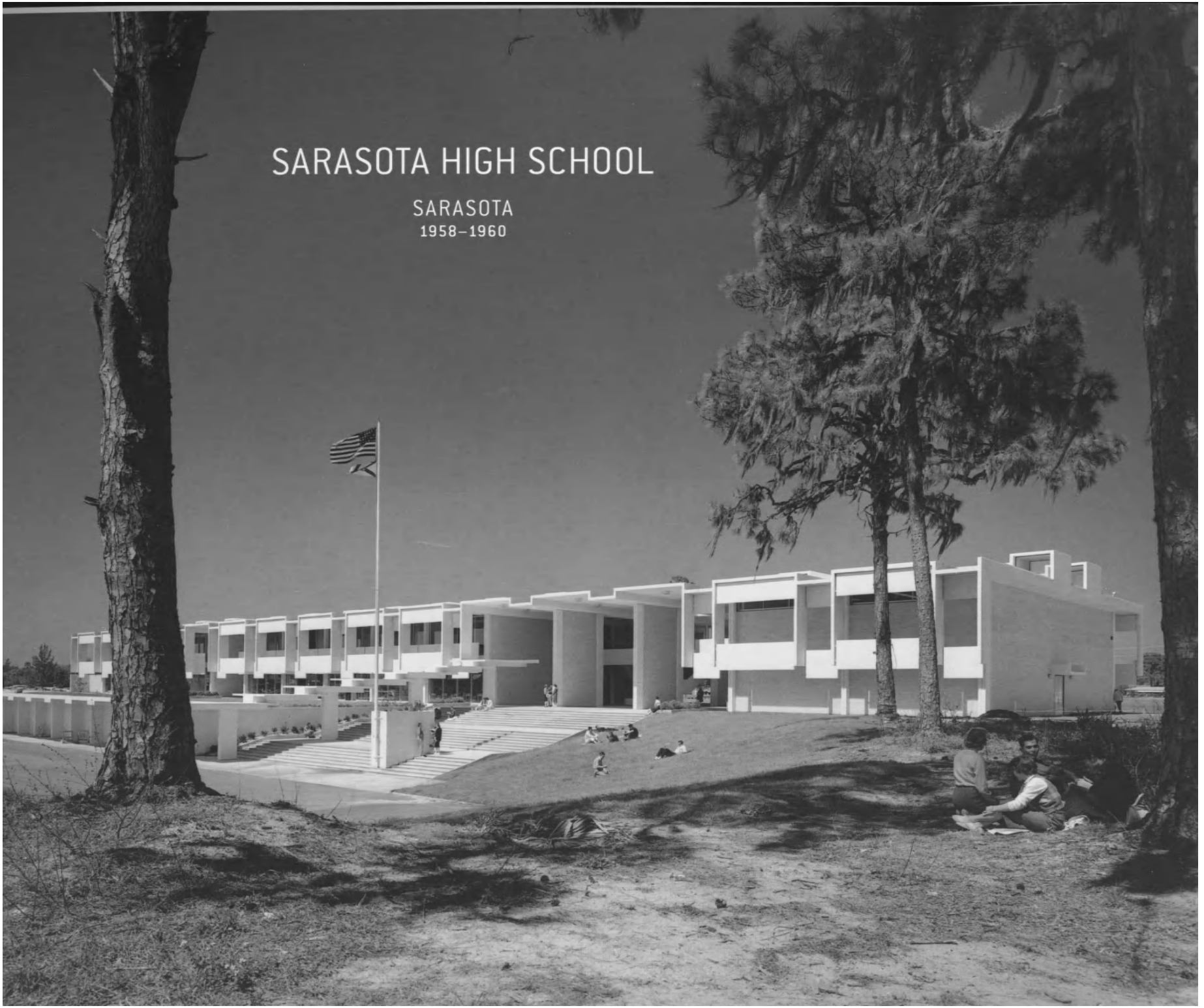


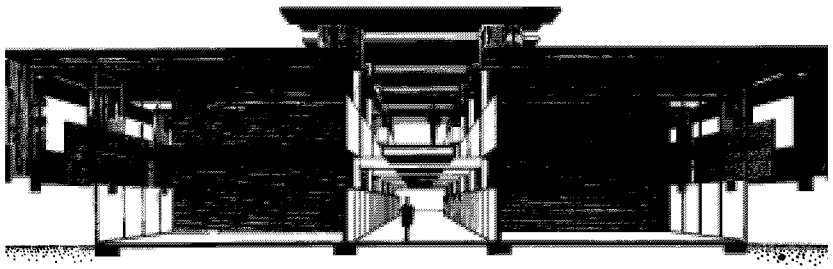
RIVERVIEW HIGH SCHOOL

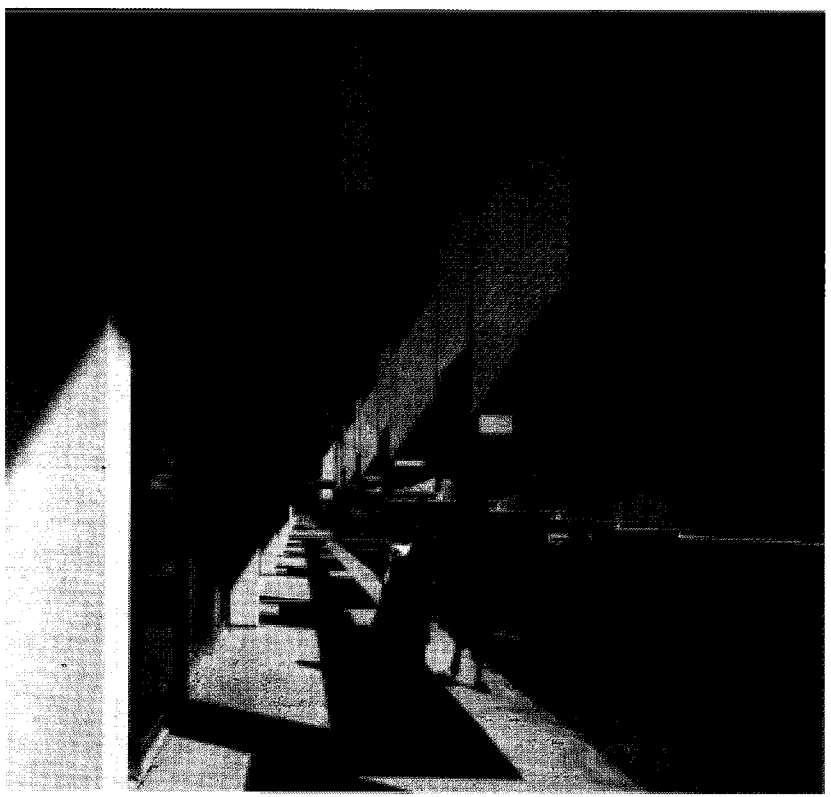
SARASOTA
1957–1958

Riverview High School is Rudolph's first major public project completed in Florida. To create an intense environment for learning, Rudolph chose the inward-focused courtyard prototype as a way to densify this rural site, offering an approximation of urbanism within an open field. This two-story composition, organized around a central public space, is enclosed to the north and south by classroom blocks, a cafeteria and library block to the west, and a skeletal steel colonnade with shade canopies to the east. A sky-lit gymnasium and auditorium are placed south of the courtyard, and two single-story buildings, containing the administrative offices and medical clinic, are nestled along the western edge of the courtyard. A steel frame with single wythe brick infill is an unusual detail among Rudolph's generally ephemeral Florida work. The thin verticality of the black frame was meant to evoke the dark slender trunks of the southern yellow pines that are numerous on the site. The choice of brick and steel as the primary materials in this symmetrically disposed composition is certainly reminiscent of the work of Mies van der Rohe in Chicago, but is modulated and honed for its specific context.

As with most of Rudolph's projects in Florida, this composition is arranged and detailed to encourage air movement and mediate the intensity of the sun. A series of staggered precast concrete sunshades dominates the facades of the classroom buildings in an attempt to protect the large sliding glass doors and operable windows from direct solar gain. The climactically responsive theme is continued into the interior corridor system with a series of ventilated steel-and-glass monitors rising above the roof. Considered in section, the semi-enclosed interior circulation is carefully composed to allow light and air to penetrate through the stacked corridors. This project came into existence primarily through the largess of Philip Hiss, Rudolph's most avid patron in Florida, who was also chairman of the Sarasota school board during this time.


SARASOTA HIGH SCHOOL
SARASOTA
1958–1960





The expansion of Sarasota High School is Rudolph's most high-profile commission ever completed in Florida. In this project the detailed articulation of materials found at Riverview High is given over to a bold composition of white, folded concrete planes arranged to highlight the play of light and shadow across the building facade. Set against the bright Florida sky, the folded planes achieve a relative balance between the need for large-scale visual impact from a considerable distance and the sensitive adaptation to climate as explored in the sectional design of the project. Composing spaces in relation to light and shade are also part of the passive cooling scheme for this non-air-conditioned complex. Ventilation was, of course, of paramount importance to the initial design strategy of both high school projects. In this case, to achieve an appropriate amount of illumination and air movement through the buildings, Rudolph raised the roof plane above the stacked semi-interior corridors, creating a spine of thin clerestory openings. This high roof is tied to the beams used to support the draping vertical sunshades, behind which lies a fairly standard concrete frame enclosure with buff-colored brick infill walls and operable fenestration. Le Corbusier's work in France for the Unité d'Habitation housing block at Marseilles and the Dominican monastery of La Tourette are the primary referents for this strategy, and set in place a design methodology that significantly influenced the development of the Arts and Architecture Building at Yale University.

As usual, the entry sequence through the project is highly orchestrated at the level of site planning. The automobile approach is situated perpendicular to the axis of the main building, with the entry drive oriented toward the two-story open lobby and floating pedestrian bridge. A stepping esplanade leads up to the monumental south-facing stair to the soaring lobby space, which offers access to the sky-lit classroom corridors to the west and the auditorium to the east. A dining hall and gymnasium are located to the far western edge of the complex, adjacent to the existing red-brick school building. The regular structural bay and undulating roofline attempt to tie disparate pragmatic elements together into one composition. The relatively uniform module defined by the profile of the sunscreens is utilized here to contain a variety of functions, all with a similar exterior appearance. The use of a repetitive module was instrumental to Rudolph, for it offered the possibility of an infinitely expandable building based on a single, easily replicated motif. This idea went against many of the tenets of early European modernism, which encouraged the distinct expression of interior function on the exterior of the building, but Rudolph was now well beyond the formulaic dictums of his youth and on to a directed search for self-expression in his work.

LAKE REGION YACHT AND COUNTRY CLUB

WINTER HAVEN
1960

During the entire development of this project Rudolph was practicing architecture outside of Florida. Much of the design work and construction documents were produced in his recently established New Haven office. This project is reminiscent of early schemes for the Art and Architecture Building at Yale and of the white concrete frame and geometric sunshades found at Sarasota High School, but the repetitious exterior facade lacks the dynamism and complex interplay between forms that is indicative of both previous examples. The unified facade with its boxlike decorative shading devices offers very little indication of the programmatic elements that reside beyond the exterior frame, except possibly the folded concrete entry canopy.

In many ways this project can be seen as a counterexample to much of the previous Florida work. Repetitious sunshades are statically arranged around the building, with no particular relationship to the interior program or solar orientation. The most significant response to site adaptation is the large expanses of glass that open up to views of Lake Hamilton. Kitchen, dining, living room, and locker facilities are provided for this private golf course development, with an ample patio overlooking the water. The yacht club mentioned in the project title is nonexistent at this land-locked central Florida site; its inclusion in the official name of the commission was in response to reciprocity agreements with other, mainly coastal, yacht clubs throughout the state.

Associated architect: Gene Leedy

RUDOLPH

The Architect must be uniquely prejudiced. If his work is to ring with conviction, he will be completely committed to his particular way of seeing the universe. It is only then that every man sees his particular truth. Only a few find themselves in such a way.

The various dictums of architectural schools usually form the basis of the first works of an architect. Many architects educated in the late '30's and early '40's found themselves adopting the assorted prejudices of the International Style to the single family house in a particular region. This generation was probably lucky, for the International Style's cant and limitations were certainly preferable at that time, or perhaps they were just more easily understood.

A growing awareness is causing many of this generation to question some of the early dogmas, especially the romanticisms regarding the machine, not because they were not partially valid, but because they often failed miserably on many levels, for the concepts were limited. There are many ways of organizing a building or, more importantly an environment; sometimes alien ways are combined in a single building or a group and disaster follows. The Architect must search for his own way because there is not yet a universal outlook, and there are unique problems and unimagined possibilities. The International Style was only the opening chord in a great movement.

The site and the symbolism of the particular building set the course. (Does respect for older attitudes in architecture lead to a new electicism?) A single building must be compatible with its neighbors plus suggesting that which could come next. Change is the only constant, but we do not know yet how to build in a compatible way with each other (witness Interbau, Idlewild, etc.) The process of change is the constant creative irritant.

This approach may lead to movie-set making unless there is an underlying attitude towards social forces, a set of preferences, a translation of the spirit of the times. It certainly leads to buildings which seem inconsistent, not only with their predecessors but with concurrent efforts. One even addresses oneself to certain problems in one building and others in the next. All problems can never be solved, indeed it is a characteristic of the 20th century that architects are highly selective in determining which problems they want to solve. Mies, for instance, makes wonderful buildings only because he ignores many aspects of a building. If he solved more problems his buildings would be far less potent. This paradox is heightened by the various commitments to functionalism.

Our commitment to individualism is partially a reaction to growing conformity in the 20th century, but more importantly an excitement when we sense magnificent new forces and their possibilities. There are too many new worlds to explore, too many new problems crying for solutions, for there to be a universal outlook (every critic implores the gods to make us the same) in an age of profound transition.

An age expresses through its artists certain preferences and attitudes which are inherent to that age, but no man can ascertain at the time those which have validity.

PERSPECTA 7, PAUL RUDOLPH, 1961

LIST OF ASSOCIATES

BERT BROSMITH
WILLIAM DICOSSI
ROBERT ERNEST
JOSEPH FARRELL
WILDER GREEN
WILLIAM GRINDERENG
MARK HAMPTON
JACK JETTON
GENE LEEDY
WILLIAM MORGAN
WILLIAM RUPP
DER SCUTT
E.J. "TIM" SEIBERT
JAMES STRUBB
GENE THOMPSON
JACK WEST

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